



## **PCB DELINEATION AND SOURCE BULK SAMPLING REPORT**

Door Replacement Project  
**Pointe Dume Elementary School**  
6955 Fernhill Drive  
Malibu, California 90265

**Prepared for:**

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

Project No.: SMSD-17-7262

Reported Date: November 28, 2017

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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 delineation and bulk sampling activities completed in preparation for the replacement of doors in Buildings A, B, C, and D at Pointe Dume Elementary School located at 6955 Fernhill Drive, Malibu, California 90265. The delineation and bulk sampling activities were conducted to determine the potential presence of polychlorinated biphenyl compounds (PCBs) in order to characterize materials for off-site waste disposal. It is understood that the door frames are scheduled to be removed during Summer 2018.

The doorframes that are scheduled to be removed are doors in the following rooms: A120, A123, B143.2, C128.1, C132A, and D10.

Initially, Alta conducted delineation sampling of representative porous materials adjacent to the doorframes on October 23, 2017. The objective of this sampling was to determine if suspected polychlorinated biphenyls (PCBs) containing door caulking may have migrated to adjacent porous materials. All delineation samples collected at 1" interval away from the doorframes were reported as non-detected, at the laboratory Detection Limit (DL) of 1ppm.

Based on the delineation sampling results, on November 14, 2017, Alta, at the direction of the District, collected source bulk samples of door caulking to determine if it contained PCBs. One sample was obtained from each door frame (totaling six samples). All source samples were reported below 50 parts per million (ppm).

Based on the delineation and source sampling results and in consultation with the SMMUSD, the sampled building materials are categorized as Excluded PCB Product, which is not regulated by the US Environmental Protection Agency (US EPA) under the Toxic Substances Control Act (TSCA).

Other building related regulated substances (lead and asbestos) were determined to be present at the subject locations and 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:** November 28, 2017

**PROJECT NO.:** SMSD-17-7262

**CLIENT:** Santa Monica-Malibu Unified School District  
Facility Improvements Projects  
2828 4<sup>th</sup> Street  
Santa Monica, California 90405

**ATTENTION:** Mr. Chris Emmett

**REF:** PCB Delineation and Source Bulk Sampling Report  
Door Replacement Project  
Pointe Dume Elementary School  
6955 Fernhill Drive Malibu, California 90265

## **1 INTRODUCTION/BACKGROUND**

The United States Environmental Protection Agency (USEPA) 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 primary source as a plasticizing agent in 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. The age of the Buildings at this campus (constructed in 1967), indicates a potential for the door caulking to contain PCBs. Therefore, the door caulking was sampled prior to any building renovation.

Additionally, PCBs in manufactured materials such as door caulking may move directly into adjoining materials, particularly porous materials such as wood, concrete, and other types of masonry. In schools with manufactured PCB sources, many kinds of building material have been found to have measurable levels of PCBs and are potential secondary PCB sources. Delineation sampling was completed around the six doorframes to determine if PCBs may have migrated to adjacent porous surfaces.

## **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. The 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 a representative indication of the variety of potentially PCB-impacted materials
- Draw conclusions of the potential presence of PCB-impact materials
- Determine if a site-specific remediation work plan is required to address materials with  $\geq 50$  parts per million (ppm) PCBs prior to undertaking the demolition and disposal of building materials; and,
- Categorize each type of building material 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 ( $\geq 50$  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 are 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 District retained Alta for the delineation and subsequent source bulk sampling (Alta proposal dated, October 10, 2017).

The sampling was completed in accordance with the *USEPA Region I Standard Operation Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyl* (USEPA 2011).

Initially, Alta completed delineation sampling representative of porous materials installed around the six doorframes. The sampling was completed starting at one-inch (1”), three-inch (3”) and six-inch (6”) intervals away from the impacted doorframes representative of a surface depth of 0-.5” of substrate material. Only the 1” sample was initially analyzed, with the intent of analyzing the 3”, and 6” samples only if PCBs were detected.

Following the delineation sampling, Alta collected source bulk samples, one from each doorframe (total of six samples).

Alta’s delineation and source bulk sampling were completed as follows:

1. A one-inch drill, screwdriver, razor blade, chisel, or similar tool was used to collect the samples.
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 labeled, 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.
8. Waste was packaged on site inside one one-gallon bucket and labeled. After review of the sample results, it was determined that the waste was Excluded PCB Product.

### **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 in those cases, the DL did not exceed  $\geq 50$  ppm, which is currently being used as approved by the USEPA to defined PCB Bulk Product Waste.

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

### **5 RESULTS**

Based on a review of the analytical data, PCBs were non-detected at concentrations greater than 50 ppm in any of the samples collected from the Site.

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**

In addition to the primary samples, Alta collected one duplicate sample. The duplicate sample was collected side by side next to the primary sample.

A total of 1 split-duplicate sample was collected and analyzed by Environ-Chem. A sample location was selected next to a primary sample; the sample was collected, homogenized and split into two identical samples. The split samples were assigned a unique blind selected sample number.

All samples including duplicate and split duplicates were placed in an appropriate glass jar with a Teflon cap provided by the laboratory. Samples were labeled and packaged in a cooler and kept cool with ice during shipment.

Results of duplicate samples and split duplicate samples were reported as consistently within acceptable analytical limits.

Based on a review of the laboratory QC data associated with the sample analysis, the recovery and precision are within the 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, PCB concentrations in all door caulking samples collected were reported as less than 50 parts per million (ppm). Therefore, based on the results of the sampling, and in consultation with the SMMUSD, the door caulking is 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.

## **8 RECOMMENDATIONS**

Asbestos-containing materials and lead-based paints have previously been identified at the site and are described 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 which is to be used for the removal and waste disposal of ACM and LBP.

## **9 ASSUMPTIONS AND LIMITATIONS**

Alta's sampling was limited to door caulking installed on six door frames scheduled to be removed and replaced. 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 the 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 the 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 Inventories

## Summary of PCBs Step-Out Sampling

**CLIENT:** SMMUSD  
**PROJECT NO:** SMSD-17-7262  
**PROJECT:** Pt Dume PCBs  
**DATE:** 11/15/17

Building Name	Component	Sample Number	Substrate	Sample Location	Photograph Number	Total PCBs (mg/kg)
B	B143.2 (Interior door)	1023-1	1" smooth plaster	Work room north east door 2' up	Photo 1	Non-Detected
B	B143.2 (Interior door)	1023-2	3" smooth plaster			Non-Detected
B	B143.2 (Interior door)	1023-3	6" smooth plaster			Non-Detected
A	Door A123	1023-4	1" sand plaster	Toilet room north door outside 2' up	Photo 2	Non-Detected
A	Door A123	1023-5	3" sand plaster			Non-Detected
A	Door A123	1023-6	6" sand plaster			Non-Detected
A	Door A123	1023-7	1" smooth plaster	Toilet room north door inside 4' up	Photo 3	Non-Detected
A	Door A123	1023-8	3" smooth plaster			Non-Detected
A	Door A123	1023-9	6" smooth plaster			Non-Detected
A	Door A120	1023-10	1" smooth plaster	Storage room A120 2' up	Photo 4	Non-Detected
A	Door A120	1023-11	3" smooth plaster	Storage room A120 2' up		Non-Detected
A	Door A120	1023-12	6" smooth plaster	Storage room A120 2' up		Non-Detected
A	Door A120	1023-13	1" partical board	Storage room A120 4' up	Photo 5	Non-Detected
A	Door A120	1023-14	3" partical board			Non-Detected
A	Door A120	1023-15	6" partical board			Non-Detected

