PCB SOURCE BULK SAMPLING REPORT

Athletic Field Project-Restroom Demolition
500 Building
Lincoln Middle School
1501 California Avenue
Santa Monica, California 90403

Prepared for:

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

Project No.: SMSD-17-7157

Issued Date: January 19, 2018.

Alta Environmental
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Long Beach CA 90807 United States of America
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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 source bulk sampling activities completed at the 500 Building at Lincoln Middle School located at 1501 California Avenue, Santa Monica, California 90405. The bulk sampling activities were conducted prior to the planned removal of door frames and window frames in the restroom areas impacted by the "Athletic Field Project-Restroom Demolition" to evaluate window and door caulking for the potential presence of polychlorinated biphenyl compound (PCBs) to characterize demolition debris for off-site disposal.

On February 2, 2017, Alta conducted delineation sampling representative of the doors and window frames schedule to be removed. The objective of this sampling was to determine if window and door caulking suspected to be PCB Bulk Product Waste may have migrated to adjacent porous surfaces away from the possibly impacted windows and doors casings (Components) slated to be remove and replaced. Alta collected samples from the surrounding exterior stucco and interior plaster surfaces. Samples were extracted starting at one- inch (1"), three- inch (3") and six- inch (6") intervals away from the potentially impacted window and door casing from a surface depth of approximately, 0-.5". Results of the delineation sampling representative of the one-inch interval was reported as non-detected by the laboratory. As a result of these finding, the District directed Alta to conduct source bulk sampling. Result and findings of the delineation sampling are included in the "PCB Delineation Sampling" report, SMSD-17-6647, dated April 3, 2017 prepared by Alta for this project. The PCB Delineation Sampling Report was prepared as a separate document.

On August 10, 2017, Alta Environmental (Alta) collected representative source bulk samples of the door and window caulking. All source bulk samples were reported as non-detected by the laboratory.

Based on the source sampling results, a total PCB concentration in all collected samples were reported as less than 50 parts per million (ppm). Therefore, based on the results of the sampling program and in consultation with the SMMUSD, the sampled building materials are categorized as Excluded PCB Product, which is not regulated by US Environmental Protection Agency (US EPA) under the Toxic Substances Control Act (TSCA). Please note that although the PCBs in building material at the Building are not regulated by US EPA, it is Alta's understanding that the demolition contractor will adhere to other regulatory requirements for handling and disposal of identified asbestos-containing materials and lead-based paints.

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REPORTED: January 19, 2018 **PROJECT NO.:** SMSD-17-7157

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

ATTENTION: Mr. Kevin Klaus

REF: PCB Inspection and Sampling Report
Athletic Field Project-Restroom Demolition
Building 500
Lincoln Middle School
1501 California Avenue
Santa Monica, California 90403

1 INTRODUCTION/BACKGROUND

500 Building is a single-story classroom building with exterior stucco walls, interior plaster walls, a sloped roof, on a concrete slab foundation.

The Environmental Protection Agency (EPA) believes that there was a potentially widespread use of PCB-containing building materials in schools and other buildings build or renovated between 1950 and 1979. Historically, PCBs were used as a plasticizing agent for caulking and glazing materials, as additives to paints and floor finishes, as a sealant for heating systems and plumbing, and as insulators in ballast and other electrical equipment. The manufacture and use of PCBs were banned in the United States in 1976, and PCB compounds were phased out between 1978 and 1979. Due to the age of the Building (constructed in 1958), there was the potential for certain building materials to contain PCBs. Therefore, building materials were sampled prior to any building demolition.

2 PURPOSE OF INSPECTION AND SAMPLING

Building materials included in this report were evaluated for PCBs only. A survey of asbestos-containing materials (ACM) and lead-based paint (LBP) has been completed for this building. Results and findings for ACM and LBP are included in a separate document.

