Exhibit 17

consultants

Regulated Building Materials Survey

Purpose: Pre-Demolition

Client:
Wallis Engineering
215 W 4th Street, Suite 200
Vancouver, Washington 98660

Project:
Lacamas Creek Sewage Pump Station
1660 NE 3rd Avenue
Camas, Washington 98685

G2 Project #: 30445-20

March 11, 2019

Prepared By:

G2 Consultants
16869 SW 65th Avenue, #15
Lake Oswego, Oregon 97035
www.g2ci.com
CCB #223539

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Executive Summary

G2 Consultants (G2) was retained by Wallis Engineering to conduct a regulated building materials survey. The project included a survey for asbestos-containing materials (ACM), an inspection for lead-containing paint (LCP), and a visual inspection for universal waste and materials suspected of containing mercury and polychlorinated biphenyls (PCBs). The inspection was conducted at the Lacamas Creek Sewage Pump Station located at 1660 NE 3rd Avenue, in Camas, Washington.

Noal Kraft (AHERA Asbestos Building Inspector Certificate #IR-18-1561A and Washington DOC Risk Assessor #6106) and Matt Harper (AHERA Asbestos Building Inspector Certificate #IR-18-2718B) of G2 conducted the inspection on February 26, 2019.

Asbestos

Results of the inspection have determined that asbestos is not present in any of the suspect materials identified.

Lead

Results of the LCP inspection have determined that lead-based paint (LBP) was not identified on any of the surfaces equal to or above the concentration of 1.0 mg/cm^2. LCP below the 1.0 mg/cm^2 concentration was identified on two components.

Universal Waste, Mercury and PCBs

The visual inspection identified 4' fluorescent tubes and ballasts.

Scope of Services

In anticipation of the demolition of the Lacamas Creek Sewage Pump Station, G2 was contracted by Wallis Engineering to perform a regulated building materials survey.

The building was built in ~1958 and is a small structure housing pump equipment. Based on information proved to G2, some improvements were made in 1998. The walls are CMU and the roof is single membrane construction.

All areas of the structure were readily accessible for this inspection, with the exception of the wet well, and sub water surface lower areas.

Asbestos

The scope of services was to perform a visual and tactile inspection, and identify the presence, quantity and location of the accessible ACM within the structure. All suspect accessible materials within the scope of work were sampled. Destructive sampling techniques were not utilized in order to gain access to concealed areas, due to the station still being in operation.

Lead

Readings of the lead content of painted surfaces throughout the interior and exterior of the structure were collected using an X-Ray Fluorescence (XRF) device. The readings were taken on the predominant interior and exterior colors of paint, to give a general understanding of the distribution of lead in these surfaces.

Universal Waste, Mercury and PCBs

A visual inspection of the structures was conducted to identify the presence of universal waste and materials suspected of containing mercury and PCBs.

Findings

Asbestos

Results of the inspection have determined that asbestos is not present in any of the suspect materials identified.

Details of the asbestos survey, including sample locations, ACM quantities and ACM friable classification, can be found in the Asbestos Material Sample Data Table in Appendix A. Non-friable materials can become friable if impacted during the demolition.

Lead

Results of the LCP inspection have determined that lead-based paint (LBP) was not identified on any of the surfaces equal to or above the concentration of 1.0 mg/cm^2. LCP below the 1.0 mg/cm^2 concentration was identified on two components.

Additional details of all XRF readings including reading number, floor, substrate, side, color and lead content details are located in the XRF Readings Table found in Appendix B.

Universal Waste, PCB's and Mercury-Containing Materials

The following were observed in the area scheduled for construction:

- (4) 4' Fluorescent Tubes - Throughout
- (5) Ballasts - Throughout

Conclusions

Asbestos

Current State and Federal standards define an ACM as any material containing asbestos in excess of one percent. The National Emissions Standards for Hazardous Air Pollutants (NESHAPs) requires that all Regulated Asbestos-Containing Materials (RACMs) be removed from a building prior to demolition. These materials must also be removed by a licensed asbestos abatement contractor, or other properly trained individual, if they are to be disturbed by renovation activities.

Results of the inspection have determined that asbestos is not present in any of the suspect materials identified.

All areas of the structure were readily accessible for this inspection, with the exception of the wet well, and sub water surface lower areas. Should any suspect asbestos-containing materials be identified that was not sampled as part of the survey, the material(s) should be presumed ACM until tested to demonstrate otherwise.