## Summary of PCBs Step-Out Sampling

**CLIENT:** SMMUSD  
**PROJECT NO:** SMSD-17-7262  
**PROJECT:** Pt Dume PCBs  
**DATE:** 11/15/17

Building Name	Component	Sample Number	Substrate	Sample Location	Photograph Number	Total PCBs (mg/kg)
C	Door C132A	1023-16	1" smooth plaster	Toilet room 132A north center 4' up	Photo 6	Non-Detected
C	Door C132A	1023-17	3" smooth plaster			Non-Detected
C	Door C132A	1023-18	6" smooth plaster			Non-Detected
C	Door C128.1	1023-19	1" smooth plaster	Kitchen southeast door 4' up	Photo 7	Non-Detected
C	Door C128.1	1023-20	3" smooth plaster			Non-Detected
C	Door C128.1	1023-21	6" smooth plaster			Non-Detected
C	Door C128.1	1023-22	1" smooth plaster	Duplicate Sample of 1023-19		Non-Detected
D	Door D10	1023-23	1" stucco	Building D (exterior)	Photo 8	Non-Detected
D	Door D10	1023-24	3" stucco			Non-Detected
D	Door D10	1023-25	6" stucco			Non-Detected
D	Door D10	1023-26	1" particle board	Interior	Photo 9 and 10	Non-Detected
D	Door D10	1023-27	3" particle board			Non-Detected
D	Door D10	1023-28	6" particle board			Non-Detected
D	Door D10	1023-29	1" plaster			Non-Detected
D	Door D10	1023-30	3" plaster			Non-Detected
D	Door D10	1023-31	6" plaster			Non-Detected

## Summary of PCBs Step-Out Sampling

**CLIENT:** SMMUSD  
**PROJECT NO:** SMSD-17-7262  
**PROJECT:** Pt Dume PCBs  
**DATE:** 11/15/17

Building Name	Component	Sample Number	Substrate	Sample Location	Photograph Number	Total PCBs (mg/kg)
D	Door D10	1023-32	1" stucco	Exterior (split duplicate samples)	Photo 11	Non-Detected
D	Door D10	1023-33	1" stucco			Non-Detected

**CLIENT:** SMMUSD  
**PROJECT NO:** SMSD-17-7262  
**PROJECT:** Point Dume ES  
**Date:** November 14, 2017

Building Name	Sample Number	Component ID	Sample Description	Sample Location	Componet Location	Photograph Number	Total PCBs (mg/kg)
C	1114-1	C128.1	Door caulking	Interior kitchen door C128.1	Doorcasing C128.1	1114-1	Not Detected
D	1114-2	C132A	Door caulking	Interioor restroom door C132A	Doorcasing C132A	1114-2	Not Detected
D	1114-3	D10	Door caulking	Exterior door D10	Doorcasing D10	1114-3	21.5 (Aroclor 1254)
B	1114-4	B143.2	Door caulking	Interior library door B143.2	Doorcasing B143.2	1114-4	Not Detected
A	1114-5	A123	Door caulking	Inteiror staff restroom door A123	Doorcasing A123	1114-5	Not Detected
A	1114-6	A120	Door caulking	Inteiror nurses office door A120	Doorcasing A120	1114-6	Not Detected

Note: Door D125 listed in the scope of work to be done is a future new opening. Currently there is no door casing in place.

# Appendix B

**Laboratory Reports**

**Enviro - Chem, Inc.**

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

Date: October 30, 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-17-7262**  
Lab I.D.: **171024-13 through -45**

Dear Mr. Ruvalcaba:

The **analytical results** for the solid samples, received by our laboratory on October 24, 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

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: **SMSD-17-7262**

DATE RECEIVED: 10/24/17  
 DATE SAMPLED: 10/23/17 DATE EXTRACTED: 10/24-25/17  
 MATRIX: SOLID DATE ANALYZED: 10/25-26/17  
 REPORT TO: MR. CESAR RUVALCABA DATE REPORTED: 10/30/17

PCBs ANALYSIS; PAGE 1 OF 2

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
1023-1	171024-13	ND	1							
1023-2	171024-14	ND	1							
1023-3	171024-15	ND	1							
1023-4	171024-16	ND	1							
1023-5	171024-17	ND	1							
1023-6	171024-18	ND	1							
1023-7	171024-19	ND	1							
1023-8	171024-20	ND	1							
1023-9	171024-21	ND	1							
1023-10	171024-22	ND	1							
1023-11	171024-23	ND	1							
1023-12	171024-24	ND	1							
1023-13	171024-25	ND	1							
1023-14	171024-26	ND	1							
1023-15	171024-27	ND	1							
1023-16	171024-28	ND	1							
1023-17	171024-29	ND	5^							
1023-18	171024-30	ND	5^							
1023-19	171024-31	ND	1							
1023-20	171024-32	ND	1							
Method Blank		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: [Signature]  
 CAL-DHS ELAP CERTIFICATE No.: 1555

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: SMSD-17-7262

DATE SAMPLED: 10/23/17  
 MATRIX: SOLID  
 REPORT TO: MR. CESAR RUVALCABA

DATE RECEIVED: 10/24/17  
 DATE EXTRACTED: 10/24-25/17  
 DATE ANALYZED: 10/26/17  
 DATE REPORTED: 10/30/17

PCBs ANALYSIS; PAGE 2 OF 2

METHOD: EPA 3540C/8082

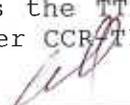
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260	TOTAL PCBs*	DF
1023-21	171024-33	ND	1							
1023-22	171024-34	ND	1							
1023-23	171024-35	ND	1							
1023-24	171024-36	ND	1							
1023-25	171024-37	ND	1							
1023-26	171024-38	ND	1							
1023-27	171024-39	ND	1							
1023-28	171024-40	ND	1							
1023-29	171024-41	ND	1							
1023-30	171024-42	ND	1							
1023-31	171024-43	ND	1							
1023-32	171024-44	ND	1							
1023-33	171024-45	ND	1							
Method Blank		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)

