

**Former National Guard Armory
Pauls Valley, Oklahoma**

Remediation Final Report



**Prepared by:
Department of Environmental Quality
707 North Robinson
Oklahoma City, Oklahoma 73101**



The Oklahoma Department of Environmental Quality (DEQ) is pleased to present the City of Pauls Valley with the Final Remediation Report for the former Pauls Valley Armory.



DEED NOTICE

A Notice of Remediation has been filed in the county courthouse and is included in this report. It summarizes remediation performed at the former Pauls Valley Armory and describes continuing operation and maintenance and land use restrictions. This completes the DEQ cleanup of the property. For more detail on the activities described below, see enclosed reports.

ASBESTOS REMEDIATION

DEQ and its contractors completed the following activities:

- Asbestos inspection, including:
 - Asbestos-containing window glazing and pipe insulation and fittings
- Asbestos Abatement, including:
 - Removal and replacement of asbestos-containing windows and removal of all asbestos-containing pipe insulation and fittings

TARGETED BROWNFIELD ASSESSMENT

On July 7, 2011, DEQ provided a Phase I Targeted Brownfield Assessment to the City of Pauls Valley. A copy of this report is available at <http://www.deq.state.ok.us/lpdnew/scapIndex.htm>

LEAD REMEDIATION

DEQ and its contractors completed the following activities:

- Lead-based paint (LBP) and lead dust inspection
- LBP abatement, including:
 - * Removal of LBP from door frames
 - * Removal and replacement of doors containing lead-based paint
 - * Scraping and sealing window and door lintels, ceiling panels in Room 2, bollards and edge protectors outside overhead doors, the main entrance ceiling, and the 4 overhead doors and frames
- Lead dust abatement, including:
 - HEPA vacuuming and wet washing of floors in the building
- Proper disposal of associated waste



1	Deeds and Legal Documents
2	Maintenance Plan
3	Inspection Reports
4	Scope of Work
5	Final Abatement Reports
6	Confirmation Sampling

DEEDS AND LEGAL DOCUMENTS

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS:

That the State of Oklahoma, acting by and through the Oklahoma Military Department by its Adjutant General, Major General Myles L. Deering, a body corporate and politic and instrumentality of the State of Oklahoma, Grantor, in consideration of the sum of One and No/100 dollars and other valuable consideration in hand paid, the receipt and sufficiency of which are hereby acknowledged, do hereby quitclaim, grant, bargain, sell and convey unto Garvin County, Oklahoma, Grantee, the following described real property and premises lying and situated in the City of Pauls Valley, Garvin County, State of Oklahoma, as follows:

A tract of land out of Lots 3 and 4 in Block 224 of the City of Pauls Valley, Oklahoma, more particularly described by the metes and bounds as follows, to-wit; Beginning at a point 65 ft. N. and 18.5 ft. W. of the SE. corner of Lot 4 in Block 224, thence W. and parallel to the S. line of Lot 4, a distance of 330 ft., thence N. and parallel to the E. line of Lots 3 and 4 a distance of 270 ft. to a point 5 ft. S. of the N. line of Lot 3, thence E. and parallel to the N. line of Lot 3 a distance of 330 ft. to a point 18.5 ft W. of the E. line of Lot 3, thence S. a distance of 270 ft. the point of beginning, and containing 1.8595 acres, more or less, in Garvin County, Oklahoma.


together with the improvements thereon and appurtenances thereunto belonging.

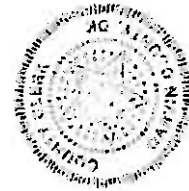
NOTICE: THE ABOVE DESCRIBED PROPERTY MAY HAVE BEEN CONTAMINATED WITH LEAD, ASBESTOS AND OTHER CONTAMINANTS.


TO HAVE AND TO HOLD unto the Grantee, its successors, and assigns for so long as said real property is used for a public purpose as required for this transfer in accordance with title 44, section 233.3(B) of the Oklahoma Statutes.

Signed and delivered this 9 day of December 2010.

STATE OF OKLAHOMA

By: 
Major General Myles L. Deering,
Adjutant General of the State of Oklahoma



I-2010-008300 Book 1931 Pg. 17
12/28/2010 8:00 am Pg 0017-0018
Fee \$ 15.00 Doc \$ 0.00
Gina Mann - Garvin County Clerk
State of Oklahoma 

8:00
15:00

ACKNOWLEDGMENT

STATE OF OKLAHOMA)
) ss
COUNTY OF OKLAHOMA)

Before me, Jennifer Meyer in and for this state, on this 9 day of October, 2010, personally appeared Major General Myles L. Deering, as Adjutant General of the State of Oklahoma, to me known to be the identical person who executed the within and foregoing Quitclaim Deed, and acknowledged to me that he executed the same as free and voluntary act and deed for the uses and purposes therein set forth.

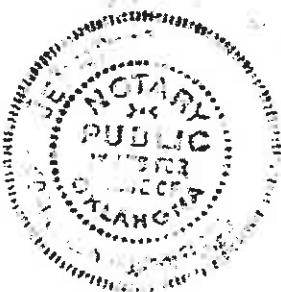
Jennifer Meyer
Notary Public

My Commission Expires:

11/23/12

My Commission Number:

04000185



1-2010-008300 Book 1931 Pg 18
12/28/2010 8:00 am Pg 0017-0019
Fee \$ 15.00 Doc \$ 0.00
Gina Martin - Garvin County Clerk
State of Oklahoma

DEED NOTICE

**NOTICE OF REMEDIATION
FORMER PAULS VALLEY ARMORY
PAULS VALLEY, OKLAHOMA**

CONVENIENCE
COPY

AFFECTED PROPERTY: The Affected Property is the former Pauls Valley Armory located at 1001 North Ash Street, Pauls Valley, Garvin County, Oklahoma, 73075.

The legal description is as follows:

A tract of land out of Lots 3 and 4 in Block 224 of the City of Pauls Valley, Oklahoma, more particularly described by the metes and bounds as follows, to-wit; Beginning at a point 65 ft. N. and 18.5 ft. W. of the SE. corner of Lot 4 in Block 224, thence W. and parallel to the S. line of Lot 4, a distance of 330 ft., thence N. and parallel to the E. line of Lots 3 and 4 a distance of 270 ft. to a point 5 ft. S. of the N. line of Lot 3, thence E. and parallel to the N. line of Lot 3 a distance of 330 ft. to a point 18.5 ft W. of the E. line of Lot 3, thence S. a distance of 270 ft. the point of beginning, and containing 1.8595 acres, more or less, in Garvin County, Oklahoma.

LEGAL BASIS FOR NOTICE: The Oklahoma Department of Environmental Quality (DEQ) hereby files this Notice of Remediation pursuant to Oklahoma Statutes, 27A O.S. § 2-7-123 (C). This Notice does not grant any right to any person not already allowed by law and shall not be construed to authorize or encourage any person or other legal entity to cause or increase pollution, to avoid compliance with state or federal laws and regulations regarding pollution or to escape responsibility for maintaining environmentally sound operations.

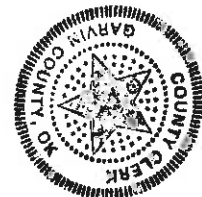
DEQ may take administrative or civil action to recover costs or to compel compliance with the Land Use Restrictions and to prevent damage to or interference with the Engineering Controls and Continuing Operation and Maintenance of said Engineering Controls herein described.

The Land Use Restrictions, Engineering Controls and Continuing Operation and Maintenance of said Engineering Controls shall apply to the Affected Property and to persons who own and/or use the Affected Property until such time as DEQ files a subsequent Notice of Remediation that changes or removes one or more of them. Activities that cause or could cause damage to the Remedy or the Engineering Controls or recontamination of soil or groundwater are prohibited.