Lead

Results of the LCP inspection have determined that lead-based paint (LBP) was not identified on any of the surfaces equal to or above the concentration of 1.0 mg/cm^2. LCP below the 1.0 mg/cm^2 concentration was identified on two components.

It is recommended that lead safe work practices are followed during the course of any demolition or renovation activities, in order to reduce the potential for contamination and/or exposure. OSHA/ L&I has requirements for employees working with or around LCP. It is ultimately the responsibility of the contractor to make sure that the workers are adequately protected according to the WAC 296-155-176, lead-in-construction standard. Depending on the type and level of renovation/ demolition activities, Environmental Protection Agency Renovation, Repair and Painting Rule (EPA RRP) and the U.S. Department of the Housing and Urban Development (HUD) requirements may apply. Buildings that are scheduled to be demolished are exempt from both the EPA RRP rules and HUD regulations, as long as they are not expected to be occupied prior to demolition.

LBP is a common cause of lead poisoning in children and represents a threat to the health and welfare of the occupants. Where economically feasible, it is our recommendation that all components that tested positive, and any similar untested components, be considered lead-laden, and lead-safe procedures be incorporated into any overall renovation and maintenance strategy. Safe methods include: containing any work area to prevent dispersal of lead dust and chips, wet sanding and scraping at a minimum; collecting all paint chips and debris and, properly disposing of them.

A risk assessment has not been conducted to evaluate the magnitude of lead hazards present in the building and surrounding soil as part of this scope of work.

Universal Waste, Mercury and PCBs

Items known to be suspect for Universal Waste, mercury and PCBs were identified and quantified. These materials must be removed and disposed of accordingly to the applicable regulations prior to demolition.

Methodology

Asbestos

The field work was conducted using industry best practices. Samples of representative accessible suspect materials within the scope of work were collected during the course of the inspection. Materials were sampled according to homogeneous groupings using AHERA sampling guidelines.

Samples were collected in such a manner as to minimize release of the material into the surroundings. Sample number, material description, sample location and material location were recorded at the time of sampling. Each sample was placed in a sample container labeled with a unique sample number and submitted to Forensic Analytical Laboratories Inc., a NVLAP-accredited laboratory, for analysis under chain of custody documentation. Samples were analyzed in accordance with EPA Method 600/R-93-116, using PLM with dispersion staining and using visual area estimation to determine percent asbestos content. This method allows for the identification of the primary types of asbestos used in building materials. The lower limit of detection for this method is one percent. Samples containing less than one percent asbestos by PLM with visual

area estimation are reported as “Trace”.

Lead

All testing of suspect LCP was conducted utilizing a Niton X-ray fluorescence (XRF) LBP analyzer, Model XLp-300A bearing Serial #25643. The source type, cadmium-109 (Cd^{109}), was sourced on August 10, 2017. G2 followed the Performance Characteristics Sheets (PCS) for the specific X-Ray fluorescence instrument (XRF) used during the LBP evaluation of the property. The XRF PCS is presented in Appendix D. The method employed for testing painted surfaces was with an X-ray fluorescence (XRF) analyzer. The instrument was calibrated to the manufacturer's specifications and was also periodically verified against the National Institute of Standards and Testing (NIST) Standard Reference Material (SRM) 2579 lead film (1.0 mg/cm^2).

The calibration of the instrument is conducted in accordance with the Performance Characteristic Sheet (PCS) for this instrument. These instruments are calibrated using a calibration standard block of known lead content. If for any reason the instruments do not maintain a consistent calibration reading within the manufacturer’s standards for performance on the calibration block supplied by the manufacturer, manufacturer’s recommendations are used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it is taken off the site and sent back to the manufacturer for repair and/or re-calibration.

Wall “A” in each room is the wall where the front entrance door opening is located (or aligned with street). Going clockwise and facing Wall “A”, Wall “B” will always be to your right, Wall “C” directly to the rear and Wall “D” to the left. Doors, windows and closets may be designated as left, center or right depending on their location on the wall. Doors, windows, and closets are designated as left, center or right depending on their location on the wall.

Noal Kraft of G2 performed the lead inspection. Mr. Kraft has completed an EPA sponsored curriculum in Lead Inspector training and attended the manufacturer’s radiation safety course for operation and handling of the instrument. Mr. Kraft is currently State certified and licensed for lead inspections and assessments as a Risk Assessor Regis by the State of Washington, Department of Commerce.

