PCB DELINEATION SAMPLING

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-17-6647
Date: April 3, 2017

Alta Environmental
3777 Long Beach Boulevard Annex Building
Long Beach CA 90807 United States of America
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EXECUTIVE SUMMARY

On February 2, 2017, Alta Environmental conducted PCB delineation sampling adjacent to window casings and door casings impacted by the Athletic Field Project-Restroom Demolition in the 500 Building at Lincoln Middle School located at 1501 California Avenue, Santa Monica, California 90403.

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.

The sampling was conducted in accordance with a site specific work plan prepared for this project (Alta Work Plan, Revision 1, November 2, 2016), which was reviewed and approved by the District and in conjunction with "USEPA Region I Standard Operation Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyl", approved for use by the District, May, 23, 2011. A predetermined number of doors and windows, and sample locations were selected as part of the approved work plan. The doors and windows and sample locations were randomly selected based on similarity of each component in each building. At least ten percent (10%) of each similar component was randomly sampled in each building.

Alta collected samples from the surrounding exterior stucco and interior plaster surfaces. Samples were extracted starting at 1 inch (1"), 3 inch (3") and 6 inch (6") intervals away from the potentially impacted window and door casing from a surface depth of approximately, 0-.5".

Only the initial 1" samples were analyzed by the laboratory (a total of 7 samples), one QA/QC duplicate, and one split duplicate were also collected and analyzed. The Actual Detection Limit/Reporting Limit (RL) used by the laboratories for this project was below the benchmark (1 ppm) currently being used as approved by the USEPA. The laboratories reported all 7 samples, duplicate and split duplicate samples as "Not Detected" at concentrations above the actual detection limit or RL.

During the delineation sampling, both window and door caulking was observed. The caulking was not sampled at the Districts request, it was assumed to be PCB Bulk Product Waste. Additionally, the porous materials installed around the possibly impacted doors and windows casings have been assumed to be PCB Remediation Waste.

Summary of findings and recommendations:

1. All impacted window and door caulking is assumed to be PCB Bulk Product Waste,
2. All porous materials installed around the window and door casings, within 0-1" are assumed to be PCB Remediation Waste. Materials installed beyond 1" were reported as non-detected or below the laboratory benchmark (1 ppm) -therefore, not interpreted to require removal and disposal as PCB waste at this time.
3. Removal of the PCB Bulk Product Waste associated with door and window caulking, and PCB Remediation Waste associated with surrounding porous materials should be conducted using proper engineering controls including but not limited to containment, worker training, worker protection etc. PCB waste should be characterized, packaged, labelled and disposed as required by TSCA 40 CFR 761 and California hazardous waste regulation set forth in Title 22, Division 4.5 of the California Code of Regulations unless testing is performed prior to demolition and analytical results confirms that PCBs are less than 50 ppm in the window and door caulking and window glazing, and less than 1ppm on surrounding porous materials.

CONTENTS

REPORTED: April 3, 2017 **PROJECT NO.:** SMSD-17-6647

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

ATTENTION: Mr. Chris Emmett

REF: PCB Delineation Sampling
Athletic Field Project-Restroom Demolition
Lincoln Middle School
1501 California Avenue
Santa Monica, California 90403

1 INTRODUCTION

On February 2, 2017, Alta Environmental conducted PCBs delineation sampling adjacent to window and door casings impacted by the Athletic Field Project-Restroom Demolition in the 500 Building at Lincoln Middle School located at 1501 California Avenue, Santa Monica, California 90403.

The sampling was completed by Cesar Ruvalcaba, and Therese Rizarri, both Cal OSHA HAZWOPER trained technicians.

2 SCOPE OF WORK

The Santa Monica-Malibu Unified School District retained Alta Environmental for the sampling. The PCBs delineation sampling was completed around impacted windows and door casings in the areas impacted by the project in Building 500.