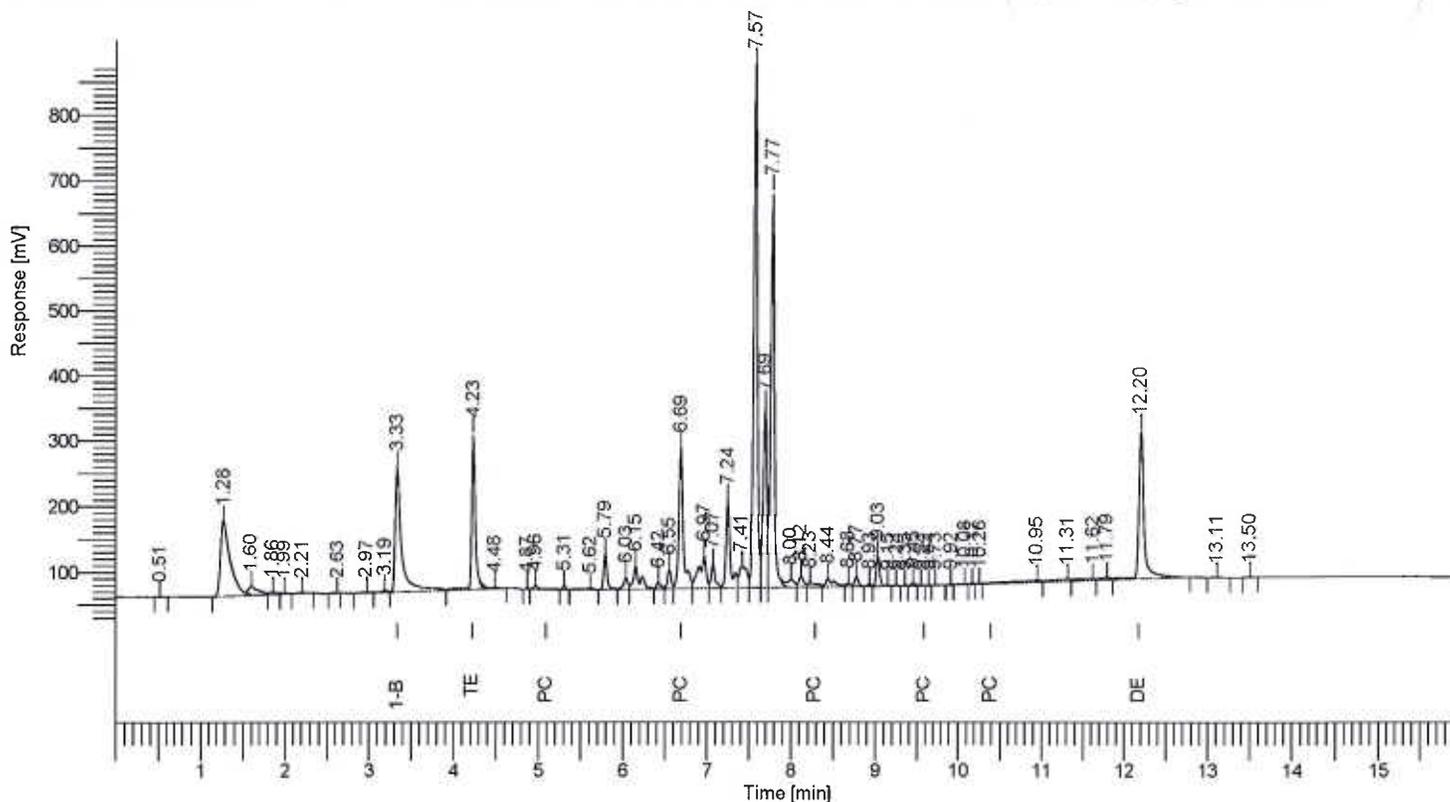
Data Reviewed and Approved by:   
 CAL-DHS ELAP CERTIFICATE No.: 1555

Software Version : 6.3.2.0646  
 Sample Name : 171024(29) 4/100 RE *DF-5*  
 Instrument Name : GC-E  
 Rack/Vial : 0/67  
 Sample Amount : 1.000000  
 Cycle : 1

Date : 10/27/2017 3:09:19 PM  
 Data Acquisition Time : 10/26/2017 3:02:54 PM  
 Channel : B  
 Operator : manager  
 Dilution Factor : 1.000000

Result File : D:\GC DATA\GC-E\02017E1710E171025\B071.rst  
 Sequence File : D:\GC DATA\GC-E\02017E1710E171025\B071.seq

*MATRIX INTERFERENCES*  
*(1023-17) @ DF-5*



PCB Results

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Adjusted Amount
10	1-Bromo-2-Nitrobenzene	3.33	1019685.94	190120.32	-----
11	Tetra chloro-meta-xylene	4.23	719925.41	228822.22	123.438
	PCB (1016+1260)	6.69	873555.93	222351.35	0.317
53	Decachlorobiphenyl	12.20	965482.08	223158.83	103.328
			3578649.36	864452.72	227.083

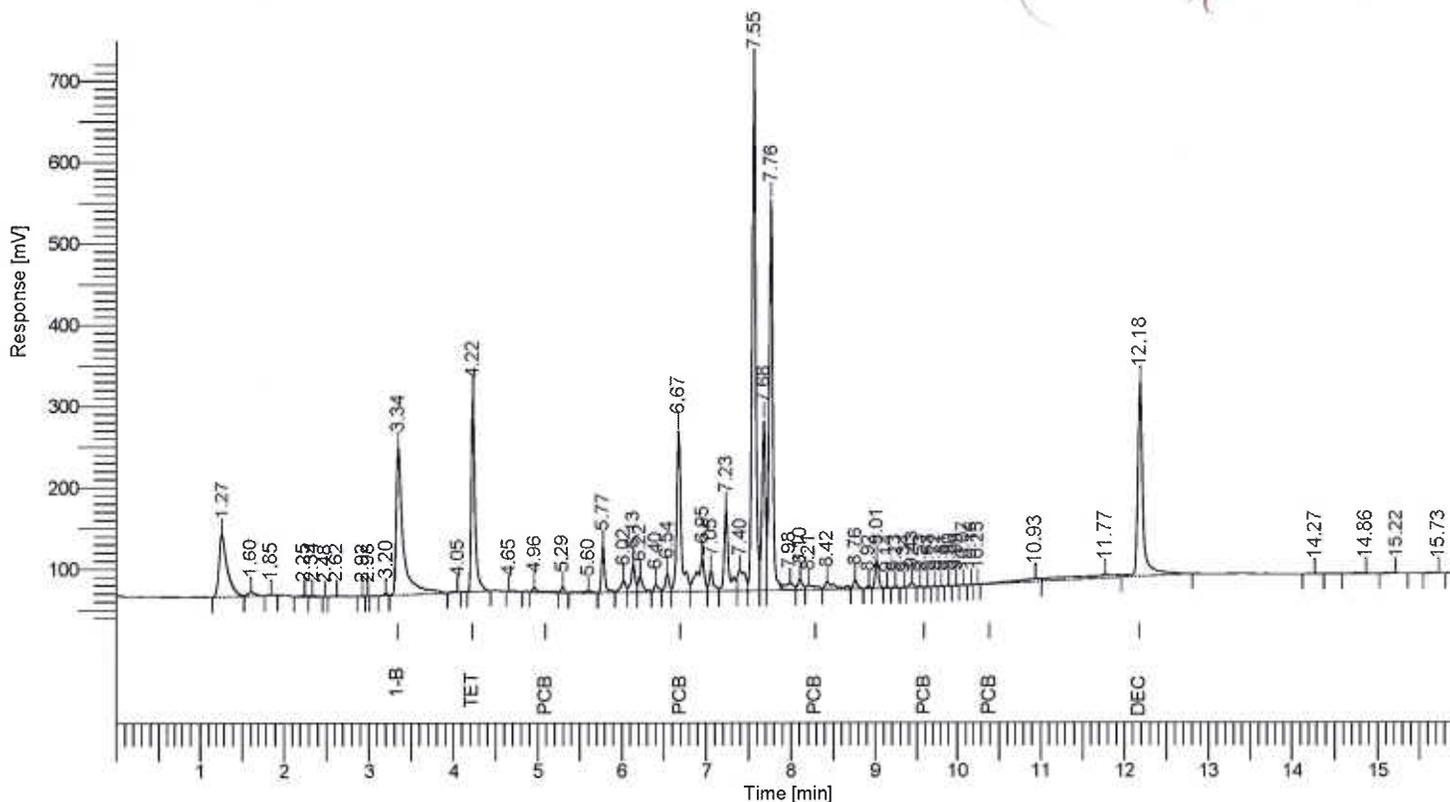
Software Version : 6.3.2.0646  
 Sample Name : 171024-30 4/100 RE  
 Instrument Name : GC-E  
 Rack/Vial : 0/68  
 Sample Amount : 1.000000  
 Cycle : 2