The objective of the sampling was to obtain samples from a sufficient number of locations to:

- serve as representative of the variety of potentially PCB-impacted materials;
- draw conclusion on the potential presence of PCB-impact materials;
- determine if a site-specific remediation work plan is required to address materials with ≥50 parts per million (ppm) PCBs prior to undertaking the demolition and disposal of building materials; and
- Categorize each type of building materials for off-site disposal related solely to its PCB content. In general, PCB-impacted materials can be sorted and classified into the following categories:
    - PCB Bulk Product Waste (≥ 50 ppm). According to Environmental Protection Agency (EPA), Memorandum, “PCB Bulk Product Waste Reinterpretation” dated October 24, 2012, building materials “Coated or serviced” with PCB bulk product waste (e.g., caulk, paint, mastic, sealants) at the time of designation for disposal to be managed as a PCB bulk product waste. The reinterpretation document allows for disposal of both PCB Bulk Product Waste and PCB Remediation Waste together as a single waste stream (PCB Bulk Product Waste).
    - Excluded PCB Product-all materials containing <50 ppm.

3 SCOPE OF SERVICES

The Santa Monica-Malibu Unified School District (District) retained Alta Environmental (Alta) for the inspection and sampling.

The sampling was completed in accordance with the "USEPA Region I Standard Operation Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyl," approved on May 23, 2011, for use by the District.

Alta performed an inspection of the building and documented all visible and accessible suspect PCB-containing materials and prepared an inventory of sampling. Materials, which are applied in a similar manner, had similar characteristic such as size, use, color, age (if available), and texture, were defined as homogeneous materials.

Homogeneous materials were sampled representative of the entire building. If feasible, Alta collected a minimum of three representative random samples of each homogeneous material.

Alta's bulk sampling was completed as follows:

1. A screw razor blade, screwdriver, chisel, or similar tool was used to collect the bulk sample.
2. A polyethylene drop-sheet was placed below the impacted area to capture any dust and debris which may have dislodged during the sample collection.
3. Samples were labelled, packaged, and documented on a chain of custody for shipping to the laboratory.
4. Samples were shipped to the laboratory in a chilled ice chest.
5. Sampled areas were patched using a non-PCBs sealant. The patch area is temporary, intended only to provide a barrier to the exposed sampled substrates.
6. Each sample location was documented using digital photographs.
7. Equipment and tools were decontaminated using a two-step decontamination process. First, all used tools were cleaned using scrub brushes and detergent with de-ionized water base solution. Second, each piece was rinsed using de-ionized water. After the two-step decontamination procedures, the equipment was placed on top of clean paper towels (or equivalent material) and set to dry individually. Each piece of equipment was inspected by Alta for evidence of residual dust and debris.

4 METHODOLOGY

The Actual Detection Limit (DL) used by the laboratory for this project was 1 ppm. In some cases, the DL was raised above 1ppm due to matrix interferences, but it did not exceed ≥ 50 ppm, currently being used as approved by the USEPA to defined PCB Bulk Product Waste.

A total of 9 bulk samples were submitted to and analyzed by Enviro-Chem, a Cal ELAP accredited laboratory (Certificate #1555) located in Pomona, California.

All collected samples were placed in an appropriate glass jar with a Teflon cap. Samples were labeled and packaged in a cooler and kept cool with ice during shipment.

All samples were analyzed in accordance with EPA Method 8082A with Soxhlet Extraction US EPA Method 3540C for Aroclors.

5 RESULTS

All materials sampled during this project were reported below 50 parts per million (ppm), therefore, not interpreted to require removal and disposal as PCB Bulk Product Waste.

These materials are further defined in Appendix A of this report.

Refer to Appendix B for laboratory analysis reports and relevant sample analysis information.

6 QUALITY CONTROL

The laboratory reported all QC data associated with the sample analysis within the recovery and precision and acceptable limits of the laboratory.

Enviro-Chem reported, “all samples were received intact, and accompanying chain of custody.”

7 CONCLUSIONS

Based on the sampling results, a total PCB concentration in all sampled building materials was reported as less than 50 parts per million (ppm). Therefore, based on the results of the sampling, and in consultation with the SMMUSD, the sampled building material are categorized as Excluded PCB Product, which is not regulated by US Environmental Protection Agency (US EPA) under the Toxic Substances Control Act (TSCA). Please note that although PCBs in building material at the Building are not regulated by US EPA, it is Alta’s understanding that the demolition contractor will adhere to other regulatory requirements for handling, and disposal of identified asbestos-containing materials and lead-based paints.