Alta delineation sampling was completed as follows

Alta sampling included the following activities:

1. A one inch sized diameter drill bit was used in conjunction with a rotary impact hammer to collect samples from stucco, and wall plaster surfaces.
2. A polyethylene drop-sheet will be placed below the sampling area to capture any dust which may be dislodged during the sample collection.
3. Samples were placed inside an appropriate glass jar with a Teflon lined cap.
4. Samples were labelled, packaged, and documented on a Chain of Custody for shipping to the laboratory.
5. Samples were shipped to the laboratory in a chilled ice chest.
6. 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.
7. Each sample location was documented using digital photographs.

8. Equipment and tools were decontaminated using a two-step decontamination process. First, all used drill bits, and 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 were set to dry individually. Each piece of equipment was inspected by Alta for evidence of residual dust and debris.

The sampling was conducted in accordance with a site-specific work plan prepared for this project (Alta Work Plan, December 16, 2016), which was reviewed and approved by the District and in conjunction with "USEPA Region I Standard Operation Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyl", approved for use by the District, May, 23, 2011.

Below, in Table 1 is a summary of the sampled components.

Table 1
Summary of Window Types and Associated Substrates

Component ID	Component Description	Visible Caulking Yes/No	Location	Exterior Porous Substrate	Interior Porous Substrate
A	Metal window casing	Yes	Boys and girl's restroom and classroom 510	Stucco	Plaster
B	Metal door casing	Yes	Boys and girl's restroom and classroom 510	Stucco	Plaster

3 METHODOLOGY

The bulk 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. Samples were shipped and analyzed by Enviro-Chem located in Pomona, California. QA/QC duplicate and split duplicate samples were analyzed by EMSL Laboratory, located in Cinnaminson, NJ 08077. Both laboratories are Cal ELAP accredited laboratories.

The Actual Detection Limit/Reporting Limit (RL) used by the laboratories for this project was below the benchmark (1 ppm) currently being used as approved by the USEPA.

Samples were analyzed in accordance with EPA Method 3540C/8082A for PCBs.

4 RESULTS

Table 2.0
Summary of Sample Results

Component ID (from Table 1 above)	Reported Construction Date	Number of Components Tested	Total Potentially Impacted Components to be Renovated	Total Samples Analyzed	Result PCBs mg/kg
A	1958	2	4	4	Not Detected
B	1958	2	3	3	Not Detected

The laboratories reported all 7 samples, duplicate and split duplicate samples as “Not Detected” at concentrations above the actual detection limit or RL.

Refer to Appendix B in this report for a summary of samples collected and relevant sample information.

Information included in Table 2 above is a summary compilation of the results. The information should be used in conjunction with the information included in the field sheets (Appendix A), and laboratory reports (Appendix B).

5 QUALITY CONTROL

All samples were analyzed by a Cal ELAP accredited laboratories in accordance with EPA Method 3540C/8082A for PCBs by Enviro-Chem located in Pomona, California, and EMSL Laboratory, located in Cinnaminson, NJ 08077. Both laboratories are Cal ELAP accredited laboratories.

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

EMSL reported “the samples were received in good condition. The QC data associated with the samples results meets the recovery and precision requirement established by NELAP”.

Based on review of the QC data associated with the sample analysis, the recovery and precision is within the acceptable limits of the laboratory.

6 CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS

The delineation sampling was limited ONLY to areas and door and window casings impacted by the Athletic Field Project-Restroom Demolition project. The delineation sampling included room 510, and the adjacent boys and girl’s restrooms. No other areas were included in the scope of work.

The objective of this sampling was to determine if PCBs associated with 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.