All individuals who performed this XRF testing and visual assessment have EPA and/or state licenses as Lead Inspector/Risk Assessors and have been trained in the use, calibration and maintenance of the XRF, along with the principles of radiation safety, in accordance with the work practices of 40 CFR 745, section 227, for states and Native American tribal groups.

Universal Waste, Mercury and PCBs

As part of this survey, a visual inspection for PCBs and mercury-containing components and universal waste was conducted. Items known to be suspect for PCBs, if identified, were quantified and catalogued.

Limitations

G2 has performed this inspection in accordance with best industry methods and practices of the profession, and consistent with the level of care and skill ordinarily exercised by reputable environmental consultants under similar circumstances and conditions. The observations contained within this assessment are based upon site conditions readily accessible at the time of the site inspection. No other representation, guarantee or warranty, express or implied, is included or intended in this hazardous materials survey report.

If any untested suspect asbestos-containing materials are encountered during demolition activities, they should be assumed to be asbestos-containing materials and not disturbed, unless sampling and analysis of the materials proves otherwise.

The LBP portion of the inspection was planned, developed, and implemented based on G2's professional experience in performing LBP inspections. G2 performed an inspection for lead-containing paint of the predominant painted surfaces in order to provide a general indication of the distribution of lead for demolition purposes. G2 utilized state-of-the-art practices and techniques in accordance with regulatory standards while performing this inspection. A copy of personnel certifications and equipment licenses have been provided in Appendix E. G2's evaluation of the painted surfaces identified during this inspection is based on conditions observed at the time of the inspection. G2 cannot be responsible for changing conditions that may alter the relative exposure risk for future changes in accepted methodology.

Since LCP was identified on the site, the owner is responsible to convey information regarding identified lead content to inhabitants, contractors, etc. expected to potentially be exposed. G2 recommends that both the contractor and the owner keep the records for three years.

This report consists of a visual survey, and XRF analysis of the readily accessible areas of this building and tested components. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date(s) of the field visit and it should be understood that conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the property after the date of the evaluation.

As with all environmental investigations, this inspection is limited to the defined scope and does not purport to set forth all hazards, nor indicate that other hazards do not exist.

Respectfully Submitted and Reviewed By:

Dan Rouse, CIEC, CMC
Sr. Project Manager
G2 Consultants

Noal Kraft, CIEC, CMC
Sr. Project Manager
G2 Consultants

Appendix A:

Asbestos Material Sample Data Table

Client: Wallis Engineering
Project: Regulated Building Materials Survey
Location: Lacamas Creek Sewage Pump Station, Camas, WA

Sample #	Material Description	Sample Location	Material Extent	Asbestos % and Type	Approximate Quantity	Condition	Friable Y/N
30445-20-1	Single Membrane Roofing Material	Roof	Exterior	ND	-	-	-
30445-20-2	Single Membrane Roofing Material	Roof	Exterior	ND	-	-	-
30445-20-3	CMU Mortar	Exterior	Exterior	ND	-	-	-
30445-20-4	CMU Mortar	Exterior	Exterior	ND	-	-	-
30445-20-5	Gasket on Pipe	Exterior	Exterior	ND	-	-	-
30445-20-6	Gasket on Pipe	Exterior	Exterior	ND	-	-	-
30445-20-7	Sealant around Door, White	Exterior	Exterior	ND	-	-	-
30445-20-8	Sealant around Door, White	Exterior	Exterior	ND	-	-	-
30445-20-9	Duct Seam Compound	Interior, Main Level	Interior	ND	-	-	-
30445-20-10	Duct Seam Compound	Interior, Main Level	Interior	ND	-	-	-
30445-20-11	Silver Paint on Exhaust	Interior, Main Level	Interior	ND	-	-	-
30445-20-12	Silver Paint on Exhaust	Interior, Main Level	Interior	ND	-	-	-
30445-20-13	Caulking around Window	Exterior, Main Level	Exterior	ND	-	-	-
30445-20-14	Caulking around Window	Exterior, Main Level	Exterior	ND	-	-	-
30445-20-15	Gasket, Red	Interior, Lower Level	Interior	ND	-	-	-
30445-20-16	Gasket, Red	Interior, Lower Level	Interior	ND	-	-	-

