PIERCE COUNTY HOUSING AUTHORITY
603 South Polk Street, Tacoma, WA 98444 | 253-620-5400

AMENDMENT TO THE SOLICITATION

Project: CDBG-23-01
Amendment ID #: CDBG 01-2
Date: Tuesday, April 4, 2023

CLARIFICATION OF SCOPE AND CONTRACTING

Several items in the Scope of Work for the Project #CDBG-23-01, for Exterior Painting Services on Multiple Apartment Complexes, are to be clarified below:

- The colors that are to be chosen for the apartment complexes are to be earth tones, of substantially similar tone to the colors currently on the buildings. White will not be selected for either trim or the body of the building.
- The exterior surface of small fences that surround certain units' patios are included in the scope of work. The interior surface of those fences will not be included, to avoid scheduling conflicts with residents.
- The primer coat must be bid as a full coat of primer, not a spot-prime.
- All surfaces are to be painted as a part of this solicitation, not just surfaces that are previously painted. PCHA will determine color patterns that minimize taping and preparation on breezeway undersides, stair railings, etc.
- This project is fully funded through the City of Lakewood's CDBG Grant. PCHA will administrate the contract. However, the selected contractor will be required to submit the contract documents for both organizations to ensure compliance with all policies of both organizations.
- Village Square contains 38 apartment units, a laundry facility, and a maintenance shed. Oakleaf contains 26 Apartment Units and a laundry facility. Interiors of these units are not included in the scope of work, but exterior doors are included.

LEAD TESTING RESULTS

Included on Attachment A to CGBG-23-01 Amendment 2 is the Lead Testing Results for both Village Square and Oakleaf. Village Square was tested for Lead Paint in 2004. Oakleaf was tested for lead in 2007.

Oakleaf Apartments was found to have lead paint on certain rafters, soffits, beams, and stair handrails. Village Square tested completely negative for lead. Please see the report for full details.

PCHA's preferred method of mitigation is encapsulation of the lead paint with an anti-peeling primer and two layers of waterborne paint.

All other clauses, specifications, and dates in the CDBG-23-01 solicitation or that are amended in other Amendments should be considered to stand. No extension will be granted to the due date as a result of this amendment.

Signature of CO	CO Printed Name	Date & Time
	Riley Guerrero	4/4/23 8:05 AM

PIERCE COUNTY HOUSING AUTHORITY
603 South Polk Street, Tacoma, WA 98444 | 253-620-5400

ATTACHMENT A
TO
CDBG-23-01 AMENDMENT 2

LEAD PAINT IDENTIFICATION SURVEY

PROJECT LOCATION:

Village Square Apartments
10810 Lakeview Drive SW
Lakewood, Washington

PREPARED FOR:

PIERCE COUNTY HOUSING AUTHORITY

September 14, 2004

MTH Environmental, LLC
Asbestos and Lead Based Paint Consultants

253.566.9377
Fax 253.566.9369
e-mail mikeh@foxinternet.com

PO Box 110493
Tacoma, WA 98411

LEAD PAINT IDENTIFICATION SURVEY

PROJECT LOCATION:

Village Square Apartments
10810 Lakeview Drive SW
Lakewood, Washington

PREPARED FOR:

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Table of Contents

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PO Box 110493
Tacoma, WA 98411

EXECUTIVE SUMMARY

MTH Environmental, LLC, at the request of the Pierce County Housing Authority, performed a lead paint inspection at the Village Square Apartments, 10810 Lakeview Drive SW, Lakewood, Washington on September 10, 2004.

The purpose of the inspection was to determine the presence of lead paint on exterior components only. No interior testing was performed.

The testing was conducted by a WA certified Risk Assessor with the use of the MAP4 XRF Spectrum Analyzer. This instrument is equipped with a Cobalt 57 radioactive source and has a built-in "automatic substrate correction" feature that enables testing of the component without manual corrections for substrate density. The testing was performed using the "unlimited"-test mode of the instrument. With this mode, there is an "inconclusive" range of 0.2 mg/cm2 above and below the HUD Guideline level for lead paint of 1.0 mg/cm2 in the K-Shell (K-Gen) mode.

XRF test results indicate no presence of lead paint on any of the exterior components that were tested during the inspection.

Pierce County Housing Authority
Tacoma, WA

BACKGROUND SUMMARY

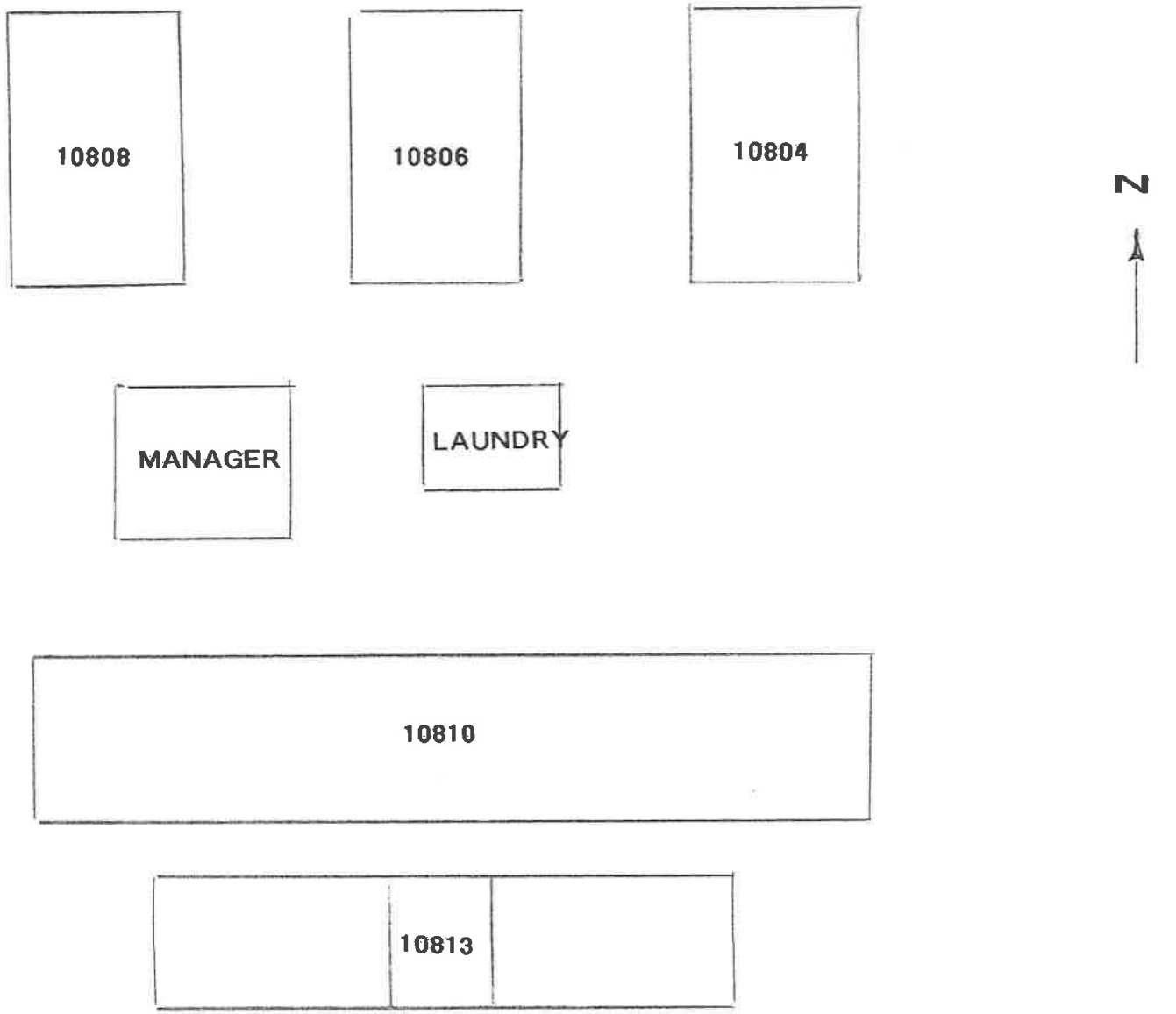
The Village Square Apartments is a seven building complex with 38 apartments. The complex was constructed in 1976 and is owned and operated by the Pierce County Housing Authority.

The buildings are one-story with the exception of the largest building in the complex (Building 10810). This building is a two-story structure. The buildings have wood siding material and a composition roofing material. The windows are aluminum construction. There is a detached manager's office and laundry room.

The exterior walls are a combination of both a "simulated" shingle material and plywood material located under the windows and on some of the exterior elevations by the chimneys.

The south building (Building 10813) has a breezeway between the apartments and this area was also inspected.

All test locations were selected on a random basis by the inspector.



VILLAGE SQUARE APARTMENTS

BUILDING 10804

Pierce County Housing Authority
Tacoma, WA

ALL TESTS BY COMPONENT & COLOR
(EACH UNIT)

VILLAGE SQUARE APARTMENTS
BUILDING 10804

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
All components are painted beige unless otherwise indicated.				
East Elevation	Wall	-0.10	-0.28	Negative
	Wall	-0.59	-0.23	Negative
	Wall	0.39	-0.40	Negative
	Wall trim-rust	-0.32	0.20	Negative
	Soffit	-0.08	0.13	Negative
	Fascia-rust	0.09	0.07	Negative
	Door	0.07	-0.04	Negative
	Door jamb-rust	-0.17	-0.72	Negative
	Door molding-rust	-0.24	-0.06	Negative
	Wall	-0.28	0.21	Negative
South Elevation	Wall	-0.35	-0.44	Negative
	Wall	-0.54	-0.45	Negative
	Fence-beige	-0.24	-0.19	Negative
	Wall	-0.18	-0.70	Negative
	Bargeboard-rust	-0.68	-0.55	Negative
West Elevation	Wall	-0.15	-0.43	Negative
	Wall trim-rust	-0.27	-0.13	Negative
	Wall	0.14	-0.25	negative
	Wall	-0.40	0.04	Negative
	Door	-0.30	-0.07	Negative
	Door jamb-rust	-0.22	-0.41	Negative
	Door molding-rust	-0.04	0.03	Negative
	Wall	-0.16	-0.27	Negative
	Rafter	-0.12	-0.19	Negative
	Soffit	-0.08	-0.29	Negative
	Fascia-rust	-0.28	0.15	Negative
North Elevation	Wall	-0.76	-0.69	Negative
	Bargeboard-rust	-0.13	0.29	Negative
	Wall	0.15	-0.39	Negative
	Wall	-0.06	-0.09	Negative

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Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10804

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 33

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14423	0001	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
14424	0001	Calibration	*	*	*	*	*	0.905 K	0.919 L	490		Incl
14425	0001	Exterior	1	1	Wall	Wood	Good	-0.096 K	-0.279 L	490		Neg
14426	0001	Exterior	1	1	Wall	Wood	Good	-0.593 K	-0.234 L	490		Neg
14427	0001	Exterior	1	1	Wall	Wood	Good	0.389 K	-0.400 L	490		Neg
14428	0001	Exterior	1	1	Rafter	Wood	Good	-0.324 K	0.196 L	490		Neg
14429	0001	Exterior	1	1	Soffit	Wood	Good	-0.082 K	0.134 L	490		Neg
14430	0001	Exterior	1	1	Fascia	Wood	Good	0.093 K	0.069 L	490		Neg
14431	0001	Exterior	1	1	Door	Wood	Good	0.073 K	-0.042 L	490		Neg
14432	0001	Exterior	1	1	Door Jamb	Wood	Good	-0.175 K	-0.721 L	490		Neg
14433	0001	Exterior	1	1	Door Molding	Wood	Good	-0.237 K	-0.064 L	490		Neg
14434	0001	Exterior	1	1	Wall	Wood	Good	-0.276 K	0.212 L	490		Neg
14435	0001	Exterior	1	2	Wall	Wood	Good	-0.351 K	-0.437 L	490		Neg
14436	0001	Exterior	1	2	Wall	Wood	Good	-0.542 K	-0.450 L	490		Neg
14437	0001	Exterior	1	2	Fence	Wood	Good	-0.243 K	-0.187 L	490		Neg
14438	0001	Exterior	1	2	Wall	Wood	Good	-0.176 K	-0.703 L	490		Neg
14439	0001	Exterior	1	2	Bargeboard	Wood	Good	-0.676 K	-0.547 L	490		Neg
14440	0001	Exterior	1	3	Wall	Wood	Good	-0.151 K	-0.434 L	490		Neg
14441	0001	Exterior	1	3	Wall trim	Wood	Good	-0.265 K	-0.130 L	490		Neg
14442	0001	Exterior	1	3	Wall	Wood	Good	0.141 K	-0.254 L	490		Neg

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Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10804

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 33

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14443	0001	Exterior	1	3	Wall	Wood	Good	-0.398 K	0.044 L	490		Neg
14444	0001	Exterior	1	3	Door	Metal	Good	-0.304 K	-0.069 L	490		Neg
14445	0001	Exterior	1	3	Door Jamb	Wood	Good	-0.220 K	-0.412 L	490		Neg
14446	0001	Exterior	1	3	Door Molding	Wood	Good	-0.040 K	0.029 L	490		Neg
14447	0001	Exterior	1	3	Wall	Wood	Good	-0.161 K	-0.274 L	490		Neg
14448	0001	Exterior	1	3	Rafter	Wood	Good	-0.116 K	-0.191 L	490		Neg
14449	0001	Exterior	1	3	Soffit	Wood	Good	-0.078 K	-0.291 L	490		Neg
14450	0001	Exterior	1	3	Fascia	Wood	Good	-0.282 K	0.148 L	490		Neg
14451	0001	Exterior	1	4	Wall	Wood	Good	-0.755 K	-0.695 L	490		Neg
14452	0001	Exterior	1	4	Bargeboard	Wood	Good	-0.129 K	0.290 L	490		Neg
14453	0001	Exterior	1	4	Soffit	Wood	Good	-0.122 K	-0.315 L	490		Neg
14454	0001	Exterior	1	4	Wall	Wood	Good	0.153 K	-0.394 L	490		Neg
14455	0001	Exterior	1	4	Wall	Wood	Good	-0.058 K	-0.087 L	490		Neg