The sampling was limited to the areas impacted by the Athletic Field Project-Restroom Demolition which are located on the northern most part of the 500 Building. The sampling was limited to door caulking, window caulking and window glazing.

8 RECOMMENDATIONS

Asbestos-containing materials and lead-based paints have previously been identified at the site and are delineated in a separate report. Removal of ACMs and LBP is subject to local, state and federal requirements. A survey record and abatement plan have been prepared for this site to be used for the removal and waste disposal of ACM and LBP.

9 ASSUMPTIONS AND LIMITATIONS

The results are intended for use by the District and its contractors to characterize generated waste building materials for disposal, based in part on the reported PCB content during demolition of the building.

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 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.

Material quantities are in some cases listed within this document. These quantities are not intended to be used for removal bidding purposes. Nor is this document intended as a contract manual. Work methods and sequence, coordination of participants, applicable codes, engineering controls, required submittals, and notifications should in all cases be addressed in a separate and independent bidding and contract document. If you have any questions, please do not hesitate to contact the undersigned at (562) 495-5777. We appreciate the opportunity to be of service to Santa Monica-Malibu Unified School District.

10 SIGNATORY

Respectfully submitted by:

Alta Environmental

Cesar Ruvalcaba
Project Manager

Respectfully submitted by:

Alta Environmental

David Schack
VP, Building Sciences

Appendix A

Sample Inventory

Summary of Source Bulk Samples

CLIENT: SMMUSD
PROJECT NO: SMSD-17-7157
PROJECT: Athletic Field Project-Restroom Demolition, Lincoln MS
DATE: 8/10/17

Building Name	Component	Sample Number	Description	Sample Location	Total PCBs (mg/kg)
500	Window frame	810-1	Window caulking	510, NE window, north end	ND
500	Window frame	810-2	Window caulking	North restroom, east center window, south end	ND
500	Window frame	810-3	Window caulking	510, west windows, south end	ND
500	Window frame	810-4	Window glazing	510, NE window center	ND
500	Window frame	810-5	Window glazing	510, west windows, south end	ND
500	Window frame	810-6	Window glazing	North restroom, east center window, south end	ND
500	Door frame	810-7	Door caulking	SE restroom, entry door, north end at base	ND
500	Door frame	810-8	Door caulking	510, entry door, south end at base	ND
500	Door frame	810-9	Door caulking	North restroom, east door, north end at base	ND

Note: ND=Non- detected or below the the actual detection limit

Appendix B

Laboratory Report

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: August 11, 2017

Mr. Cesar Ruvalcaba
Alta Environmental
3777 Long Beach Blvd, Annex Building
Long Beach, CA 90807
Tel:(562)495-5777 Email:Cesar.Ruvalcaba@altaenviron.com

Project: **Lincoln M.S.**
Lab I.D.: **170810-45 through -53**

Dear Mr. Ruvalcaba:

The **analytical results** for the solid samples, received by our laboratory on August 10, 2017, are attached. The samples were received intact, and accompanying chain of custody.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Andy Wang
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Alta Environmental**
3777 Long Beach Blvd, Annex Building, Long Beach, CA 90807
Tel:(562)495-5777 Email:Cesar.Ruvalcaba@altaenviron.com
PROJECT: **Lincoln M.S.**