ND - No Asbestos Detected

Sample #	Material Description	Sample Location	Material Extent	Asbestos % and Type	Approximate Quantity	Condition	Friable Y/N
30445-20-17	Gasket, Black	Interior, Lower Level	Interior	ND	-	-	-
30445-20-18	Gasket, Black	Interior, Lower Level	Interior	ND	-	-	-
30445-20-19	Gasket, Corroded	Interior, Lower Level	Interior	ND	-	-	-
30445-20-20	Gasket, Corroded	Interior, Lower Level	Interior	ND	-	-	-

ND - No Asbestos Detected

Appendix B:

XRF Readings Table

Wallis Engineering
Regulated Building Material Survey
XRF Reading Table
Lacamas Creek Sewage Pump Station - 1660 NE 3rd Ave Camas, WA
March 11, 2019

READING NO	SITE/ADDRESS	FLOOR	ROOM	COMPONENT	SUBSTRATE	SIDE	COLOR	RESULTS	CONDITION	PbC	UNITS	ACTION LEVEL	PbC ERROR
2347	CALIBRATION									3.32	cps		0
2348	NULL READING												
2349	CALIBRATION							POSITIVE		1	mg / cm^2	1	0.1
2350	CALIBRATION							POSITIVE		1.1	mg / cm^2	1	0.1
2351	CALIBRATION							POSITIVE		1	mg / cm^2	1	0.1
2352	CALIBRATION							POSITIVE		1.1	mg / cm^2	1	0.1
2353	1660 NE 3RD AVE, CAMAS, WA	FIRST	EXTERIOR	HANDRAIL	METAL	A	BLACK	NEGATIVE	INTACT	0.4	mg / cm^2	1	0.3
2354	1660 NE 3RD AVE, CAMAS, WA	FIRST	EXTERIOR	DOOR	METAL	A	BROWN	NEGATIVE	INTACT	0	mg / cm^2	1	0.02
2355	1660 NE 3RD AVE, CAMAS, WA	FIRST	EXTERIOR	DOOR TRIM	METAL	A	BROWN	NEGATIVE	INTACT	0	mg / cm^2	1	0.02
2356	1660 NE 3RD AVE, CAMAS, WA	FIRST	INTERIOR	WALL	CONCRETE	A	WHITE	NEGATIVE	INTACT	0	mg / cm^2	1	0.02
2357	1660 NE 3RD AVE, CAMAS, WA	FIRST	INTERIOR	WALL	CONCRETE	B	WHITE	NEGATIVE	INTACT	0	mg / cm^2	1	0.02
2358	1660 NE 3RD AVE, CAMAS, WA	FIRST	INTERIOR	WALL	CONCRETE	C	WHITE	NEGATIVE	INTACT	0	mg / cm^2	1	0.02
2359	1660 NE 3RD AVE, CAMAS, WA	FIRST	INTERIOR	WALL	CONCRETE	D	WHITE	NEGATIVE	INTACT	0	mg / cm^2	1	0.02
2360	1660 NE 3RD AVE, CAMAS, WA	FIRST	INTERIOR	CEILING	CONCRETE	UPPER	WHITE	NEGATIVE	INTACT	0	mg / cm^2	1	0.02
2361	1660 NE 3RD AVE, CAMAS, WA	FIRST	INTERIOR	BEAM	METAL	UPPER	RED	NEGATIVE	INTACT	0	mg / cm^2	1	0.02
2362	1660 NE 3RD AVE, CAMAS, WA	FIRST	INTERIOR	EXHAUST STACK ON EMERG GENERATOR	METAL	B	SILVER	NEGATIVE	POOR	0.02	mg / cm^2	1	0.08
2363	CALIBRATION							POSITIVE		1.1	mg / cm^2	1	0.1
2364	NULL READING												
2365	NULL READING												
2366	NULL READING												
2367	CALIBRATION							POSITIVE		1	mg / cm^2	1	0.1
2368	CALIBRATION							POSITIVE		1	mg / cm^2	1	0.1

Appendix C:

Laboratory Analysis Results & Chain of Custody

Forensic Analytical LABORATORIES

Final Report

Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

G2 Consultants Inc.
Noal Kraft
16869 SW 65th Avenue
#15
Lake Oswego, OR 97035

Client ID: L1159
Report Number: B273710
Date Received: 02/27/19
Date Analyzed: 03/04/19
Date Printed: 03/04/19
First Reported: 03/04/19