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Tacoma WA 98411-

Summary Analysis

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10804

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Comp	Component Name	Number Tested	Num Pos (%)	Num Neg (%)	Num Incl (%)	Lab Tested	Lab Pos (%)	
1	Door	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
2	Door Jamb	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
3	Door Molding	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
4	Wall	14	0 (0 %)	14 (100 %)	0 (0 %)	0	0 (0 %)	
25	Soffit	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
53	Wall trim	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
54	Rafter	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
55	Fence	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
62	Fascia	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
63	Bargeboard	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
Total Reported		31	0	31	0	0	0	

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Tacoma WA 98411-

Daily Calibration

Project	Site	Date	Time	K-Shell mg/cm2	K-Avg. mg/cm2	L-Shell mg/cm2	L-Avg. mg/cm2	Scanner #	Instr #	Oper
Starting Calibration		09/10/04	11:04A	0.858	0.914	0.818	0.783	M41490	490	1817
Starting Calibration		09/10/04	11:05A	0.836		0.756		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.966		0.787		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.862		0.779		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.911		0.763		M41490	490	1817
Starting Calibration		09/10/04	11:07A	1.045		0.787		M41490	490	1817
4325	0001	09/10/04	01:37P	0.790	0.790	0.851	0.851	M41490	490	1817
4325	0009	09/10/04	02:48P	0.596	0.596	0.809	0.809	M41490	490	1817
Starting Calibration		09/10/04	07:16A	0.842	0.914	0.774	0.783	M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.913		0.769		M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.965		0.829		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.885		0.758		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.971		0.790		M41490	490	1817
4326	0001	09/10/04	09:09A	0.905	0.905	0.919	0.919	M41490	490	1817
4326	0007	09/10/04	10:05A	0.657	0.657	0.749	0.749	M41490	490	1817

BUILDING 10806

Pierce County Housing Authority
Tacoma, WA

ALL TESTS BY COMPONENT & COLOR
(EACH UNIT)

VILLAGE SQUARE APARTMENTS
BUILDING 10806

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
All components are painted beige unless otherwise indicated.				
East Elevation	Wall	-0.06	-0.37	Negative
	Wall	-0.00	-0.25	Negative
	Wall trim-rust	-0.26	-0.33	Negative
	Door	0.02	0.27	Negative
	Door jamb-rust	-0.68	-0.54	Negative
	Door molding-rust	-0.41	-0.72	Negative
	Soffit	0.10	-0.46	Negative
	Rafter	-0.57	-0.46	Negative
	Fascia-rust	-0.37	0.22	Negative
	Wall	-0.16	-0.51	Negative
	Wall	-0.31	-0.23	Negative
South Elevation	Wall	-0.07	-0.53	Negative
	Wall	-0.12	-0.42	Negative
	Fence-beige	-0.20	0.13	Negative
	Bargeboard-rust	-0.26	-0.20	Negative
	Soffit	-0.30	-0.05	Negative
	Wall	0.23	-0.17	Negative
West Elevation	Wall	-0.05	-0.21	Negative
	Wall trim-rust	-0.62	-0.61	Negative
	Wall	0.19	-0.22	Negative
	Door-rust	-0.01	0.22	Negative
	Door jamb-rust	-0.17	-0.29	Negative
	Door molding-rust	-0.31	-0.55	Negative
	Soffit	-0.44	-0.71	Negative
	Rafter	-0.09	-0.32	Negative
	Wall	-0.36	-0.69	Negative
	Wall	0.08	-0.20	Negative
	Wall	-0.78	-0.47	Negative
North Elevation	Wall	-0.07	-0.42	Negative
	Wall	-0.06	0.31	Negative
	Wall	0.32	-0.17	Negative
	Bargeboard-rust	0.06	-0.59	Negative

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10806

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 33

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14457	0002	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
14458	0002	Exterior	1	1	Wall	Wood	Good	-0.057 K	-0.367 L	0		Neg
14459	0002	Exterior	1	1	Wall	Wood	Good	-0.003 K	-0.247 L	0		Neg
14460	0002	Exterior	1	1	Wall trim	Wood	Good	-0.258 K	-0.328 L	0		Neg
14461	0002	Exterior	1	1	Door	Metal	Good	0.018 K	0.273 L	0		Neg
14462	0002	Exterior	1	1	Door Jamb	Wood	Good	-0.678 K	-0.541 L	0		Neg
14463	0002	Exterior	1	1	Door Molding	Wood	Good	-0.407 K	-0.720 L	0		Neg
14464	0002	Exterior	1	1	Soffit	Wood	Good	0.098 K	-0.459 L	0		Neg
14465	0002	Exterior	1	1	Rafter	Wood	Good	-0.570 K	-0.462 L	0		Neg
14466	0002	Exterior	1	1	Fascia	Wood	Good	-0.367 K	0.218 L	0		Neg
14467	0002	Exterior	1	1	Wall	Wood	Good	-0.161 K	-0.506 L	0		Neg
14468	0002	Exterior	1	1	Wall	Wood	Good	-0.309 K	-0.226 L	0		Neg
14469	0002	Exterior	1	2	Wall	Wood	Good	-0.073 K	-0.526 L	0		Neg
14470	0002	Exterior	1	2	Wall	Wood	Good	-0.118 K	-0.423 L	0		Neg
14471	0002	Exterior	1	2	Fence	Wood	Good	-0.195 K	0.130 L	0		Neg
14472	0002	Exterior	1	2	Bargeboard	Wood	Good	-0.255 K	-0.195 L	0		Neg
14473	0002	Exterior	1	2	Soffit	Wood	Good	-0.304 K	-0.049 L	0		Neg
14474	0002	Exterior	1	2	Wall	Wood	Good	0.229 K	-0.171 L	0		Neg
14475	0002	Exterior	1	3	Wall	Wood	Good	-0.051 K	-0.211 L	0		Neg
14476	0002	Exterior	1	3	Wall trim	Wood	Good	-0.622 K	-0.606 L	0		Neg

MTH
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Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10806

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 33

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14477	0002	Exterior	1	3	Wall	Wood	Good	0.188 K	-0.220 L	0		Neg
14478	0002	Exterior	1	3	Door	Metal	Good	-0.012 K	0.216 L	0		Neg
14479	0002	Exterior	1	3	Door Jamb	Wood	Good	-0.167 K	-0.295 L	0		Neg
14480	0002	Exterior	1	3	Door Molding	Wood	Good	-0.307 K	-0.546 L	0		Neg
14481	0002	Exterior	1	3	Soffit	Wood	Good	-0.437 K	-0.708 L	0		Neg
14482	0002	Exterior	1	3	Rafter	Wood	Good	-0.093 K	-0.319 L	0		Neg
14483	0002	Exterior	1	3	Wall	Wood	Good	-0.357 K	-0.695 L	0		Neg
14484	0002	Exterior	1	3	Wall	Wood	Good	0.078 K	-0.197 L	0		Neg
14485	0002	Exterior	1	3	Wall	Wood	Good	-0.783 K	-0.466 L	0		Neg
14486	0002	Exterior	1	4	Wall	Wood	Good	-0.075 K	-0.417 L	0		Neg
14487	0002	Exterior	1	4	Wall	Wood	Good	-0.059 K	0.312 L	0		Neg
14488	0002	Exterior	1	4	Wall	Wood	Good	0.320 K	-0.173 L	0		Neg
14489	0002	Exterior	1	4	Bargeboard	Wood	Good	0.064 K	-0.587 L	0		Neg

MTH
PO Box 110493

Tacoma WA 98411-

Summary Analysis

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10806

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Comp	Component Name	Number Tested	Num Pos (%)	Num Neg (%)	Num Incl (%)	Lab Tested	Lab Pos (%)	
1	Door	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
2	Door Jamb	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
3	Door Molding	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
4	Wall	15	0 (0 %)	15 (100 %)	0 (0 %)	0	0 (0 %)	
25	Soffit	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
53	Wall trim	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
54	Rafter	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
55	Fence	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
62	Fascia	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
63	Bargeboard	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
Total Reported		32	0	32	0	0	0	

MTH
PO Box 110493

Tacoma WA 98411-

Daily Calibration

Project	Site	Date	Time	K-Shell mg/cm2	K-Avg. mg/cm2	L-Shell mg/cm2	L-Avg. mg/cm2	Scanner #	Instr #	Oper
Starting Calibration		09/10/04	11:04A	0.858	0.914	0.818	0.783	M41490	490	1817
Starting Calibration		09/10/04	11:05A	0.836		0.756		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.966		0.787		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.862		0.779		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.911		0.763		M41490	490	1817
Starting Calibration		09/10/04	11:07A	1.045		0.787		M41490	490	1817
4325	0001	09/10/04	01:37P	0.790	0.790	0.851	0.851	M41490	490	1817
4325	0009	09/10/04	02:48P	0.596	0.596	0.809	0.809	M41490	490	1817
Starting Calibration		09/10/04	07:16A	0.842	0.914	0.774	0.783	M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.913		0.769		M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.965		0.829		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.885		0.758		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.971		0.790		M41490	490	1817
4326	0001	09/10/04	09:09A	0.905	0.905	0.919	0.919	M41490	490	1817
4326	0007	09/10/04	10:05A	0.657	0.657	0.749	0.749	M41490	490	1817

BUILDING 10808

Pierce County Housing Authority
Tacoma, WA

ALL TESTS BY COMPONENT & COLOR
(EACH UNIT)

VILLAGE SQUARE APARTMENTS
BUILDING 10808

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
All components are painted beige unless otherwise indicated.				
East Elevation	Wall	0.20	-0.75	Negative
	Wall trim-rust	-0.53	0.06	Negative
	Wall	-0.25	-0.02	Negative
	Door-rust	0.37	0.06	Negative
	Door jamb-rust	-0.48	-0.73	Negative
	Door molding-rust	-0.53	-0.07	Negative
	Rafter	-0.17	0.27	Negative
	Soffit	-0.29	-0.25	Negative
	Fascia-rust	-0.10	0.06	Negative
	Wall	0.32	-0.25	Negative
	Wall	-0.17	-0.48	Negative
South Elevation	Wall	-0.03	-0.23	Negative
	Wall	-0.37	-0.35	Negative
	Fence-beige	-0.42	-0.03	Negative
	Soffit	-0.01	-0.33	Negative
	Bargeboard-rust	-0.24	0.05	Negative
	Wall	-0.41	-0.02	Negative
	Wall	-0.18	-0.51	Negative
	Wall trim-rust	-0.13	-0.69	Negative
West Elevation	Wall	-0.21	-0.15	Negative
	Wall	-0.36	-0.51	Negative
	Door-rust	0.14	0.11	Negative
	Door jamb-rust	-0.25	-0.37	Negative
	Door molding-rust	-0.39	0.03	Negative
	Soffit	-0.38	-0.57	Negative
	Rafter	-0.16	-0.11	Negative
	Fascia-rust	-0.22	-0.02	Negative
	Wall	0.26	-0.49	Negative
	Wall	0.12	-0.07	Negative
	Wall	0.23	-0.31	Negative
North Elevation	Wall	-0.32	-0.76	Negative
	Wall trim-rust	0.14	0.29	Negative
	Wall	-0.40	0.20	Negative
	Fence-beige	0.01	-0.66	Negative

Pierce County Housing Authority
Tacoma, WA

Page 2
Lead Paint Testing
Village Square Apartments
Building 10808

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
North Elevation	Wall	0.23	-0.10	Negative
	Bargeboard-rust	-0.30	-0.66	Negative

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10808

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 38

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14491	0003	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
14492	0003	Exterior	1	1	Wall	Wood	Good	0.200 K	-0.753 L	0		Neg
14493	0003	Exterior	1	1	Wall trim	Wood	Good	-0.530 K	0.057 L	0		Neg
14494	0003	Exterior	1	1	Wall	Wood	Good	-0.249 K	-0.017 L	0		Neg
14495	0003	Exterior	1	1	Door	Metal	Good	0.373 K	0.059 L	0		Neg
14496	0003	Exterior	1	1	Door Jamb	Wood	Good	-0.478 K	-0.729 L	0		Neg
14497	0003	Exterior	1	1	Door Molding	Wood	Good	-0.525 K	-0.071 L	0		Neg
14498	0003	Exterior	1	1	Rafter	Wood	Good	-0.167 K	0.274 L	0		Neg
14499	0003	Exterior	1	1	Soffit	Wood	Good	-0.289 K	-0.254 L	0		Neg
14500	0003	Exterior	1	1	Fascia	Wood	Good	-0.105 K	0.057 L	0		Neg
14501	0003	Exterior	1	1	Wall	Wood	Good	0.320 K	-0.247 L	0		Neg
14502	0003	Exterior	1	1	Wall	Wood	Good	-0.546 K	-0.373 L	0		Neg
14503	0003	Exterior	1	1	Wall	Wood	Good	-0.170 K	-0.482 L	0		Neg
14504	0003	Exterior	1	2	Wall	Wood	Good	-0.030 K	-0.225 L	0		Neg
14505	0003	Exterior	1	2	Wall	Wood	Good	-0.374 K	-0.346 L	0		Neg
14506	0003	Exterior	1	2	Fence	Wood	Good	-0.421 K	-0.034 L	0		Neg
14507	0003	Exterior	1	2	Soffit	Wood	Good	-0.010 K	-0.333 L	0		Neg
14508	0003	Exterior	1	2	Bargeboard	Wood	Good	-0.244 K	0.054 L	0		Neg
14509	0003	Exterior	1	2	Wall	Wood	Good	-0.411 K	-0.024 L	0		Neg
14510	0003	Exterior	1	2	Wall	Wood	Good	-0.179 K	-0.506 L	0		Neg