*DF=5*

Date : 10/27/2017 4:09:20 PM  
 Data Acquisition Time : 10/26/2017 3:23:29 PM  
 Channel : B  
 Operator : manager  
 Dilution Factor : 1.000000

*(1023-18) MATOM Interferenc  
 @ DF=5*

Result File : D:\GC DATA\GC-E\02017E\1710E\171025\B072.rst  
 Sequence File : D:\GC DATA\GC-E\02017E\1710E\171025\B072.seq



PCB Results

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Adjusted Amount
11	1-Bromo-2-Nitrobenzene	3.34	1068630.56	181363.36	-----
13	Tetra chloro-meta-xylene	4.22	721892.29	236967.45	118.106
	PCB (1016+1260)	6.67	806295.14	207323.74	0.279
54	Decachlorobiphenyl	12.18	1015130.93	237710.25	103.666
			3611948.92	863364.81	222.051

# 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: 10/25-26/2017

Unit: mg/Kg(PPM)

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

**Spiked Sample Lab I.D.:** 171025-LCS1/2

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
PCB (1016+1260)	0.000	0.100	0.075	75%	0.073	73%	3%	0-20%	70-130

**Lab Control Spike (LCS) Recovery:**

Analyte	spk conc	LCS	% REC	ACP %REC
PCB (1016+1260)	0.100	0.085	85%	75-125

Surrogate Recovery	ACP%	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		MB	171024-13	171024-14	171024-15	171024-16	171024-17	171024-18	
Tetra-chloro-meta-xylene	50-150	108%	113%	129%	125%	124%	135%	137%	
Decachlorobipneyl	50-150	89%	117%	126%	142%	118%	128%	114%	

Surrogate Recovery	%REC	%REC							
<b>Sample I.D.</b>	171024-19	171024-20	171024-21	171024-22	171024-23	171024-24	171024-25	171024-26	
Tetra-chloro-meta-xylene	102%	129%	108%	124%	150%	132%	129%	119%	
Decachlorobipneyl	106%	117%	118%	102%	135%	116%	106%	91%	

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>	171024-27	171024-28	171024-29	171024-30	171024-31	171024-32
Tetra-chloro-meta-xylene	120%	146%	123%	118%	100%	130%
Decachlorobipneyl	94%	122%	103%	104%	108%	109%

S.R. = Sample Result

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

spk conc = Spike Concentration

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

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

Analyzed and Reviewed By: 

Final Reviewer: 

# 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: 10/26/2017

Unit: mg/Kg(PPM)

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

**Spiked Sample Lab I.D.:** 171025-LCS1/2

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
PCB (1016+1260)	0.000	0.100	0.085	85%	0.083	83%	2%	0-20%	70-130

**Lab Control Spike (LCS) Recovery:**

Analyte	spk conc	LCS	% REC	ACP %REC
PCB (1016+1260)	0.100	0.084	84%	75-125

Surrogate Recovery	ACP%	ACP%	%REC	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>		MB	171024-33	171024-34	171024-35	171024-36	171024-37	171024-38	
Tetra-chloro-meta-xylene	50-150	143%	139%	109%	141%	136%	135%	132%	
Decachlorobipneyl	50-150	121%	129%	107%	131%	126%	121%	113%	

Surrogate Recovery	%REC	%REC	%REC						
<b>Sample I.D.</b>	171024-39	171024-40	171024-41	171024-42	171024-43	171024-44	171024-45		
Tetra-chloro-meta-xylene	117%	127%	127%	114%	124%	123%	148%		
Decachlorobipneyl	92%	95%	92%	135%	104%	119%	120%		

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
<b>Sample I.D.</b>						
Tetra-chloro-meta-xylene						
Decachlorobipneyl						

S.R. = Sample Result

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

spk conc = Spike Concentration

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

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

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

SAMPLE ID	LAB ID	SAMPLING DATE TIME		MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required				COMMENTS
		DATE	TIME									
1023-1	171024-13	10-23-17	1600	Bulk	1	ICE	X					
2	-14		1602		1		X					
3	-15		1605		1		X					
4	-16		1625		1		X					
5	-17		1628		1		X					
6	-18		1630		1		X					
7	-19		1700		1		X					
8	-20		1702		1		X					
9	-21		1705		1		X					
10	-22		1730		1		X					
11	-23		1736		1		X					
12	-24		1740		1		X					
13	-25		1820		1		X					
14	-26		1825		1		X					
15	-27		1830		1		X					

Misc./PO#  
SWS0-17-7262  
SPECIAL EXTRACTION

EPA Method 8082 PCS

Company Name: Alta Environmental  
 Address: 3777 Long Beach Blvd  
 City/State/Zip: Long Beach Ca

Project Contact: Cesar Rueda  
 Tel:  
 Fax:

Sampler's Signature: [Signature]  
 Project Name/ID: SWS0-17-7262

Relinquished by: [Signature]  
 Relinquished by:  
 Relinquished by:

Received by: [Signature]  
 Received by:  
 Received by:

Date & Time: 10/24/17 1350  
 Date & Time:  
 Date & Time:

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

Date: 10-24-17

**CHAIN OF CUSTODY RECORD**

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

SAMPLE ID	LAB ID	SAMPLING DATE TIME		MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required				COMMENTS
		DATE	TIME									
1623-16	171024-28	1023-17	1900	Bulk	1		ICE	X				
17	-29		1905		1	402		X				
18	-30		1908		1			X				
19	-31		1930		1			X				
20	-32		1935		1			X				
21	-33		1936		1			X				
22	-34		1936		1			X				Duplicate ↓
23	-35		2000		1			X				
24	-36		2003		1			X				
25	-37		2010		1			X				
26	-38		2030		1			X				
27	-39		2032		1			X				
28	-40		2035		1			X				
29	-41		2040		1			X				
30	-42		2045		1			X				

Misc./PO#

SMSD-17-7262

SOPAN Extract

EP1 Method  
8/28/2

Company Name: Alta Environmental  
 Address: 3777 Long Beach Blvd  
 City/State/Zip: Long Beach Ca

Project Contact: Cesar Rosales  
 Tel:  
 Fax:

Sampler's Signature: [Signature]  
 Project Name/ID: SMSD-17-7262

Relinquished by: [Signature]  
 Relinquished by:  
 Relinquished by:

Received by: [Signature]  
 Received by:  
 Received by:

Date & Time: 10/24/17 1350  
 Date & Time:  
 Date & Time:

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

**CHAIN OF CUSTODY RECORD**

Date: 10-24-17

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

SAMPLE ID	LAB ID	SAMPLING DATE TIME		MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required										COMMENTS			
		DATE	TIME																		
1023-31	171024-43	10-23-17	2417	Bulk	1		ICE	X													
↓ 32	↓ -44	↓	2050	↓	1	407	↓	X													split & set
↓ 33	↓ -45	↓	2050	↓	1		↓	X													↓

*EM Method  
 8052 PCBs*

Misc./PO#  
**SPECIAL EXTRACTION**

Company Name: <i>Alta Environmental</i>		Project Contact: <i>Leslie Ruvalec</i>		Sampler's Signature: <i>[Signature]</i>	
Address: <i>3772 Long Beach Blvd</i>		Tel:		Project Name/ID: <i>SARSD-17-726L</i>	
City/State/Zip: <i>Long Beach CA</i>		Fax:			
Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Date & Time: <i>10/24/17</i>	Instructions for Sample Storage After Analysis:		
Relinquished by:	Received by:	Date & Time:	<input type="checkbox"/> Dispose of <input type="checkbox"/> Return to Client <input type="checkbox"/> Store (30 Days) <input type="checkbox"/> Other:		
Relinquished by:	Received by:	Date & Time:			

**CHAIN OF CUSTODY RECORD**

Date: 10-23-17

WHITE WITH SAMPLE • YELLOW TO CLIENT

**Enviro - Chem, Inc.**

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

Date: November 21, 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: **Point Dume E.S. / SMSD-17-7262**  
Lab I.D.: **171115-30 through -35**

Dear Mr. Ruvalcaba:

The **analytical results** for the solid samples, received by our laboratory on November 15, 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



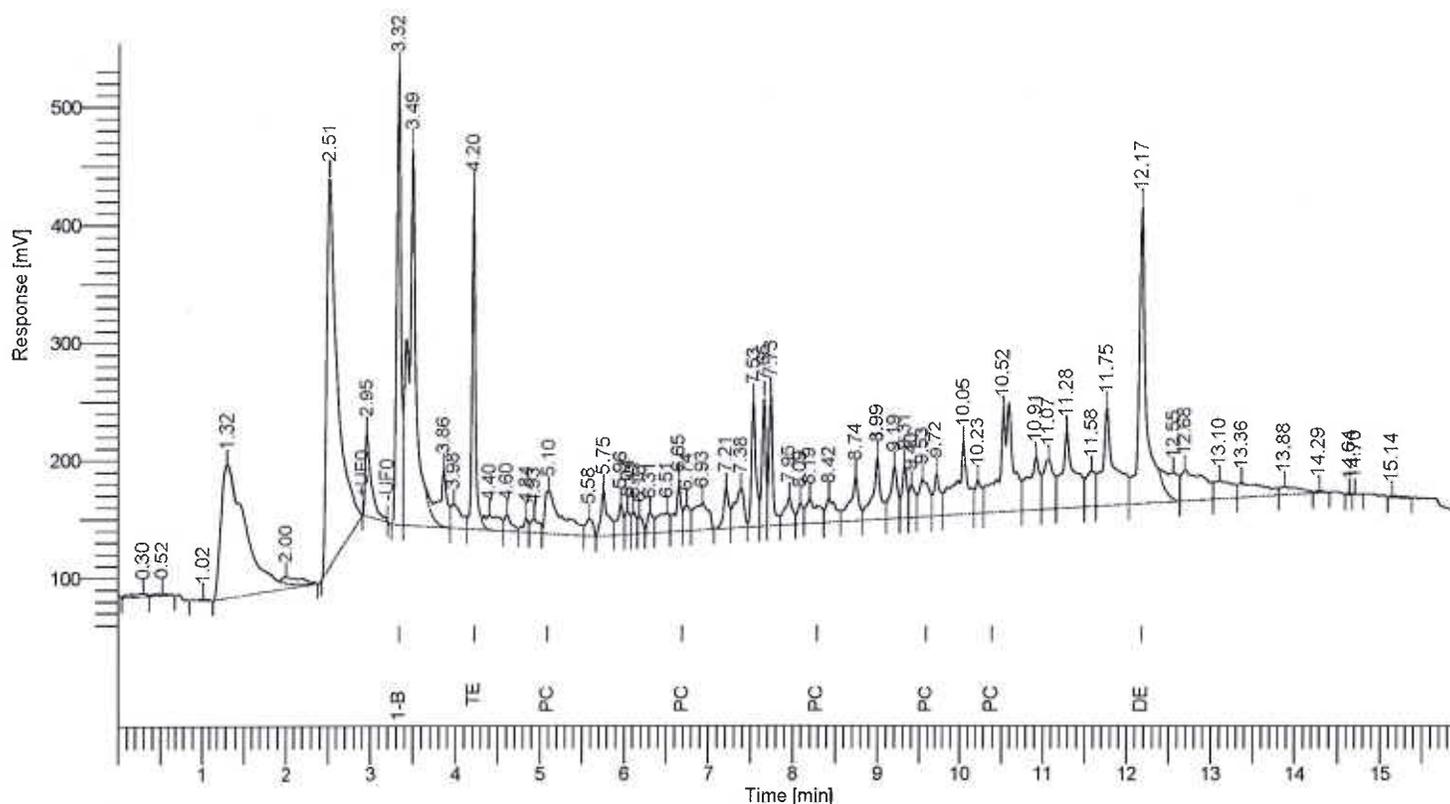


Software Version : 6.3.2.0646  
 Sample Name : 171115-34 1/20 Alta  
 Instrument Name : GC-E  
 Rack/Vial : 0/22  
 Sample Amount : 1.000000  
 Cycle : 17

Date : 11/17/2017 11:05:36 AM  
 Data Acquisition Time : 11/16/2017 8:42:22 PM  
 Channel : B  
 Operator : manager  
 Dilution Factor : 1.000000

