



August 12, 2011

Mr. John Pekala
ENVIRON International Corporation
560 West Lake Mead Parkway
Henderson, Nevada 89015

Regarding: *Limited Asbestos Survey – RZ-C-36*
Nevada Environmental Response Trust
560 West Lake Mead Parkway
Henderson, Nevada 89015
Project No. CON111106

Dear Mr. Pekala,

Logistical Solutions, LLC (LoSo) is pleased to provide ENVIRON International Corporation the results of the *Limited Asbestos Survey* conducted for the Nevada Environmental Response Trust site located at 560 West Lake Mead Parkway in Henderson, Nevada. The purpose of the limited asbestos survey (LAS) was to identify, within reason, the presence and location of potential asbestos-containing materials (ACMs) within Remediation Zone RZ-C-36 (project area).

The scope-of-work performed as part of this LAS included a visual survey of the project area, bulk-material sample collection of suspect ACMs, laboratory analysis, and preparation of this report.

ASBESTOS REGULATIONS

EPA – National Emission Standard for Hazardous Air Pollutants (NESHAP)-Asbestos

The *United States Environmental Protection Agency* (EPA) regulates the emission of asbestos in Title 40 of the *Code of Federal Regulations* (CFR), Chapter I, Subchapter C, Part 61, Subpart M, *National Emissions Standards for Hazardous Air Pollutants* (NESHAP). The NESHAP provides regulatory standards for the control of asbestos emissions during the removal and/or abatement of regulated asbestos containing material (RACM).

RACM is defined by NESHAP as meeting any of the following definitions: 1) a friable asbestos material; 2) a Category I non-friable ACBM that has become friable; 3) a Category I non-friable asbestos containing building materials (ACBM) that will be or has been subject to sanding, grinding, cutting, or abrading, or 4) a Category II non-friable ACBM that has a high probability of becoming or has become crumbled, pulverized or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The NESHAP provides the following definitions for friable, non-friable, Category I non-friable, and Category II non-friable asbestos material:

- ◆ **Friable asbestos material** means any material containing more than one percent asbestos.... that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

- ◆ **Non-friable asbestos material** means any material containing more than one percent asbestos.... that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- ◆ **Category I non-friable asbestos-containing material (ACM)** means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent asbestos.
- ◆ **Category II non-friable ACM** means any material, excluding Category I non-friable ACM, containing more than one percent asbestos...that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

According to the NESHAP, RACM must be removed prior to a demolition or renovation of a building. The NESHAP also requires State and local notifications, proper handling, and proper disposal of RACM that may be removed or disturbed during any demolition, repair, or maintenance activities involving the RACM.

OSHA - General Construction Standard

The *Occupational Safety and Health Administration (OSHA)* regulates exposure to airborne asbestos for construction workers in Title 29 CFR, Part 1926.1101, *General Construction Standard (GCS)*. The GCS regulates exposure in all work as defined in 29 CFR 1910.12(b), including, but not limited to the following:

- ◆ Demolition or salvage of structures where asbestos is present;
- ◆ Removal or encapsulation of materials containing asbestos;
- ◆ Construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof, that contain asbestos;
- ◆ Installation of products containing asbestos;
- ◆ Asbestos spill/emergency cleanup;
- ◆ Transportation, disposal, storage, containment of and housekeeping activities involving asbestos or products containing asbestos, on the site or location at which construction activities are performed;
- ◆ Coverage under this standard shall be based on the nature of the work operation involving asbestos exposure; and
- ◆ This section does not apply to asbestos-containing asphalt roof coatings, cements, and mastics.

The GCS, which requires proper training of workers prior to the commencement of work, classifies asbestos-related work under this section into four classes:

- ◆ **Class I** – activities involving the removal of thermal system insulation (TSI) and surfacing asbestos-containing material (ACM) and potential asbestos-containing material (PACM);
- ◆ **Class II** – activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics;
- ◆ **Class III** – repair and maintenance operations, where “ACM” including TSI ACM, surfacing ACM, and PACM may be disturbed; and
- ◆ **Class IV** – maintenance and custodial activities during which employees contact, but do not disturb, ACM or PACM and activities to clean up dust, waste, and debris resulting from Class I, Class II, and Class III activities.

LIMITED ASBESTOS SURVEY

Material Survey

On August 9, 2011, a Nevada-licensed asbestos building inspector visually surveyed the proposed excavation area within RZ-C-36 for the presence of potential ACMs. The bottom half of a fibrous cement material was identified within the work area as PACM. As a result, three bulk samples were collected for analyses. A general location of the fibrous cement material is presented on the attached site plan. Several photographs of this location and the material are provided in the attached photograph log.