DATE SAMPLED:08/10/17
MATRIX:SOLID
REPORT TO:MR. CESAR RUVALCABA

DATE RECEIVED:08/10/17
DATE EXTRACTED:08/10-11/17
DATE ANALYZED:08/11/17
DATE REPORTED:08/11/17

PCBs ANALYSIS
METHOD: EPA 3540C/8082
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260	TOTAL PCBs*	DF
810-1	170810-45	ND	ND	ND	ND	ND	ND	ND	ND	1
810-2	170810-46	ND	ND	ND	ND	ND	ND	ND	ND	1
810-3	170810-47	ND	ND	ND	ND	ND	ND	ND	ND	1
810-4	170810-48	ND	ND	ND	ND	ND	ND	ND	ND	1
810-5	170810-49	ND	ND	ND	ND	ND	ND	ND	ND	1
810-6	170810-50	ND	ND	ND	ND	ND	ND	ND	ND	1
810-7	170810-51	ND	ND	ND	ND	ND	ND	ND	ND	20^
810-8	170810-52	ND	ND	ND	ND	ND	ND	ND	ND	20^
810-9	170810-53	ND	ND	ND	ND	ND	ND	ND	ND	1
Method Blank		ND	ND	ND	ND	ND	ND	ND	ND	1
PQL		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = DF X PQL
ND = Non-Detected Or Below the Actual Detection Limit
* = Sum of the PCB 1016, 1221, 1232, 1242, 1248, 1254 and 1260
*** = The concentration exceeds the TTLC Limit of 50, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)
^ = Actual detection limit raised due to matrix interference

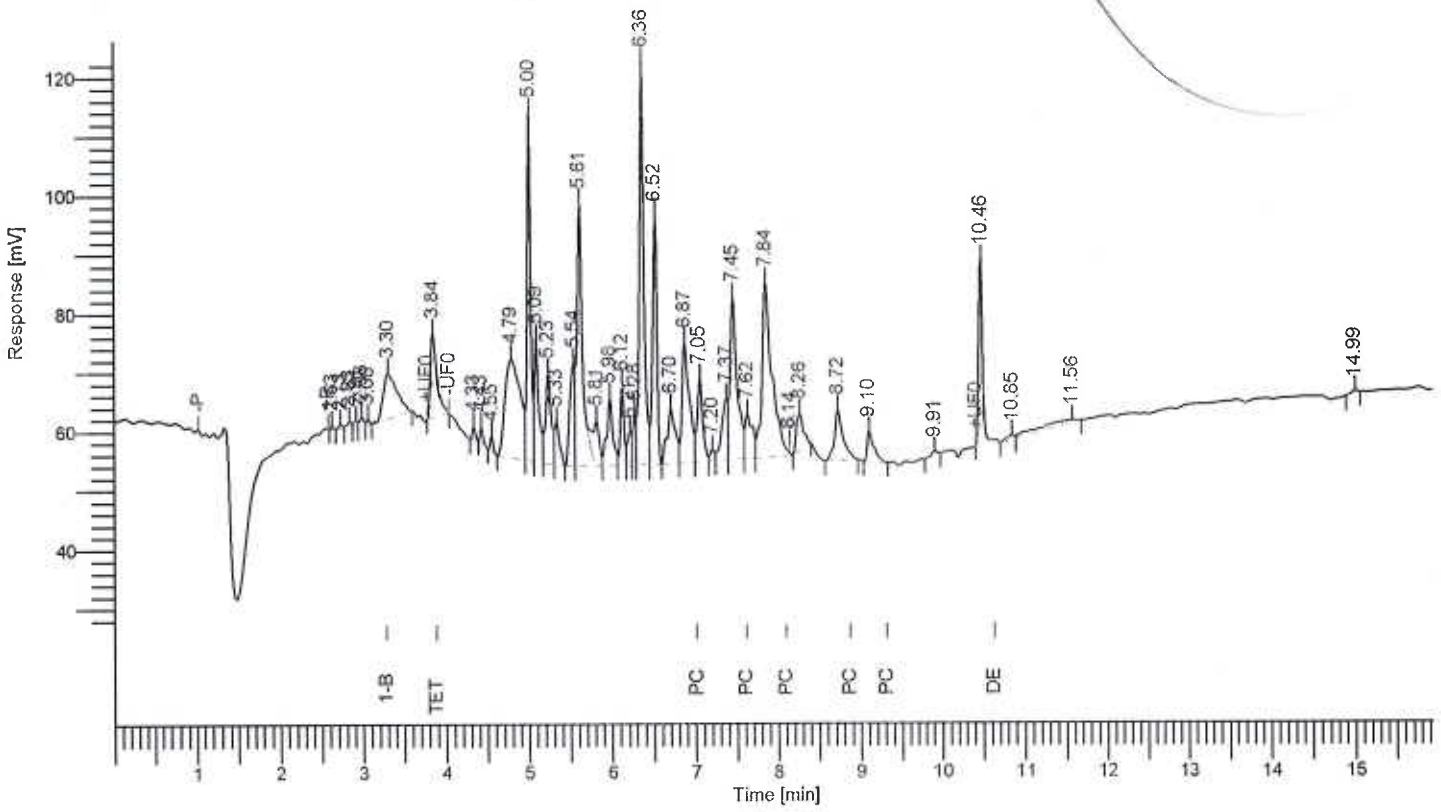
Data Reviewed and Approved by:
CAL-DHS ELAP CERTIFICATE No.: 1555

