

ENVIRONMENTAL HEALTH INVESTIGATIONS, INC.

655 West Shore Trail Sparta, New Jersey 07871 • Phone/Fax 973-729-5649

75 Park Place

March 1, 2002

Mr. Vincent Galletto
Bovis Lend Lease LMB, Inc.
200 Park Avenue
New York, NY 10166

Re: Environmental Hazard Investigation
EHI Project #: 0224-0572A

Dear Mr. Galletto:

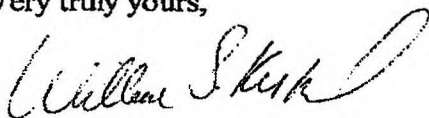
Enclosed you will find our report of findings concerning the environmental investigation on Floors 6, 7, 8 and 9 of 75 Park Place, New York, New York. This work was done at your request.

In summary, no hazardous condition with respect to metals or dioxin compounds was identified.

Somewhat higher levels of metals were observed on the Ninth Floor when compared to the lower floors. As a response to this observation, we recommend you inspect and wipe down the interior of each univent which appears dusty. We would also recommend HEPA vacuuming and wet wiping the southeast corner of the Ninth Floor in the area of the broken window, prior to reoccupancy.

Please let me know if you have any questions.

Very truly yours,



William S. Kerbel, CIH
President

ENVIRONMENTAL HEALTH INVESTIGATIONS, INC.

655 West Shore Trail Sparta, New Jersey 07871 • Phone/Fax 973-729-5649

REPORT OF FINDINGS

**Environmental Hazard Investigation
Metals & Dioxins
Floors Six, Seven, Eight, Nine
75 Park Place
New York, New York 10007-2146**

Conducted On Behalf Of:

**Bovis Lend Lease LMB, Inc.
200 Park Avenue
New York, New York**

**Survey Conducted: February 22, 2002
Report Dated: March 1, 2002**

EHl Project #: 0224-0572A

**Bovis Lend Lease, Inc.
75 Park Place
Floors 6, 7, 8, & 9**

**Environmental Hazard Investigation
February 22, 2002
EHI Project #: 0224-0572A**

1.0 Introduction

Environmental Health Investigations, Inc. conducted an investigation of Floors Six, Seven, Eight and Nine at 75 Park Place, New York, New York. This investigation was a follow up to a previous survey conducted on January 25 and 26, 2002 (see EHI report 0224-0572 dated February 4, 2002). The purpose of this follow up evaluation was to determine whether any hazard from inorganic metals, dioxins or dioxin like compounds existed on the floors.

The survey involved collection of settled and/or surface particulate on each of the floors. The collected particulate were submitted for analysis to PSC Analytical Services. The survey was conducted on February 22, 2002 by William S. Kerbel, CIH.

2.0 Methods

Samples of settled particulate were collected by attaching a 37-millimeter cassette filter to an electric pump and vacuuming an area between one square foot and one square meter. These samples were designated as "A" samples and were submitted to PSC Analytical Services for Metal Scans via ICAP.

A second set of samples designated as "B" samples were collected in the same manner as the "A" samples but in an adjacent area. The samples were submitted to PSC Analytical Services for Mercury analysis via AA.

A third set of samples designated as "C" samples were collected in an area adjacent to the areas where the "A" and "B" samples were collected. These samples were collected by wiping a sterile gauze pad containing Hexane over the surface area. A one square foot area was wiped. The samples were submitted to PSC Analytical Services for analysis for Dioxins via GC/MS.

Bovis Lend Lease, Inc.
75 Park Place
Floors 6, 7, 8, & 9

Environmental Hazard Investigation
February 22, 2002
EHI Project #: 0224-0572A

The samples were collected and designated as follows:

Sample I.D.	Location
LMB-022202-01	Sixth Floor - Southeast Corner Cubicle - Samples A & B Collected From Carpet. Sample C Collected From Top Of File Cabinet.
LMB-022202-02	Sixth Floor - Southwest Corner Office - Samples A & B Collected From Carpet. Sample C Collected From Top Of Univent At Window.
LMB-022202-03	Seventh Floor - Southeast Corner - Behind File Cabinets - Sample A & B Collected From Carpet. Sample C Collected From Top Of Filing Cabinet.
LMB-022202-04	Seventh Floor - Southwest Corner Cubicle Area - Samples A & B Collected From Desktop Computer And Top Of Partition. Sample C Collected Off Top Of Desk.
LMB-022202-05	Eighth Floor - Southwest Corner - Open Area Being Used By Trades - Sample A & B Collected From Carpet. Sample C Collected From Window Sill.
LMB-022202-06	Eight Floor - Center Of Floor - Samples A, B & C Collected Beneath Raised Floor On Structural Slab.
LMB-022202-07	Ninth Floor - Southeast Corner Of Floor - Directly Below Broken Window Sill. Samples A & B Collected From Carpet Beneath Plywood Barrier. Sample C Collected From Widow Sill.
LMB-022202-08	Ninth Floor - Southwest Corner Conference Room - Sample A, B & C Collected From Interior Of Univent.