The suspect ACM samples were placed in plastic Zip-Loc™ bags. The bags were sealed, labeled, and transported to Forensic Analytical Laboratories, Inc., a National Voluntary Laboratory Accreditation Program (NVLAP) laboratory. The bulk samples were analyzed for asbestos using the method specified in Appendix E, Subpart E, 40 Code of Federal Regulations, Part 763, Section 1, Polarized Light Microscopy (PLM).

Results, Discussion, and Recommendations

Bulk samples RZ-C-36-001, RZ-C-36-002, and RZ-C-36-003 each reported an ACM concentration of 15 percent. A copy of the analytical report and chain-of-custody documentation indicating the sample locations and material description are attached.

One homogeneous area of approximately five feet of a fibrous cement material was identified as ACM. According to OSHA 29 CFR 1926.1101(b), fibrous cement material removal is considered Class II asbestos work defined as the removal of ACM which is not TSI or surfacing material.

The fibrous cement material was not a friable material in its intended use; however, excavation or disturbance of the pipe may render the material friable. As a result, a Nevada-licensed asbestos abatement contractor must be used to remove and dispose of the ACM prior to disturbance of the materials. Asbestos work activities are categorized according to OSHA 29 CFR 1926.1101(b). Class I asbestos work is defined as activities involving the removal of TSI ACM, surfacing ACM, and PACM. Class II asbestos work means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics. Class III asbestos work involves repair and maintenance operations, where ACM, including TSI and surfacing ACM and PACM, is likely to be disturbed, and Class IV asbestos work means maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste, and debris resulting from Class I, Class II, and Class III activities.

Federal law requires that asbestos control professionals must be trained on how to properly inspect for the presence of asbestos and to repair and remove it. Training for asbestos abatement professionals is required under AHERA, which is the authority under which EPA issued the EPA Asbestos Model Accreditation Plan (MAP) (40 CFR Part 763, Appendix C to Subpart E). Individuals seeking accreditation as asbestos abatement workers shall complete at least a 4–day training course as outlined in 40 CFR Part 763, Appendix C to Subpart E. The 4–day worker training course shall include lectures, demonstrations, and at least 14 hours of hands-on training.

After ACM removal is considered complete, a post-abatement visual assessment conducted by a Nevada-licensed asbestos project monitor is required to establish that removal has been achieved.

Limitations

This report has been prepared for the exclusive use of ENVIRON International Corporation. The findings presented herein are based upon observations of our field personnel, points of investigation, and results of laboratory tests performed by Forensic Analytical Laboratories, Inc. All accessible areas of the excavation zone as part of this survey were attempted to be visually surveyed for the presence of potential asbestos-containing materials. However, it is possible that not all potential ACMs located within the excavation zone were identified in this survey.

Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No warranty, expressed or implied, is intended.

LoSo appreciates being of service to ENVIRON International Corporation on this project. If you have any questions or require additional information, please contact us at (702) 596-2021.

Sincerely,

Logistical Solutions, LLC



Kristopher Everett, CEM
Project Manager
NV Asbestos Consultant No. IM-1569



Ty L. Salazar, CEM, OHST
Operations Manager
NV Asbestos Consultant No. IM-1413


Attachments: Site Plan
Photograph Log
Analytical Report and Chain-of-Custody Documentation



LEGEND

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General Location of the
Fibrous Cement Material 
Scale: 1 inch ~ 44 feet

SITE PLAN

Nevada Environmental Response Trust

RZ-C-36

Project Number
CON111106






1. View is north/northeast at the location of the fibrous cement material.

2. View of fibrous cement material.



3. View of fibrous cement material.

SITE PHOTOGRAPHS	
Nevada Environmental Response Trust	
RZ-C-36	
Project No: CON111106	



Bulk Asbestos Analysis

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

Logistical Solutions, LLC
Ty Salazar
4780 W. Ann Road
Suite 5-237
N. Las Vegas, NV 89031

Client ID: L1349
Report Number: B152758
Date Received: 08/09/11
Date Analyzed: 08/10/11
Date Printed: 08/10/11
First Reported: 08/10/11

Job ID/Site: CON111106; Tronox

FALI Job ID: L1349

Date(s) Collected: 08/09/2011

Total Samples Submitted: 3

Total Samples Analyzed: 3

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
RZ-C-36-001	01034455						
Layer: Grey Cementitious Mastic		Chrysotile	10 %	Crocidolite	5 %		
Total Composite Values of Fibrous Components:		Asbestos (15%)					
RZ-C-36-002	01034456						
Layer: Grey Cementitious Mastic		Chrysotile	10 %	Crocidolite	5 %		
Total Composite Values of Fibrous Components:		Asbestos (15%)					
RZ-C-36-003	01034457						
Layer: Grey Cementitious Mastic		Chrysotile	10 %	Crocidolite	5 %		
Total Composite Values of Fibrous Components:		Asbestos (15%)					

Tracy Mitchell, Laboratory Supervisor, Las Vegas 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.