Software Version : 6.3.2.0646
Sample Name : 170810-51 0.4/40 RE
Instrument Name : GC-J
Rack/Vial : 0/14
Sample Amount : 1.000000
Cycle : 20

Date : 8/11/2017 4:02:33 PM
Data Acquisition Time : 8/11/2017 3:01:02 PM
Channel : A
Operator : GC
Dilution Factor : 1.000000

BK-7
MATRIX INTERFERENCE

Result File : D:\GC DATA\GC-J\J02017\J1708\J170809\A080.rst
Sequence File : D:\GC DATA\GC-J\J02017\J1708\J170809\J170809.seq



PCB Results

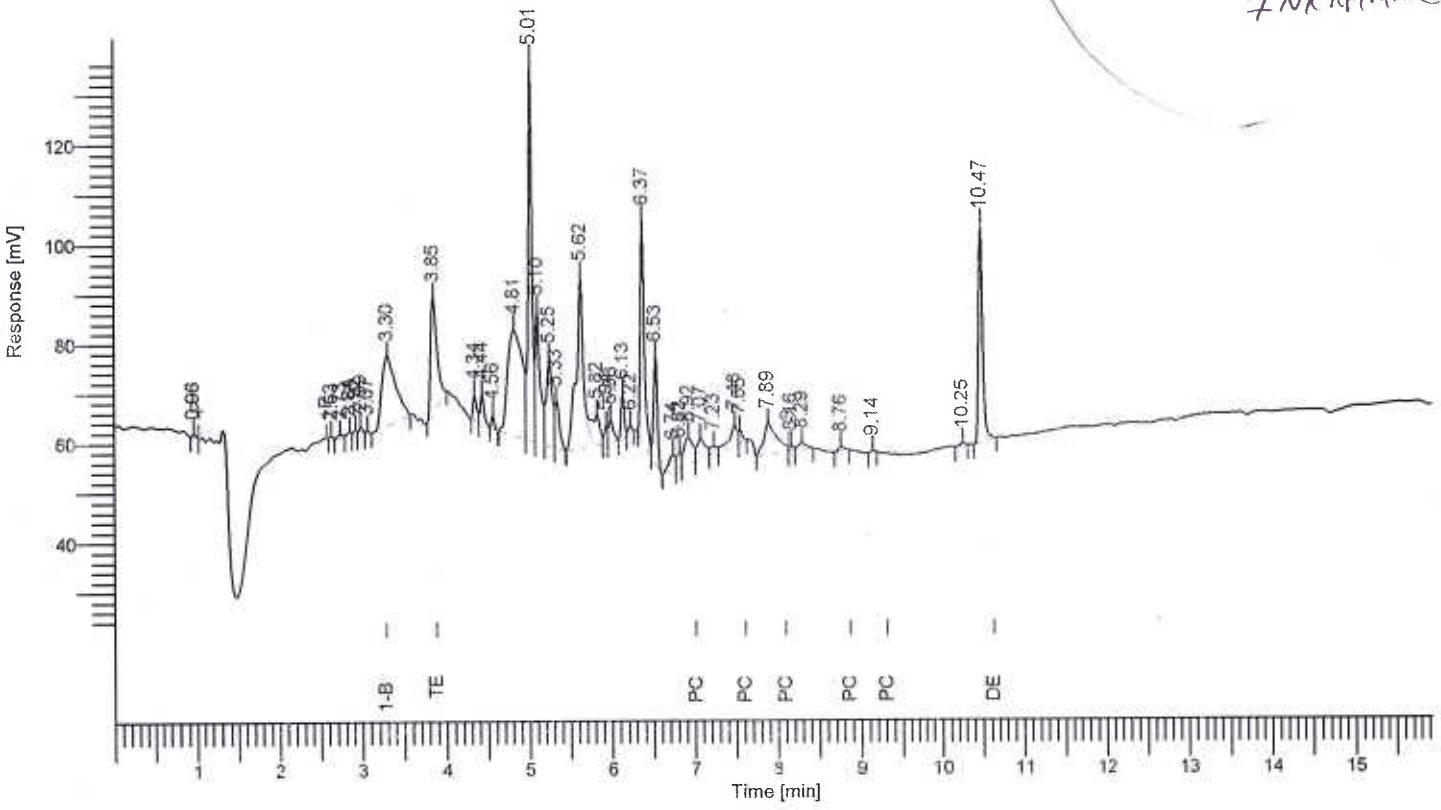
Peak #	Component Name	Time [min]	Area [uV*sec]	Height [µV]	Adjusted Amount
7	1-Bromo-2-Nitrobenzene	3.30	91523.90	7767.88	----------
8	Tetra chloro-meta-xylene	3.84	81564.54	14343.25	125.416
	PCB (1016+1260)	7.45	379033.03	61760.82	1.415
39	Decachlorobiphenyl	10.46	71201.90	27353.27	111.768
			623323.37	111225.21	238.599