Summary of findings and recommendations:

1. All impacted window and door caulking is assumed to be PCB Bulk Product Waste,
2. All porous materials installed around the window and door casings, within 0-1" are assumed to be PCB Remediation Waste. Materials installed beyond 1" were reported as non-detected or below the laboratory benchmark (1 ppm) therefore, not interpreted to require removal and disposal as PCB waste at this time.
3. Removal of the PCB Bulk Product Waste associated with door and window caulking, and PCB Remediation Waste associated with surrounding porous materials should be conducted using proper engineering controls including but not limited to containment, worker training, worker protection etc. PCB waste should be characterized, packaged, labelled and disposed as required by TSCA 40 CFR 761 and California hazardous waste regulation set forth in Title 22, Division 4.5 of the California Code of Regulations unless testing is performed prior to demolition and analytical results confirms that PCBs are less than 50 ppm in the window and door caulking and window glazing, and less than 1ppm on surrounding porous materials.

7 ASSUMPTIONS AND LIMITATIONS

It is understood that the data contained in this report is to be used for planning and budgeting purposes related to a scheduled renovation project. Additional sampling may be required for waste disposal characterization, and area clearance following the removal of the impacted doors.

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.

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.

8 SIGNATORY

Respectfully submitted by:

Alta Environmental

Cesar Ruvalcaba
Project Manager

Reviewed by:

Alta Environmental

David R. Schack
Vice President, Building Sciences

Appendix A

Sample Inventory

CLIENT: SMMUSD
PROJECT NO: SMSD-17-6647
PROJECT: Lincoln MS Step-Out Sampling for PCBs, Athletic Field Project
Date: Feburary 20, 2017

Building Name	Sample Number	Component ID	Sample Description	Sample Location	Photograph Number	Total PCBs (mg/kg)
500	1-0220	Metal window casing	Plaster	1" Interior window room 510, southeast approx. 1' up from window sill	1-0220	Not Detected
500	4-0220	Metal door casing	Plaster	1" Interior door room 510, southeast approx. 2' up east of door	4-0220	Not Detected
500	7-0220	Metal window casing	Stucco	1" Exterior window room 510, southeast approx. 4' up	7-0220	Not Detected
500	10-0220	Metal door casing	Stucco	1" Exterior door room 510, south of door approx. 4' up	10-0220	Not Detected
500	13-0220	Metal window casing	Plaster	1" Interior window restroom, approx. 1' up, northeast from window sill	13-0220	Not Detected
500	16-0220	Metal window casing	Stucco	1" Exterior window restroom, southeast approx. 4' up under window	16-0220	Not Detected
500	19-0220	Metal door casing	Stucco	1" Exterior door room 509A, approx. 4' up south of door. Note: no interior sample taken due to ceramic walls	19-0220	Not Detected

Appendix B

Laboratory Report and Chain of Custody

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

Date: February 28, 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: **SMSD-17-6647**
Lab I.D.: **170221-45 through -66**

Dear Mr. Ruvalcaba:

The **analytical results** for the solid samples, received by our laboratory on February 21, 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 MS, Athletic Field Project / SMSD-17-6647**

DATE SAMPLED: 02/20/17
MATRIX: SOLID
REPORT TO: MR. CESAR RUVALCABA

DATE RECEIVED: 02/21/17
DATE EXTRACTED: 02/24/17
DATE ANALYZED: 02/24/17
DATE REPORTED: 02/28/17

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
1-0220	170221-45	ND	ND	ND	ND	ND	ND	ND	ND	1
4-0220	170221-48	ND	ND	ND	ND	ND	ND	ND	ND	1
7-0220	170221-51	ND	ND	ND	ND	ND	ND	ND	ND	1
10-0220	170221-54	ND	ND	ND	ND	ND	ND	ND	ND	1
13-0220	170221-57	ND	ND	ND	ND	ND	ND	ND	ND	1
16-0220	170221-60	ND	ND	ND	ND	ND	ND	ND	ND	1
19-0220	170221-63	ND	ND	ND	ND	ND	ND	ND	ND	1
23A-0220	170221-66	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)

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

Enviro-Chem, Inc.

