DESIGN AND CONSTRUCTION SERVICES

SANTA BARBARA, CALIFORNIA 93106-5132

March 24, 2011

Asbestos and Pb (Lead) Survey UCSB Carrillo/Santa Cruz Boilers Bldgs. 562/548

The University of California Santa Barbara (UCSB), Design and Construction Services (DC&S) has compiled this report to disclose existing knowledge of asbestos and Pb (Lead) containing building components located at Buildings 562 and 548 on the UCSB Campus.

Asbestos Sampling

Table 1.0 Asbestos Laboratory Reports lists the reports attached by Report Number, Date, Laboratory, Analysis Type, and Comments.

Table 1.0 - Asbestos Laboratory Reports

Report #	Report Date	Laboratory	Analysis Type	Comments
B143829	01/07/2011	Forensic	PLM EPA Method	Various samples on the boilers and related
_		Analytical	600/R-93-116	equipment in Bldg. 548.
B142810	12/08/2010	Forensic	PLM EPA Method	Samples 01-06 are various samples in the
		Analytical	600/R-93-116	boiler room of Bldg. 562.

Lead Paint Sampling Results

Table 2.0 Pb (Lead) Laboratory Reports lists the reports attached by Report Number, Date, Laboratory, Analysis Type, and Comments.

Table 2.0 - Pb (Lead) Laboratory Reports

Report #	Report Date	Laboratory	Analysis Type	Comments
M115353	12/09/2010	Forensic Analytical	TTLC Metal Analysis Flame AA	Various Samples in the boiler room of Bldg. 562.

UCSB's industrial wastewater permit¹ local limit for lead is 1.040 mg/l. The California Code of Regulations, Title 22 classifies waste containing more than 50 ppm lead as hazardous² without further waste characterization. If you have any question regarding this report please contact me at 805-451-1918 or gene.horstin@dcs.ucsb.edu

Sincerely,

Defails eigned by Gene Hornin
Dit curdems Hornin, exits, e-U.Ca.
ac-Design and Contraction,
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University of California Santa Barbara Asbestos and Pb Clerk of the Works

Asbestos Abatement Project Designer Cert# PD39-11

Asbestos Inspector & Management Planner Cert# BIMP91-11

Asbestos Contractor & Supervisor Cert# CS182-11

CDPH Lead Inspector/Assessor ID# 20134

¹Industrial Wastewater Discharge Permit Number IV-413, Part I, Wastewater Discharge Limitations and Monitoring Requirements – Local Limits

²TITLE 22. Social Security, Division 4.5. Environmental Health Standards for the Management of Hazardous Waste, Chapter 11. Identification and Listing of Hazardous Waste, Article 3. Characteristics of Hazardous Waste, §66261.24, Characteristic of Toxicity



Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

U.C. Santa Barbara Project Manager **Design and Construction Svcs**

Building 370

Santa Barbara, CA 93106

Client ID:

5151

Report Number: Date Received:

B143829 01/07/11 01/10/11

Date Analyzed: Date Printed:

01/10/11

					First Reporte	d: 01/10/	11
Job ID/Site: Santa Cruz Dorm Boiler	Replacement - B	oldg 548, Boiler	Room		FALI Job ID:		
Date(s) Collected: 01/05/2011					Total Samples Total Samples		16 16
Sample ID	Lab Number	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
20110105-548-PLM-1 Layer: White Plaster Layer: Paint	11067268		ND ND			-	
Total Composite Values of Fibrous Co Cellulose (Trace)	omponents:	Asbestos (ND)					
20110105-548-PLM-2 Layer: White Plaster Layer: Paint	11067269		ND ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	omponents:	Asbestos (ND)					
20110105-548-PLM-3 Layer: White Plaster Layer: Paint	11067270	a	ND ND				
Total Composite Values of Fibrous Co Cellulose (Trace)	omponents:	Asbestos (ND)					
20110105-548-PLM-4 Layer: Tan Semi-Fibrous Material	11067271		ND				
Total Composite Values of Fibrous Co Cellulose (5 %)	omponents:	Asbestos (ND)					
20110105-548-PLM-5 Layer: Tan Semi-Fibrous Material	11067272		ND				
Total Composite Values of Fibrous Co Cellulose (5 %)	omponents:	Asbestos (ND)					
20110105-548-PLM-6 Layer: Tan Semi-Fibrous Material	11067273		ND				
Total Composite Values of Fibrous Co Cellulose (5 %)	omponents:	Asbestos (ND)					
20110105-548-PLM-7 Layer: Orange Foam Layer: Paint	11067274		ND ND				
Total Composite Values of Fibrous Co	omponents:	Asbestos (ND)					