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10808

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 38

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14511	0003	Exterior	1	2	Wall trim	Wood	Good	-0.128 K	-0.691 L	0		Neg
14512	0003	Exterior	1	3	Wall	Wood	Good	-0.213 K	-0.147 L	0		Neg
14513	0003	Exterior	1	3	Wall	Wood	Good	-0.356 K	-0.507 L	0		Neg
14514	0003	Exterior	1	3	Door	Metal	Good	0.145 K	0.108 L	0		Neg
14515	0003	Exterior	1	3	Door Jamb	Wood	Good	-0.249 K	-0.367 L	0		Neg
14516	0003	Exterior	1	3	Door Molding	Wood	Good	-0.394 K	0.028 L	0		Neg
14517	0003	Exterior	1	3	Soffit	Wood	Good	-0.379 K	-0.569 L	0		Neg
14518	0003	Exterior	1	3	Rafter	Wood	Good	-0.162 K	-0.114 L	0		Neg
14519	0003	Exterior	1	3	Fascia	Wood	Good	-0.217 K	-0.021 L	0		Neg
14520	0003	Exterior	1	3	Wall	Wood	Good	0.261 K	-0.492 L	0		Neg
14521	0003	Exterior	1	3	Wall	Wood	Good	0.118 K	-0.075 L	0		Neg
14522	0003	Exterior	1	3	Wall	Wood	Good	0.227 K	-0.313 L	0		Neg
14523	0003	Exterior	1	4	Wall	Wood	Good	-0.315 K	-0.760 L	0		Neg
14524	0003	Exterior	1	4	Wall trim	Wood	Good	0.137 K	0.293 L	0		Neg
14525	0003	Exterior	1	4	Wall	Wood	Good	-0.398 K	0.197 L	0		Neg
14526	0003	Exterior	1	4	Fence	Wood	Good	0.014 K	-0.662 L	0		Neg
14527	0003	Exterior	1	4	Wall	Wood	Good	0.228 K	-0.105 L	0		Neg
14528	0003	Exterior	1	4	Bargeboard	Wood	Good	-0.299 K	-0.659 L	0		Neg

MTH
PO Box 110493

Tacoma WA 98411-

Summary Analysis

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10808

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Comp	Component Name	Number Tested	Num Pos (%)	Num Neg (%)	Num Incl (%)	Lab Tested	Lab Pos (%)	
1	Door	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
2	Door Jamb	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
3	Door Molding	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
4	Wall	17	0 (0 %)	17 (100 %)	0 (0 %)	0	0 (0 %)	
25	Soffit	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
53	Wall trim	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
54	Rafter	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
55	Fence	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
62	Fascia	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
63	Bargeboard	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
Total Reported		37	0	37	0	0	0	

No Averaging Selected

MTH
PO Box 110493

Tacoma WA 98411-

Daily Calibration

Project	Site	Date	Time	K-Shell mg/cm2	K-Avg. mg/cm2	L-Shell mg/cm2	L-Avg. mg/cm2	Scanner #	Instr #	Oper
Starting Calibration		09/10/04	11:04A	0.858	0.914	0.818	0.783	M41490	490	1817
Starting Calibration		09/10/04	11:05A	0.836		0.756		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.966		0.787		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.862		0.779		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.911		0.763		M41490	490	1817
Starting Calibration		09/10/04	11:07A	1.045		0.787		M41490	490	1817
4325	0001	09/10/04	01:37P	0.790	0.790	0.851	0.851	M41490	490	1817
4325	0009	09/10/04	02:48P	0.596	0.596	0.809	0.809	M41490	490	1817
Starting Calibration		09/10/04	07:16A	0.842	0.914	0.774	0.783	M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.913		0.769		M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.965		0.829		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.885		0.758		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.971		0.790		M41490	490	1817
4326	0001	09/10/04	09:09A	0.905	0.905	0.919	0.919	M41490	490	1817
4326	0007	09/10/04	10:05A	0.657	0.657	0.749	0.749	M41490	490	1817

BUILDING 10810

Pierce County Housing Authority
Tacoma, WA

ALL TESTS BY COMPONENT & COLOR
(EACH UNIT)

VILLAGE SQUARE APARTMENTS
BUILDING 10810

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
All components are painted beige unless otherwise indicated.				
North Elevation	Wall	-0.58	-0.28	Negative
	Wall trim-rust	-0.23	-0.25	Negative
	Wall	0.02	-0.52	Negative
	Door-rust	0.07	0.08	Negative
	Door jamb-rust	-0.12	0.17	Negative
	Door molding-rust	-0.21	-0.09	Negative
	Wood post	-0.23	-0.51	Negative
	Wood beam	-0.29	-0.07	Negative
	Soffit	0.10	-0.61	Negative
	Rafter	-0.07	-0.61	Negative
	Handrail-rust	-0.24	-0.09	Negative
	Baluster	0.03	-0.68	Negative
	Stair stringer	0.14	-0.35	Negative
	Wall	-0.18	-0.39	Negative
	Wall trim-rust	0.20	-0.59	Negative
	Wall	-0.29	-0.47	Negative
	Soffit	0.11	-0.29	Negative
	Wood beam	-0.13	-0.27	Negative
	Wood post	-0.19	0.11	Negative
	Wall	-0.17	0.24	Negative
	Wall	-0.50	0.24	Negative
	Handrail-rust	0.14	0.07	Negative
	Baluster	0.21	-0.42	Negative
	Wall	0.16	-0.24	Negative
	Wall	-0.25	-0.22	Negative
East Elevation	Wall	-0.47	-0.14	Negative
	Wall	-0.56	0.00	Negative
	Wall	-0.51	-0.51	Negative
South Elevation	Wall	-0.16	-0.14	Negative
	Wall	-0.11	-0.10	Negative
	Wall	-0.27	-0.14	Negative
	Wall	-0.25	-0.71	Negative
	Wall	-0.22	-0.43	Negative
	Wall	-0.10	-0.40	Negative
	Wall	0.08	-0.53	Negative

Pierce County Housing Authority
Tacoma, WA

Page 2
Lead Paint Testing
Village Square Apartments
Building 10810

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
South Elevation	Wall	-0.11	-0.25	Negative
	Wall	0.03	-0.02	Negative
	Wall	-0.25	-0.09	Negative
	Wall	-0.29	-0.54	Negative
West Elevation	Wall	-0.37	-0.36	Negative
	Wall	-0.20	-0.51	Negative
	Wall	0.16	-0.54	Negative

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10810

Total Assays Reported 58

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14584	0006	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
14585	0006	Exterior	1	1	Wall	Wood	Good	-0.581 K	-0.278 L	0		Neg
14586	0006	Exterior	1	1	Wall trim	Wood	Good	-0.227 K	-0.251 L	0		Neg
14587	0006	Exterior	1	1	Wall	Wood	Good	0.016 K	-0.521 L	0		Neg
14588	0006	Exterior	1	1	Door	Metal	Good	0.071 K	0.079 L	0		Neg
14589	0006	Exterior	1	1	Door Jamb	Wood	Good	-0.121 K	-0.157 L	0		Neg
14590	0006	Exterior	1	1	Door Molding	Wood	Good	-0.215 K	-0.093 L	0		Neg
14591	0006	Exterior	1	1	Wood post	Wood	Good	-0.232 K	-0.505 L	0		Neg
14592	0006	Exterior	1	1	Wood beam	Wood	Good	-0.291 K	-0.069 L	0		Neg
14593	0006	Exterior	1	1	Soffit	Wood	Good	0.104 K	-0.611 L	0		Neg
14594	0006	Exterior	1	1	Rafter	Wood	Good	-0.069 K	-0.611 L	0		Neg
14595	0006	Exterior	1	1	Stair Handrail	Wood	Good	-0.366 K	-0.286 L	0		Neg
14596	0006	Exterior	1	1	Wall	Wood	Good	-0.361 K	-0.144 L	0		Neg
14597	0006	Exterior	1	1	Wall	Wood	Good	-0.447 K	-0.439 L	0		Neg
14598	0006	Exterior	1	1	Wood post	Wood	Good	-0.231 K	-0.729 L	0		Neg
14599	0006	Exterior	1	1	Stair Handrail	Wood	Good	-0.240 K	-0.087 L	0		Neg
14600	0006	Exterior	1	1	Baluster	Wood	Good	0.025 K	-0.678 L	0		Neg
14601	0006	Exterior	1	1	Stair Stringer	Wood	Good	0.144 K	-0.352 L	0		Neg
14602	0006	Exterior	1	1	Wall	Wood	Good	-0.176 K	-0.381 L	0		Neg
14603	0006	Exterior	1	1	Wall trim	Wood	Good	0.197 K	-0.595 L	0		Neg

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10810

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 58

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14604	0006	Exterior	1	1	Wall	Wood	Good	-0.293 K	-0.467 L	0		Neg
14605	0006	Exterior	1	1	Soffit	Wood	Good	0.109 K	-0.286 L	0		Neg
14606	0006	Exterior	1	1	Wood beam	Wood	Good	-0.126 K	-0.368 L	0		Neg
14607	0006	Exterior	1	1	Wood post	Wood	Good	-0.190 K	0.107 L	0		Neg
14608	0006	Exterior	1	1	Wall	Wood	Good	-0.165 K	0.237 L	0		Neg
14609	0006	Exterior	1	1	Wall	Wood	Good	-0.500 K	0.237 L	0		Neg
14610	0006	Exterior	1	1	Stair Handrail	Wood	Good	0.145 K	0.073 L	0		Neg
14611	0006	Exterior	1	1	Baluster	Wood	Good	-0.112 K	-0.254 L	0		Neg
14612	0006	Exterior	1	1	Wall	Wood	Good	0.085 K	-0.425 L	0		Neg
14613	0006	Exterior	1	1	Wall	Wood	Good	-0.300 K	-0.784 L	0		Neg
14614	0006	Exterior	1	1	Wall	Wood	Good	-0.703 K	-0.289 L	0		Neg
14615	0006	Exterior	1	1	Wall trim	Wood	Good	-0.383 K	-0.477 L	0		Neg
14616	0006	Exterior	1	1	Wall	Wood	Good	-0.197 K	-0.317 L	0		Neg
14617	0006	Exterior	1	1	Soffit	Wood	Good	-0.768 K	-0.238 L	0		Neg
14618	0006	Exterior	1	1	Stair Stringer	Wood	Good	0.206 K	-0.380 L	0		Neg
14619	0006	Exterior	1	1	Stair Handrail	Wood	Good	-0.211 K	-0.385 L	0		Neg
14620	0006	Exterior	1	1	Baluster	Wood	Good	0.215 K	-0.428 L	0		Neg
14621	0006	Exterior	1	1	Wall	Wood	Good	0.159 K	-0.240 L	0		Neg
14622	0006	Exterior	1	1	Wall	Wood	Good	-0.251 K	-0.218 L	0		Neg
14623	0006	Exterior	1	2	Wall	Wood	Good	-0.465 K	-0.142 L	0		Neg

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10810

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 58

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14624	0006	Exterior	1	2	Wall	Wood	Good	-0.558 K	0.003 L	0		Neg
14625	0006	Exterior	1	2	Wall	Wood	Good	-0.510 K	-0.512 L	0		Neg
14626	0006	Exterior	1	3	Wall	Wood	Good	-0.136 K	-0.201 L	0		Neg
14627	0006	Exterior	1	3	Wall trim	Wood	Good	0.246 K	0.038 L	0		Neg
14628	0006	Exterior	1	3	Wall	Wood	Good	-0.164 K	-0.142 L	0		Neg
14629	0006	Exterior	1	3	Wall	Wood	Good	-0.112 K	-0.095 L	0		Neg
14630	0006	Exterior	1	3	Wall	Wood	Good	-0.271 K	-0.140 L	0		Neg
14631	0006	Exterior	1	3	Wall	Wood	Good	-0.254 K	-0.715 L	0		Neg
14632	0006	Exterior	1	3	Wall	Wood	Good	-0.218 K	-0.434 L	0		Neg
14633	0006	Exterior	1	3	Wall	Wood	Good	-0.102 K	-0.396 L	0		Neg
14634	0006	Exterior	1	3	Wall	Wood	Good	0.080 K	-0.529 L	0		Neg
14635	0006	Exterior	1	3	Wall	Wood	Good	-0.112 K	-0.252 L	0		Neg
14636	0006	Exterior	1	3	Wall	Wood	Good	0.031 K	-0.023 L	0		Neg
14637	0006	Exterior	1	3	Wall	Wood	Good	-0.254 K	-0.086 L	0		Neg
14638	0006	Exterior	1	3	Wall	Wood	Good	-0.289 K	-0.535 L	0		Neg
14639	0006	Exterior	1	4	Wall	Wood	Good	-0.372 K	-0.360 L	0		Neg
14640	0006	Exterior	1	4	Wall	Wood	Good	-0.199 K	-0.510 L	0		Neg
14641	0006	Exterior	1	4	Wall	Wood	Good	0.164 K	-0.543 L	0		Neg

MTH
PO Box 110493

Tacoma WA 98411-

Summary Analysis

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10810

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Comp	Component Name	Number Tested	Num Pos (%)	Num Neg (%)	Num Incl (%)	Lab Tested	Lab Pos (%)	
1	Door	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
2	Door Jamb	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
3	Door Molding	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
4	Wall	32	0 (0 %)	32 (100 %)	0 (0 %)	0	0 (0 %)	
15	Stair Stringer	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
16	Stair Handrail	4	0 (0 %)	4 (100 %)	0 (0 %)	0	0 (0 %)	
25	Soffit	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
30	Wood post	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
32	Wood beam	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
53	Wall trim	4	0 (0 %)	4 (100 %)	0 (0 %)	0	0 (0 %)	
54	Rafter	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
57	Baluster	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
Total Reported		57	0	57	0	0	0	