Result File : D:\GC DATA\GC-E\E02017\E1711\E171116\B017.rst

Sequence File : D:\GC DATA\GC-E\E02017\E1711\E171116\E171116.seq



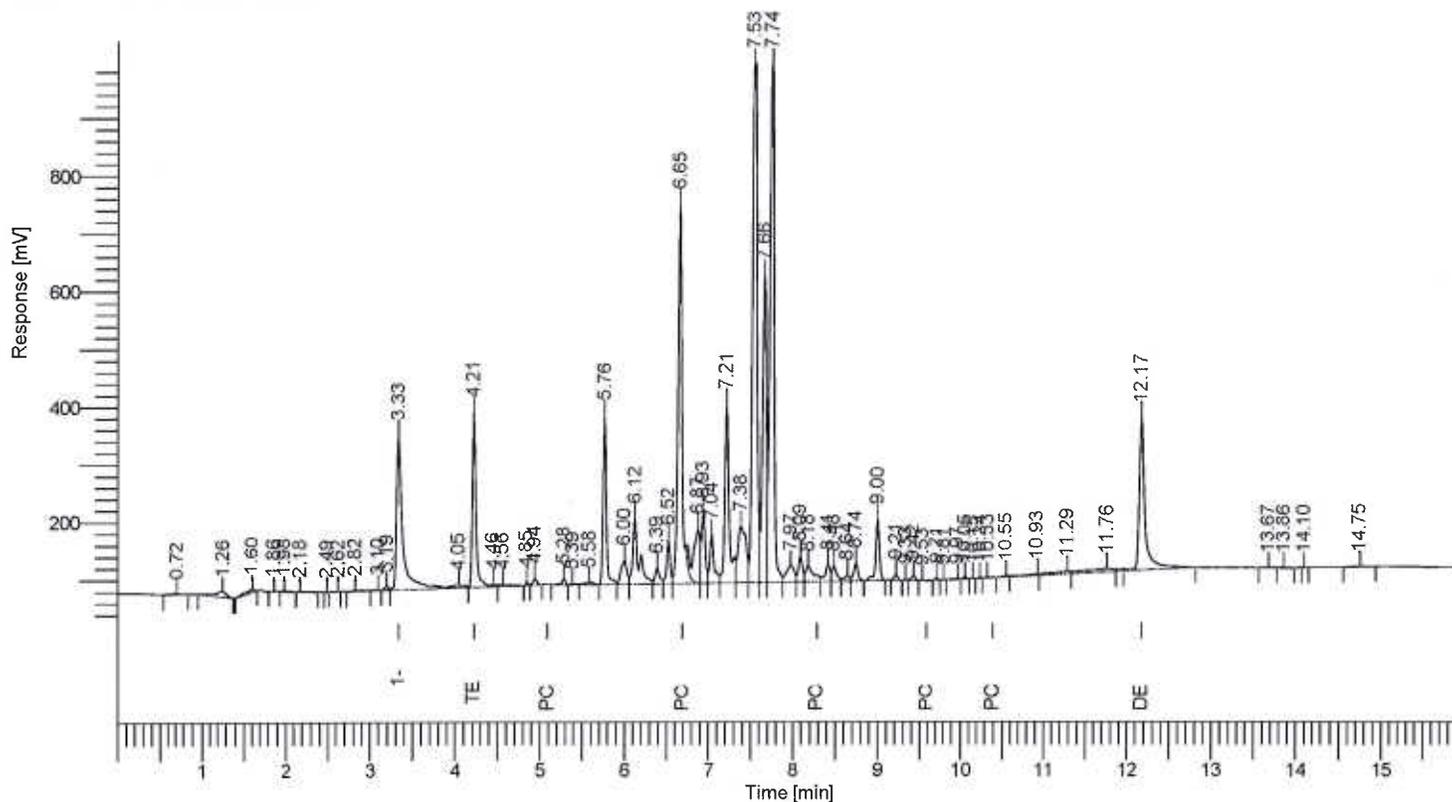
## PCB Results

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [μV]	Adjusted Amount
8	1-Bromo-2-Nitrobenzene	3.32	1349218.54	380816.93	-----
12	Tetra chloro-meta-xylene	4.20	818219.83	278549.81	106.027
	PCB (1016+1260)	6.65	1186404.12	125512.63	0.325
53	Decachlorobiphenyl	12.17	1611453.91	251676.27	130.340
			4965296.40	1036555.64	236.692

Software Version : 6.3.2.0646  
 Sample Name : 171115-31 0.5/10 RE Alta  
 Instrument Name : GC-E  
 Rack/Vial : 0/51  
 Sample Amount : 1.000000  
 Cycle : 12

Date : 11/20/2017 11:09:57 AM  
 Data Acquisition Time : 11/17/2017 1:33:16 PM  
 Channel : B  
 Operator : manager  
 Dilution Factor : 1.000000

Result File : D:\GC DATA\GC-E\02017\171115\171116\B066.rst  
 Sequence File : D:\GC DATA\GC-E\02017\171115\171116\171116.seq



## PCB Results

Peak #	Component Name	Time [min]	Area [uV*sec]	Height [uV]	Adjusted Amount
12	1-Bromo-2-Nitrobenzene	3.33	1398329.81	266788.05	-----
14	Tetra chloro-meta-xylene	4.21	882018.97	292230.22	110.280
	PCB (1016+1260)	6.65	2491316.10	683170.36	0.658
59	Decachlorobiphenyl	12.17	1231493.65	262606.56	96.109
			6003158.53	1504795.19	207.047

**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  
 Same Day  
 24 Hours  
 48 Hours  
 72 Hours  
 1 Week (Standard)  
 Other: \_\_\_\_\_

Misc./PO#

SMSD-17-7262

*4th Analytical  
 8/02-2005*

SAMPLE ID	LAB ID	SAMPLING DATE TIME		MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	Analysis Required								COMMENTS
		DATE	TIME													
1114-1	171115-30	11-14-17	1730	Bulk	1		Ice	X								
2	-31		1745		1			X								
3	-32		1800		1			X								
4	-33		1830		1			X								
5	-34		1900		1			X								
6	-35		1930		1			X								
					407											

Company Name: <i>Alta Environmental</i>		Project Contact: <i>Cesar Amulca</i>		Sampler's Signature: 	
Address: <i>3777 Long Beach Blvd</i>		Tel:		Project Name/ID: <i>Point Puro E.S. SMSD-17-7262</i>	
City/State/Zip: <i>Long Beach Ca</i>		Fax:			
Relinquished by:	Received by:	Date & Time: <i>11/15/2017 1:35 PM</i>		Instructions for Sample Storage After Analysis:	
Relinquished by:	Received by:	Date & Time:		<input type="radio"/> Dispose of <input type="radio"/> Return to Client <input type="radio"/> Store (30 Days)	
Relinquished by:	Received by:	Date & Time:		<input type="radio"/> Other:	