Forensic Analytical Laboratories, Inc.

Analysis Request Form (COC)

Client Name & Address: <i>Logistical Solutions, LLC</i>		PO/Job#: <i>CON111106</i>	Date: <i>8/09/11</i>
Contact: <i>Kris Everett</i>		Turn Around Time: <input checked="" type="checkbox"/> Same Day / <input checked="" type="checkbox"/> 1Day / <input type="checkbox"/> 2Day / <input type="checkbox"/> 3Day / <input type="checkbox"/> 4Day / <input type="checkbox"/> 5Day	
Phone: <i>702-340-2594</i> Fax:		<input type="checkbox"/> PCM: <input type="checkbox"/> NIOSH 7400A / <input type="checkbox"/> NIOSH 7400B <input type="checkbox"/> Rotometer	
E-mail: <i>Kevevett@Logoson.com</i>		<input checked="" type="checkbox"/> PLM: <input type="checkbox"/> Standard / <input type="checkbox"/> Point Count 400 / 1000 / <input type="checkbox"/> CARB 435	
Site: <i>Tronox</i>		<input type="checkbox"/> TEM Air; <input type="checkbox"/> AHERA / <input type="checkbox"/> Yamate2 / <input type="checkbox"/> NIOSH 7402	
Site Location: <i>Henderson, Nevada</i>		<input type="checkbox"/> TEM Bulk; <input type="checkbox"/> Quantitative / <input type="checkbox"/> Qualitative / <input type="checkbox"/> Chatfield	
Comments:		<input type="checkbox"/> TEM Water; <input type="checkbox"/> Potable / <input type="checkbox"/> Non-Potable / <input type="checkbox"/> Weight %	
		<input type="checkbox"/> TEM Microvac; <input type="checkbox"/> Qual(+/-) / <input type="checkbox"/> D5755(str/area) / <input type="checkbox"/> D5756(str/mass)	
		<input type="checkbox"/> IAQ Particle Identification (PLM LAB) <input type="checkbox"/> PLM Opaques/Soot	
		<input type="checkbox"/> Particle Identification (TEM LAB) <input type="checkbox"/> Special Project	
		<input type="checkbox"/> Metals Analysis: Method:	
		Matrix:	
		Analytes:	
		Report Via: <input type="checkbox"/> Fax <input type="checkbox"/> E-Mail <input type="checkbox"/> Verbal	

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg. LPM	Total Time	
<i>RZ-C-36-001</i>	<i>8-9-11 1040</i>	<i>RZ-C-36 / Fibrous Cement Board</i>	<input type="checkbox"/> AI <input type="checkbox"/> PI <input type="checkbox"/> CI				
<i>RZ-C-36-002</i>	<i>8-9-11 1042</i>	<i>RZ-C-36 / Fibrous Cement Board</i>	<input type="checkbox"/> AI <input type="checkbox"/> PI <input type="checkbox"/> CI				
<i>RZ-C-36-003</i>	<i>8-9-11 1044</i>	<i>RZ-C-36 / Fibrous Cement Board</i>	<input type="checkbox"/> AI <input type="checkbox"/> PI <input type="checkbox"/> CI				
			<input type="checkbox"/> AI <input type="checkbox"/> PI <input type="checkbox"/> CI				
			<input type="checkbox"/> AI <input type="checkbox"/> PI <input type="checkbox"/> CI				
			<input type="checkbox"/> AI <input type="checkbox"/> PI <input type="checkbox"/> CI				
			<input type="checkbox"/> AI <input type="checkbox"/> PI <input type="checkbox"/> CI				
			<input type="checkbox"/> AI <input type="checkbox"/> PI <input type="checkbox"/> CI				
			<input type="checkbox"/> AI <input type="checkbox"/> PI <input type="checkbox"/> CI				

Sampled By: <i>Kris Everett</i>		Date: <i>8/09/11</i>	Time: <i>1145</i>
Shipped Via: <input type="checkbox"/> Fed Ex <input type="checkbox"/> DHL <input type="checkbox"/> UPS <input type="checkbox"/> US Mail <input type="checkbox"/> Courier <input checked="" type="checkbox"/> Drop Off <input type="checkbox"/> Other:			
Relinquished By: <i>Kris Everett</i>	Relinquished By:	Relinquished By:	
Date / Time: <i>8-9-11 / 1145</i>	Date / Time:	Date / Time:	
Received By: <i>Rachel Kolberg</i>	Received By:	Received By:	
Date / Time: <i>08.09.11 / 150</i>	Date / Time:	Date / Time:	
Condition Acceptable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Condition Acceptable? <input type="checkbox"/> Yes <input type="checkbox"/> No	Condition Acceptable? <input type="checkbox"/> Yes <input type="checkbox"/> No	