Bovis Lend Lease, Inc.
75 Park Place
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3.2 Dioxins and Dioxin Like Compounds (Reported in nanograms per sample)

Area/Sample	01	02	03	04	05	06	07	08
Total Tetrachlorodibenzofurans	<0.23	<0.049	<0.048	<0.038	<0.086	<0.057	<0.075	<0.027
Total Pentachlorodibenzofurans	<0.23	<0.055	<0.055	<0.054	<0.067	<0.066	<0.063	<0.028
Total Hexachlorodibenzofurans	<0.25	<0.072	<0.074	<0.072	<0.088	<0.091	<0.085	<0.037
Total Heptachlorodibenzofurans	<0.29	<0.10	<0.10	<0.076	<0.13	<0.12	0.11	<0.053
Octachlorodibenzofuran	<0.31	<0.14	<0.14	<0.11	<0.18	<0.17	<0.16	<0.078
Total Tetrachlorodibenzo-p-dioxins	<0.39	<0.084	<0.079	<0.062	<0.097	<0.094	<0.090	<0.045
Total Pentachlorodibenzo-p-dioxins	<0.38	<0.094	<0.094	<0.091	<0.11	<0.11	<0.11	<0.048
Total Hexachlorodibenzo-p-dioxins	<0.38	<0.11	<0.11	<0.11	<0.13	<0.14	0.27	<0.057
Total Heptachlorodibenzo-p-dioxins	<0.42	<0.15	<0.15	<0.11	<0.19	<0.18	<0.17	<0.077
Octachlorodibenzo-p-dioxin	<0.35	<0.16	<0.16	<0.12	<0.21	<0.19	<0.22	0.33
2,3,7,8-C14-Dibenzofuran	<0.23	<0.049	<0.048	<0.038	<0.086	<0.057	<0.075	<0.027
2,3,7,8-C14-Dibenzo-p-dioxin	<0.39	<0.084	<0.079	<0.062	<0.097	<0.094	<0.090	<0.045
1,2,3,7,8-C15-Dibenzofuran	<0.23	<0.056	<0.056	<0.054	<0.068	<0.066	<0.063	<0.028
2,3,4,7,8-C15-Dibenzofuran	<0.22	<0.055	<0.055	<0.053	<0.066	<0.065	<0.062	<0.028
1,2,3,7,8-C15-Dibenzo-p-dioxin	<0.38	<0.094	<0.094	<0.091	<0.11	<0.11	<0.11	<0.048
1,2,3,4,7,8-C16-Dibenzofuran	<0.24	<0.070	<0.072	<0.070	<0.085	<0.089	<0.083	<0.036
1,2,3,6,7,8-C16-Dibenzofuran	<0.22	<0.063	<0.064	<0.063	<0.076	<0.079	<0.074	<0.033
2,3,4,6,7,8-C16-Dibenzofuran	<0.026	<0.074	<0.075	<0.074	<0.090	<0.093	<0.087	<0.038
1,2,3,7,8,9-C16-Dibenzofuran	<0.30	<0.085	<0.087	<0.085	<0.10	<0.11	<0.10	<0.044

Bovis Lend Lease, Inc.
75 Park Place
Floors 6, 7, 8, & 9

Environmental Hazard Investigation
February 22, 2002
EHI Project #: 0224-0572A

Area/Sample	01	02	03	04	05	06	07	08
1,2,3,4,7,8-C16-Dibenzo-p-dioxin	<0.40	<0.12	<0.12	<0.12	<0.14	<0.15	<0.14	<0.060
1,2,3,6,7,8-C16-Dibenzo-p-dioxin	<0.36	<0.10	<0.11	<0.10	<0.13	<0.13	<0.12	<0.054
1,2,3,7,8,9-C16-Dibenzo-p-dioxin	<0.30	<0.11	<0.11	<0.11	<0.13	<0.14	<0.13	<0.057
1,2,3,4,6,7,8-C17-Dibenzofuran	<0.26	<0.093	<0.094	<0.070	<0.12	<0.11	<0.10	<0.049
1,2,3,4,7,8,9-C17-Dibenzofuran	<0.31	<0.11	<0.11	<0.083	<0.14	<0.13	<0.12	<0.058
1,2,3,4,6,7,8-C17-Dibenzo-p-dioxin	<0.42	<0.15	<0.15	<0.11	<0.19	<0.18	<0.17	<0.077
1,2,3,4,6,7,8,9-C18-Dibenzofuran	<0.31	<0.14	<0.14	<0.11	<0.18	<0.17	<0.16	<0.078
1,2,3,4,6,7,8,9-C18-Dibenzo-p-dioxin	<0.35	<0.16	<0.16	<0.12	<0.21	<0.19	<0.22	0.33

4.0 Discussion

The levels of metals' found in each of the areas samples were generally low to moderate.

These concentrations are not considered hazardous as there is insufficient mass to allow for significant exposure. There are no standards for acceptable levels of metals in settled dusts in office environments. However the amount of materials identified are small and if they were completely suspended in the office atmosphere the resulting concentrations would not exceed the OSHA Permissible Exposure Limits.

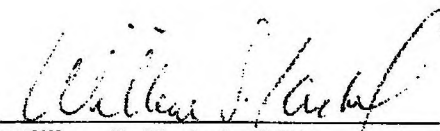
The levels of dioxin and dioxin like compounds in the areas sampled were generally non detected. Two detectable concentrations are considered low and would be incapable of generating airborne concentrations in excess of the U.S. EPA screening level.