REASON FOR NOTICE: The above described Affected Property was contaminated with materials that required remediation pursuant to state and federal environmental laws and regulations. Sampling performed by DEQ contractors, conducted on February 21st and March 16th, 2011, indicated that there was asbestos, lead-based paint, and lead dust in the building.

REMEDY: Remediation activities (Remedy) at the Affected Property included abatement of asbestos, lead-based paint and dust. The remedy was completed on March 16, 2015.

I-2015-002345 Book 2095 Pg: 13
03/31/2015 2:20 pm Pg 0013-0015
Fee: \$ 17.00 Doc: \$ 0.00
Lori Fulks - Garvin County Clerk
State of Oklahoma



For more detailed information please refer to *Former National Guard Armory Pauls Valley, Oklahoma Remediation Final Report*. To obtain a copy of the report, contact:

Oklahoma Department of Environmental Quality
Central Records

Mailing Address
P.O. Box 1677
Oklahoma City, Oklahoma 73101

Physical Address
707 N Robinson
Oklahoma City, OK 73102

Electronic Address
<http://www.deq.state.ok.us/lpdnew/scapIndex.htm>

DISCLAIMER

- (A) **Lead:** DEQ did not test every painted surface inside and outside of the building; therefore, there is a potential for lead-based paint at the affected property.
- (B) **Asbestos:** DEQ did not test all building materials inside and outside of the building; therefore, there is a potential for asbestos at the affected property.

CONTINUING OPERATION, MAINTENANCE AND MONITORING

- (A) **Lead-based paint encapsulant:** Lead-based paint encapsulant was applied over lead-based paint on non-friction surfaces. These areas should be periodically inspected and maintained as appropriate.



Scott A. Thompson, Executive Director
Oklahoma Department of Environmental Quality

3-30-15

Date

ACKNOWLEDGMENT

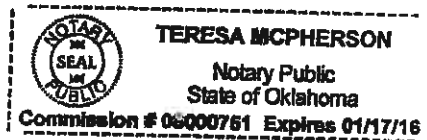
STATE OF OKLAHOMA
COUNTY OF OKLAHOMA

Before me, a Notary Public, in and for said County and State, on this 30th day of March 2015, personally appeared Scott A. Thompson to me known to be the identical person who executed the within and foregoing instrument and acknowledged to me that executed the same as free and voluntary act and deed for the uses and purposed therein set forth. In Testimony Whereof, I have hereunto set my hand and official seal the day and year above written.

My Commission expires:

January 17, 2016.

Teresa McPherson
Notary Public



MAINTENANCE PLAN

**MAINTENANCE PLAN
FORMER PAULS VALLEY ARMORY
PAULS VALLEY, OKLAHOMA**

The Armory located at 1001 North Ash Street, Pauls Valley, Oklahoma, was contaminated with materials that required remediation pursuant to State and Federal environmental laws and regulations. Please refer to Attachment 1 for land use restrictions. Sampling performed by DEQ contractors, conducted on February 21st and March 16th, 2011, indicated that there was asbestos, lead-based paint, and lead dust in the building. Remediation activities at the Affected Property included abatement of asbestos, lead-based paint, and lead dust. The remedy was completed on March 16, 2015. The following maintenance plan is to be completed by the owner of the Affected Property. DEQ recommends inspection of remediated areas every 5 years. During site inspections the owner should note any signs of disrepair or improper maintenance. Continuing operation, maintenance and monitoring should include:

1. All interior and exterior metal window and door lintels, the gray ceiling panels above Room 2, the exterior main entrance ceiling (support beam and fascia), overhead doors, overhead door frames, and all modified bollards and wall edge protectors outside the overhead doors were scraped and encapsulated with lead-based paint encapsulant. These surfaces need to be re-encapsulated if lead-based paint encapsulant shows signs of deterioration, damage, or flaking.
2. The ceiling beams in the drill floor (Room 1) are painted with lead-based paint. Ceiling beams were left as-is due to their inaccessibility and good condition, but will need to be scraped and encapsulated if the paint shows signs of deterioration or damage.

Note – A list of DEQ approved acrylic sealant and elastomeric encapsulants is attached (Attachment 2). DEQ did not test every painted surface and all building materials inside and outside of the building, therefore there is a potential for lead-based paint and asbestos at the affected property.

If you have any questions or concerns feel free to contact me at (405) 702-5112.

Sincerely,

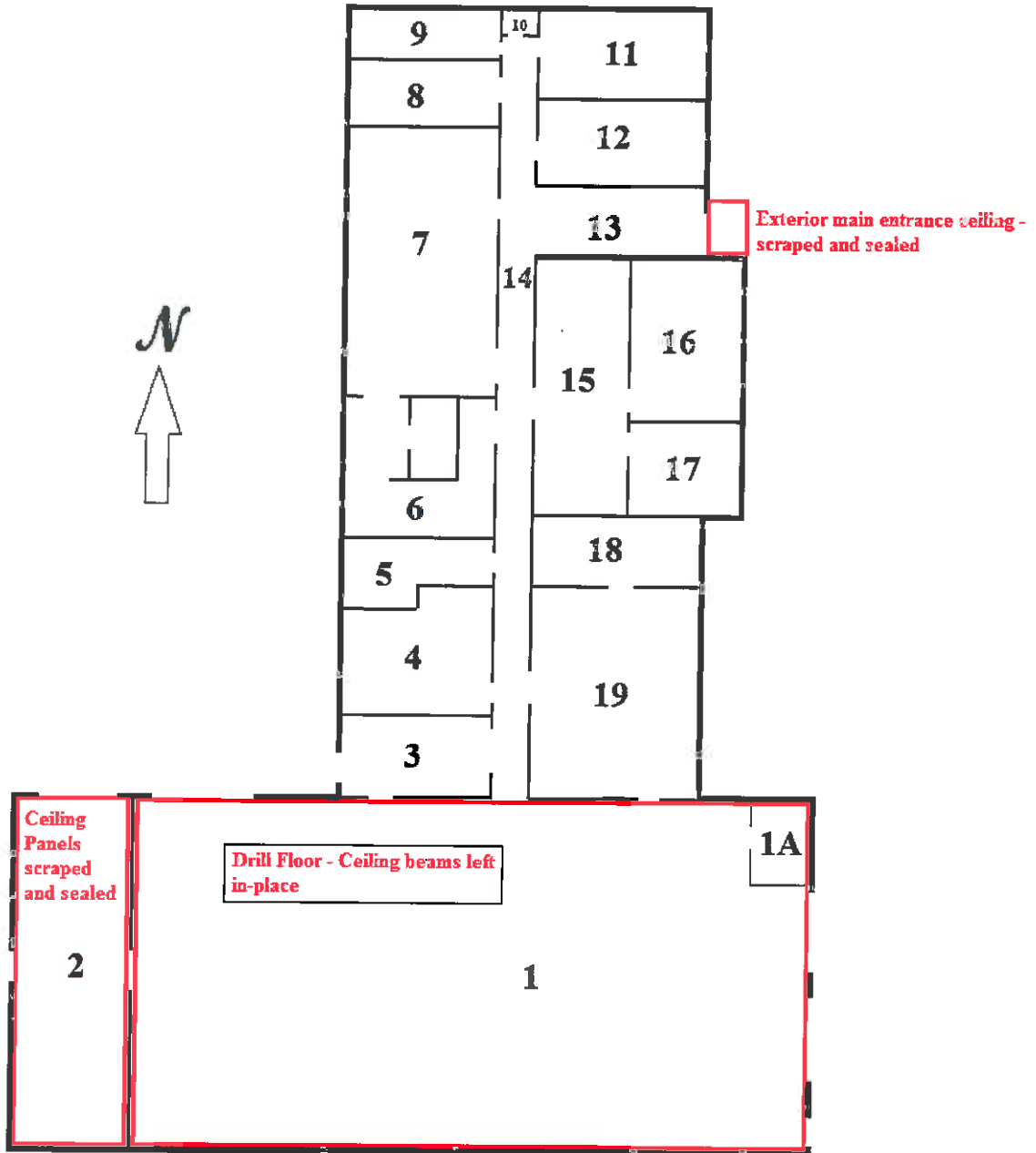


Brittany Myers Downs
Environmental Programs Specialist
DEQ Land Protection Division
Site Cleanup Assistance Program

ATTACHMENT 1

Floor Plan Map

Labeled areas show specific door frames with encapsulant and/or sealant.