Software Version : 6.3.2.0646
Sample Name : 170810-52 0.4/40 RE
Instrument Name : GC-J
Rack/Vial : 0/15
Sample Amount : 1.000000
Cycle : 1

Date : 8/11/2017 4:02:36 PM
Data Acquisition Time : 8/11/2017 3:22:30 PM
Channel : A
Operator : GC
Dilution Factor : 1.000000

B10-8 MATRIX INTERFERANCE

Result File : D:\GC DATA\GC-J\J02017\J1708\J170809\A081.rst
Sequence File : D:\GC DATA\GC-J\J02017\J1708\J170809\J170809.seq



PCB Results

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [µV]	Adjusted Amount
8	1-Bromo-2-Nitrobenzene	3.30	165968.08	14165.28	----------
9	Tetra chloro-meta-xylene	3.85	125296.14	23103.96	106.243
	PCB (1016+1260)	7.89	123479.34	15276.43	0.254
39	Decachlorobiphenyl	10.47	142346.79	42915.91	123.221
			557090.35	95461.57	229.718

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
O Same Day
O 24 Hours
O 48 Hours
O 72 Hours
O 1 Week (Standard)
Other:

RUSH

Misc./PO#

SPECIAL EXTRACTION

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	EPA Method 8270C	COMMENTS
810-1	170810-45	8-10-17	0830	Soil	1 x202			X	
2	-46		0832		1			X	
3	-47		0835		1			X	
4	-48		0837		1			X	
5	-49		0840		1			X	
6	-50		0841		1			X	
7	-51		0843		1			X	
8	-52		0850		1			X	
9	-53		0900		1			X	

Analysis Required

Company Name:	Alta Environmental
Address:	3777 Long Beach Blvd
City/State/Zip:	Long Beach, Ca
Project Contact:	Cesar Rascalcaba
Tel:	
Fax:	
Sampler's Signature:	
Project Name/ID:	Lincoln M.S.