**CHAIN OF CUSTODY RECORD**

Date: 11-14-17

WHITE WITH SAMPLE - YELLOW TO CLIENT

# Appendix C

## Sample Location Maps

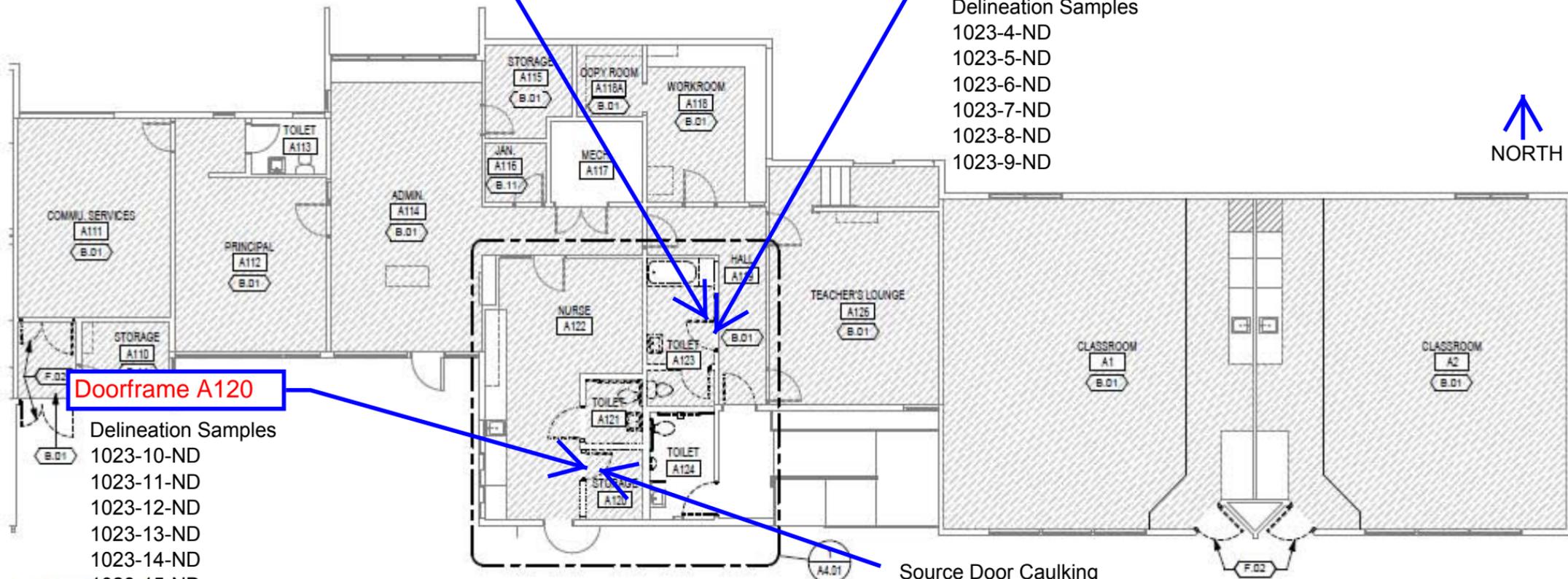
BUILDING A

Source Bulk Sample  
1114-5-ND

Doorframe A123

Delineation Samples

- 1023-4-ND
- 1023-5-ND
- 1023-6-ND
- 1023-7-ND
- 1023-8-ND
- 1023-9-ND



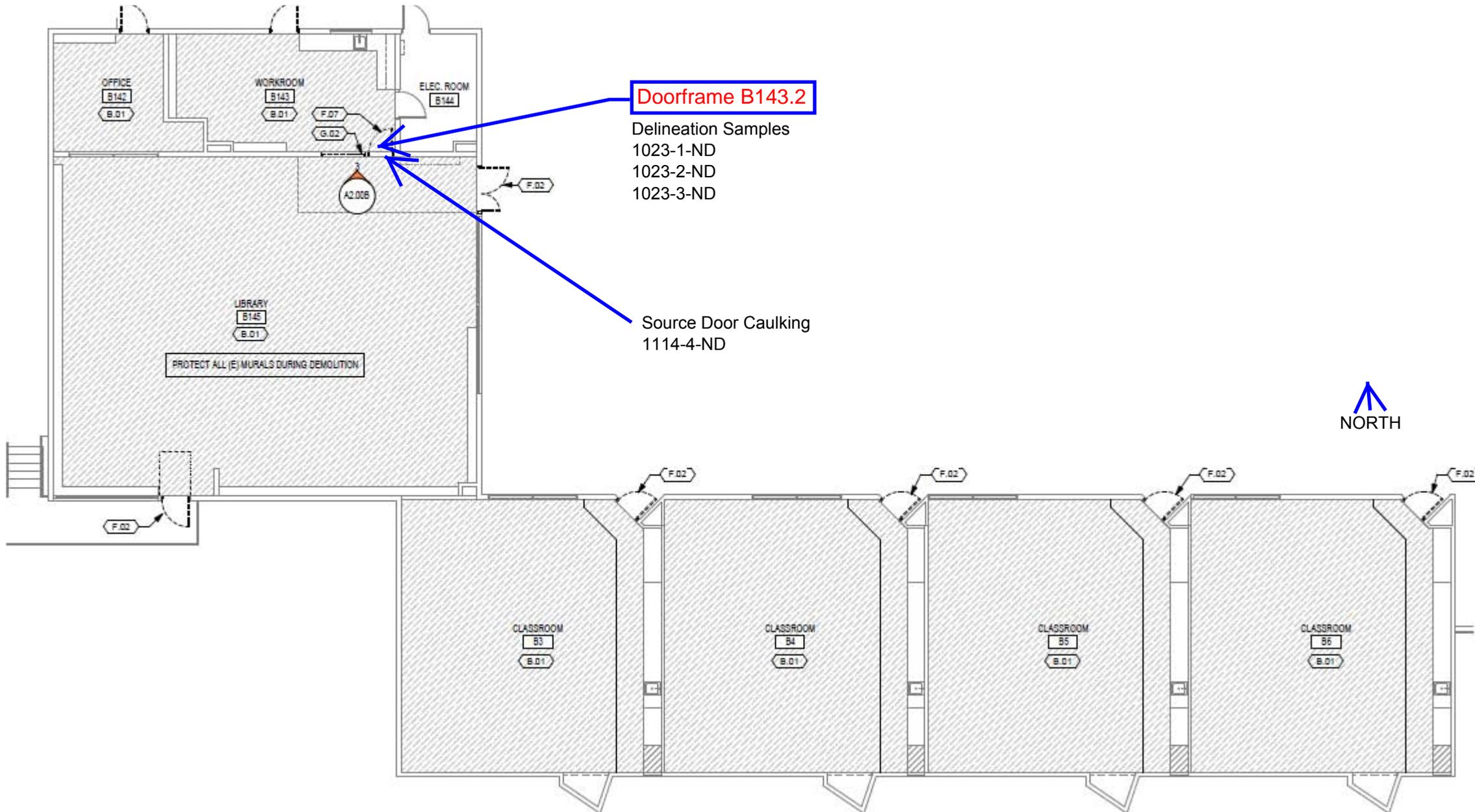
Doorframe A120

Delineation Samples

- 1023-10-ND
- 1023-11-ND
- 1023-12-ND
- 1023-13-ND
- 1023-14-ND
- 1023-15-ND

Source Door Caulking  
1114-6-ND

BUILDING B



**Doorframe B143.2**

Delineation Samples  
1023-1-ND  
1023-2-ND  
1023-3-ND

Source Door Caulking  
1114-4-ND

NORTH

BUILDING C

**Doorframe C132A**

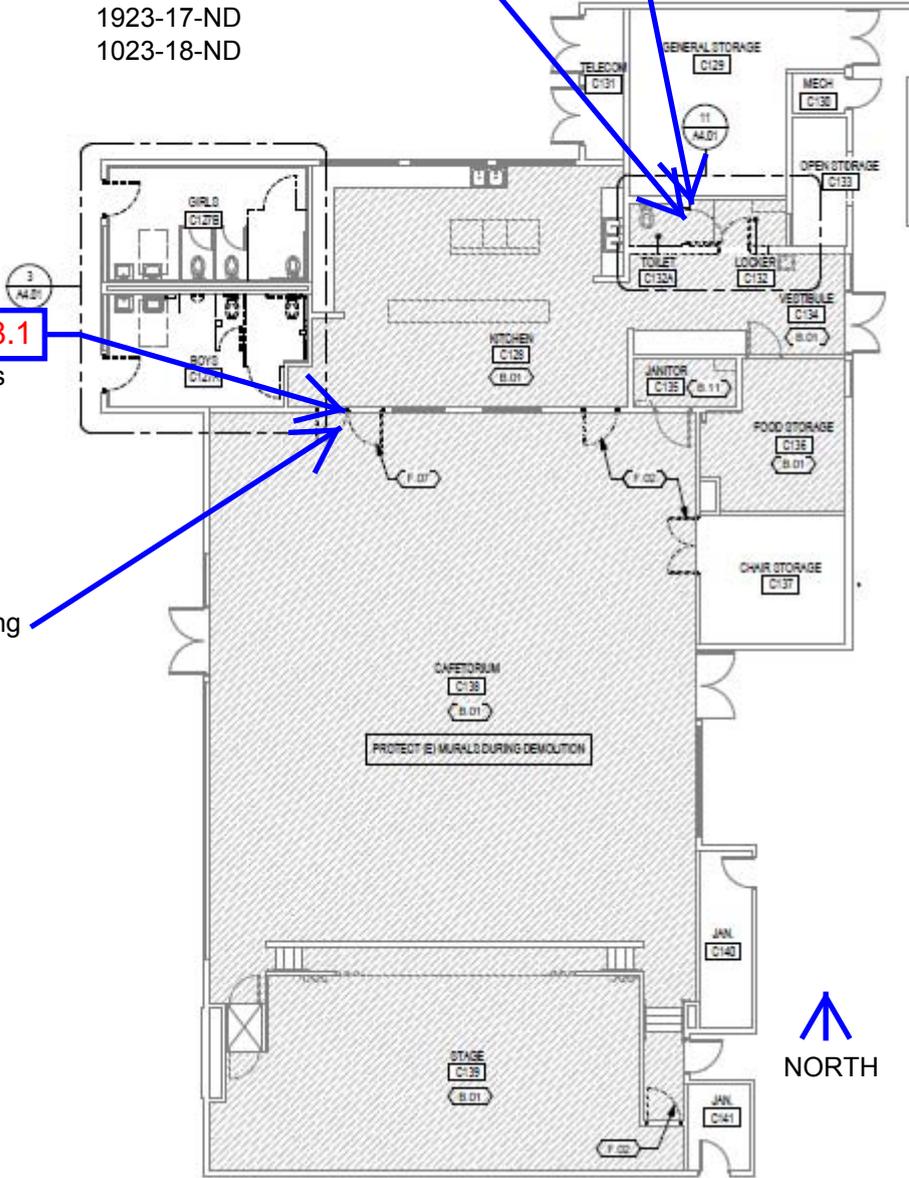
Delineation Samples  
1023-16-ND  
1923-17-ND  
1023-18-ND

Source door caulking  
1114-2-ND

**Doorframe C128.1**

Delineation Samples  
1023-19-ND  
1023-20-ND  
1023-21-ND

Source door caulking  
1114-1-ND



# BUILDING D

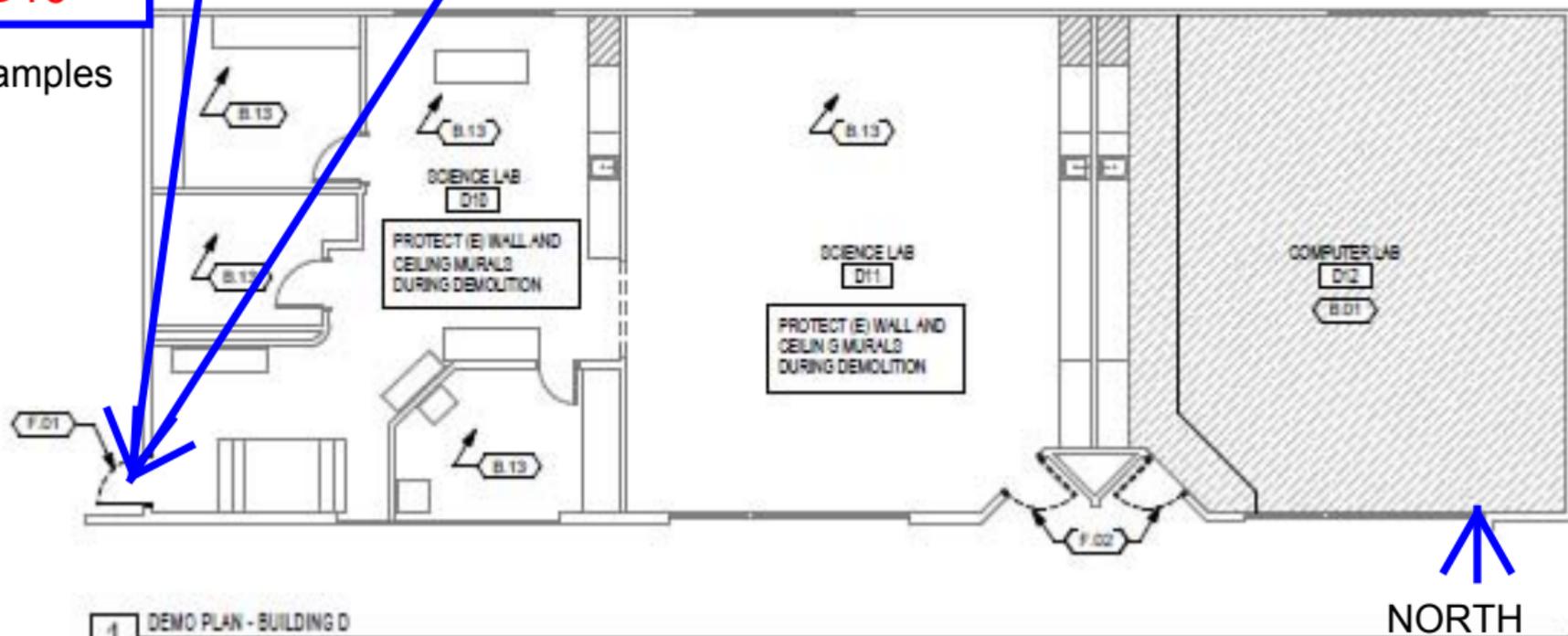
**Doorframe D10**

Source Door Caulking