Job ID/Site: 30445-20

Date(s) Collected: 02/26/2019

FALI Job ID: L1159
Total Samples Submitted: 20
Total Samples Analyzed: 20

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
30445-20-1	12134233						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-2	12134234						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-3	12134235						
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-4	12134236						
Layer: Grey Cementitious Material			**ND**				
Layer: Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-5	12134237						
Layer: Red-Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-6	12134238						
Layer: Red-Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							

3777 Depot Road, Suite 409, Hayward, CA 94545 / Telephone: (510) 887-8828 (800) 827-FASI / Fax: (510) 887-4218

Report Number: B273710

Client Name: G2 Consultants Inc. **Date Printed:** 03/04/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
30445-20-7	12134239						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-8	12134240						
Layer: Grey Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-9	12134241						
Layer: Black Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-10	12134242						
Layer: Black Cementitious Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (Trace)		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-11	12134243						
Layer: Beige/ Black Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-12	12134244						
Layer: Beige/ Black Paint			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-13	12134245						
Layer: Beige Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-14	12134246						
Layer: Beige Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							

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Report Number: B273710

Client Name: G2 Consultants Inc. **Date Printed:** 03/04/19

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
30445-20-15	12134247						
Layer: Red-Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-16	12134248						
Layer: Red-Brown Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-17	12134249						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-18	12134250						
Layer: Black Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-19	12134251						
Layer: Black/ Red Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							
30445-20-20	12134252						
Layer: Black/ Red Non-Fibrous Material			**ND**				
Total Composite Values of Fibrous Components: Cellulose (2 %)		**Asbestos (ND)**					
Analyst: SRAMIREZ Date Analyzed: 03/04/19							

Tad Thrower

Tad Thrower, 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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consultants

CHAIN OF CUSTODY RECORD

Client: G2 Consultants
Address: 16869 SW 65th Ave, #15
Lake Oswego, OR 97035
G2 Contact: Noal Kraft
Phone #: 888-998-4224

Page #: 1 of 2
G2 Job #: 30445-20
Sample Date: 2/26/19
Sampled by: MATT HARPER

Analysis Type:	Mold:	Asbestos:	Lead:	☐ Other:
	☐ Tapelift ☐ Bulk	☐ PCM ☑ PLM	☐ Wipe ☐ Bulk	

Turn-Around Time: ☐ RUSH ☐ 24-Hour ☐ 48-Hour ☑ 72-Hour
Results to: labresults@g2ci.com

Notes:

Sample #	Material Description	Sample Location	Material Extent	Condition	Quantity
30445-20-1	RUBBER ROOFING MATERIAL	EXTERIOR			
2					
3	CMU MORTAR				
4					
5	GASKET ON PIPE				
6					
7	SEALANT AROUND DOOR, WHITE				
8					
9	DUCT SEAM COMPOUND	INTERIOR - EMERG. GENERATOR			
10					

Samples Relnquished by:
Date and Time:
Samples Received by:
Date and Time:

RECEIVED
FEB 27 2019

Samples Relinquished by:
Date and Time:
Samples Received by:
Date and Time:

CHAIN OF CUSTODY RECORD

Client: G2 Consultants
Address: 16869 SW 65th Ave, #15
Lake Oswego, OR 97035
G2 Contact: Noal Kraft
Phone #: 888-998-4224

G2 Job #: 20445-20
Sample Date: 2/26/19
Sampled by: MATT HANSEN

Analysis Type:	Mold:	Asbestos:	Lead:	☐ Other:
	☐ Tapelift ☐ Bulk	☐ PCM ☑ PLM	☐ Wipe ☐ Bulk	

Turn-Around Time: ☐ RUSH ☐ 24-Hour ☐ 48-Hour ☑ 72-Hour
Results to: labresults@g2ci.com

Notes:

Sample #	Material Description	Sample Location	Material Extent	Condition	Quantity
20445-20-11	SILVER PAINT ON EXHAUST	INTERIOR			
	WET WALL				
12	"	"			
13	CAULKING AROUND WINDOW	EXTERIOR			
14	"	"			
15	GASKETS RED	INTERIOR KITCHEN			
16	"	"			
17	BLACK	"			
18	"	"			
19	CONCRETE	"			
20	"	"			

Samples Relnquished by: [signature]
Date and Time: 2/26/19
Samples Received by: [signature]
Date and Time: 2/27/19 7:30 AM

RECEIVED FEB 27 2019

Samples Relinquished by:
Date and Time:
Samples Received by:
Date and Time:

Appendix D:

Performance Characteristic Sheets (PCS)

Performance Characteristic Sheet

EFFECTIVE DATE: **September 24, 2004** **EDITION NO.: 1**

MANUFACTURER AND MODEL:

Make: *Niton LLC*

Tested Model: *XLp 300*

Source: ^{109}Cd

Note: This PCS is also applicable to the equivalent model variations indicated below, for the Lead-in-Paint K+L variable reading time mode, in the XLi and XLp series:

XLi 300A, XLi 301A, XLi 302A and XLi 303A.