Report Number: B143829

Date Printed: 01/10/11

Chent itame. O.C. Santa Daroara					Date I IIIItea.	01/10/	**
Sample ID	Lab Numbe	Asbestos r Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
20110105-548-PLM-8	11067275						
Layer: Grey Non-Fibrous Material			ND				
Total Composite Values of Fibrous Com	ponents:	Asbestos (ND)					
Cellulose (Trace)							
20110105-548-PLM-9	11067276						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					
20110105-548-PLM-10	11067277						
Layer: White Joint Compound			ND				
Total Composite Values of Fibrous Com	ponents:	Asbestos (ND)					
Cellulose (Trace)							
20110105-548-PLM-11	11067278						
Layer: White Joint Compound			ND				
Total Composite Values of Fibrous Com	ponents:	Asbestos (ND)					
Cellulose (Trace)							
20110105-548-PLM-12	11067279						
Layer: White Joint Compound			ND				
Total Composite Values of Fibrous Com Cellulose (Trace)	ponents:	Asbestos (ND)					
20110105-548-PLM-13	11067280						
Layer: Grey Semi-Fibrous Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Comp Cellulose (10 %) Fibrous Glass (30 %)	-	Asbestos (ND)					
20110105-548-PLM-14	11067281						
Layer: Grey Semi-Fibrous Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Comp	•	Asbestos (ND)					
Cellulose (10 %) Fibrous Glass (30 %)	%)						
20110105-548-PLM-15	11067282						
Layer: Grey Semi-Fibrous Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Comp	•	Asbestos (ND)					
Cellulose (10 %) Fibrous Glass (30 %	•						
20110105-548-PLM-16	11067283		NIFA				
Layer: Grey Semi-Fibrous Material		Aubania (2003)	ND				
Total Composite Values of Fibrous Comp Cellulose (10 %) Fibrous Glass (30 %)	-	Asbestos (ND)					

Client Name: U.C. Santa Barbara

Report Number:

B143829

Date Printed:

01/10/11

Asbestos Percent in Asbestos Percent in Asbestos Percent in Sample ID

Asbestos Percent in Asbestos Percen

Client Name: U.C. Santa Barbara



James Flores, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.

University of California, Santa Barbara Environmental Health and Safety - Client # 5151

Bulk Sample Log Asbestos Asbestos and Lead Program - Contact J. Ripley 805-893-7984 jerome.ripley@dcs.ucsb.edu

Project: Santa Cruz Dorm Boiler Replacement

Date: 01/05/2011

W.O.#: 292-62

Sampler Name: G. Horstin Building Name/Number: Bldg. 548 Boiler Room Sample Analysis Turn Around

PLM 24 HR Other 12 HR Due Date; 01/10/11 Lab Instructions:

Sample No.	Material(s)	HID No.	Location
20110105- 548-PLM-01	White plaster.		Bldg. 548, boiler room, ceiling, on north/south beam.
20110105- 548-PLM-02	White plaster.		Bldg. 548, boiler room, ceiling, on east/west beam.
20110105- 548-PLM-03	White plaster.		Bldg. 548, boiler room, ceiling, on east/west beam.
20110105- 548-PLM-04	Block insulation		Bldg. 548, boiler room, on inside of Raypak boiler #2.
20110105- 548-PLM-05	Block insulation.		Bldg. 548, boiler room, on inside of Raypak boiler #1.
20110105- 548-PLM-06	Block insulation.		Bldg. 548, boiler room, on inside of Raypak boiler #1.
20110105 548-PLM-07	Firestopping.	. 1/1	Bldg. 548, boiler room, on ceiling, around pipe south of door.
20110105- 548-PLM-08	Grey caulking.		Bldg. 548, boiler room, around door frame.
20110105- 548-PLM-09	Black mastic.		Bldg. 548, boiler room, south wall, above switch boxes.
20110105- 548-PLM-10	Joint compound.		Bldg 548, boiler room, on west wall, west of tanks.
20110105- 548-PLM-11	Joint compound.		Bldg. 548, boiler room, on west wall, west of tanks.
20110105- 548-PLM-12	Joint compound.		Bldg. 548, boiler room, on west wall, west of tanks.
20110105- 548-PLM-13	Grey insulation.		Bldg. 548, boiler room, on tank #2 at south end of room.
20110105- 548-PLM-14	Grey insulation.		Bldg. 548, boiler room, on tank #1 at south end of room.
20110105- 548-PLM-15	Grey insulation.		Bldg. 548, boiler room, on tank #2 at south end of room.
20110105- 548-PLM-16	Grey insulation. (down to metal tank)		Bldg, 548, boiler room, on tank #2 at south end of room.

Page ___ of ___

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University of California, Santa Barbara

Environmental Health and Safety - Client # 5151

Asbestos and Lead Program - Contact J. Ripley 805-893-7984 jerome_ripley@dcs.ucsb.edu

Chain of Custody

Received by Name: G. Horstin Company: UCSB Date/Time: 17/1/

Received by Name: Date/Time: 1/7/1/



Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

U.C. Santa Barbara
Project Manager
Design and Construction

Design and Construction Svcs

Building 370

Santa Barbara, CA 93106

Client ID:

5151

Report Number: Date Received:

B142810 12/07/10

Date Analyzed:
Date Printed:

12/08/10

First Reported:

12/08/10 12/08/10

Sample ID 20101206-562-PLM-01	Lab Numbe	Asbestos	Percent in				
20101206-562-PLM-01		r Type	Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
	11058644			8840			
Layer: Beige Plaster			ND				
Layer: White Plaster			ND ND				
Layer: Paint			Nυ				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
20101206-562-PLM-02	11058645						
Layer: Off-White Non-Fibrous Materia	l		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
20101206-562-PLM-03 Layer: Yellow Fibrous Material	11058646		ND				
Total Composite Values of Fibrous Cor	nponents:	Asbestos (ND)					
Cellulose (Trace) Fibrous Glass (93	_						
20101206-562-PLM-04	11058647						
Layer: Beige Fibrous Material			ND				
Total Composite Values of Fibrous Cor Cellulose (Trace) Fibrous Glass (80	-	Asbestos (ND)					
20101206-562-PLM-05	11058648						
Layer: Off-White Non-Fibrous Materia			ND				
Total Composite Values of Fibrous Cor		Asbestos (ND)					
Cellulose (Trace)		,					
20101206-562-PLM-06	11058649						
Layer: Grey Paint	110000		ND				
Total Composite Values of Fibrous Cor Cellulose (Trace)	nponents:	Asbestos (ND)					
20101206-562-PLM-07	11058650						
Layer: Beige Plaster	11020030		ND				
Layer: Off-White Plaster			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Cor	nponents:	Asbestos (ND)					Tip is

Report Number:

B142810

Date Printed:

12/08/10

		Asbestos	Percent in	Asbestos	Percent in	Asbestos	Percent in
Sample ID	Lab Number	Type	Layer	Type	Layer	Type	Layer

Client Name: U.C. Santa Barbara



James Flores, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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University of California, Santa Barbara

Environmental Health and Safety - Client # 5151

Asbestos

Asbestos and Lead Program -- Contact J. Ripley 805-893-7984 jerome_ripley@dcs.ucsb.edu