ATTACHMENT 2

DEQ Approved Sealants and Encapsulants List

Acrylic Sealant approved by DEQ

KM-669 Acrylic

Lead-Based Paint Encapsulants approved by DEQ

Encapsulant Manufacturer	Encapsulant Product(s)
Coronado Paint Company	LEAD BLOCK™
Dumond Chemicals	LEAD STOP™
Dynacraft Industries, Inc.	Back to Nature Protect-A-Coat
Encap Systems Corporation	EncapSeal™ I
Encap Systems Corporation	EncapSeal™ II
Fiberlock Technologies, Inc.	Child GUARD interior/exterior
Fiberlock Technologies, Inc.	L-B-C® Type III
Global Encasement, Inc.	LeadLock™
Grace Construction Products	Lead Seal®
Grace Construction Products	Barrier Coat® II
Insl-x Products Corporation	INSL-CAP™
SAFE Encasement Systems	SE-120 Protective Skin
Specification Chemicals, Inc.	NU-WAL® #2500 Coating

INSPECTION REPORTS



ASBESTOS SURVEY REPORT

**NATIONAL GUARD ARMORY
1001 NORTH ASH STREET
PAULS VALLEY, OKLAHOMA**

Enercon Project Number – ENMISC2175

February 21, 2011

Prepared for:

**Oklahoma Department of Environmental Quality
Land Protection Division
PO Box 1677
Oklahoma City, Oklahoma 73101-1677
Attention: Mr. Dustin Davidson**

Prepared By:

**Enercon Services, Inc.
6525 North Meridian, Suite 400
Oklahoma City, Oklahoma 73116**

Inspected By:

A handwritten signature in black ink, appearing to read 'Emmett W. Muenker', is written over a horizontal line.

**Emmett W. Muenker
AHERA Asbestos Management Planner OK-MP130435**

Reviewed By:

A handwritten signature in black ink, appearing to read 'Richard D. Belcher', is written over a horizontal line.

**Richard D. Belcher
AHERA Asbestos Inspector OK-159310**

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APPENDICES

A - Oklahoma Inspector and Management Planner Licenses

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C - Laboratory Reports of Analyses/Chain of Custody

ASBESTOS SURVEY REPORT

NATIONAL GUARD ARMORY
1001 NORTH ASH STREET
PAUL'S VALLEY, OKLAHOMA

Executive Summary

An asbestos survey of the National Guard Armory, 1001 North Ash Street, Paul's Valley, Oklahoma was conducted on December 14, 2010. The armory contained a large drill room located on the south end of the building with 17 rooms off a central corridor located to the north and one room located to the west of the drill room. During the survey, a total of 16 bulk samples were collected from six homogeneous areas with one homogeneous area of presumed asbestos. A summary of the asbestos containing building materials (ACBMs) is provided below.

Summary of Asbestos Containing Building Materials

MATERIAL CATEGORY	MATERIAL DESCRIPTION	TOTAL APPROXIMATE AMOUNT
FRIABLE	White/Tan Piping Insulation	275 LF with 20 Fittings
CATEGORY I NON-FRIABLE	None	None
CATEGORY II NON-FRIABLE	White Window Caulk/Glazing Gray Transite [®] Roof	855 LF 5,700 SF

SF=Square Feet; LF=Linear Feet; EA=Each

Recommended actions for planned renovation:

Prepare specifications for abatement of friable and non-friable asbestos materials that would be disturbed during renovation activities; solicit bids; award contract and complete abatement.

Recommended actions prior to planned demolition:

Prepare specifications for abatement of the piping insulation and the Transite[®] roof; solicit bids; award contract and complete abatement.

Recommended actions for continued operation without removal of all asbestos in the building:

Prepare and implement an Asbestos Management Plan to manage the asbestos in place. This is to include Asbestos Awareness Training for maintenance and custodial personnel.

ASBESTOS SURVEY REPORT

**NATIONAL GUARD ARMORY
1001 NORTH ASH STREET
PAULS VALLEY, OKLAHOMA**

1.0 INTRODUCTION

An asbestos survey of the National Guard Armory, 1001 North Ash Street, Pauls Valley, Oklahoma was conducted on December 14, 2010. The armory contained a large drill room at the south end of the building with 17 rooms off a central corridor located to the north and one room located to the west of the drill room. During the survey, a total of 16 bulk samples were collected from 6 homogeneous areas. The inspection was performed by Emmett W. Muenker, an AHERA Asbestos Inspector/Management Planner OK-MP130435. Appendix A contains a copy of his Inspector/Management Planner License.

The purpose of the asbestos survey was to locate, identify, and quantify asbestos containing building materials (ACBMs) present in the facility. The asbestos survey was requested by the Oklahoma Department of Environmental Quality.

2.0 SURVEY PROCEDURES

The survey consisted of visual examination of building components and insulating materials to identify those suspected to contain asbestos. Asbestos-containing materials are divided into three basic groups: Thermal System Insulation (TSI), Surfacing Materials (SM) and Miscellaneous Materials (MM). TSI consists of insulating materials, mastics or sealants used to reduce heat loss or gain on mechanical systems such as piping, ducts, air handlers, boilers, flues, heat exchangers, etc. SM includes materials applied to surfaces other than mechanical systems for purposes such as fireproofing, acoustical insulation and aesthetic finishes. MM are all other materials not included in the other two categories, and include materials such as floor tiles, adhesives, gaskets, caulking compounds and asbestos-cement piping/panels (Transite[®]).

Non-friable ACBM is categorized as either Category I or Category II non-friable material. Category I non-friable ACBM includes packings, gaskets, resilient floor coverings, and asphalt roofing products. Category II non-friable ACBM includes any other non-friable material.

The protocols outlined in the Asbestos Hazard Emergency Response Act (AHERA) were used for this survey. The survey included all building materials that were suspected to contain asbestos, with the exception of the roofing components. Samples were analyzed by QuanTEM Laboratories, an analytical laboratory accredited under the National Voluntary Laboratory Accreditation Program (NVLAP). The analytical method used was Polarized Light Microscopy (PLM) with dispersion staining, as prescribed by the AHERA regulation. It is a method for positive identification of asbestos fibers. Materials determined to contain more than one percent asbestos by laboratory analysis are considered asbestos-containing materials.

The numbering system used for sample identification consisted of three separate components, a facility identifier, a homogeneous area (materials appearing alike in their color, texture and function) number and a sample number.

3.0 SURVEY RESULTS

A total of sixteen (16) bulk samples were collected in six (6) homogeneous areas and one area of presumed asbestos during the survey. Appendix B contains site layouts with sample and asbestos locations. Appendix C contains the laboratory reports of analyses/chains of custody.

A summary of asbestos containing building materials, including categorization and quantities, is presented in Table 1. Table 2 provides a summary of the bulk material samples and laboratory analytical results.