MTH
PO Box 110493

Tacoma WA 98411-

Daily Calibration

Project	Site	Date	Time	K-Shell mg/cm2	K-Avg. mg/cm2	L-Shell mg/cm2	L-Avg. mg/cm2	Scanner #	Instr #	Oper
Starting Calibration		09/10/04	11:04A	0.858	0.914	0.818	0.783	M41490	490	1817
Starting Calibration		09/10/04	11:05A	0.836		0.756		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.966		0.787		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.862		0.779		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.911		0.763		M41490	490	1817
Starting Calibration		09/10/04	11:07A	1.045		0.787		M41490	490	1817
4325	0001	09/10/04	01:37P	0.790	0.790	0.851	0.851	M41490	490	1817
4325	0009	09/10/04	02:48P	0.596	0.596	0.809	0.809	M41490	490	1817
Starting Calibration		09/10/04	07:16A	0.842	0.914	0.774	0.783	M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.913		0.769		M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.965		0.829		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.885		0.758		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.971		0.790		M41490	490	1817
4326	0001	09/10/04	09:09A	0.905	0.905	0.919	0.919	M41490	490	1817
4326	0007	09/10/04	10:05A	0.657	0.657	0.749	0.749	M41490	490	1817

BUILDING 10813

Pierce County Housing Authority
Tacoma, WA

ALL TESTS BY COMPONENT & COLOR
(EACH UNIT)

VILLAGE SQUARE APARTMENTS
BUILDING 10813

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
All components are painted beige unless otherwise indicated.				
South Elevation	Wall	-0.48	-0.17	Negative
	Wall	-0.48	-0.34	Negative
	Fence	-0.16	-0.40	Negative
	Wall	-0.47	0.06	Negative
	Soffit	0.08	-0.29	Negative
	Rafter	-0.50	-0.53	Negative
	Fascia-rust	-0.24	-0.13	Negative
Middle Corridor	Wall	-0.70	0.18	Negative
	Wall trim-rust	-0.19	-0.01	Negative
	Door-rust	0.04	0.61	Negative
	Door jamb-rust	0.24	0.03	Negative
	Wall	0.08	-0.33	Negative
	Wall	-0.56	-0.52	Negative
	Wall	0.11	-0.20	Negative
	Wall	-0.07	-0.09	Negative
South Elevation	Wall	0.02	-0.31	Negative
	Wall	-0.11	-0.20	Negative
West Elevation	Wall	-0.26	-0.41	Negative
	Wall trim-rust	-0.02	-0.53	Negative
	Wall	0.21	-0.26	Negative
	Soffit	0.10	-0.17	Negative
	Bargeboard-rust	-0.20	-0.46	Negative
	Wall	0.20	-0.33	Negative
	Wall	-0.25	-0.42	Negative
	Door-rust	0.23	0.51	Negative
	Door jamb-rust	0.25	-0.65	Negative
	Door molding-rust	-0.38	-0.58	Negative
	Wall	-0.62	-0.36	Negative
	Wall	-0.26	-0.51	Negative
North Elevation	Wall	-0.78	-0.78	Negative
	Soffit	-0.04	-0.94	Negative
	Rafter	-0.44	-0.06	Negative
	Fascia-rust	0.25	-0.05	Negative

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
North Elevation	Wall	-0.44	-0.20	Negative
	Fence	0.15	-0.44	Negative
	Wall	-0.28	-0.39	Negative
	Wood beam	-0.21	0.08	Negative
	Soffit	-0.06	-0.27	Negative
	Wall	-0.11	-0.14	Negative
	Wall	-0.17	-0.04	Negative
	Wall	-0.06	-0.39	Negative
East Elevation	Wall	0.15	-0.21	Negative
	Wall trim-rust	-0.18	-0.60	Negative
	Wall	0.34	-0.31	Negative
	Door-rust	0.40	0.52	Negative
	Door jamb-rust	0.35	-0.15	Negative
	Door molding-rust	-0.59	-0.77	Negative
	Wall	-0.23	-0.56	Negative
	Wall	-0.04	-0.12	Negative
	Soffit	0.01	-0.38	Negative
	Bargeboard-rust	-0.27	-0.07	Negative

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10813

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 54

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14643	0007	**Calibration**	*	*	*	*	*	0.000 X	0.000 X	0		
14644	0007	Exterior	1	1	Wall	Wood	Good	-0.484 K	-0.166 L	0		Neg
14645	0007	Exterior	1	1	Wall	Wood	Good	-0.476 K	-0.345 L	0		Neg
14646	0007	Exterior	1	1	Fence	Wood	Good	-0.156 K	-0.402 L	0		Neg
14647	0007	Exterior	1	1	Wall	Wood	Good	-0.472 K	0.060 L	0		Neg
14648	0007	Exterior	1	1	Soffit	Wood	Good	0.081 K	-0.293 L	0		Neg
14649	0007	Exterior	1	1	Rafter	Wood	Good	-0.503 K	-0.531 L	0		Neg
14650	0007	Exterior	1	1	Fascia	Wood	Good	-0.245 K	-0.128 L	0		Neg
14651	0007	Exterior	1	*	Wall	Wood	Good	-0.697 K	0.177 L	0		Neg
14652	0007	Exterior	1	*	Wall trim	Wood	Good	-0.191 K	-0.012 L	0		Neg
14653	0007	Exterior	1	*	Door	Metal	Good	0.040 K	0.606 L	0		Neg
14654	0007	Exterior	1	*	Door Jamb	Wood	Good	0.237 K	0.026 L	0		Neg
14655	0007	Exterior	1	*	Door Molding	Wood	Good	-0.184 K	-0.530 L	0		Neg
14656	0007	Exterior	1	*	Wall	Wood	Good	0.080 K	-0.332 L	0		Neg
14657	0007	Exterior	1	*	Wall	Wood	Good	-0.562 K	-0.520 L	0		Neg
14658	0007	Exterior	1	*	Wall	Wood	Good	0.108 K	-0.202 L	0		Neg
14659	0007	Exterior	1	*	Wall	Wood	Good	-0.071 K	-0.089 L	0		Neg
14660	0007	Exterior	1	1	Wall	Wood	Good	0.019 K	-0.308 L	0		Neg
14661	0007	Exterior	1	1	Wall	Wood	Good	-0.112 K	-0.199 L	0		Neg
14662	0007	Exterior	1	2	Wall	Wood	Good	-0.260 K	-0.408 L	0		Neg

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10813

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 54

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14663	0007	Exterior	1	2	Wall trim	Wood	Good	-0.020 K	-0.531 L	0		Neg
14664	0007	Exterior	1	2	Wall	Wood	Good	0.213 K	-0.259 L	0		Neg
14665	0007	Exterior	1	2	Soffit	Wood	Good	0.101 K	-0.169 L	0		Neg
14666	0007	Exterior	1	2	Bargeboard	Wood	Good	-0.201 K	-0.459 L	0		Neg
14667	0007	Exterior	1	2	Wall	Wood	Good	0.202 K	-0.327 L	0		Neg
14668	0007	Exterior	1	2	Wall	Wood	Good	-0.250 K	-0.422 L	0		Neg
14669	0007	Exterior	1	2	Door	Metal	Good	0.232 K	0.513 L	0		Neg
14670	0007	Exterior	1	2	Door Jamb	Wood	Good	0.246 K	-0.647 L	0		Neg
14671	0007	Exterior	1	2	Door Molding	Wood	Good	-0.384 K	-0.579 L	0		Neg
14672	0007	Exterior	1	2	Wall	Wood	Good	-0.623 K	-0.356 L	0		Neg
14673	0007	Exterior	1	2	Wall	Wood	Good	-0.259 K	-0.508 L	0		Neg
14674	0007	Exterior	1	3	Wall	Wood	Good	-0.779 K	-0.784 L	0		Neg
14675	0007	Exterior	1	3	Soffit	Wood	Good	-0.036 K	-0.944 L	0		Neg
14676	0007	Exterior	1	3	Rafter	Wood	Good	-0.443 K	-0.060 L	0		Neg
14677	0007	Exterior	1	3	Fascia	Wood	Good	0.247 K	-0.048 L	0		Neg
14678	0007	Exterior	1	3	Wall	Wood	Good	-0.438 K	-0.201 L	0		Neg
14679	0007	Exterior	1	3	Fence	Wood	Good	0.146 K	-0.437 L	0		Neg
14680	0007	Exterior	1	3	Wall	Wood	Good	-0.275 K	-0.384 L	0		Neg
14681	0007	Exterior	1	3	Wood beam	Wood	Good	-0.212 K	0.082 L	0		Neg
14682	0007	Exterior	1	3	Soffit	Wood	Good	-0.056 K	-0.269 L	0		Neg

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10813

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 54

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14683	0007	Exterior	1	3	Wall	Wood	Good	-0.107 K	-0.138 L	0		Neg
14684	0007	Exterior	1	3	Wall	Wood	Good	-0.169 K	-0.039 L	0		Neg
14685	0007	Exterior	1	3	Wall	Wood	Good	-0.059 K	-0.387 L	0		Neg
14686	0007	Exterior	1	4	Wall	Wood	Good	0.154 K	-0.211 L	0		Neg
14687	0007	Exterior	1	4	Wall trim	Wood	Good	-0.181 K	-0.604 L	0		Neg
14688	0007	Exterior	1	4	Wall	Wood	Good	0.338 K	-0.310 L	0		Neg
14689	0007	Exterior	1	4	Door	Metal	Good	0.404 K	0.524 L	0		Neg
14690	0007	Exterior	1	4	Door Jamb	Wood	Good	0.351 K	-0.147 L	0		Neg
14691	0007	Exterior	1	4	Door Molding	Wood	Good	-0.595 K	-0.769 L	0		Neg
14692	0007	Exterior	1	4	Wall	Wood	Good	-0.229 K	-0.558 L	0		Neg
14693	0007	Exterior	1	4	Wall	Wood	Good	-0.040 K	-0.124 L	0		Neg
14694	0007	Exterior	1	4	Soffit	Wood	Good	0.008 K	-0.380 L	0		Neg
14695	0007	Exterior	1	4	Bargeboard	Wood	Good	-0.265 K	-0.069 L	0		Neg
14696	0007	Calibration	*	*	*	*	*	0.657 K	0.749 L	490		Neg

MTH
PO Box 110493

Tacoma WA 98411-

Summary Analysis

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Building 10813

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Comp	Component Name	Number Tested	Num Pos (%)	Num Neg (%)	Num Incl (%)	Lab Tested	Lab Pos (%)	
1	Door	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
2	Door Jamb	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
3	Door Molding	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
4	Wall	26	0 (0 %)	26 (100 %)	0 (0 %)	0	0 (0 %)	
25	Soffit	5	0 (0 %)	5 (100 %)	0 (0 %)	0	0 (0 %)	
32	Wood beam	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
53	Wall trim	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
54	Rafter	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
55	Fence	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
62	Fascia	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
63	Bargeboard	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
Total Reported		52	0	52	0	0	0	

MTH
PO Box 110493

Tacoma WA 98411-

Daily Calibration

Project	Site	Date	Time	K-Shell mg/cm2	K-Avg. mg/cm2	L-Shell mg/cm2	L-Avg. mg/cm2	Scanner #	Instr #	Oper
Starting Calibration		09/10/04	11:04A	0.858	0.914	0.818	0.783	M41490	490	1817
Starting Calibration		09/10/04	11:05A	0.836		0.756		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.966		0.787		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.862		0.779		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.911		0.763		M41490	490	1817
Starting Calibration		09/10/04	11:07A	1.045		0.787		M41490	490	1817
4325	0001	09/10/04	01:37P	0.790	0.790	0.851	0.851	M41490	490	1817
4325	0009	09/10/04	02:48P	0.596	0.596	0.809	0.809	M41490	490	1817
Starting Calibration		09/10/04	07:16A	0.842	0.914	0.774	0.783	M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.913		0.769		M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.965		0.829		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.885		0.758		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.971		0.790		M41490	490	1817
4326	0001	09/10/04	09:09A	0.905	0.905	0.919	0.919	M41490	490	1817
4326	0007	09/10/04	10:05A	0.657	0.657	0.749	0.749	M41490	490	1817

MANAGER OFFICE

Pierce County Housing Authority
Tacoma, WA

ALL TESTS BY COMPONENT & COLOR
(EACH UNIT)

VILLAGE SQUARE APARTMENTS
MANAGER OFFICE

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
All components are painted beige unless otherwise indicated.				
East Elevation	Wall	-1.17	-0.16	Negative
	Door-rust	-0.15	-0.30	Negative
	Door jamb-rust	-0.21	-0.46	Negative
	Door molding-rust	-0.57	-0.63	Negative
	Handrail-rust	-0.04	-0.24	Negative
	Wood post	0.13	-0.07	Negative
	Wall	-0.35	-0.40	Negative
	Soffit	-0.31	-0.11	Negative
	Bargeboard-rust	0.04	-0.06	Negative
South Elevation	Wall	-0.06	-0.00	Negative
	Wall	-0.34	-0.01	Negative
	Rafter	-0.01	-0.41	Negative
	Soffit	0.10	-0.36	Negative
	Wall	0.13	-0.19	Negative
	Wall	-0.23	0.12	Negative
	Wall	-0.10	-0.27	Negative
West Elevation	Wall	-0.35	-0.46	Negative
	Wall trim-rust	-0.32	-0.35	Negative
	Wall	0.28	-0.62	Negative
	Wall	-0.60	-0.22	Negative
	Bargeboard-rust	-0.03	0.06	Negative
North Elevation	Wall	-0.24	-1.13	Negative
	Door-rust	0.01	0.15	Negative
	Door jamb-rust	-0.18	-0.03	Negative
	Door molding-rust	-0.20	-0.50	Negative
	Wall	-0.38	0.11	Negative
	Rafter	0.06	0.19	Negative
	Soffit	-0.56	-0.09	Negative
	Fascia-rust	0.13	0.15	Negative
	Wall	-0.06	-0.53	Negative