Bovis Lend Lease, Inc.
75 Park Place
Floors 6, 7, 8, & 9

Environmental Hazard Investigation
February 22, 2002
EHI Project #: 0224-0572A

In comparison of levels found on each floor, the levels encountered on the Ninth floor are higher than those found on other floors and may be indicative of non aggressive cleaning efforts subsequent to the compromise of the building envelope.

Survey Conducted &
Report Written By:


William S. Kerbel, CIH

ihr2002.bovis-0572a

Bovis Lend Lease, Inc.
75 Park Place
Floors 6, 7, 8, & 9

Environmental Hazard Investigation
February 22, 2002
EHI Project #: 0224-0572A

A P P E N D I X

Laboratory Reports

Friday, March 01, 2002 10:34 AM

EHI, Inc. 973-729-5649

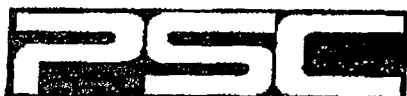
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PSC Analytical Services

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ANALYTICAL SERVICES

INDUSTRIAL HYGIENE

- EPA NVLAP 101262-0
- AIHA ACCREDITATION NO. 100439
- NC DENR 699

ENVIRONMENTAL TESTING

- NY DOH/ELAC 10903
- PA DEP 06-353
- NJ DEP PA020
- CT DPH PH-0238

February 24, 2002

William S. Kerbel

Environmental Health Investigations

655 West Shore Trail

Sparta, NJ 7871

TEL: (973) 729-5649

FAX (973) 786-6215

RE: 02240572

Order No.: R02020734

Dear William S. Kerbel:

PSC Analytical Services received 8 samples on 2/21/02 9:30:00 AM for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Fred Usbeck

Manager, CIH

4418 Pottsville Pike, Reading, PA 19605 610-921-8833 FAX 610-921-8407

Friday, March 01, 2002 10:34 AM

EHI, Inc. 973-729-5649

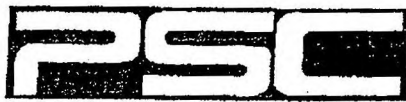
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ANALYTICAL SERVICES

INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA/MLAP 101262-0

• AHA ACCREDITATION NO. 100439

• NC DENR 599

• NY DOH/ELAC 10803

• PA DEP 06-363

• NJ DEP PA020

• CT DPH PH-0238

Analytical Results

for

Environmental Health Investigations

WorkOrder: R02020734

Client Reference: 02240572

Analyte	Concentration			Limit of Detection (ug)	Test Method	Date Analyzed /Analyst
	(ug)	(mg/m³)	(ppm)			
Client ID: LMB-022002-01A Lab ID: -01A Date Sampled: Matrix: Filter Air Vol.(L): NA						
Aluminum	111	--	--	1	N7300 MCE	02/21/2002 TH
Antimony	0.476	--	--	0.1	N7300 MCE	02/21/2002 TH
Arsenic	<0.300	--	--	0.3	N7300 MCE	02/21/2002 TH
Barium	8.59	--	--	0.1	N7300 MCE	02/21/2002 TH
Beryllium	<0.0300	--	--	0.03	N7300 MCE	02/21/2002 TH
Cadmium	0.182	--	--	0.1	N7300 MCE	02/21/2002 TH
Calcium	655	--	--	25	N7300 MCE	02/21/2002 TH
Chromium	2.65	--	--	0.1	N7300 MCE	02/21/2002 TH
Cobalt	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Copper	8.22	--	--	0.1	N7300 MCE	02/21/2002 TH
Iron	149	--	--	1	N7300 MCE	02/21/2002 TH
Lead	6.55	--	--	0.3	N7300 MCE	02/21/2002 TH
Magnesium	157	--	--	1.3	N7300 MCE	02/21/2002 TH
Manganese	4.16	--	--	0.3	N7300 MCE	02/21/2002 TH
Nickel	0.634	--	--	0.1	N7300 MCE	02/21/2002 TH
Selenium	<0.300	--	--	0.3	N7300 MCE	02/21/2002 TH
Silver	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Thallium	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Tin	0.393	--	--	0.3	N7300 MCE	02/21/2002 TH
Titanium	2.45	--	--	0.1	N7300 MCE	02/21/2002 TH
Vanadium	0.277	--	--	0.1	N7300 MCE	02/21/2002 TH
Zinc	36.2	--	--	0.5	N7300 MCE	02/21/2002 TH

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ANALYTICAL SERVICES

INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA NWLAP 101262-0

• AIHA ACCREDITATION NO. 100439

• NC DENR 699

• NY DOH NELAC 10803

• PA DEP 06-353

• NJ DEP PA020

• CT DPH PH-0238

Analytical Results
for

Environmental Health Investigations

WorkOrder: R02020734

Client Reference: 02240572

Analyte	Concentration			Limit of Detection (ug)	Test Method	Date Analyzed /Analyst
	(ug)	(mg/m ³)	(ppm)			

Client ID: LMB-022002-02A

Lab ID: -02A

Date Sampled:

Matrix: Filter

Air Vol(L): NA

Aluminum	145	--	--	1	N7300 MCE	02/21/2002 TH
Antimony	1.57	--	--	0.1	N7300 MCE	02/21/2002 TH
Arsenic	0.346	--	--	0.3	N7300 MCE	02/21/2002 TH
Barium	6.96	--	--	0.1	N7300 MCE	02/21/2002 TH
Beryllium	<0.0300	--	--	0.03	N7300 MCE	02/21/2002 TH
Cadmium	0.814	--	--	0.1	N7300 MCE	02/21/2002 TH
Calcium	1840	--	--	25	N7300 MCE	02/21/2002 TH
Chromium	2.81	--	--	0.1	N7300 MCE	02/21/2002 TH
Cobalt	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Copper	8.05	--	--	0.1	N7300 MCE	02/21/2002 TH
Iron	216	--	--	1	N7300 MCE	02/21/2002 TH
Lead	6.03	--	--	0.3	N7300 MCE	02/21/2002 TH
Magnesium	246	--	--	1.3	N7300 MCE	02/21/2002 TH
Manganese	11.4	--	--	0.3	N7300 MCE	02/21/2002 TH
Nickel	1.09	--	--	0.1	N7300 MCE	02/21/2002 TH
Selenium	<0.300	--	--	0.3	N7300 MCE	02/21/2002 TH
Silver	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Thallium	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Tin	0.574	--	--	0.3	N7300 MCE	02/21/2002 TH
Titanium	4.82	--	--	0.1	N7300 MCE	02/21/2002 TH
Vanadium	0.366	--	--	0.1	N7300 MCE	02/21/2002 TH
Zinc	45.8	--	--	0.5	N7300 MCE	02/21/2002 TH

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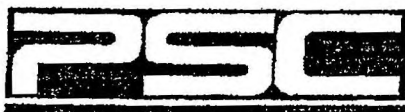
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ANALYTICAL SERVICES

INDUSTRIAL HYGIENE

• EPA AMLAP 101262-0
 • AIHA ACCREDITATION NO. 100439
 • NC DENR 599

ENVIRONMENTAL TESTING

• NY DOH/ELAC 10903
 • PA DEP 06-353
 • NJ DEP PA020
 • CT DPH PH-0238

Analytical Results
for

Environmental Health Investigations

WorkOrder: R02020734

Client Reference: 02240572

Analyte	Concentration			Limit of Detection (ug)	Test Method	Date Analyzed /Analyst
	(ug)	(mg/m ³)	(ppm)			

Client ID: LMB-022002-03A

Lab ID: -03A

Date Sampled:

Matrix: Filter

Air Vol(L): NA

Aluminum	110	--	--	1	N7300 MCE	02/21/2002 TH
Antimony	1.79	--	--	0.1	N7300 MCE	02/21/2002 TH
Arsenic	2.02	--	--	0.3	N7300 MCE	02/21/2002 TH
Barium	4.08	--	--	0.1	N7300 MCE	02/21/2002 TH
Beryllium	<0.0300	--	--	0.03	N7300 MCE	02/21/2002 TH
Cadmium	0.379	--	--	0.1	N7300 MCE	02/21/2002 TH
Calcium	3580	--	--	25	N7300 MCE	02/21/2002 TH
Chromium	4.31	--	--	0.1	N7300 MCE	02/21/2002 TH
Cobalt	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Copper	5.40	--	--	0.1	N7300 MCE	02/21/2002 TH
Iron	139	--	--	1	N7300 MCE	02/21/2002 TH
Lead	3.96	--	--	0.3	N7300 MCE	02/21/2002 TH
Magnesium	292	--	--	1.3	N7300 MCE	02/21/2002 TH
Manganese	20.5	--	--	0.3	N7300 MCE	02/21/2002 TH
Nickel	1.15	--	--	0.1	N7300 MCE	02/21/2002 TH
Selenium	<0.300	--	--	0.3	N7300 MCE	02/21/2002 TH
Silver	0.102	--	--	0.1	N7300 MCE	02/21/2002 TH
Thallium	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Tin	1.11	--	--	0.3	N7300 MCE	02/21/2002 TH
Titanium	2.45	--	--	0.1	N7300 MCE	02/21/2002 TH
Vanadium	0.210	--	--	0.1	N7300 MCE	02/21/2002 TH
Zinc	35.1	--	--	0.5	N7300 MCE	02/21/2002 TH

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ANALYTICAL SERVICES

INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA SW-846 101262-0

• AHA ACCREDITATION NO. 100439

• NC DENR 699

• NY DOH/NELAC 10903

• PA DEP 06-353

• NJ DEP PAD20

• CT DPH PH-0238

Analytical Results
for

Environmental Health Investigations

WorkOrder: R02020734

Client Reference: 02240572

Analyte	Concentration			Limit of Detection (ug)	Test Method	Date Analyzed /Analyst
	(ug)	(mg/m ³)	(ppm)			

Client ID: LMB-022002-04A

Lab ID: -04A

Date Sampled:

Matrix: Filter

Air Vol(L): NA

Aluminum	11.4	--	--	1	N7300 MCE	02/21/2002 TH
Antimony	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Arsenic	<0.300	--	--	0.3	N7300 MCE	02/21/2002 TH
Barium	2.81	--	--	0.1	N7300 MCE	02/21/2002 TH
Beryllium	<0.0300	--	--	0.03	N7300 MCE	02/21/2002 TH
Cadmium	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Calcium	84.2	--	--	25	N7300 MCE	02/21/2002 TH
Chromium	0.742	--	--	0.1	N7300 MCE	02/21/2002 TH
Cobalt	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Copper	1.07	--	--	0.1	N7300 MCE	02/21/2002 TH
Iron	22.2	--	--	1	N7300 MCE	02/21/2002 TH
Lead	0.887	--	--	0.3	N7300 MCE	02/21/2002 TH
Magnesium	11.5	--	--	1.3	N7300 MCE	02/21/2002 TH
Manganese	0.426	--	--	0.3	N7300 MCE	02/21/2002 TH
Nickel	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Selenium	<0.300	--	--	0.3	N7300 MCE	02/21/2002 TH
Silver	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Thallium	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Tin	<0.300	--	--	0.3	N7300 MCE	02/21/2002 TH
Titanium	0.289	--	--	0.1	N7300 MCE	02/21/2002 TH
Vanadium	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Zinc	5.83	--	--	0.5	N7300 MCE	02/21/2002 TH

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PSC Analytical Services

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ANALYTICAL SERVICES

INDUSTRIAL HYGIENE

• EPA NVLAP 101262-0
 • AIHA ACCREDITATION NO. 100439
 • NC DENR 599

ENVIRONMENTAL TESTING

• NY DOH/DELAC 10803
 • PA DEP 06-363
 • NJ DEP PA020
 • CT DPH PH-0238

Analytical Results
for

Environmental Health Investigations

WorkOrder: R02020734

Client Reference: 02240572

Analyte	Concentration			Limit of Detection (ug)	Test Method	Date Analyzed /Analyst
	(ug)	(mg/m ³)	(ppm)			

Client ID: LMB-022002-05A

Lab ID: -05A

Date Sampled:

Matrix: Filter

Air Vol.(L): NA

Aluminum	104	--	--	1	N7300 MCE	02/21/2002 TH
Antimony	0.296	--	--	0.1	N7300 MCE	02/21/2002 TH
Arsenic	0.312	--	--	0.3	N7300 MCE	02/21/2002 TH
Barium	6.20	--	--	0.1	N7300 MCE	02/21/2002 TH
Beryllium	<0.0300	--	--	0.03	N7300 MCE	02/21/2002 TH
Cadmium	0.174	--	--	0.1	N7300 MCE	02/21/2002 TH
Calcium	883	--	--	25	N7300 MCE	02/21/2002 TH
Chromium	2.69	--	--	0.1	N7300 MCE	02/21/2002 TH
Cobalt	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Copper	11.5	--	--	0.1	N7300 MCE	02/21/2002 TH
Iron	226	--	--	1	N7300 MCE	02/21/2002 TH
Lead	8.03	--	--	0.3	N7300 MCE	02/21/2002 TH
Magnesium	199	--	--	1.3	N7300 MCE	02/21/2002 TH
Manganese	5.34	--	--	0.3	N7300 MCE	02/21/2002 TH
Nickel	0.912	--	--	0.1	N7300 MCE	02/21/2002 TH
Selenium	<0.300	--	--	0.3	N7300 MCE	02/21/2002 TH
Silver	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Thallium	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Tin	0.489	--	--	0.3	N7300 MCE	02/21/2002 TH
Titanium	3.40	--	--	0.1	N7300 MCE	02/21/2002 TH
Vanadium	0.332	--	--	0.1	N7300 MCE	02/21/2002 TH
Zinc	37.7	--	--	0.5	N7300 MCE	02/21/2002 TH