Table 1
Summary of Asbestos Containing Building Materials

MATERIAL CATEGORY	MATERIAL DESCRIPTION	TOTAL APPROXIMATE AMOUNT
FRIABLE	White/Tan Piping Insulation	275 LF with 20 Fittings
CATEGORY I NON-FRIABLE	None	None
CATEGORY II NON-FRIABLE	White Window Caulk/Glazing Gray Transite® Roof	855 LF 5,700 SF

SF=Square Feet; LF=Linear Feet

Table 2
Bulk Material Samples & Laboratory Analytical Results

SAMPLE ID	DESCRIPTION & LOCATION	APPROX AMOUNT	ASBESTOS TYPE/ PERCENT
PV-01-01,02,03	Tan Line Insulation, See Figure 1	275 LF	10% Chrysotile
PV-02-01,02,03	White Fitting Insulation, See Figure 1	20 EA	20% Amosite
PV-03-01, ,02, 03	Tan Floor Tiles Black and Yellow Mastic	NQ	None Detected
PV-04-01,02	White Wall Texture	NQ	None Detected
PV-05-01,02,03	White Window Caulk/Glazing, See Figure 2	830 LF	2-3% Chrysotile
PV-06-01,02	White Window Caulk/Glazing, See Figure 2	25 LF	2% Chrysotile
PV-07	Gray Transite® Roof, See Figure 2	5,700 SF	PACM

SF=Square Feet; LF=Linear Feet; EA = Each; NQ=Not Quantified; CS=Confirmation Sample

4.0 CONCLUSIONS & RECOMMENDATIONS

The asbestos-containing building materials found in the Paul's Valley Armory consisted of both friable and non-friable materials.

Friable Asbestos-containing Materials:

- Piping Insulation (Lines, Risers, and Fittings): Friable asbestos insulation was present on piping in Rooms 1, 3-10, 14 and 19. Room 1 had only one fitting; line and fitting insulation was present in the other rooms listed. The friable fitting insulation was observed to be in generally good condition with some minor damage to fittings in Room

4. The quantity and location of the piping is shown on Figure 1 in Appendix B and in Table 2.

Non-friable Asbestos-containing Materials:

- ⇒ Window Caulk/Glazing: The location of the windows and quantity of asbestos-containing caulk/glazing is shown on Figure 1 in Appendix B. There were nine high-bay windows in the drill room (Room 1), six windows in the room west of the drill room (Room 2), one window in Room 3 and three windows in Room 19 with asbestos-containing glazing/caulk. This material was in generally good condition with minor areas of damage.
- Transite® Roof: The corrugated Transite® roof is located above the drill room. These roofing panels were in good condition, with some minor damage.

Recommendations for Friable Asbestos-containing Materials: The following recommendations are made for addressing friable materials (piping insulation). Disturbance of these materials is regulated by the Oklahoma Department of Labor.

1. Planned renovation and maintenance activities that could disturb friable asbestos: Prepare specifications for abatement that would be disturbed during renovation activities; solicit bids; award contract and complete abatement.
2. Planned demolition: Prepare specifications for abatement of piping insulation; solicit bids; award contract and complete abatement.
3. Continued operation without abatement of remaining asbestos: Prepare and implement an Asbestos Management Plan to manage the asbestos in place. This is to include Asbestos Awareness Training for maintenance and custodial personnel.

Recommendations for Non-friable Asbestos-containing Materials: The following actions are recommended for addressing non-friable materials:

1. Planned renovation: Prepare specifications for abatement of non-friable asbestos materials (Transite® roof and window caulk/glazing) that would be disturbed during renovation activities; solicit bids; award contract and complete abatement.
2. Planned demolition: The Transite® roof panels must be removed prior to demolition. The window caulk/glazing may remain in place during demolition activities and disposed as ordinary demolition/construction waste.
3. Continued operation without abatement of remaining non-friable asbestos: Prepare and implement an Asbestos Management Plan to manage the asbestos in place. This is to include Asbestos Awareness Training for maintenance and custodial personnel.



Window Caulk/Glazing (855 LF)
 Room 1 - 9 High Bay Windows
 Room 2 - 6 Upper Windows
 Room 3 - 1 Window
 Room 19 - 3 Windows

FJ ENERCON

Figure 2
Non-Friable Asbestos Locations

Project No: ENMISC2175



Legend:

- Transite Roof - PACM (5,700 SF)
- Window Caulk/Glazing (855 LF)

National Guard Armory
 1001 North Ash Street
 Pauls Valley, OK



2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 190334	Client:	Enercon Services, Inc.
Account Number: A845		6525 N. Meridian, Suite 400
		Oklahoma City, OK 73116
Date Received: 12/15/2010		
Received By: Sherrie Leftwich		
Date Analyzed: 12/17/2010	Project:	Pauls Valley Armory
Analyzed By: Joe Melton	Project Location:	Pauls Valley, OK
Methodology: EPA/600/R-93/116	Project Number:	ENMISC 2175

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	PV-01-01	Homogeneous	Tan Pipe Insulation	Asbestos Not Present	Cellulose 85 Synthetic 5	Paint Inert
002	PV-01-02	Homogeneous	Tan Pipe Insulation	Asbestos Present Chrysotile 10	Cellulose 75 Synthetic 5	Paint Inert
003	PV-01-03	Homogeneous	Tan Pipe Insulation	Asbestos Present Chrysotile 10	Cellulose 75 Synthetic 5	Tar Inert
004	PV-02-01	Homogeneous	White Insulation	Asbestos Present Amosite 20	NA	CaCO3
005	PV-02-02	Homogeneous	White Insulation	Asbestos Present Amosite 20	NA	CaCO3
006	PV-02-03	Homogeneous	White Insulation	Asbestos Present Amosite 20	NA	CaCO3

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuanTEM is a NVLAP accredited TEM and PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any other agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

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Analyzed By: Joe Melton	Project Location:	Pauls Valley, OK
Methodology: EPA/600/R-93/116	Project Number:	ENMISC 2175

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
007	PV-03-01	Layered	Tan Floor Tile	Asbestos Not Present	NA	Vinyl Quartz
007a		Layered	Black Mastic	Asbestos Not Present	Cellulose	2 Tar
008	PV-03-02	Layered	Yellow Mastic	Asbestos Not Present	Cellulose	<1 Glue
008a		Layered	Tan Floor Tile	Asbestos Not Present	NA	Vinyl Quartz
008b		Layered	Black Mastic	Asbestos Not Present	Synthetic	3 Tar
009	PV-04-01	Homogeneous	White Texture	Asbestos Not Present	Cellulose	<1 Paint Gypsum
010	PV-04-02	Homogeneous	White Texture	Asbestos Not Present	Cellulose	<1 Gypsum

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Quantem is a NVLAP accredited TEM and PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any other agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



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Polarized Light Microscopy Asbestos Analysis Report

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Account Number: A845	6525 N. Meridian, Suite 400
	Oklahoma City, OK 73116
Date Received: 12/15/2010	
Received By: Sherrie Leftwich	
Date Analyzed: 12/17/2010	Project: Pauls Valley Armory
Analyzed By: Joe Melton	Project Location: Pauls Valley, OK
Methodology: EPA/600/R-93/116	Project Number: ENMISC 2175

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
011	PV-05-01	Homogeneous	White Window Glazing	Asbestos Not Present	Cellulose <1	CaCO3
012	PV-05-02	Homogeneous	White Window Glazing	Asbestos Present Chrysotile 2	NA	Paint CaCO3
013	PV-05-03	Homogeneous	White Window Glazing	Asbestos Present Chrysotile 3	NA	Paint CaCO3
014	PV-06-01	Homogeneous	White Window Glazing	Asbestos Present Chrysotile 2	NA	CaCO3
015	PV-06-02	Homogeneous	White Window Glazing	Asbestos Not Present	Cellulose <1	Paint CaCO3
016	PV-03-03	Layered	Tan Floor Tile	Asbestos Not Present	NA	Vinyl Quartz

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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Polarized Light Microscopy Asbestos Analysis Report