XLp 300A, XLp 301A, XLp 302A and XLp 303A.

XLi 700A, XLi 701A, XLi 702A and XLi 703A.

XLp 700A, XLp 701A, XLp 702A, and XLp 703A.

Note: The XLi and XLp versions refer to the shape of the handle part of the instrument. The differences in the model numbers reflect other modes available, in addition to Lead-in-Paint modes. The manufacturer states that specifications for these instruments are identical for the source, detector, and detector electronics relative to the Lead-in-Paint mode.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Lead-in-Paint K+L variable reading time mode.

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm^2 (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm^2 film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION:

For XRF results using Lead-in-Paint K+L variable reading time mode, substrate correction is <u>not</u> needed for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

INCONCLUSIVE RANGE OR THRESHOLD:

K+L MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm^2)
Results not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted in August 2004 on 133 testing combinations. The instruments that were used to perform the testing had new sources; one instrument's was installed in November 2003 with 40 mCi initial strength, and the other's was installed June 2004 with 40 mCi initial strength.

OPERATING PARAMETERS:

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

SUBSTRATE CORRECTION VALUE COMPUTATION:

Substrate correction is not needed for brick, concrete, drywall, metal, plaster or wood when using Lead-in-Paint K+L variable reading time mode, the normal operating mode for these instruments. If substrate correction is desired, refer to Chapter 7 of the HUD Guidelines for guidance on correcting XRF results for substrate bias.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use the K+L variable time mode readings.

Conduct XRF retesting at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family housing a result is defined as the average of three readings. In multifamily housing, a result is a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES:

For the Lead-in-Paint K+L variable reading time mode, the instrument continues to read until it is moved away from the testing surface, terminated by the user, or the instrument software indicates the reading is complete. The following table provides testing time information for this testing mode. The times have been adjusted for source decay, normalized to the initial source strengths as noted above. Source strength and type of substrate will affect actual testing times. At the time of testing, the instruments had source strengths of 26.6 and 36.6 mCi.

Testing Times Using K+L Reading Mode (Seconds)

	All Data			Median for laboratory-measured lead levels (mg/cm^2)		
Substrate	25^{th} Percentile	Median	75^{th} Percentile	Pb < 0.25	0.25 ≤ Pb<1.0	1.0 ≤ Pb
Wood Drywall	4	11	19	11	15	11
Metal	4	12	18	9	12	14
Brick Concrete Plaster	8	16	22	15	18	16

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than or equal to the threshold, and negative if they are less than the threshold.

DOCUMENTATION:

A document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristic Sheet was developed by the Midwest Research Institute (MRI) and QuanTech, Inc., under a contract between MRI and the XRF manufacturer. HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

Appendix E:

Certifications & Accreditations

THIS IS TO CERTIFY THAT

NOAL KRAFT

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 09/20/2018

Course Location: Portland, OR

Certificate: IR-18-1561A

PBS

4-Hour Online Refresher Training

Expiration Date: 09/20/2019

For verification of the authenticity of this certificate contact:
PBS Environmental
4412 SW Corbett Avenue
Portland, OR 97239
(503) 248-1939

Greg Baker, Instructor

THIS IS TO CERTIFY THAT

MATT HARPER

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 05/11/2018

Course Location: Portland, OR

Certificate: IR-18-2718B

PBS

4-Hour Online Refresher

Expiration Date: 05/11/2019

For verification of the authenticity of this certificate contact:
PBS Environmental
4412 SW Corbett Avenue
Portland, OR 97239
(503) 248-1939

Gregory M. Baker

Greg Baker, Instructor

Lead-Based Paint Program

Noal C. Kraft

Inspector

Cert #6106

Expires 5/15/2020

Department of Commerce

Innovation is in our nature.

Lead-Based Paint Program

Noal C. Kraft

Risk Assessor

Cert #6106

Expires 5/15/2020

Department of Commerce

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