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

EPA 8082 QA/QC Report

Matrix: **Soil/Solid/Sludge** Date Analyzed: 2/24/2017

Unit: mg/Kg(PPM)

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 170224-1 MS/MSD

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
PCB (1016+1260)	0.000	0.100	0.123	**123%**	0.128	**128%**	**4%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
PCB (1016+1260)	0.100	0.106	**106%**	**75-125**

Surrogate Recovery	ACP%	ACP%	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	170224-1	170221-45	170221-48	170221-51	170221-54	170221-57
Tetra-chloro-meta-xylene	50-150	138%	136%	122%	122%	121%	112%	127%
Decachlorobipneyl	50-150	76%	136%	75%	72%	75%	68%	77%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	170221-60	170221-63	170221-66					
Tetra-chloro-meta-xylene	118%	147%	114%					
Decachlorobipneyl	66%	71%	66%					

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.						
Tetra-chloro-meta-xylene						
Decachlorobipneyl						

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

** = Surrogate fail due to matrix interference (If Marked)*

Note: *LCS, MS, MSD are in control therefore results are in control.*

Analyzed and Reviewed By: _____

Final Reviewer: _____

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
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
0 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	EPA method 8082 (PCBs)	Misc./PO#	COMMENTS
				Analysis Required						
1-0220	170221-45	2/20/17	0910	Bulk	1x20z		ice	X		
2-0220	-46		0913					X		archive
3-0220	-47		0918					X		archive
4-0220	-48		0919					X		
5-0220	-49		0922					X		archive
6-0220	-50		0924					X		archive
7-0220	-51		0930					X		
8-0220	-52		0933					X		archive
9-0220	-53		0935					X		archive
10-0220	-54		0941					X		
11-0220	-55		0944					X		archive
12-0220	-56		0947					X		archive
13-0220	-57		0955					X		
14-0220	-58		0958					X		archive
15-0220	-59		1000					X		archive

Company Name: Alta Environmental
Address: 3777 Long Beach Blvd Annex Bldg
City/State/Zip: Long Beach CA 90807

Project Contact: Cesar Ruvalcaba
Tel: 562-495-5777
Fax: 562-495-5877

Sampler's Signature:

Project Name/ID: SMSD-17-6647

Relinquished by:	Received by:	Date & Time: 2/21/17 1020
Relinquished by:	Received by:	Date & Time: 2/21/17 1215
Relinquished by:	Received by:	Date & Time:

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

CHAIN OF CUSTODY RECORD

Date: _____

WHITE WITH SAMPLE • YELLOW TO CLIENT

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
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
0 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	EPA method 8082 (PCBs)	COMMENTS
16-0220	170221-60	2/20/17	~~1509~~ 1009	Bulk	1		ice	x	
17-0220	-61		1008		2oz			x	archive
18-0220	-62		1011					x	archive
19-0220	-63		1019					x	
20-0220	-64		1023					x	archive
21-0220	-65		1026					x	archive
234-0220	-66		1037					x	

Company Name: Alta Environmental
Address: 3777 Long Beach Blvd, Annex Bldg
City/State/Zip: Long Beach, CA 90807
Project Contact: Cesar Rubalcaba
Tel: 562-495-5877
Fax: 562-495-5877
Sampler's Signature:
Project Name/ID: SMSD-17-6647

Relinquished by:	Received by:	Date & Time: 2/21/17 1070
Relinquished by:	Received by:	Date & Time: 2/21/17 1217
Relinquished by:	Received by:	Date & Time:

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

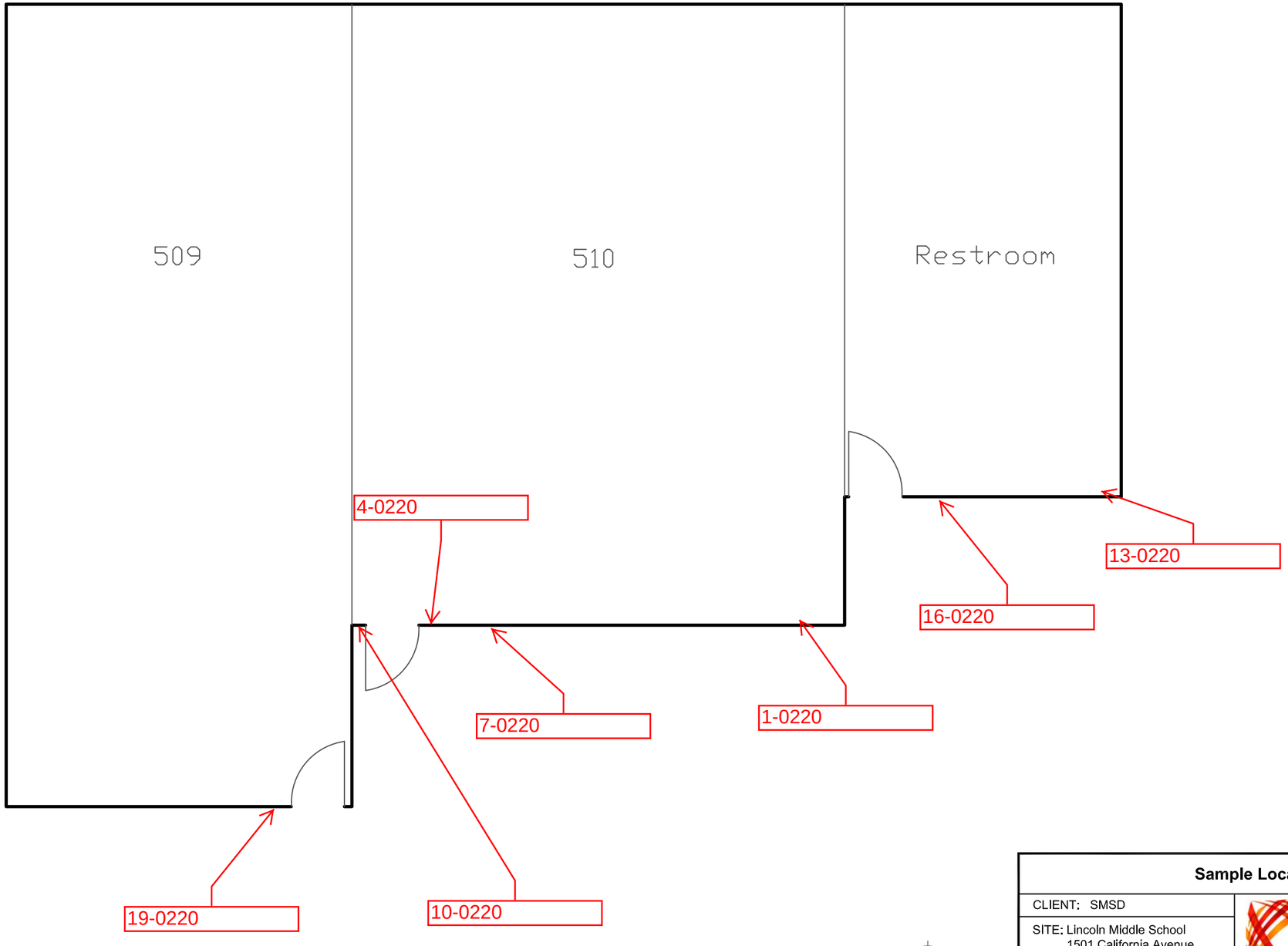
CHAIN OF CUSTODY RECORD

Date:

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 | DATE: Mar. 2017

PROJECT NO.: SMSD-17-6647

ALTA ENVIRONMENTAL
3777 Long Beach Blvd. Annex Bldg. Long Beach, California 90807
P: (562) 495-5777 ◆ F: (562) 495-5877 ◆ www.altaenvIron.com