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Account Number: A845		6525 N. Meridian, Suite 400
		Oklahoma City, OK 73116
Date Received: 12/15/2010		
Received By: Sherrie Leftwich		
Date Analyzed: 12/17/2010	Project:	Pauls Valley Armory
Analyzed By: Joe Melton	Project Location:	Pauls Valley, OK
Methodology: EPA/600/R-93/116	Project Number:	ENMISC 2175

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
016a		Layered	Black Mastic	Asbestos Not Present	Synthetic	5 Tar


 Joe Melton, Analyst

12/20/2010
 Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuanTEM is a NVLAP accredited TEM and PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any other agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



Asbestos Chain-of-Custody
 2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
 (900) 822-1860 (405) 755-7272 Fax: (405) 755-2058
 www.quantem.com

This Box for Lab Use Only
 Lab No. 1903334
 Accept Rejected

Company Name: ENERGAL SERVICES Project Name: PAV'S VALLEY BRIDGE
 Project Location: PAV'S VALLEY OK Project Number: EMISS 2175

Sample Number	To Be Analyzed	Color / Description	Volume / Area (if applicable)	Comments
PAV-01-01				
PV-01-01		PIPE INSULATION		
PV-01-02				
PV-01-03				
PV-02-01		FITTING INSULATION		
PV-02-02				
PV-02-03				
PV-03-01		TRM FLOOR TILES/ADK		12X12
PV-03-02				
PV-04-01		KAYLO ROOFING		
PV-04-02		WINDOW CAULK		INTERIOR
PV-05-01				
PV-05-02				
PV-05-03				
PV-06-01		WINDOW CAULK		EXTERIOR
PV-06-02				
PV-03-03				

LEGAL DOCUMENT
 Please Print Legibly

FLM

Bulk Analysis (EPA 8080-0110)
 400 Point Count
 1000 Point Count
 Gravimetric Preparation Fee
 Other

PCM

NIOSH 7400
 Other

TEM

Air - AHERA
 Air - NIOSH 7402
 Bulk - Qualitative [Yes / No] - EPA 8000R-00118
 Bulk - Quantitative [weight %] - Chatfield
 Dust - Qualitative [Yes / No]
 Dust - Quantitative [Percent cmf] - ASTM D3785
 Drinking Water - EPA 100.0
 Waste Water - EPA 8004-05-013
 Other

TURNAROUND TIME

Rush
 Same Day
 24 Hour
 3-Day
 5-Day

CONTACT INFORMATION

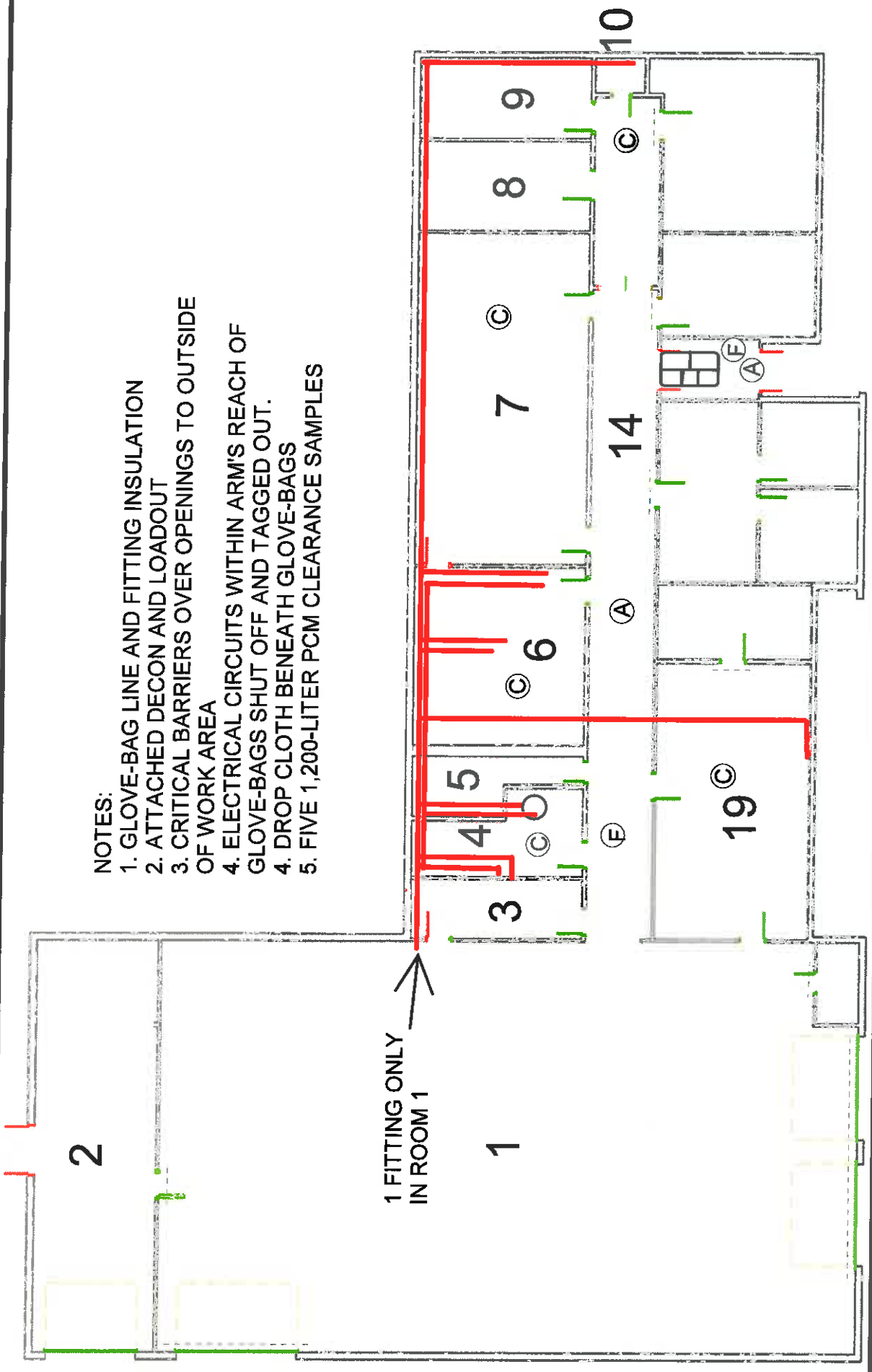
Name: _____
 Phone: _____
 Report Results Via (CHOOSE ONE):
 FAX
 Quantem WebSite
 E-Mail: _____

Prepared by: Paul Hunter Date: 12/17/0
 Analyzed by: Paul Seftwick Date: 12/18/10 10:10
 Date Time: 12/19/10 11:49 AM
 Sampled By: BM
W Hunter

Saturday FedEx Shipping - CALL TO SCHEDULE
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517
 Mark Package 'HOLD FOR SATURDAY PICKUP' * Added sample PV-03-03 to coc. SNL 12/15/10
 Revision May 2008