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ANALYTICAL SERVICES

INDUSTRIAL HYGIENE

• EPA NVLAP 101262-D
• AIHA ACCREDITATION NO. 100438
• NC DENR 598

ENVIRONMENTAL TESTING

• NY DOH/NELAC 10503
• PA DEP 06-353
• NJ DEP PA020
• CT DPH PH-0238

Analytical Results
for

Environmental Health Investigations

WorkOrder: R02020734

Client Reference: 02240572

Analyte	Concentration			Limit of Detection (ug)	Test Method	Date Analyzed /Analyst
	(ug)	(mg/m³)	(ppm)			
Client ID: LMB-022002-06A	Lab ID: -06A	Date Sampled:		Matrix: Filter		Air Vol(L): NA
Aluminum	1700	--	--	1	N7300 MCE	02/21/2002 TH
Antimony	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Arsenic	2.14	--	--	0.3	N7300 MCE	02/21/2002 TH
Barium	42.0	--	--	0.1	N7300 MCE	02/21/2002 TH
Beryllium	0.0615	--	--	0.03	N7300 MCE	02/21/2002 TH
Cadmium	1.40	--	--	0.1	N7300 MCE	02/21/2002 TH
Calcium	20700	--	--	25	N7300 MCE	02/21/2002 TH
Calcium	28200	--	--	125	N7300 MCE	02/22/2002 TH
Chromium	17.8	--	--	0.1	N7300 MCE	02/21/2002 TH
Cobalt	1.92	--	--	0.1	N7300 MCE	02/21/2002 TH
Copper	23.8	--	--	0.1	N7300 MCE	02/21/2002 TH
Iron	1710	--	--	1	N7300 MCE	02/21/2002 TH
Lead	58.9	--	--	0.3	N7300 MCE	02/21/2002 TH
Magnesium	5510	--	--	1.3	N7300 MCE	02/21/2002 TH
Manganese	58.7	--	--	0.3	N7300 MCE	02/21/2002 TH
Nickel	5.28	--	--	0.1	N7300 MCE	02/21/2002 TH
Selenium	<0.300	--	--	0.3	N7300 MCE	02/21/2002 TH
Silver	0.133	--	--	0.1	N7300 MCE	02/21/2002 TH
Thallium	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Tin	1.62	--	--	0.3	N7300 MCE	02/21/2002 TH
Titanium	93.3	--	--	0.1	N7300 MCE	02/21/2002 TH
Vanadium	2.06	--	--	0.1	N7300 MCE	02/21/2002 TH
Zinc	340	--	--	0.5	N7300 MCE	02/21/2002 TH

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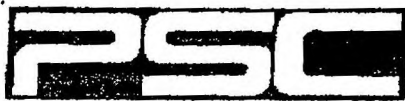
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ANALYTICAL SERVICES

INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA SW-846 101262-0 • NY DOH/ELAC 10803 • NJ DEP PAD28
• AIHA ACCREDITATION NO. 100439 • PA DEP 68-353 • CT DPH PH-0238
• NC DENR 599

Analytical Results
for

Environmental Health Investigations

WorkOrder: R02020734

Client Reference: 02240572

Analyte	Concentration			Limit of Detection (ug)	Test Method	Date Analyzed /Analyst
	(ug)	(mg/m ³)	(ppm)			

Client ID: LMB-022002-07A Lab ID: -07A Date Sampled: Matrix: Filter Air Vol.(L): NA

Aluminum	911	--	--	1	N7300 MCE	02/21/2002 TH
Antimony	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Arsenic	0.455	--	--	0.3	N7300 MCE	02/21/2002 TH
Barium	21.1	--	--	0.1	N7300 MCE	02/21/2002 TH
Beryllium	0.0605	--	--	0.03	N7300 MCE	02/21/2002 TH
Cadmium	1.19	--	--	0.1	N7300 MCE	02/21/2002 TH
Calcium	6320	--	--	25	N7300 MCE	02/21/2002 TH
Chromium	6.80	--	--	0.1	N7300 MCE	02/21/2002 TH
Cobalt	0.558	--	--	0.1	N7300 MCE	02/21/2002 TH
Copper	19.5	--	--	0.1	N7300 MCE	02/21/2002 TH
Iron	854	--	--	1	N7300 MCE	02/21/2002 TH
Lead	18.9	--	--	0.3	N7300 MCE	02/21/2002 TH
Magnesium	1220	--	--	1.3	N7300 MCE	02/21/2002 TH
Manganese	45.5	--	--	0.3	N7300 MCE	02/21/2002 TH
Nickel	2.90	--	--	0.1	N7300 MCE	02/21/2002 TH
Selenium	0.354	--	--	0.3	N7300 MCE	02/21/2002 TH
Silver	0.200	--	--	0.1	N7300 MCE	02/21/2002 TH
Thallium	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Tin	0.963	--	--	0.3	N7300 MCE	02/21/2002 TH
Titanium	40.6	--	--	0.1	N7300 MCE	02/21/2002 TH
Vanadium	1.56	--	--	0.1	N7300 MCE	02/21/2002 TH
Zinc	108	--	--	0.5	N7300 MCE	02/21/2002 TH

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INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA SWLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

• NY DOH MELAC 10903
• PA DEP 06-353

• NJ DEP PA020
• CT DPH PH-0239

Analytical Results
for

Environmental Health Investigations

WorkOrder: R02020734

Client Reference: 02240572

Analyte	Concentration			Limit of Detection (ug)	Test Method	Date Analyzed /Analyst
	(ug)	(mg/m³)	(ppm)			
Client ID: LMB-022002-08A	Lab ID: -08A	Date Sampled:		Matrix: Filter		Air Vol.(L): NA
Aluminum	2370	--	--	1	N7300 MCE	02/21/2002 TH
Antimony	0.486	--	--	0.1	N7300 MCE	02/21/2002 TH
Arsenic	0.391	--	--	0.3	N7300 MCE	02/21/2002 TH
Barium	29.5	--	--	0.1	N7300 MCE	02/21/2002 TH
Beryllium	0.251	--	--	0.03	N7300 MCE	02/21/2002 TH
Cadmium	3.68	--	--	0.1	N7300 MCE	02/21/2002 TH
Calcium	8880	--	--	25	N7300 MCE	02/21/2002 TH
Chromium	4.12	--	--	0.1	N7300 MCE	02/21/2002 TH
Cobalt	0.160	--	--	0.1	N7300 MCE	02/21/2002 TH
Copper	10.3	--	--	0.1	N7300 MCE	02/21/2002 TH
Iron	353	--	--	1	N7300 MCE	02/21/2002 TH
Lead	5.32	--	--	0.3	N7300 MCE	02/21/2002 TH
Magnesium	2640	--	--	1.3	N7300 MCE	02/21/2002 TH
Manganese	147	--	--	0.3	N7300 MCE	02/21/2002 TH
Nickel	1.60	--	--	0.1	N7300 MCE	02/21/2002 TH
Selenium	0.402	--	--	0.3	N7300 MCE	02/21/2002 TH
Silver	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Thallium	<0.100	--	--	0.1	N7300 MCE	02/21/2002 TH
Tin	2.51	--	--	0.3	N7300 MCE	02/21/2002 TH
Titanium	81.3	--	--	0.1	N7300 MCE	02/21/2002 TH
Vanadium	1.87	--	--	0.1	N7300 MCE	02/21/2002 TH
Zinc	3680	--	--	0.5	N7300 MCE	02/21/2002 TH