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Manager Office

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 31

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14552	0005	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
14553	0005	Exterior	1	1	Wall	Wood	Good	-1.170 K	-0.163 L	0		Neg
14554	0005	Exterior	1	1	Door	Metal	Good	-0.151 K	-0.302 L	0		Neg
14555	0005	Exterior	1	1	Door Jamb	Wood	Good	-0.213 K	-0.457 L	0		Neg
14556	0005	Exterior	1	1	Door Molding	Wood	Good	-0.575 K	-0.627 L	0		Neg
14557	0005	Exterior	1	1	Stair Handrail	Wood	Good	-0.039 K	-0.238 L	0		Neg
14558	0005	Exterior	1	1	Wood post	Wood	Good	0.129 K	-0.072 L	0		Neg
14559	0005	Exterior	1	1	Wall	Wood	Good	-0.352 K	-0.404 L	0		Neg
14560	0005	Exterior	1	1	Soffit	Wood	Good	-0.312 K	-0.113 L	0		Neg
14561	0005	Exterior	1	1	Bargeboard	Wood	Good	0.037 K	-0.055 L	0		Neg
14562	0005	Exterior	1	2	Wall	Wood	Good	-0.058 K	-0.003 L	0		Neg
14563	0005	Exterior	1	2	Wall	Wood	Good	-0.345 K	-0.009 L	0		Neg
14564	0005	Exterior	1	2	Rafter	Wood	Good	-0.012 K	-0.410 L	0		Neg
14565	0005	Exterior	1	2	Soffit	Wood	Good	0.101 K	-0.361 L	0		Neg
14566	0005	Exterior	1	2	Wall	Wood	Good	0.131 K	-0.194 L	0		Neg
14567	0005	Exterior	1	2	Wall	Wood	Good	-0.233 K	0.124 L	0		Neg
14568	0005	Exterior	1	2	Wall	Wood	Good	-0.097 K	-0.267 L	0		Neg
14569	0005	Exterior	1	3	Wall	Wood	Good	-0.348 K	-0.464 L	0		Neg
14570	0005	Exterior	1	3	Wall trim	Wood	Good	-0.324 K	-0.350 L	0		Neg
14571	0005	Exterior	1	3	Wall	Wood	Good	0.277 K	-0.616 L	0		Neg

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Manager Office

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 31

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14572	0005	Exterior	1	3	Wall	Wood	Good	-0.600 K	-0.221 L	0		Neg
14573	0005	Exterior	1	3	Bargeboard	Wood	Good	-0.029 K	0.063 L	0		Neg
14574	0005	Exterior	1	4	Wall	Wood	Good	-0.240 K	-1.127 L	0		Neg
14575	0005	Exterior	1	4	Door	Metal	Good	0.012 K	0.152 L	0		Neg
14576	0005	Exterior	1	4	Door Jamb	Wood	Good	-0.181 K	-0.027 L	0		Neg
14577	0005	Exterior	1	4	Door Molding	Wood	Good	-0.204 K	-0.502 L	0		Neg
14578	0005	Exterior	1	4	Wall	Wood	Good	-0.378 K	0.112 L	0		Neg
14579	0005	Exterior	1	4	Rafter	Wood	Good	0.055 K	0.186 L	0		Neg
14580	0005	Exterior	1	4	Soffit	Wood	Good	-0.564 K	-0.092 L	0		Neg
14581	0005	Exterior	1	4	Fascia	Wood	Good	0.130 K	0.146 L	0		Neg
14582	0005	Exterior	1	4	Wall	Wood	Good	-0.058 K	-0.527 L	0		Neg

MTH
PO Box 110493

Tacoma WA 98411-

Summary Analysis

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Manager Office

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Comp	Component Name	Number Tested	Num Pos (%)	Num Neg (%)	Num Incl (%)	Lab Tested	Lab Pos (%)	
1	Door	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
2	Door Jamb	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
3	Door Molding	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
4	Wall	13	0 (0 %)	13 (100 %)	0 (0 %)	0	0 (0 %)	
16	Stair Handrail	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
25	Soffit	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
30	Wood post	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
53	Wall trim	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
54	Rafter	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
62	Fascia	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
63	Bargeboard	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
Total Reported		30	0	30	0	0	0	

MTH
PO Box 110493

Tacoma WA 98411-

Daily Calibration

Project	Site	Date	Time	K-Shell mg/cm2	K-Avg. mg/cm2	L-Shell mg/cm2	L-Avg. mg/cm2	Scanner #	Instr #	Oper
Starting Calibration		09/10/04	11:04A	0.858	0.914	0.818	0.783	M41490	490	1817
Starting Calibration		09/10/04	11:05A	0.836		0.756		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.966		0.787		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.862		0.779		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.911		0.763		M41490	490	1817
Starting Calibration		09/10/04	11:07A	1.045		0.787		M41490	490	1817
4325	0001	09/10/04	01:37P	0.790	0.790	0.851	0.851	M41490	490	1817
4325	0009	09/10/04	02:48P	0.596	0.596	0.809	0.809	M41490	490	1817
Starting Calibration		09/10/04	07:16A	0.842	0.914	0.774	0.783	M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.913		0.769		M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.965		0.829		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.885		0.758		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.971		0.790		M41490	490	1817
4326	0001	09/10/04	09:09A	0.905	0.905	0.919	0.919	M41490	490	1817
4326	0007	09/10/04	10:05A	0.657	0.657	0.749	0.749	M41490	490	1817

LAUNDRY BUILDING

Pierce County Housing Authority
Tacoma, WA

ALL TESTS BY COMPONENT & COLOR
(EACH UNIT)

VILLAGE SQUARE APARTMENTS
LAUNDRY ROOM

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
All components are painted beige unless otherwise indicated.				
West Elevation	Door-rust	0.00	0.19	Negative
	Door jamb-rust	-0.35	-0.51	Negative
	Door molding-rust	0.04	-0.68	Negative
	Wall	-0.23	-0.42	Negative
	Wall	-0.65	-0.14	Negative
	Bargeboard-rust	-0.14	-0.50	Negative
North Elevation	Wall	-0.91	-0.17	Negative
	Soffit	-03.2	-0.49	Negative
	Rafter	-0.49	-0.05	Negative
	Fascia-rust	0.25	-0.05	Negative
	Wall	-0.09	-0.03	Negative
East Elevation	Wall	-0.13	-0.38	Negative
	Bargeboard-rust	-0.41	-0.32	Negative
	Wall	-0.28	0.22	Negative
	Wall	-0.58	-0.32	Negative
South Elevation	Wall	-0.09	-0.14	Negative
	Soffit	-0.23	-0.15	Negative
	Rafter	-0.54	0.15	Negative
	Fascia-rust	-0.54	0.15	Negative
	Wall	-0.14	-0.49	Negative

MTH
PO Box 110493

Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Laundry Room

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 21

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14530	0004	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
14531	0004	Exterior	1	1	Door	Metal	Good	0.001 K	0.189 L	0		Neg
14532	0004	Exterior	1	1	Door Jamb	Wood	Good	-0.351 K	-0.508 L	0		Neg
14533	0004	Exterior	1	1	Door Molding	Wood	Good	0.041 K	-0.676 L	0		Neg
14534	0004	Exterior	1	1	Wall	Wood	Good	-0.235 K	-0.421 L	0		Neg
14535	0004	Exterior	1	1	Wall	Wood	Good	-0.650 K	-0.143 L	0		Neg
14536	0004	Exterior	1	1	Bargeboard	Wood	Good	-0.140 K	-0.499 L	0		Neg
14537	0004	Exterior	1	2	Wall	Wood	Good	-0.911 K	-0.172 L	0		Neg
14538	0004	Exterior	1	2	Soffit	Wood	Good	-0.316 K	-0.486 L	0		Neg
14539	0004	Exterior	1	2	Rafter	Wood	Good	-0.487 K	-0.052 L	0		Neg
14540	0004	Exterior	1	2	Fascia	Wood	Good	0.254 K	-0.050 L	0		Neg
14541	0004	Exterior	1	2	Wall	Wood	Good	-0.092 K	-0.028 L	0		Neg
14542	0004	Exterior	1	3	Wall	Wood	Good	-0.127 K	-0.378 L	0		Neg
14543	0004	Exterior	1	3	Bargeboard	Wood	Good	-0.410 K	-0.324 L	0		Neg
14544	0004	Exterior	1	3	Wall	Wood	Good	-0.280 K	0.217 L	0		Neg
14545	0004	Exterior	1	3	Wall	Wood	Good	-0.577 K	-0.321 L	0		Neg
14546	0004	Exterior	1	4	Wall	Wood	Good	-0.088 K	-0.145 L	0		Neg
14547	0004	Exterior	1	4	Soffit	Wood	Good	-0.232 K	-0.152 L	0		Neg
14548	0004	Exterior	1	4	Rafter	Wood	Good	-0.539 K	0.152 L	0		Neg
14549	0004	Exterior	1	4	Fascia	Wood	Good	-0.109 K	0.055 L	0		Neg

MTH
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Tacoma WA 98411

XRF and Lab Results

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Laundry Room

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 21

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
14550	0004	Exterior	1	4	Wall	Wood	Good	-0.138 K	0.487 L	0		Neg

MTH
PO Box 110493

Tacoma WA 98411-

Summary Analysis

Customer: Pierce County Housing Authority
PO Box 45410
Tacoma,WA 98445

Project Name: Village Square Apartments
10810 Lakeview Avenue SW
Lakewood,WA 98499

Site Name: Exterior
Laundry Room

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Comp	Component Name	Number Tested	Num Pos (%)	Num Neg (%)	Num Incl (%)	Lab Tested	Lab Pos (%)	
1	**Door**	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
2	**Door Jamb**	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
3	**Door Molding**	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
4	**Wall**	9	0 (0 %)	9 (100 %)	0 (0 %)	0	0 (0 %)	
25	**Soffit**	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
54	**Rafter**	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
62	**Fascia**	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
63	**Bargeboard**	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
Total Reported		20	0	20	0	0	0	

MTH
PO Box 110493

Tacoma WA 98411-

Daily Calibration

Project	Site	Date	Time	K-Shell mg/cm2	K-Avg. mg/cm2	L-Shell mg/cm2	L-Avg. mg/cm2	Scanner #	Instr #	Oper
Starting Calibration		09/10/04	11:04A	0.858	0.914	0.818	0.783	M41490	490	1817
Starting Calibration		09/10/04	11:05A	0.836		0.756		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.966		0.787		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.862		0.779		M41490	490	1817
Starting Calibration		09/10/04	11:06A	0.911		0.763		M41490	490	1817
Starting Calibration		09/10/04	11:07A	1.045		0.787		M41490	490	1817
4325	0001	09/10/04	01:37P	0.790	0.790	0.851	0.851	M41490	490	1817
4325	0009	09/10/04	02:48P	0.596	0.596	0.809	0.809	M41490	490	1817
Starting Calibration		09/10/04	07:16A	0.842	0.914	0.774	0.783	M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.913		0.769		M41490	490	1817
Starting Calibration		09/10/04	07:17A	0.965		0.829		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.885		0.758		M41490	490	1817
Starting Calibration		09/10/04	07:18A	0.971		0.790		M41490	490	1817
4326	0001	09/10/04	09:09A	0.905	0.905	0.919	0.919	M41490	490	1817
4326	0007	09/10/04	10:05A	0.657	0.657	0.749	0.749	M41490	490	1817

Performance Characteristic Sheet

EFFECTIVE DATE: June 26, 1996 **EDITION NO.: 3**

MANUFACTURER AND MODEL:

Make: *Scitec Corporation*
Model: *MAP-4*
Source: ^{57}Co
Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS

Test mode, Screen mode, or Unlimited mode.

XRF CALIBRATION CHECK LIMITS

0.6 to 1.2 mg/cm^2 (inclusive)

SUBSTRATE CORRECTION:

When using Unlimited mode, substrate correction recommended for:

None

When using Unlimited mode, substrate correction not recommended for:

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

When using Screen or Test mode, for XRF results below 4.0 mg/cm^2, substrate correction recommended for:

Drywall, Metal, and Wood

When using Screen or Test mode, substrate correction not recommended for:

Brick, Concrete, and Plaster

INCONCLUSIVE RANGE OR THRESHOLD

UNLIMITED MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm^2)
Results not corrected for substrate bias for unlimited mode readings	Brick	0.91 to 1.19
	Concrete	0.91 to 1.19
	Drywall	0.91 to 1.19
	Metal	0.91 to 1.19
	Plaster	0.91 to 1.19
	Wood	0.91 to 1.19

SCREEN MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm^2)
Results corrected for substrate bias for screen mode readings on drywall, metal, and wood substrates only	Brick	0.91 to 1.09
	Concrete	0.91 to 1.09
	Drywall	0.91 to 1.39
	Metal	0.91 to 1.19
	Plaster	0.91 to 1.09
	Wood	0.91 to 1.29

TEST MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm^2)	INCONCLUSIVE RANGE (mg/cm^2)
Readings corrected for substrate bias for test mode readings on drywall, metal, and wood substrates only	Brick	0.9	None
	Concrete	0.9	None
	Drywall	None	0.91 to 1.39
	Metal	None	0.91 to 1.09
	Plaster	0.9	None
	Wood	None	0.91 to 1.29

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 an EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations. All of the test locations were tested in February 1996 using two different instruments. One instrument had a new source installed in July 1994 and its strength at the time of testing was calculated as 9.4 mCi. The other instrument had a new source installed in September 1994 and its strength at the time of testing was calculated as 10.6 mCi.