ASBESTOS ABATEMENT PROJECT DESIGN
PIPING ABATEMENT – GLOVE-BAG
PAUL’S VALLEY ARMORY
PAUL’S VALLEY, OKLAHOMA

- A. INTRODUCTION:** This Project Design was prepared by Enercon Services, Inc., in order to provide a prudent course of action for handling of asbestos abatement of piping in the Paul’s Valley Armory. Protocols to be used are to protect abatement workers from exposure to airborne asbestos fibers during the work being performed.
- B. PROJECT INFORMATION:**
1. Project Name: Glove-bag Asbestos Abatement, Paul’s Valley Armory
 2. Description of Work/Occupancy: The work addressed herein involves abatement of line and fitting insulation on piping in the Paul’s Valley Armory. The facility is not occupied.
 3. Project Type: Renovation.
 4. Abatement Contractor: To be determined by bid.
 5. Industrial Hygiene/Air Monitoring Firm: Enercon Services, Inc.
 6. Analytical Laboratory: Enercon Services, Inc., AIHA PAT Laboratory 151368.
- C. REGULATORY COMPLIANCE:** The specific governing regulations affecting this work include, but are not limited to, 29 CFR 1926.1101 (OSHA Construction Industry Asbestos Standard), 29 CFR 1910.134 (OSHA Respiratory Protection), 40 CFR 61, Subpart M (Asbestos NESHAP) and OAC 380:50 (Oklahoma Rules for Abatement of Friable Asbestos). Waste transport and disposal is to be performed by an Oklahoma-licensed asbestos waste transporter with a waste disposal manifest/chain of custody signed by the receiving landfill. DOT Class 9 placards are to be displayed during transportation of asbestos waste.
- D. WORK SEQUENCING/SCHEDULING:** The work in the Paul’s Valley Armory is to be done in a single phase. The work is to be scheduled by the abatement contractor in coordination with Enercon Services and the Department of Environmental Quality. The work is planned for 10-hour work shifts on weekdays during normal work hours.
- E. EGRESS AND FIRE PROTECTION:** In the event emergency evacuation is necessary, the primary exit will be to exit the work area through the decon and out nearest exit to the outside of the building. There are multiple secondary exits available. Workers will be briefed on the available exit paths, emergency procedures and the assembly point at the beginning of the work shift. No special fire protection measures are required. One 10#ABC fire extinguisher will be placed inside the work area and one set at the remote decon. The work area extinguisher will be kept in the vicinity of the work crew.
- F. MATERIALS TO BE ABATED:**
1. Description: The material to be abated is line and fitting insulation on piping.
 2. Amount, Location and Type of Asbestos-Containing Materials (ACM): There is approximately 275 linear feet of piping insulation with 20 fittings to be abated. The line insulation contains 10% Chrysotile and the fitting insulation contains 20% Amosite. The laboratory report is attached.
- No contaminated soils are to be abated under this Project Design.
- G. ASBESTOS ABATEMENT METHODS:** The line and fitting insulation will be removed within critical barriers using glove-bag procedures and an attached decon. Poly drop cloths will be placed on the floor beneath

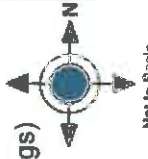


- NOTES:
1. GLOVE-BAG LINE AND FITTING INSULATION
 2. ATTACHED DECON AND LOADOUT
 3. CRITICAL BARRIERS OVER OPENINGS TO OUTSIDE OF WORK AREA
 4. ELECTRICAL CIRCUITS WITHIN ARM'S REACH OF GLOVE-BAGS SHUT OFF AND TAGGED OUT.
 5. DROP CLOTH BENEATH GLOVE-BAGS
 6. FIVE 1,200-LITER PCM CLEARANCE SAMPLES



Figure 1
Piping Locations

Project No: ENMISC2175



- Legend:
- ACM-Insulated Piping (275 LF including 20 Fittings)
 - Critical Barriers
 - Area Air Monitor
 - Ⓐ Clearance Air Sample
 - Ⓒ Fire Extinguisher

National Guard Armory
1001 North Ash Street
Pauls Valley, OK



2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuantEM Lab No. 190334	Client:	Enercon Services, Inc.
Account Number: A845		6525 N. Meridian, Suite 400
		Oklahoma City, OK 73116
Date Received: 12/15/2010		
Received By: Sherrie Leftwich	Project:	Pauls Valley Armory
Date Analyzed: 12/17/2010	Project Location:	Pauls Valley, OK
Analyzed By: Joe Melton	Project Number:	ENMISC 2175
Methodology: EPA/600/R-93/116		

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	PV-01-01	Homogeneous	Tan Pipe Insulation	Asbestos Not Present	Cellulose 85 Synthetic 5	Paint Inert
002	PV-01-02	Homogeneous	Tan Pipe Insulation	Asbestos Present Chrysotile 10	Cellulose 75 Synthetic 5	Paint Inert
003	PV-01-03	Homogeneous	Tan Pipe Insulation	Asbestos Present Chrysotile 10	Cellulose 75 Synthetic 5	Tar Inert
004	PV-02-01	Homogeneous	White Insulation	Asbestos Present Amosite 20	NA	CaCO3
005	PV-02-02	Homogeneous	White Insulation	Asbestos Present Amosite 20	NA	CaCO3
006	PV-02-03	Homogeneous	White Insulation	Asbestos Present Amosite 20	NA	CaCO3

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuantEM is a NVLAP accredited TEM and PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any other agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Project Design Review Form

Oklahoma Department of Labor
Asbestos Division

3017 N. Stiles, Oklahoma City, OK 73105

Phone - 405.521.6464 Fax - 405.521-6025

Project Name: Pauls Valley Armory

Project No: 11 - 6543

Date: 2-22-11

Project Designer: Bill Muenker

Approved: X
Disapproved: _____

ITEM	ACCEPTED	REJECTED	COMMENTS
1. A statement that DOL <u>Abatement of Friable Materials Rules</u> apply.	X		page one, C
2. Sequencing and phasing of work.	X		page one, D. One phase.
3. Identification of means of egress and a fire protection plan and a diagram for emergency escape routes, and fire extinguisher placements.	X		page one, E.
4. The quantity, type, percentage with bulk analysis unless presumed and a diagramed location of asbestos materials to be abated.	X		page one, F, 275 L.N. FT. Piping, 10% Chry. 20 Filings 20% amosite. (Bulks)
5. Abatement methods, and techniques, and numbers of containments, glove bags or mini-containments	X		pages one and two, G.
6. Details of personal and area air monitoring samples.	X		page two, H.
7. Numbers and locations of Clean Test samples and type of analysis to be employed.	X		page two, H. See drawings.
8. Numbers, capacities, a diagram to identify locations, and discharge points, if any, of negative air machines.	X		glovebag procedures no neg air required. Must pull air across shower.
9. Details of project containment(s), glove bag or mini-containments, including drawings. Details shall include all applicable subchapters, including but not limited to scaffolding and live electric isolation.	X		page two, J. Drawings
10. Details of decontamination system(s).	X		page two, K.
11. The extent to which asbestos-contaminated soils, if any, must be removed, and the sampling methods of determining the efficacy of such removal.	X		page one, F.
12. Special materials or methods required to protect objects in the work area should be detailed, (plywood over carpeting or hardwood floors to prevent damage from scaffolds and/or falling materials.	X		page two, N.
13. Any variances from the <u>Abatement of Friable Asbestos Materials Rules</u> .	X		page two, O. None requested.

The Department of Labor reserves the right to require additional engineering or environmental controls consistent with the Abatement of Friable Asbestos Materials Rules which may be necessary because of discrepancies between this project design and field conditions, or from unanticipated changes in field conditions.

REVIEWED BY: Bill Muenker DATE: 2-22-11
 REVIEWED BY: Pauls Valley DATE: 2/22/11

SURVEY AND ASSESSMENT FOR LEAD IN PAINT AND SETTLED DUST

NATIONAL GUARD ARMORY
1001 NORTH ASH STREET
PAULS VALLEY, OKLAHOMA 73075

ENERCON Project Number ENMISC2175
March 16, 2011

Oklahoma Department of Environmental Quality
Land Protection Division
PO Box 1677
Oklahoma City, Oklahoma 73101-1677
Attention: Mr. Dustin Davidson



Excellence - Every project. Every day.

Enercon Services, Inc.
6525 North Meridian Avenue, Suite 400
Oklahoma City, Oklahoma 73116
Phone: (405) 722-7693
Fax: (405) 722-7694

Prepared By :

A handwritten signature in blue ink that reads "Marshall L. Branscum".

Marshall L. Branscum
Environmental Scientist
LBP Inspector, OKINSR13415
OKRASR11260

Reviewed By :

A handwritten signature in blue ink that reads "Emmett W. Muenker".

Emmett W. Muenker
Senior Project Manager
LBP Risk Assessor.