(a) Analysis indicates possible breakthrough; back section result is greater than 0% of the front section result.

General Notes:

<: Less than the indicated limit of detection (LOD).

--: Information not available or not applicable.

Back sections were checked and showed no significant breakthrough.

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PSC Analytical Services

Sample Receipt Checklist

Client Name ENVIRONMENTAL HEALTH I

Date and Time Receive 2/21/2002 9:30:00 AM

Work Order Number R02020734

Received by PRS

Checklist completed by

DMT
Signature

2/21/02
Date

Reviewed by

DC
Initials

2/21/02
Date

Matrix

Carrier name FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☒	Yes ☐	No ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☐	

Adjusted? _____

Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section b

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____



PSC Analytical Services

4418 Pottsville Pike

Reading, PA 19605

phone: (610) 921-8833

fax: (610) 921-9667 or 921-8407

CHAIN OF CUSTODY

PSC Work Order #

202020734

Page of

JOB ID:

02240572

Report Results To:	PO #	Quote #
	Name	William S. KERRILL, CTH
	Company	ENVIRONMENTAL HEALTH INVESTIGATIONS, INC.
	Mailing Address	655 WEST SHORE TRAIL
	City	SPARTA
Submit Invoice To:	State	NY
	ZIP	07871
	Telephone #	973-729-5649
	Fax #	973-786-6215
	Name	
Submit Invoice To:	Company	
	Mailing Address	SAME
	City	
	State	
	ZIP	
Submit Invoice To:	Telephone #	
	Fax #	
	Credit Card Info (include exp. date)	

ANALYSIS REQUESTED

Use attachments if necessary.

Please specify method requirements.

Preservatives Key:

A = Ascorbic Acid

C = HCl

H = HNO3

I = Ice

N = NaOH

N2 = NaS2O3

S = H2SO4

Z = ZnAcetate

X = None

O = Other:

Sampled by: W. S. KERRILL Sampling Location (Specify State): NY

Due Date: 2/25/02 - RUSH (Rush JAT requires Lab approval)

REPORTING REQUIREMENTS (Circle all that apply)

Full Data Package Reduced Deliverables Package Electronic Data Deliverables

UST NPDES MIPP RCRA Stormwater DEP (PWS #)

ITEM #	SAMPLE DESCRIPTION (ID must match container labels)	Final Air Volume (L or min)	Matrix Type	Sampling Info	
				Date	Time
1	LMB-022002-01A				
2	LMB-022002-02A				
3	LMB-022002-03A				
4	LMB-022002-04A				
5	LMB-022002-05A				
6	LMB-022002-06A				
7	LMB-022002-07A				
8	LMB-022002-08A				
9					
10					

(1) Relinquished by:	Date	Time	(2) Received by:	Date	Time	(3) Relinquished by:	Date	Time
W. S. KERRILL	2/20/02		FED-EX	2/20/02	0930			
(4) Received by:	Date	Time	(5) Relinquished by:	Date	Time	(6) Received at Lab:	Date	Time

Method of Delivery:

UPS

FED-EX

PAS Courier

Client

US Mail

Other

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04



Certificate of Analysis

CLIENT INFORMATION

Attention: Fred Usbeck
Client Name: Philip Analytical Services Inc.
Project: Misc.
Project Desc:

Address: 4418 Pottsville Pike
Reading, Pennsylvania
19605

Fax Number: 610 921-9667

Phone Number: 610 921-8833

LABORATORY INFORMATION

Contact: Ada Blythe, B.Sc., C.Chem.

Project: AN970416

Date Received: 21-Feb-2002

Date Reported: 27-Feb-2002

Submission No.: 2B0663

Sample No.: 009293-009301

NOTES:

"-" = not analysed "C" = less than Method Detection Limit (MDL) "NA" = no data available

LOQ can be determined for all analyses by multiplying the appropriate MDL X 3.33

Blank correction is only performed on oil and grease, BTEX, total petroleum hydrocarbons and VOC analyses when Canadian methods are utilized.

Solids data is based on dry weight except for blank analyses.

Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

Methods used by PSC Analytical Services are based upon those found in "Standard Methods for the Examination of Water and Wastewater", Nineteenth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

COMMENTS:

CC Bill Kerbel 908 864 1756

Certified by:

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PHILIP ANALYTICAL SERVICES

5555 North Service Road, Burlington, Ontario, Canada L7R 5H7 Tel: (905) 442-8786 Fax: (905) 332-9169



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PASC - Certificate of Analysis

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Component	MDL	Units	Method	LMB	LMB	LMB	LMB	
			Blank	022002-01C	022002-02C	022002-03C	022002-04C	
			Lab No.:	009293 02	009294 02	009295 02	009296 02	009297 02
			Date Sampled:	20-Feb-2002	20-Feb-2002	20-Feb-2002	20-Feb-2002	20-Feb-2002
Total Tetrachlorodibenzofurans		ng	0.13	<0.23	<0.049	<0.048	<0.038	
Total Pentachlorodibenzofurans		"	<0.062	<0.23	<0.055	<0.055	<0.054	
Total Hexachlorodibenzofurans		"	<0.083	<0.25	<0.072	<0.074	<0.072	
Total Heptachlorodibenzofurans		"	<0.11	<0.29	<0.10	<0.10	<0.076	
Octachlorodibenzofuran		"	<0.16	<0.31	<0.14	<0.14	<0.11	
Total Tetrachlorodibenzo-p-dioxins		"	<0.10	<0.39	<0.084	<0.079	<0.062	
Total Pentachlorodibenzo-p-dioxins		"	<0.11	<0.38	<0.094	<0.094	<0.091	
Total Hexachlorodibenzo-p-dioxins		"	<0.13	<0.38	<0.11	<0.11	<0.11	
Total Heptachlorodibenzo-p-dioxins		"	<0.17	<0.42	<0.15	<0.15	<0.11	
Octachlorodibenzo-p-dioxin		"	<0.18	<0.35	<0.16	<0.16	<0.12	
Surrogate Recoveries		%						
2,3,7,8-T4CDD-13C12			74	18	90	97	103	
2,3,7,8-T4CDF-13C12			80	20	96	99	105	
1,2,3,7,8-P5CDD-13C12			102	26	111	114	121	
1,2,3,6,7,8-H6CDD-13C12			99	32	119	120	119	
1,2,3,4,6,7,8-H7CDD-13C12			103	41	122	124	130	
OCDD-13C12			97	51	119	123	126	
2,3,7,8-C14-Dibenzofuran		ng	<0.060	<0.23	<0.049	<0.048	<0.038	
2,3,7,8-C14-Dibenzo-p-dioxin		"	<0.10	<0.39	<0.084	<0.079	<0.062	
1,2,3,7,8-C15-Dibenzofuran		"	<0.063	<0.23	<0.056	<0.056	<0.054	
2,3,4,7,8-C15-Dibenzofuran		"	<0.062	<0.22	<0.055	<0.055	<0.053	
1,2,3,7,8-C15-Dibenzo-p-dioxin		"	<0.11	<0.38	<0.094	<0.094	<0.091	
1,2,3,4,7,8-C16-Dibenzofuran		"	<0.081	<0.24	<0.070	<0.072	<0.070	
1,2,3,6,7,8-C16-Dibenzofuran		"	<0.072	<0.22	<0.063	<0.064	<0.063	
2,3,4,6,7,8-C16-Dibenzofuran		"	<0.085	<0.26	<0.074	<0.075	<0.074	
1,2,3,7,8,9-C16-Dibenzofuran		"	<0.098	<0.30	<0.085	<0.087	<0.085	
1,2,3,4,7,8-C16-Dibenzo-p-dioxin		"	<0.13	<0.40	<0.12	<0.12	<0.12	
1,2,3,6,7,8-C16-Dibenzo-p-dioxin		"	<0.12	<0.36	<0.10	<0.11	<0.10	
1,2,3,7,8,9-C16-Dibenzo-p-dioxin		"	<0.13	<0.39	<0.11	<0.11	<0.11	
1,2,3,4,6,7,8-C17-Dibenzofuran		"	<0.11	<0.26	<0.093	<0.094	<0.070	
1,2,3,4,7,8,9-C17-Dibenzofuran		"	<0.12	<0.31	<0.11	<0.11	<0.083	
1,2,3,4,6,7,8-C17-Dibenzo-p-dioxin		"	<0.17	<0.42	<0.15	<0.15	<0.11	
1,2,3,4,6,7,8,9-C18-Dibenzofuran		"	<0.16	<0.31	<0.14	<0.14	<0.11	
1,2,3,4,6,7,8,9-C18-Dibenzo-p-dioxin		"	<0.18	<0.35	<0.16	<0.16	<0.12	

Client: Philip Analytical Services Inc Project: Misc.

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PSC Analytical Services

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2/27/02

PASC - Summary of Analysis Pre. Dates

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Batch Code: 0222CL01
Total Tetrachlorodibenzofurans

009293 02

009294 02

009295 02

009296 02

009297 02

009298 02

009299 02

009300 02

009301 02

Date Analysed: 02/02/27**Date Prepared:** 02/02/22**Batch Code:** 0222CL01
2,3,7,8-Cl4-Dibenzofuran

009293 02

009294 02

009295 02

009296 02

009297 02

009298 02

009299 02

009300 02

009301 02

Date Analysed: 02/02/27**Date Prepared:** 02/02/22

Client: Philip Analytical Services Inc Project: Misc.

** TOTAL PAGE.04 **