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.

XRF CALIBRATION CHECK:

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 VALUE COMPUTATION

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm^2 for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm^2 at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

- Using the same XRF instrument, take three readings on a bare substrate area covered with the

NIST SRM paint film nearest 1 mg/cm^2. Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

- Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

  For each substrate type (the 1.02 mg/cm^2 NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\left.\begin{matrix}\text{Correction}\\ \text{Value}\end{matrix}\right\} = \frac{1^{st} + 2^{nd} + 3^{rd} + 4^{th} + 5^{th} + 6^{th}\ \text{Reading}}{6} - 1.02 mg/cm^2$$

- Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

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 either 15-second readings or 60-second 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 and multi-family housing, a result is defined as 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 retest 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 screen, test, and confirm modes, the MAP 4 instrument tests until a K-shell result is obtained relative to a level of precision. A result is "positive", "negative" or "retest" as displayed by indicator lights. For the unlimited mode, the MAP 4 instrument tests until a K-shell result is indicated relative to an action level (1.0 mg/cm^2 for archive testing) and the current precision, or until the the reading is terminated by releasing the trigger. A few unlimited mode readings were terminated because they exceeded the two-minute limit used for archive testing. The following tables provide testing time information for three testing modes. Insufficient information is available to provide this information for confirm mode. All times have been scaled to match an initial 12 miC source. Note that source strength and factors such as substrate may affect testing times.

UNLIMITED MODE TESTING TIMES (Seconds)

SUBSTRATE[a]	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm^2)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	3	4	6	4	13	3
Metal	3	4	8	4	9	3
Brick Concrete Plaster	4	5	8	6	6	3

[a]The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

SCREEN MODE TESTING TIMES (Seconds)

SUBSTRATE[a]	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm^2)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	4	6	7	5	6	7
Metal	4	5	6	5	5	5
Brick Concrete Plaster	11	11	13	11	11	11

[a]The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (Thereare no aluminum samples in the archive facility).

TEST MODE TESTING TIMES (Seconds)						
SUBSTRATE	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm²)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	17	22	27	21	20	28
Metal	13	20	23	20	20	20
Brick Concrete Plaster	41	42	52	41	46	43
*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).						

BIAS AND PRECISION

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with laboratory-measured lead levels less than 4.0 mg/cm² lead. There were 15 testing locations taken in the screen mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were 15 testing locations taken in the test mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were not any testing locations taken in the confirm mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. There were 15 testing locations taken in the unlimited mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². All testing was done in February 1996 with two different instruments. The following data are for illustrative purposes only. Actual bias must be determined on the site. Inconclusive ranges provided above already account for bias and precision.

SCREEN MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION* (mg/cm²)
0.0 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.1	0.2
	Metal	0.1	0.3
	Plaster	-0.1	0.3
	Wood	0.0	0.2
0.5 mg/cm²	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywall	0.3	0.4
	Metal	0.2	0.3
	Plaster	0.0	0.3
	Wood	0.2	0.4
1.0 mg/cm²	Brick	0.1	0.4
	Concrete	0.1	0.4
	Drywall	0.5	0.6
	Metal	0.3	0.3
	Plaster	0.1	0.4
	Wood	0.4	0.6

2.0 mg/cm²	Brick	0.4	0.5
	Concrete	0.4	0.5
	Drywall	0.9	0.8
	Metal	0.5	0.3
	Plaster	0.4	0.5
	Wood	0.7	0.8

*Precision at 1 standard deviation

TEST MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION* (mg/cm²)
0.0 mg/cm²	Brick	-0.1	0.2
	Concrete	-0.1	0.2
	Drywall	0.1	0.1
	Metal	0.1	0.2
	Plaster	-0.1	0.2
	Wood	0.0	0.1
0.5 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.3	0.4
	Metal	0.2	0.2
	Plaster	-0.1	0.3
	Wood	0.2	0.4
1.0 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.5	0.6
	Metal	0.3	0.2
	Plaster	-0.1	0.3
	Wood	0.4	0.6
2.0 mg/cm²	Brick	0.0	0.4
	Concrete	0.0	0.4
	Drywall	1.0	0.8
	Metal	0.5	0.2
	Plaster	0.0	0.4
	Wood	0.8	0.8

*Precision at 1 standard deviation

CLASSIFICATION OF RESULTS

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristics Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

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 Characteristics Sheet is a joint product of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Housing and Urban Development (HUD). The issuance of this sheet does not constitute rulemaking. The information provided here is intended solely as guidance to be used in conjunction with Chapter 7, Lead-Based Paint Inspection, of the *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. EPA and HUD reserve the right to revise this guidance. Please address questions and comments on this sheet to: Director, Office of Lead Hazard Control (L), U.S. Department of Housing and Urban Development, 451 Seventh St, S.W., Washington, DC 20410.

STATE OF WASHINGTON

Department of Community, Trade and Economic Development
Lead-Based Paint Program

MTH Environmental, LLC

Has fulfilled the certification requirements of Washington Administrative code (WAC) 365-230 and has been certified to conduct lead-based paint activities pursuant to WAC 365-230-200:

Certification #	Issuance Date	Expiration Date
0049	6/15/2004	6/15/2007

STATE OF WASHINGTON

Department of Community, Trade and Economic Development
Lead-Based Paint Program

Mike T Hara

Has fulfilled the certification requirements of Washington Administrative code (WAC) 365-230 and has been certified to conduct lead-based paint activities pursuant to WAC 365-230-200 as a:

Risk Assessor, Inspector

Certification #	Issuance Date	Expiration Date
0014	6/15/2004	6/15/2007

LEAD PAINT IDENTIFICATION SURVEY

PROJECT LOCATION:

Oakleaf Apartment Complex
4111 – 110th Street SW
Lakewood, Washington

PREPARED FOR:

PIERCE COUNTY HOUSING AUTHORITY

April 28, 2007

MTH Environmental, LLC
Asbestos and Lead Based Paint Consultants

253.566.9377
Fax 253.566.9369
e-mail MTH_LLC@qwest.net

PO Box 110493
Tacoma, WA 98411

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EXECUTIVE SUMMARY

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Asbestos and
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PO Box 110493
Tacoma, WA 98411

EXECUTIVE SUMMARY

MTH Environmental, LLC, at the request of the Pierce County Housing Authority, performed a lead paint inspection at the Oakleaf Apartments, 4111 – 110th Street SW, Lakewood, Washington on April 26, 2007. The complex consists of two (2) two-story structures and the report is divided into each individual building referred to as the north and south buildings.

The purpose of the inspection was to determine the presence of lead paint on the exterior surfaces only. No interior testing was conducted on the units. The testing was performed using the MAP4 XRF Spectrum Analyzer. This instrument is equipped with a Cobalt 57 radioactive source and has a built-in "automatic substrate correction" feature that enables testing of the component without manual corrections for substrate density. The testing was conducted using the "unlimited"-test mode of the instrument. With this mode, there is an "inconclusive" range of 0.2 mg/cm2 above and below the HUD Guideline level for lead paint of 1.0 mg/cm2 in the K-Shell (K-Gen) test mode. During the inspection, the "test" mode was also used. With this mode, there is no "inconclusive" range and the result is considered as accurate to the reading on the instrument console. All test locations were selected on a random basis by the inspector. The colors listed in the Test Component Section of this report may vary according to color tint, light and other artificial conditions present at the time of the inspection.

XRF test results indicate the presence of lead paint on the rafter and soffit components throughout the exterior. The soffit component refers to the 2nd floor plywood decking material. In addition, one test taken on the floor surface on the 2nd floor walkway and one beam tested negative. All other tests taken on these components tested negative. It is assumed that the positive results are isolated based upon other tests taken on the similar components.

All of the positive lead painted components are in stable and intact condition. If these components are to be disturbed during the renovation process, the use of HUD "Safe Work Practice" techniques must be used during the project.

OAK LEAF APARTMENTS

SOUTH BUILDING

XRF AND LAB RESULTS

Pierce County Housing Authority
Tacoma, WA

ALL TESTS BY COMPONENT & COLOR
(EACH UNIT)

OAK LEAF APARTMENTS
SOUTH BUILDING
4111 – 110TH STREET SW
LAKEWOOD, WASHINGTON

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
EXTERIOR TESTING ONLY				
South Elevation	Wall-gray	0.11	0.13	Negative
	Door-gray	-0.32	-0.45	Negative
	Door jamb-green	-0.58	0.20	Negative
	Door casing-green	0.16	-0.08	Negative
	Wall-gray	-0.06	-0.64	Negative
	Wood post-gray	-0.09	-0.19	Negative
	Rafter-gray	7.06	1.26	**Positive**
	Soffit-gray	6.06	0.76	**Positive**
	Wall-gray	-0.47	0.14	Negative
	Wood post-gray	0.05	0.42	Negative
	Rafter-gray	5.25	1.21	**Positive**
	Soffit-gray	6.63	1.39	**Positive**
	Handrail-gray	2.15	0.43	**Positive**
	Stair stringer-gray	0.10	0.04	Negative
	Stair tread-gray	-0.01	-0.71	Negative
	Wood post-gray	0.22	0.12	Negative
	Exterior 2nd floor landing wall-green	1.06	-0.11	*Inconclusive*
	Exterior 2nd floor landing wall-green	0.90	-0.14	*Inconclusive*
	Door-gray	0.20	-0.03	Negative
	Door jamb-green	-0.19	-0.17	Negative
	Door casing-green	0.44	-0.14	Negative
	Wall-gray	-0.01	-0.27	Negative
	Rafter-gray	4.04	1.14	**Positive**
	Soffit-gray	3.15	0.62	**Positive**
	Handrail-gray	-0.60	0.33	Negative
	Stair stringer-gray	-0.49	-0.52	Negative
	Exterior 2nd floor landing wall-green	-0.36	0.17	Negative
	Wall-gray	0.23	-0.08	Negative
	Wall-gray	0.39	-0.15	Negative
	Door-gray	-0.49	0.20	Negative
	Door jamb-green	0.34	0.15	Negative
	Door casing-green	0.45	-0.23	Negative
	Floor (decking)-gray	0.16	-0.24	Negative
	Wood beam-gray	-0.47	0.04	Negative
	Rafter-gray	2.75	0.07	**Positive**

Pierce County Housing Authority
Tacoma, WA

Page 2
Lead Paint Testing
South Building
Oak Leaf Apartments
4111 – 110th Street SW
Lakewood, WA

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
South Elevation	Soffit-gray	3.06	0.83	**Positive**
	Exterior 2nd floor landing wall-green	0.09	-0.22	Negative
West Elevation	Wall-gray	-0.20	-0.42	Negative
	Wall-gray	0.15	-0.32	Negative
North Elevation	Wall-gray	-0.36	-0.29	Negative
	Wall-gray	-0.04	-0.23	Negative
	Wall-gray	-0.30	0.91	Negative
	Wall-gray	0.07	-0.10	Negative
	Wall-gray	-0.30	0.08	Negative
	Fascia-green	0.07	0.18	Negative
	Soffit-gray	3.06	1.32	**Positive**
	Soffit-gray	2.81	1.11	**Positive**
	Wall-gray	-0.15	-0.14	Negative
East Elevation	Wall-gray	0.05	-0.18	Negative
	Fascia-green	-0.08	-0.31	Negative
	Wall-gray	-0.03	-0.29	Negative
	Wall-gray	-0.34	-0.33	Negative

XRF and Lab Results

Customer: Pierce County Housing Authority

Project Name: Oakleaf Apartments
4111 - 110th Street SW
Lakewood,WA

Site Name: South Building
Oakleaf Apartments

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 54

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
6766	0001	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
6767	0001	Calibration	*	*	*	*	*	0.968 K	1.061 L	490		Incl
6768	0001	Exterior	1	1	Wall	Wood	Good	0.113 K	0.134 L	490		Neg
6769	0001	Exterior	1	1	Door	Metal	Good	-0.323 K	-0.449 L	490		Neg
6770	0001	Exterior	1	1	Door Jamb	Wood	Good	-0.581 K	0.199 L	490		Neg
6771	0001	Exterior	1	1	Door Casing	Wood	Good	0.156 K	-0.084 L	490		Neg
6772	0001	Exterior	1	1	Wall	Wood	Good	-0.062 K	-0.637 L	490		Neg
6773	0001	Exterior	1	1	Wood post	Wood	Good	-0.091 K	-0.186 L	490		Neg
6774	0001	Exterior	1	1	Rafter	Wood	Good	7.061 K	1.256 L	490		Pos
6775	0001	Exterior	1	1	Soffit	Wood	Good	6.060 K	0.756 L	490		Pos
6776	0001	Exterior	1	1	Wall	Wood	Good	-0.468 K	0.136 L	490		Neg
6777	0001	Exterior	1	1	Wood post	Wood	Good	0.050 K	-0.416 L	490		Neg
6778	0001	Exterior	1	1	Rafter	Wood	Good	5.252 K	1.209 L	490		Pos
6779	0001	Exterior	1	1	Soffit	Wood	Good	6.635 K	1.385 L	490		Pos
6780	0001	Exterior	1	1	Stair Handrail	Wood	Good	2.147 K	0.430 L	490		Pos
6781	0001	Exterior	1	1	Stair Stringer	Wood	Good	0.096 K	0.039 L	490		Neg
6782	0001	Exterior	1	1	Stair Tread	Wood	Good	-0.007 K	-0.706 L	490		Neg
6783	0001	Exterior	1	1	Wood post	Wood	Good	0.221 K	0.119 L	490		Neg
6784	0001	Exterior	1	1	Miscellaneous	Wood	Good	1.064 K	-0.110 L	490		Incl
6785	0001	Exterior	1	1	Miscellaneous	Wood	Good	0.899 K	-0.144 L	490		Neg
6786	0001	Exterior	1	1	Door	Metal	Good	0.198 K	-0.028 L	490		Neg