1114-3-21.5 (Aroclor 1254)

Delineation Samples

- 1023-23-ND
- 1023-24-ND
- 1023-25-ND
- 1023-26-ND
- 1023-27-ND
- 1023-28-ND
- 1023-29-ND
- 1023-30-ND
- 1023-31-ND



1 DEMO PLAN - BUILDING D  
1/8" = 1'-0"

NORTH

# Appendix D

## Photographs



# Pointe Dume Elementary School

1023-07

1023-08

1023-09

Photo #3



1023-10

1023-11

1023-12

Photo #4



# Pointe Dume Elementary School

1023-13

1023-14

1023-15

Photo #5



1023-16

1023-17

1023-18

Photo #6



# Pointe Dume Elementary School

1023-19

1023-20

1023-21

1023-22

Photo #7



1023-23

1023-24

1023-25

Photo #8



# Pointe Dume Elementary School

1023-26

1023-27

1023-28

Photo #9



1023-29

1023-30

1023-31

Photo #10



# Pointe Dume Elementary School

1023-32

1023-33

Photo #9



# Pointe Dume Elementary School

1114-01

Photo #1



1114-02

Photo #2



# Pointe Dume Elementary School

1114-03

Photo #3



1114-04

Photo #4



# Pointe Dume Elementary School

1114-05

Photo #5



1114-06

Photo #6