Appendix D

Photographs

Lincoln Middle School

01-0220

02-0220

03-0220

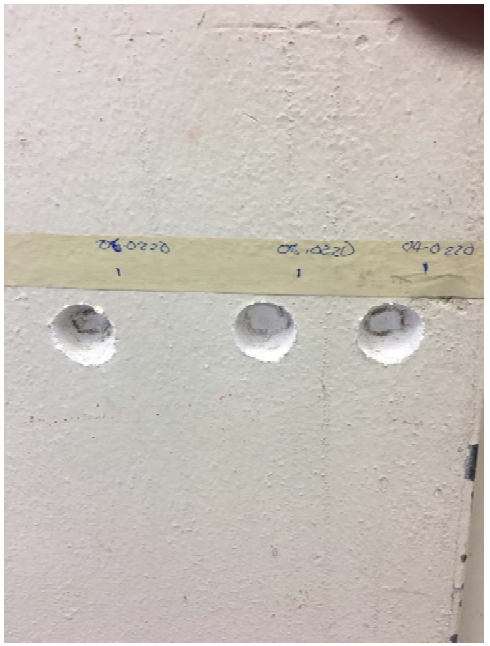
Photo #1

04-0220

05-0220

06-0220

Photo #2



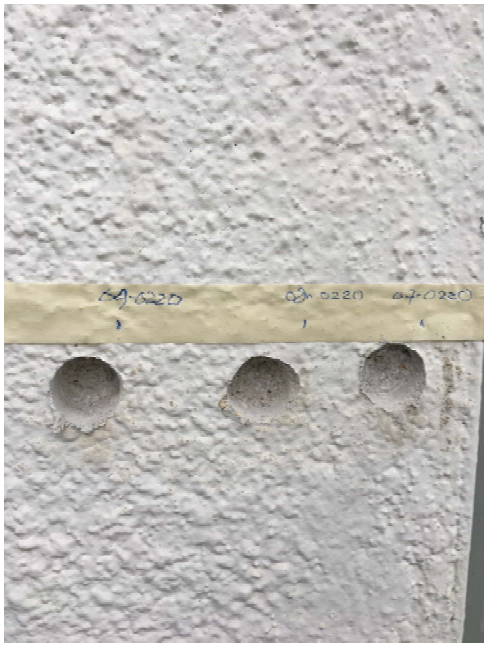
Lincoln Middle School

07-0220

08-0220

09-0220

Photo #3



10-0220

11-0220

12-0220

Photo #4

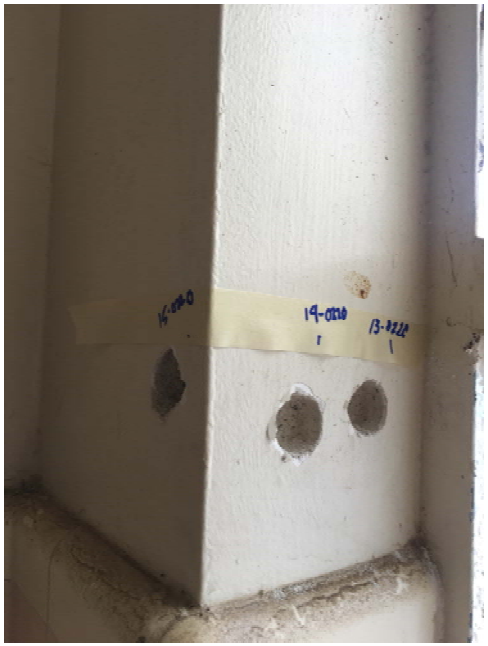
Lincoln Middle School

13-0220

14-0220

15-0220

Photo #5



16-0220

17-0220

18-0220

Photo #6

Lincoln Middle School

19-0220
20-0220
21-0220

Photo #7

22-0220
23-0220

Photo #8