Relinquished by:	Received by:	8/10/17 Date & Time:	1235
Relinquished by:	Received by:	Date & Time:	
Relinquished by:	Received by:	Date & Time:	

Instructions for Sample Storage After Analysis:
O Dispose of O Return to Client ● Store (30 Days)
O Other:

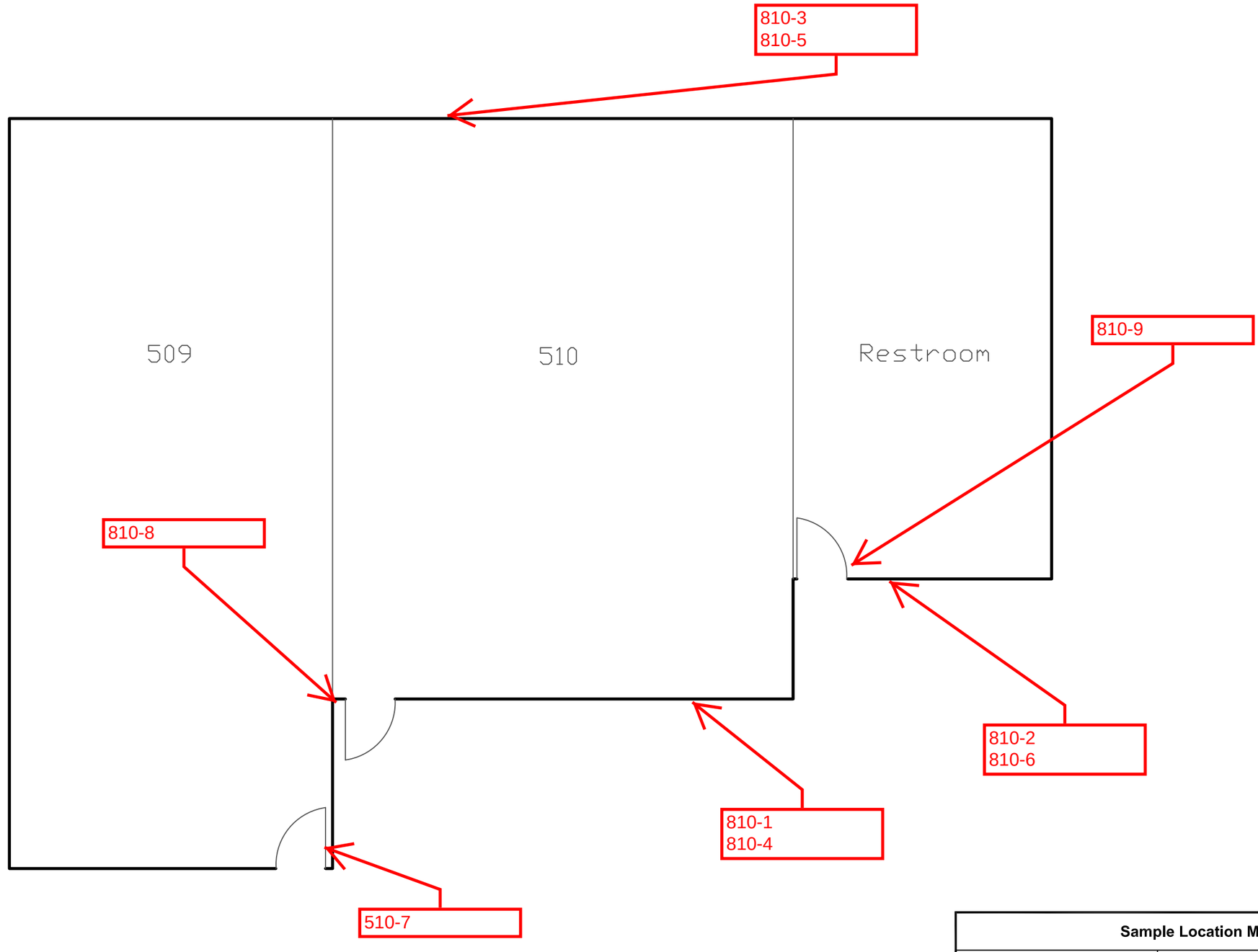
CHAIN OF CUSTODY RECORD

Date: 8-10-17

WHITE WITH SAMPLE • YELLOW TO CLIENT

Appendix C

Sample Location Map



Sample Location Map

CLIENT: SMSD

SITE: Lincoln Middle School
1501 California Avenue,
Santa Monica, California

SCALE: None

PROJECT NO.:

ALTA ENVIRONMENTAL
3777 Long Beach Blvd. Annex Bldg. Long Beach, California 90807
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Appendix D

Photographs


FIRE