Project: Santa Rosa/Carrillo Dining Boiler Replacement	Pro	ject:	Santa	Rosa/	Carrillo	Dining	Boiler	Replacen	nent
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Date: 12/06/2010

W.O.#:<u>292-62</u>

Sampler Name: G. Horstin	Building Name/Number: Bldgs. 527 & 562 boiler rooms
Sample Analysis	Turn Around
PLM	12 HR 24 HR Other
Lab Instructions:	Due Date; 12/08/2010

Sample Nos	Material(s)	HID No.	Location
20101206 562-PLM-01	White stucco, plaster.	84	Bldg. 562, boiler room, south wall.
20101206- 562-PLM-02	White debris.	2	Bldg. 562, boiler room, on 12" run in middle of room.
20101206- 562-PLM-03	Rope gasket.		Bldg. 562, boiler room, on boiler #1, north side of boiler.
20101206- 562-PLM-04	Tank insulation.		Bldg. 562, boiler room, on boiler #2, on east side.
20101206- 562-PLM-05	White debris.		Bldg. 562, boiler room, on top of 12" east/west run, middle of room.
20101206- 562-PLM-06	Grey paint.		Bldg. 562, boiler room, floor, between boilers #1 & 2.
~20101206-' - · · 527-PLM-07	- White plaster)	Bldg: 527, south boiler room, on beam on east side of room.
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Relinquished	0 1	G. Horstin	Company:_	UCSB	ם _	ate/Time: f-	Offic on-Gove Horses, a-U.S., a-U-Colo. In-Colored prior Conscious of
Received by	Name: Sett	Feat	Company:_	FASI	_ D	ate/Time: 12	17/10 m

5151

M115353

12/07/10

12/09/10

12/09/10

12/09/10

5151-6571

EPA 3050B/7420

30389350

20101206-562-PB-03

Metals Analysis of Paints

U.C. Santa Barbara

Jerome Ripley

Design and Construction Svcs

Building 370

Santa Barbara, CA 93106

Client ID:

Report Number:

Date Received:

Date Analyzed:

Date Printed:

First Reported:

Job ID / Site: Santa Rosa/Carrillo Dining Boiler Replacement, Bldgs. 527 & 562 boiler rooms FALI Job ID:

Pb

Date(s) Collected: 12/06/10 Total Samples Submitted: 3

					Total	Samples Analyzed: 3	
Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference	
20101206-562-PB-01	30389348	Pb	720	ppm	80	EPA 3050B/7420	
20101206-562-PB-02	30389349	Pb	70	ppm	60	EPA 3050B/7420	

60

ppm

60

Dave Sandusky, CIH, Laboratory Supervisor, Hayward Laboratory

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^{*} The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

University of California, Santa Barbara

Environmental Health and Safety - Client # 5151

Asbestos and Lead Program - Contact J. Ripley 805-893-7984 jerome.ripley@dcs.ucsb.edu

Project: Santa Rosa/Carrillo Dining Boiler R	eplacement Date: 12/0	6/2010	W.O.#: 292-62		
		s. 527 & 562 boiler rooms			
iample Analysis	Turn Aro	Turn Around			
TTLC Pb	12 HR	24 HR	Other		
Lab Instructions:	Due Date	Due Date: 12/09/2010			

Sample No.	Material(s)	HIDINO	(Eccation		
20101206- 562-Pb-01	Blue paint on metal substrate.		Bldg. 562, boiler room, on boiler #2.		
20101206- 562-Pb-02	Grey paint on concrete substrate.		Bldg. 562, boiler room, on floor east of boiler #1.		
20101206- 562-Pb-03	White paint on concrete substrate.		Bldg. 562, boiler room, on south wall.		
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Chain of Custody		•	•		Dyselfy regreed by Gene Newton
Relinquished by Name:	G. Horstin	Company:	UCSB	_ Date/Time:	The Control of Control
Received by Name: Bett	Feelt	Company:	FASI ·	_ Date/Time:/	1/7/10
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