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2.0 METHODOLOGY	1
3.0 RESULTS	2
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3.2 Dust Wipe Samples	5

APPENDICES

- Appendix A Building Layouts with LBP and Lead Dust Contamination Locations
- Appendix B Photographic Record of Representative Building Components with LBP
- Appendix C Dust Wipe Laboratory Report and Chain of Custody
- Appendix D XRF Data Spreadsheets
- Appendix E XRF Performance Characteristics Sheets
- Appendix F Lead-Based Paint Inspector, Risk Assessor, and Firm Licenses

EXECUTIVE SUMMARY

Enercon Services, Inc. (ENERCON) has completed a Survey and Assessment for Lead in Paint and Settled Dust (Survey) at the Pauls Valley National Guard Armory, 1001 North Ash Street, Pauls Valley, Oklahoma. The survey was conducted on December 14, 2010 by Mr. Marshall Branscum and Mr. Doug Whitmer, both of ENERCON.

The Survey and Assessment included non-destructive sampling of representative paint surfaces in the armory using an X-ray Fluorescence (XRF) Analyzer and dust wipe samples. Dust wipe samples were collected from the floor in each room using EPA/HUD wipe sampling protocols.

The results of XRF sampling indicated the following:

- Interior: Nine high bay windows in Room 1, six lower windows in Room 2, one metal lintel above doorway between Room 1 and Room 2, the roof deck in Room 2, the basketball goal frame in Room 1, and the metal roof-support trusses and I-beams in Rooms 1 and 2 were coated with LBP.
- Exterior: The main entrance ceiling, support beam and fascia; a gray door and door frame; nine lintels, eight modified bollards and wall edge protectors at four roll-up doors; a brown door and frame; and two windows and frames were coated with LBP.

The results of wipe samples collected from the floors revealed:

- Lead contamination was present in seven rooms, Rooms 1-4 and 18-20.

1.0 INTRODUCTION

Enercon Services, Inc. (ENERCON) has completed a Survey and Assessment for Lead in Paint and Settled Dust (Survey) at the Pauls Valley National Guard Armory, 1001 North Ash Street, Pauls Valley, Oklahoma. The inspection was conducted on December 14, 2010 by Mr. Marshall Branscum and Mr. Doug Whitmer, both of ENERCON.

The Pauls Valley National Guard Armory was constructed on a concrete slab-on-grade foundation with flat roofs covered with tar and gravel over the office area and annex to the drill room, with a pitched corrugated metal roof above the drill room. The walls were constructed of brick and concrete block. The building contained a large drill room with 16 additional rooms located north of the drill room along a central corridor and a one-room annex west of the drill room. Layouts are included in Appendix A.

The Survey was performed to identify the locations, condition and estimated quantities of Lead-Based Paint (LBP) and lead-laden settled dust in the Armory.

2.0 METHODOLOGY

Areas included in the scope of work were described and visually confirmed by Mr. Dustin Davidson of ODEQ. Visual inspection was performed in all rooms and the exterior of the building. The purpose of the visual inspection was to identify similar painted surfaces so that representative XRF readings could be taken. These surfaces were determined by differentiating them by color, component, room and building. Readings of painted surfaces were then obtained.

The survey included visual observations, photographic documentation (Appendix B), dust wipe samples (Appendix C), and x-ray fluorescence (XRF) measurements of suspect Lead-Based Paint (LBP) (Appendix D). XRF readings were obtained for each building component type in each room and on each side of the building exterior. One dust wipe sample was obtained in each room except for the drill room, where three samples were obtained.

The criterion used for determination of the presence of LBP on painted surfaces was the EPA threshold for XRF readings as equal to or greater than 1.0 milligram per square centimeter (mg/cm^2).

The criteria used for dust wipe samples based upon sampling according to the EPA/HUD criteria for wipe samples and laboratory analysis where the lead concentration is equal to or greater than 40.0 micrograms per square foot ($\mu\text{g}/\text{ft}^2$).

The presence of LBP was determined using a Niton Model XLp-703A XRF (X-Ray Fluorescence) Analyzer, Serial Number 10713. At power-up, the unit performed routine internal calibration and operational checks. It was then checked for reading accuracy using a 1.0 mg/cm^2 standard paint chip supplied by the manufacturer by a series of three measurements of the standard paint chip. This calibration was done immediately prior to use, at least every four hours of operation and prior to shut down each day of use. The Performance Characteristic Sheet for the XLp-703A is provided in Appendix E of this

report. The location, component, substrate, color and other relevant information regarding the sample was entered into the XRF using the touchpad on the instrument as each measurement was made. Upon completion of the measurements, the data was downloaded into an Excel spreadsheet using software provided by the analyzer manufacturer. The Excel spreadsheet is provided in Appendix D of this report. Some corrections of the downloaded data were made due to obvious keypad entry errors. Due to the sensitivity of the proximity sensor on the XRF, a number of null readings resulted, particularly when attempting to sample rough or uneven painted surfaces. These readings were not deleted from the spreadsheet in order to maintain the continuity of the sample numbers.

Each room was given an arbitrary number on a building floor plan. The walls of the rooms were designated by letters with street address side labeled as "Side A," and the remaining sides denoted as B, C and D following a clockwise pattern.

The actual number of XRF measurements completed was dependent upon the different painted components and colors of paint present. The XRF instrument measures all layers of paint present at the sampling location. Therefore, the XRF instrument returns a positive reading even through layers of non-lead paint that have been applied, when a layer of LBP exists on the component.

The condition of painted surfaces sampled was recorded during the survey and is discussed in the Results Section below.

3.0 RESULTS

3.1 Lead-Based Paint

A total of 289 XRF samples were collected. Figure 1 in Appendix A shows the location of the components with LBP. Tables 1, 2, and 3 provide a summary of building components with LBP as identified by XRF sampling along with their locations and sizes. It should be noted, that although the nine high bay windows in Room 1 and the six lower windows in Room 2 are included with the interior components, the exterior portions of these windows are also coated with LBP. The painted surfaces sampled during the survey ranged from intact to poor condition. Representative photographs were taken of components where positive readings (1.0 mg/cm² or greater) were obtained and are provided in Appendix B.

The results of XRF sampling indicated the following building components were coated with LBP:

Interior Components:

- Nine high bay windows, Room 1
- Six lower windows, Room 2
- Metal lintel, above Doorway between Room 1 and 2
- Roof deck, Room 2
- Basketball goal frame, Room 1
- Metal roof trusses, Room 1

- Metal I-beams, Room 2

Exterior Components:

- The main entrance ceiling, support beam and fascia, Side A
- The gray main entrance doors and door frame, Side A
- Two lintels above doors, Both Side A
- Seven lintels above windows, Side A, B, and C
- Eight modified bollards and wall edge protectors at four roll-up doors, Sides A and D
- A brown door and frame, Side C
- Two windows and window frames, Sides A and C

**Table 1 –Lead-Based Paint Locations (XRF)
Doors and Door Frames**

Identified Lead-Based Paint (Color/Description)	Lead Content (mg/cm ²)	Location	Size of Door/Frame
Gray/Door	1.4	Exterior, Side A	64" x 80"
Gray/Door Frame	1.3	Exterior, Side A	64" x 80"
Brown/Door	1.1	Exterior, Side C	34" x 75"
Brown/Door Frame	1.4	Exterior, Side C	34" x 75"

**Table 2 –Lead-Based Paint Locations (XRF)
Window Frames**

Identified Lead-Based Paint (Color/Description)	Lead Content (mg/cm ²)	Location	Size of Window
Green/Window Frame	4.3	Room 1, Side B	48" x 36"
Green/Window Frame	1.6	Room 1, Side B	48" x 36"
Green/Window Frame	2.4	Room 1, Side D	48" x 36"
Gray-Brown/Window Frame	4.6	Room 2, Side C	48" x 36"
Gray-Brown/Window Frame	5.0	Room 2, Side C	48" x 36"
Red/Window Frame	1.1	Exterior, Side A	36" x 40"
Yellow/Window Frame	1.6	Exterior, Side C	32" x 42"