XRF and Lab Results

Customer: Pierce County Housing Authority

Project Name: Oakleaf Apartments
4111 - 110th Street SW
Lakewood,WA

Site Name: South Building
Oakleaf Apartments

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 54

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
6808	0001	Exterior	1	3	Wall	Wood	Good	-0.035 K	-0.231 L	490		Neg
6809	0001	Exterior	1	3	Wall	Wood	Good	-0.300 K	0.908 L	490		Neg
6810	0001	Exterior	1	3	Wall	Wood	Good	0.065 K	-0.099 L	490		Neg
6811	0001	Exterior	1	3	Wall	Wood	Good	-0.302 K	0.083 L	490		Neg
6812	0001	Exterior	1	3	Fascia	Wood	Good	0.069 K	0.179 L	490		Neg
6813	0001	Exterior	1	3	Soffit	Wood	Good	3.055 K	1.325 L	490		Pos
6814	0001	Exterior	1	3	Soffit	Wood	Good	2.809 K	1.113 L	490		Pos
6815	0001	Exterior	1	3	Wall	Wood	Good	-0.148 K	-0.142 L	490		Neg
6816	0001	Exterior	1	4	Wall	Wood	Good	0.053 K	-0.185 L	490		Neg
6817	0001	Exterior	1	4	Fascia	Wood	Good	-0.077 K	-0.307 L	490		Neg
6818	0001	Exterior	1	4	Wall	Wood	Good	-0.034 K	-0.291 L	490		Neg
6819	0001	Exterior	1	4	Wall	Wood	Good	-0.344 K	-0.326 L	490		Neg

SUMMARY ANALYSIS

Summary Analysis

Customer: Pierce County Housing Authority

Project Name: Oakleaf Apartments
4111 - 110th Street SW
Lakewood,WA

Site Name: South Building
Oakleaf Apartments

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Comp	Component Name	Number Tested	Num Pos (%)	Num Neg (%)	Num Incl (%)	Lab Tested	Lab Pos (%)	
1	**Door**	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
2	**Door Jamb**	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
3	**Door Casing**	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
4	**Wall**	17	0 (0 %)	17 (100 %)	0 (0 %)	0	0 (0 %)	
13	**Stair Tread**	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
15	**Stair Stringer**	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
16	**Stair Handrail**	2	1 (50 %)	1 (50 %)	0 (0 %)	0	0 (0 %)	
18	**Floor**	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
25	**Soffit**	6	6 (100 %)	0 (0 %)	0 (0 %)	0	0 (0 %)	
30	**Wood post**	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
32	**Wood beam**	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
54	**Rafter**	4	4 (100 %)	0 (0 %)	0 (0 %)	0	0 (0 %)	
62	**Fascia**	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
64	**Miscellaneous**	4	0 (0 %)	3 (75 %)	1 (25 %)	0	0 (0 %)	
Total Reported		52	11	40	1	0	0	

CONFIRMED POSITIVE RESULTS

Confirmed Positives

Customer: Pierce County Housing Authority

Project Name: Oakleaf Apartments
4111 - 110th Street SW
Lakewood,WA

Site Name: South Building
Oakleaf Apartments

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 11

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
6774	0001	Exterior	1	1	Rafter	Wood	Good	7.061 K	1.256 L	490		Pos
6775	0001	Exterior	1	1	Soffit	Wood	Good	6.060 K	0.756 L	490		Pos
6778	0001	Exterior	1	1	Rafter	Wood	Good	5.252 K	1.209 L	490		Pos
6779	0001	Exterior	1	1	Soffit	Wood	Good	6.635 K	1.385 L	490		Pos
6780	0001	Exterior	1	1	Stair Handrail	Wood	Good	2.147 K	0.430 L	490		Pos
6790	0001	Exterior	1	1	Rafter	Wood	Good	4.039 K	1.139 L	490		Pos
6791	0001	Exterior	1	1	Soffit	Wood	Good	3.154 K	0.625 L	490		Pos
6802	0001	Exterior	1	1	Rafter	Wood	Good	2.752 K	0.072 L	490		Pos
6803	0001	Exterior	1	1	Soffit	Wood	Good	3.060 K	0.834 L	490		Pos
6813	0001	Exterior	1	3	Soffit	Wood	Good	3.055 K	1.325 L	490		Pos
6814	0001	Exterior	1	3	Soffit	Wood	Good	2.809 K	1.113 L	490		Pos

OAK LEAF APARTMENTS

NORTH BUILDING

XRF AND LAB RESULTS

XRF and Lab Results

Customer: Pierce County Housing Authority

Project Name: Oakleaf Apartments
4111 - 110th Street SW
Lakewood,WA

Site Name: North Building
Oakleaf Apartments

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 58

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
6821	0002	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
6822	0002	Exterior	1	1	Wall	Wood	Good	-0.529 K	-0.198 L	0		Neg
6823	0002	Exterior	1	1	Door	Metal	Good	-0.118 K	-0.158 L	0		Neg
6824	0002	Exterior	1	1	Door Jamb	Wood	Good	-0.455 K	-0.280 L	0		Neg
6825	0002	Exterior	1	1	Door Casing	Wood	Good	0.081 K	-0.010 L	0		Neg
6826	0002	Exterior	1	1	Wood post	Wood	Good	0.363 K	-0.342 L	0		Neg
6827	0002	Exterior	1	1	Wood beam	Wood	Good	2.034 K	0.535 L	0		Pos
6828	0002	Exterior	1	1	Rafter	Wood	Good	-0.423 K	-0.036 L	0		Neg
6829	0002	Exterior	1	1	Soffit	Wood	Good	-0.725 K	-0.678 L	0		Neg
6830	0002	Exterior	1	1	Wall	Wood	Good	0.236 K	-0.121 L	0		Neg
6831	0002	Exterior	1	1	Wood post	Wood	Good	0.142 K	-0.275 L	0		Neg
6832	0002	Exterior	1	1	Wood post	Wood	Good	-0.494 K	0.025 L	0		Neg
6833	0002	Exterior	1	1	Stair Handrail	Wood	Good	-0.264 K	0.308 L	0		Neg
6834	0002	Exterior	1	1	Stair Stringer	Wood	Good	0.102 K	-0.204 L	0		Neg
6835	0002	Exterior	1	1	Stair Tread	Wood	Good	-0.453 K	0.164 L	0		Neg
6836	0002	Exterior	1	1	Miscellaneous	Wood	Good	0.161 K	-0.224 L	0		Neg
6837	0002	Exterior	1	1	Wall	Wood	Good	-0.471 K	-0.432 L	0		Neg
6838	0002	Exterior	1	1	Door	Metal	Good	0.089 K	0.040 L	0		Neg
6839	0002	Exterior	1	1	Door Jamb	Wood	Good	-0.617 K	-0.624 L	0		Neg
6840	0002	Exterior	1	1	Door Casing	Wood	Good	-0.558 K	0.423 L	0		Neg
6841	0002	Exterior	1	1	Wood beam	Wood	Good	0.164 K	-0.280 L	0		Neg

XRF and Lab Results

Customer: Pierce County Housing Authority

Project Name: Oakleaf Apartments
4111 - 110th Street SW
Lakewood,WA

Site Name: North Building
Oakleaf Apartments

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 58

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
6842	0002	Exterior	1	1	Rafter	Wood	Good	2.906 K	0.297 L	0		Pos
6843	0002	Exterior	1	1	Soffit	Wood	Good	3.394 K	0.626 L	0		Pos
6844	0002	Exterior	1	1	Wall	Wood	Good	0.009 K	-0.047 L	0		Neg
6845	0002	Exterior	1	1	Floor	Wood	Good	1.334 K	0.198 L	0		Pos
6846	0002	Exterior	1	1	Floor	Wood	Good	0.601 K	0.096 L	0		Neg
6847	0002	Exterior	1	1	Floor	Wood	Good	0.832 K	0.245 L	0		Neg
6848	0002	Exterior	1	1	Floor	Wood	Good	1.003 K	0.281 L	0		Incl
6849	0002	Exterior	1	1	Railing cap	Wood	Good	0.336 K	-0.190 L	0		Neg
6850	0002	Exterior	1	1	Wall	Wood	Good	-0.359 K	-0.271 L	0		Neg
6851	0002	Exterior	1	1	Wall trim	Wood	Good	0.430 K	-0.118 L	0		Neg
6852	0002	Exterior	1	1	Rafter	Wood	Good	2.498 K	1.100 L	0		Pos
6853	0002	Exterior	1	1	Soffit	Wood	Good	2.977 K	1.180 L	0		Pos
6854	0002	Exterior	1	1	Miscellaneous	Wood	Good	0.556 K	-0.145 L	0		Neg
6855	0002	Exterior	1	1	Wood post	Wood	Good	-0.209 K	-0.022 L	0		Neg
6856	0002	Exterior	1	1	Wood beam	Wood	Good	3.530 K	0.576 L	0		Pos
6857	0002	Exterior	1	1	Rafter	Wood	Good	3.770 K	1.448 L	0		Pos
6858	0002	Exterior	1	1	Soffit	Wood	Good	1.788 K	0.175 L	0		Pos
6859	0002	Exterior	1	2	Wall	Wood	Good	0.235 K	-0.032 L	0		Neg
6860	0002	Exterior	1	2	Wall	Wood	Good	0.203 K	-0.150 L	0		Neg
6861	0002	Exterior	1	2	Wall	Wood	Good	-0.402 K	-0.269 L	0		Neg
6862	0002	Exterior	1	3	Wall	Wood	Good	-0.220 K	-0.210 L	0		Neg

XRF and Lab Results

Customer: Pierce County Housing Authority

Project Name: Oakleaf Apartments
4111 - 110th Street SW
Lakewood,WA

Site Name: North Building
Oakleaf Apartments

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 58

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
6863	0002	Exterior	1	3	Wall	Wood	Good	0.116 K	-0.148 L	0		Neg
6864	0002	Exterior	1	3	Wall	Wood	Good	-0.135 K	-0.062 L	0		Neg
6865	0002	Exterior	1	3	Wall	Wood	Good	-0.216 K	-0.039 L	0		Neg
6866	0002	Exterior	1	3	Wood post	Wood	Good	0.123 K	-0.414 L	0		Neg
6867	0002	Exterior	1	3	Soffit	Wood	Good	1.846 K	0.687 L	0		Pos
6868	0002	Exterior	1	3	Wood beam	Wood	Good	0.091 K	-0.222 L	0		Neg
6869	0002	Exterior	1	3	Floor	Concrete	Good	0.735 K	-0.384 L	0		Neg
6870	0002	Exterior	1	3	Soffit	Wood	Good	2.107 K	0.617 L	0		Pos
6871	0002	Exterior	1	3	Wall	Wood	Good	-1.303 K	-0.302 L	0		Neg
6872	0002	Exterior	1	3	Fascia	Wood	Good	0.207 K	-0.135 L	0		Neg
6873	0002	Exterior	1	3	Door Casing	Wood	Good	0.772 K	0.123 L	0		Neg
6874	0002	Exterior	1	4	Wall	Wood	Good	0.459 K	-0.045 L	0		Neg
6875	0002	Exterior	1	4	Soffit	Wood	Good	0.071 K	-0.014 L	0		Neg
6876	0002	Exterior	1	4	Fascia	Wood	Good	0.282 K	-0.233 L	0		Neg
6877	0002	Exterior	1	4	Wood beam	Wood	Good	-0.738 K	-0.948 L	0		Neg
6878	0002	Exterior	1	4	Wall	Wood	Good	-0.246 K	0.029 L	0		Neg

SUMMARY ANALYSIS

Summary Analysis

Customer: Pierce County Housing Authority

Project Name: Oakleaf Apartments
4111 - 110th Street SW
Lakewood,WA

Site Name: North Building
Oakleaf Apartments

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Comp	Component Name	Number Tested	Num Pos (%)	Num Neg (%)	Num Incl (%)	Lab Tested	Lab Pos (%)	
1	Door	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
2	Door Jamb	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
3	Door Casing	3	0 (0 %)	3 (100 %)	0 (0 %)	0	0 (0 %)	
4	Wall	15	0 (0 %)	15 (100 %)	0 (0 %)	0	0 (0 %)	
13	Stair Tread	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
15	Stair Stringer	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
16	Stair Handrail	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
18	Floor	5	1 (20 %)	3 (60 %)	1 (20 %)	0	0 (0 %)	
25	Soffit	7	5 (71 %)	2 (28 %)	0 (0 %)	0	0 (0 %)	
30	Wood post	5	0 (0 %)	5 (100 %)	0 (0 %)	0	0 (0 %)	
32	Wood beam	5	2 (40 %)	3 (60 %)	0 (0 %)	0	0 (0 %)	
49	Railing cap	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
53	Wall trim	1	0 (0 %)	1 (100 %)	0 (0 %)	0	0 (0 %)	
54	Rafter	4	3 (75 %)	1 (25 %)	0 (0 %)	0	0 (0 %)	
62	Fascia	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
64	Miscellaneous	2	0 (0 %)	2 (100 %)	0 (0 %)	0	0 (0 %)	
Total Reported		57	11	45	1	0	0	

No Averaging Selected

Pierce County Housing Authority
Tacoma, WA

ALL TESTS BY COMPONENT & COLOR
(EACH UNIT)

OAKLEAF APARTMENTS
NORTH BUILDING
4111 – 110TH STREET SW
LAKEWOOD, WASHINGTON

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
EXTERIOR TESTING ONLY				
North Elevation	Wall-gray	-0.53	-0.20	Negative
	Door-gray	-0.12	-0.16	Negative
	Door jamb-green	-0.46	-0.28	Negative
	Door casing-green	0.08	-0.01	Negative
	Wood post-gray	0.36	-0.34	Negative
	Wood beam-gray	2.03	0.54	**Positive**
	Rafter-gray	-0.42	-0.04	Negative
	Soffit-gray	-0.72	-0.68	Negative
	Wall-gray	0.24	-0.12	Negative
	Wood post-gray	0.14	-0.28	Negative
	Wood post-gray	-0.49	0.03	Negative
	Handrail-green	-0.26	0.31	Negative
	Stair stringer-gray	0.10	-0.20	Negative
	Stair tread-gray	-0.45	0.16	Negative
	Exterior 2nd floor landing wall-green	0.16	-0.22	Negative
	Wall-gray	-0.47	0.43	Negative
	Door-gray	0.09	0.04	Negative
	Door jamb-green	-0.62	-0.62	Negative
	Door casing-green	-0.56	0.42	Negative
	Wood beam-gray	0.16	-0.28	Negative
	Rafter-gray	2.91	0.30	**Positive**
	Soffit-gray	3.39	0.63	**Positive**
	Wall-gray	0.01	-0.05	Negative
	Floor-2nd floor	1.33	0.20	**Positive**
	Floor-2nd floor	0.60	0.10	Negative
	Floor-2nd floor *test*	0.83	0.24	Negative
	Floor-2nd floor *test*	1.00	0.28	**Positive**
	Railing cap-green	0.34	-0.19	Negative
	Wall-gray	-0.36	-0.27	Negative
	Wall trim-green	0.43	-0.12	Negative
	Rafter-gray	2.50	1.10	**Positive**
	Soffit-gray	2.98	1.18	**Positive**
	Exterior 2nd floor landing wall-green	0.56	-0.14	Negative
	Wood post-gray	-0.21	-0.02	Negative
	Wood beam-gray	3.53	0.58	**Positive**

Pierce County Housing Authority
Tacoma, WA

Page 2
Lead Paint Testing
North Building
Oak Leaf Apartments
4111 – 110th Street SW
Lakewood, WA

UNIT	DESCRIPTION	K-GEN (mg/cm2)	L-GEN (mg/cm2)	COMMENTS
North Elevation	Rafter-gray	3.77	1.45	**Positive**
	Soffit-gray	1.79	0.17	**Positive**
East Elevation	Wall-gray	0.23	-0.03	Negative
	Wall-gray	0.20	-0.15	Negative
	Wall-gray	-0.40	-0.27	Negative
South Elevation	Wall-gray	-0.22	-0.21	Negative
	Wall-gray	0.12	-0.15	Negative
	Wall-gray	-0.14	-0.06	Negative
	Wall-gray	-0.22	-0.04	Negative
	Wood post-gray	0.12	-0.41	Negative
	Soffit-gray	1.85	0.69	**Positive**
	Wood beam-gray	0.09	-0.22	Negative
	Floor-gray	0.73	-0.38	Negative
	Soffit-gray	2.11	0.62	**Positive**
	Wall-gray	-1.30	-0.30	Negative
	Fascia-green	0.21	-0.14	Negative
	Door casing-green	0.77	0.12	Negative
West Elevation	Wall-gray	0.46	-0.04	Negative
	Soffit-gray	0.07	-0.01	Negative
	Fascia-green	0.28	-0.23	Negative
	Wood beam-gray	-0.74	-0.95	Negative
	Wall-gray	-0.25	0.03	Negative

CONFIRMED POSITIVE RESULTS

Confirmed Positives

Customer: Pierce County Housing Authority

Project Name: Oakleaf Apartments
4111 - 110th Street SW
Lakewood,WA

Site Name: North Building
Oakleaf Apartments

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 11

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
6827	0002	Exterior	1	1	Wood beam	Wood	Good	2.034 K	0.535 L	0		Pos
6842	0002	Exterior	1	1	Rafter	Wood	Good	2.906 K	0.297 L	0		Pos
6843	0002	Exterior	1	1	Soffit	Wood	Good	3.394 K	0.626 L	0		Pos
6845	0002	Exterior	1	1	Floor	Wood	Good	1.334 K	0.198 L	0		Pos
6852	0002	Exterior	1	1	Rafter	Wood	Good	2.498 K	1.100 L	0		Pos
6853	0002	Exterior	1	1	Soffit	Wood	Good	2.977 K	1.180 L	0		Pos
6856	0002	Exterior	1	1	Wood beam	Wood	Good	3.530 K	0.576 L	0		Pos
6857	0002	Exterior	1	1	Rafter	Wood	Good	3.770 K	1.448 L	0		Pos
6858	0002	Exterior	1	1	Soffit	Wood	Good	1.788 K	0.175 L	0		Pos
6867	0002	Exterior	1	3	Soffit	Wood	Good	1.846 K	0.687 L	0		Pos
6870	0002	Exterior	1	3	Soffit	Wood	Good	2.107 K	0.617 L	0		Pos

XRF PERFORMANCE CHARACTERISTICS SHEET

Performance Characteristic Sheet

EFFECTIVE DATE: **June 26, 1996** **EDITION NO.: 3**

MANUFACTURER AND MODEL:

Make: *Scitec Corporation*
Model: *MAP-4*
Source: ^{57}Co
Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS

Test mode, Screen mode, or Unlimited mode.

XRF CALIBRATION CHECK LIMITS

0.6 to 1.2 mg/cm^2 (inclusive)

SUBSTRATE CORRECTION:

When using Unlimited mode, substrate correction recommended for:

None

When using Unlimited mode, substrate correction not recommended for:

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

When using Screen or Test mode, for XRF results below 4.0 mg/cm^2, substrate correction recommended for:

Drywall, Metal, and Wood

When using Screen or Test mode, substrate correction not recommended for:

Brick, Concrete, and Plaster

INCONCLUSIVE RANGE OR THRESHOLD

UNLIMITED MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm^2)
Results not corrected for substrate bias for unlimited mode readings	Brick	0.91 to 1.19
	Concrete	0.91 to 1.19
	Drywall	0.91 to 1.19
	Metal	0.91 to 1.19
	Plaster	0.91 to 1.19
	Wood	0.91 to 1.19

SCREEN MODE READING DESCRIPTION	SUBSTRATE	INCONCLUSIVE RANGE (mg/cm^2)
Results corrected for substrate bias for screen mode readings on drywall, metal, and wood substrates only	Brick	0.91 to 1.09
	Concrete	0.91 to 1.09
	Drywall	0.91 to 1.39
	Metal	0.91 to 1.19
	Plaster	0.91 to 1.09
	Wood	0.91 to 1.29

TEST MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm^2)	INCONCLUSIVE RANGE (mg/cm^2)
Readings corrected for substrate bias for test mode readings on drywall, metal, and wood substrates only	Brick	0.9	None
	Concrete	0.9	None
	Drywall	None	0.91 to 1.39
	Metal	None	0.91 to 1.09
	Plaster	0.9	None
	Wood	None	0.91 to 1.29

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 an EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations. All of the test locations were tested in February 1996 using two different instruments. One instrument had a new source installed in July 1994 and its strength at the time of testing was calculated as 9.4 mCi. The other instrument had a new source installed in September 1994 and its strength at the time of testing was calculated as 10.6 mCi.

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.

XRF CALIBRATION CHECK:

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 VALUE COMPUTATION

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm^2 for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm^2 at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

- Using the same XRF instrument, take three readings on a bare substrate area covered with the

NIST SRM paint film nearest 1 mg/cm^2. Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

- Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

  For each substrate type (the 1.02 mg/cm^2 NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\left.\begin{matrix}Correction\\Value\end{matrix}\right\} = \frac{1^{st} + 2^{nd} + 3^{rd} + 4^{th} + 5^{th} + 6^{th}\ Reading}{6} - 1.02 mg/cm^2$$

- Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

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 either 15-second readings or 60-second 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 and multi-family housing, a result is defined as 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 retest 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 screen, test, and confirm modes, the MAP 4 instrument tests until a K-shell result is obtained relative to a level of precision. A result is "positive", "negative" or "retest" as displayed by indicator lights. For the unlimited mode, the MAP 4 instrument tests until a K-shell result is indicated relative to an action level (1.0 mg/cm^2 for archive testing) and the current precision, or until the the reading is terminated by releasing the trigger. A few unlimited mode readings were terminated because they exceeded the two-minute limit used for archive testing. The following tables provide testing time information for three testing modes. Insufficient information is available to provide this information for confirm mode. All times have been scaled to match an initial 12 miC source. Note that source strength and factors such as substrate may affect testing times.

UNLIMITED MODE TESTING TIMES (Seconds)

SUBSTRATE[a]	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm^2)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	3	4	6	4	13	3
Metal	3	4	8	4	9	3
Brick Concrete Plaster	4	5	8	6	6	3

[a]The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

SCREEN MODE TESTING TIMES (Seconds)

SUBSTRATE[a]	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm^2)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	4	6	7	5	6	7
Metal	4	5	6	5	5	5
Brick Concrete Plaster	11	11	13	11	11	11

[a]The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).

TEST MODE TESTING TIMES (Seconds)						
SUBSTRATE	ALL DATA			MEDIAN FOR LABORATORY-MEASURED LEAD LEVELS (mg/cm²)		
	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	17	22	27	21	20	28
Metal	13	20	23	20	20	20
Brick Concrete Plaster	41	42	52	41	46	43
*The general calibration was used for wood, drywall, brick, concrete, plaster. Steel calibration was used for metal. (There are no aluminum samples in the archive facility).						

BIAS AND PRECISION

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with laboratory-measured lead levels less than 4.0 mg/cm² lead. There were 15 testing locations taken in the screen mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were 15 testing locations taken in the test mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². There were not any testing locations taken in the confirm mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. There were 15 testing locations taken in the unlimited mode with a laboratory-measured lead levels equal to or greater than 4.0 mg/cm² lead. None of these had XRF readings less than 1.0 mg/cm². All testing was done in February 1996 with two different instruments. The following data are for illustrative purposes only. Actual bias must be determined on the site. Inconclusive ranges provided above already account for bias and precision.

SCREEN MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION* (mg/cm²)
0.0 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.1	0.2
	Metal	0.1	0.3
	Plaster	-0.1	0.3
	Wood	0.0	0.2
0.5 mg/cm²	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywall	0.3	0.4
	Metal	0.2	0.3
	Plaster	0.0	0.3
	Wood	0.2	0.4
1.0 mg/cm²	Brick	0.1	0.4
	Concrete	0.1	0.4
	Drywall	0.5	0.6
	Metal	0.3	0.3
	Plaster	0.1	0.4
	Wood	0.4	0.6

2.0 mg/cm²	Brick	0.4	0.5
	Concrete	0.4	0.5
	Drywall	0.9	0.8
	Metal	0.5	0.3
	Plaster	0.4	0.5
	Wood	0.7	0.8

*Precision at 1 standard deviation

TEST MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm²)	PRECISION* (mg/cm²)
0.0 mg/cm²	Brick	-0.1	0.2
	Concrete	-0.1	0.2
	Drywall	0.1	0.1
	Metal	0.1	0.2
	Plaster	-0.1	0.2
	Wood	0.0	0.1
0.5 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.3	0.4
	Metal	0.2	0.2
	Plaster	-0.1	0.3
	Wood	0.2	0.4
1.0 mg/cm²	Brick	-0.1	0.3
	Concrete	-0.1	0.3
	Drywall	0.5	0.6
	Metal	0.3	0.2
	Plaster	-0.1	0.3
	Wood	0.4	0.6
2.0 mg/cm²	Brick	0.0	0.4
	Concrete	0.0	0.4
	Drywall	1.0	0.8
	Metal	0.5	0.2
	Plaster	0.0	0.4
	Wood	0.8	0.8

*Precision at 1 standard deviation

CLASSIFICATION OF RESULTS

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristics Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

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 Characteristics Sheet is a joint product of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Housing and Urban Development (HUD). The issuance of this sheet does not constitute rulemaking. The information provided here is intended solely as guidance to be used in conjunction with Chapter 7, Lead-Based Paint Inspection, of the *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. EPA and HUD reserve the right to revise this guidance. Please address questions and comments on this sheet to: Director, Office of Lead Hazard Control (L), U.S. Department of Housing and Urban Development, 451 Seventh St, S.W., Washington, DC 20410.

CERTIFICATIONS

STATE OF WASHINGTON

Department of Community, Trade and Economic Development
Lead-Based Paint Program

Mike T Hara

Has fulfilled the certification requirements of Washington Administrative code (WAC) 365-230 and has been certified to conduct lead-based paint activities pursuant to WAC 365-230-200 as a:

Risk Assessor

Certification #	Issuance Date	Expiration Date
0014	12/15/2006	12/29/2009

STATE OF WASHINGTON

Department of Community, Trade and Economic Development
Lead-Based Paint Program

Mike T. Hara

Has fulfilled the certification requirements of Washington Administrative code (WAC) 365-230 and has been certified to conduct lead-based paint activities pursuant to WAC 365-230-200 as a:

Inspector

Certification #	Issuance Date	Expiration Date
0014	12/15/2006	12/29/2009

CALIBRATION LOG

Daily Calibration

Project	Site	Date	Time	K-Shell mg/cm2	K-Avg. mg/cm2	L-Shell mg/cm2	L-Avg. mg/cm2	Scanner #	Instr #	Oper
7138	0001	04/26/07	08:27A	0.968	0.968	1.061	1.061	M41490	490	1817
7139	0002	04/26/07	09:39A	0.981	0.981	0.882	0.882	M41490	490	1817