**Table 3 –Lead-Based Paint (XRF)
Other Surfaces/Components**

Identified Lead-Based Paint (Color)	Lead Content (mg/cm²)	Location	Surface/Components
Gray	6.1	Room 1, Side B	Roof Support (Metal)
Gray	7.8	Room 1, Side B	Roof Support (Metal)
Gray	4.1	Room 1, Side D	Roof Support (Metal)
Yellow	2.2	Room 1, Side C	Basketball Goal
Brown	4.7	Room 1, Side A	Door Lintel (Metal)
Brown	4.8	Room 1, Side C	Door Lintel (Metal)
Beige	4.5	Room 2, Side C	Roof Support (Metal)
Gray	3.9	Room 2	Ceiling
Gray	1.4	Exterior, Side A	Door Lintel (Metal)
Gray	2.7	Exterior, Side A	Edge Protector (Metal)
Maroon	1.4	Exterior, Side A	Entrance Canopy Ceiling (Wood)
Maroon	1.7	Exterior, Side A	Entrance Canopy Beam (Wood)
Maroon	1.2	Exterior, Side A	Entrance Canopy Fascia
Blue	1.3	Exterior, Side A	Window Lintel (Wood)
Gray	4.8	Exterior, Side A	Modified Bollard
Gray	4.2	Exterior, Side A	Door Lintel (Metal)
Yellow	3.3	Exterior, Side B	Window Lintel (Metal)
Brown	5.8	Exterior, Side D	Edge Protector (Metal)
Brown	7.8	Exterior, Side D	Modified Bollard

3.2 Dust Wipe Samples

Dust wipe samples were obtained following the EPA/HUD protocol. A template measuring one square foot was used to provide a known sampling area. Concentrations of 40.0 $\mu\text{g}/\text{ft}^2$ or greater are considered contaminated, in accordance with HUD and EPA guidelines. One dust wipe sample was obtained in each room except for the drill room, where three samples were collected. A total of 22 wipe samples were collected. The sample collected in Room 2 was very high with no visible indication of significant contamination. Laboratory results from the dust wipe samples are presented in Appendix C. Seven rooms had lead dust contamination above the threshold. The locations determined by laboratory analysis to be contaminated by lead dust are listed in Table 4 and on Figure 2 in Appendix A.

Table 4 – Positive Dust Wipe Locations

Sample Number	Lead Content ($\mu\text{g}/\text{ft}^2$)	Location	Square Footage of Positive Location
PV-01	62.17	Room 1	4,500 SF
PV-01A	99.98	Room 1	4,500 SF
PV-01B	78.27	Room 1	4,500 SF
PV-02	4055.00	Room 2	800 SF
PV-03	96.87	Room 3	147 SF
PV-04	75.47	Room 4	187 SF
PV-18	78.71	Room 18	189 SF
PV-19	62.87	Room 19	756 SF
PV-20	116.44	Room 20	81 SF

APPENDIX A

Legend:

- Windows - LBP
- Lintels - LBP
- Doors and Frames - LBP
- Roof Truss Supports - LBP
- Entrance Canopy, Beam, and Fascia - LBP
- Edge Protector and Modified Bollard - LBP
- Gray Ceiling Panels and Roof Truss Supports - LBP
- Room Number

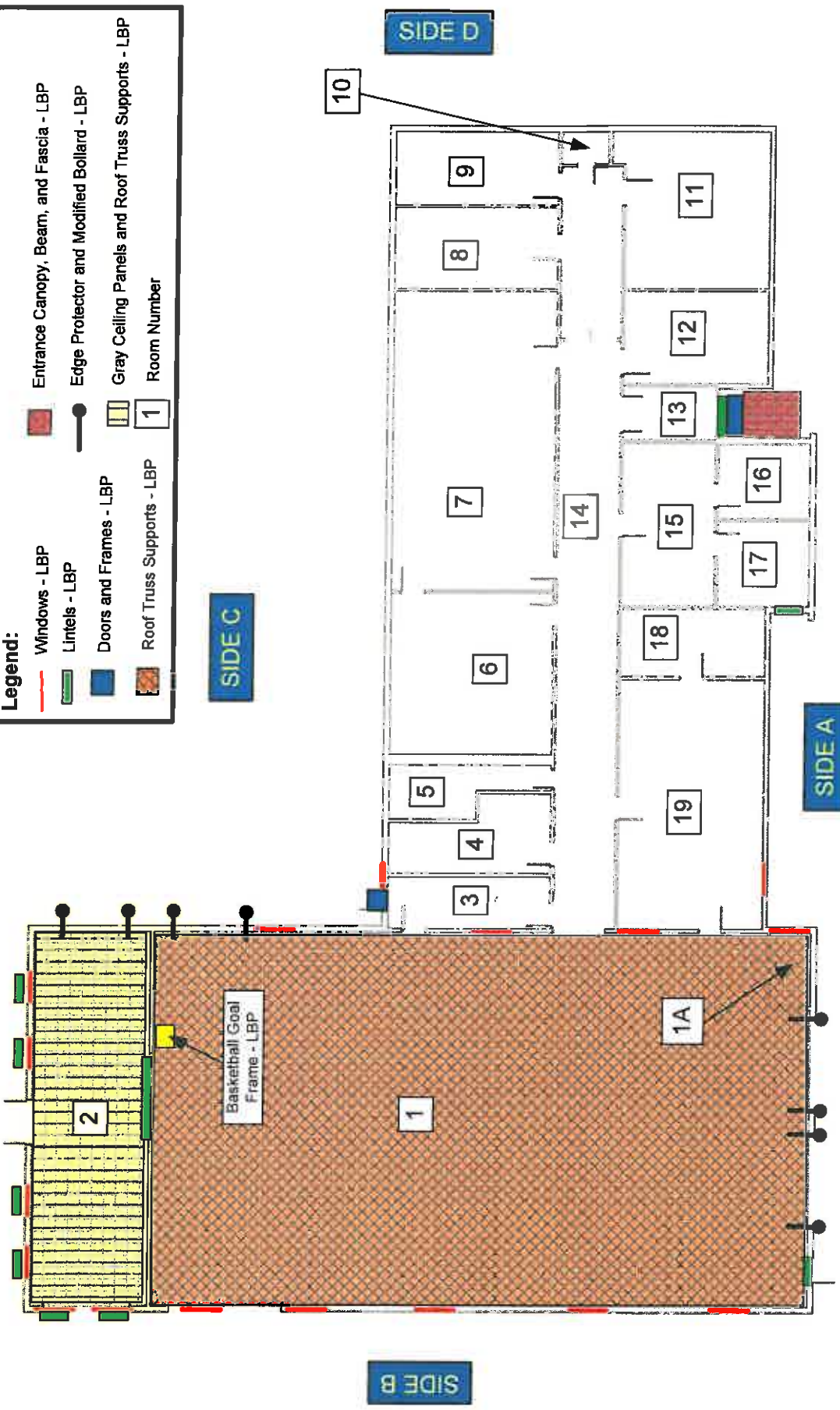
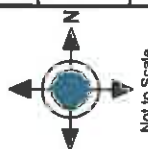


Figure 1
LEAD-BASED PAINT LOCATIONS

Project No: ENMISC2175



Not to Scale

National Guard Armory
1001 North Ash Street
Pauls Valley, OK

Client:
Oklahoma Department of Environmental
Quality
707 North Robinson
Oklahoma City, OK

Legend

- Dust Wipe Sample Location, Positive, > 40 ug / ft²
- Dust Wipe Sample Location, Negative, < 40 ug / ft²

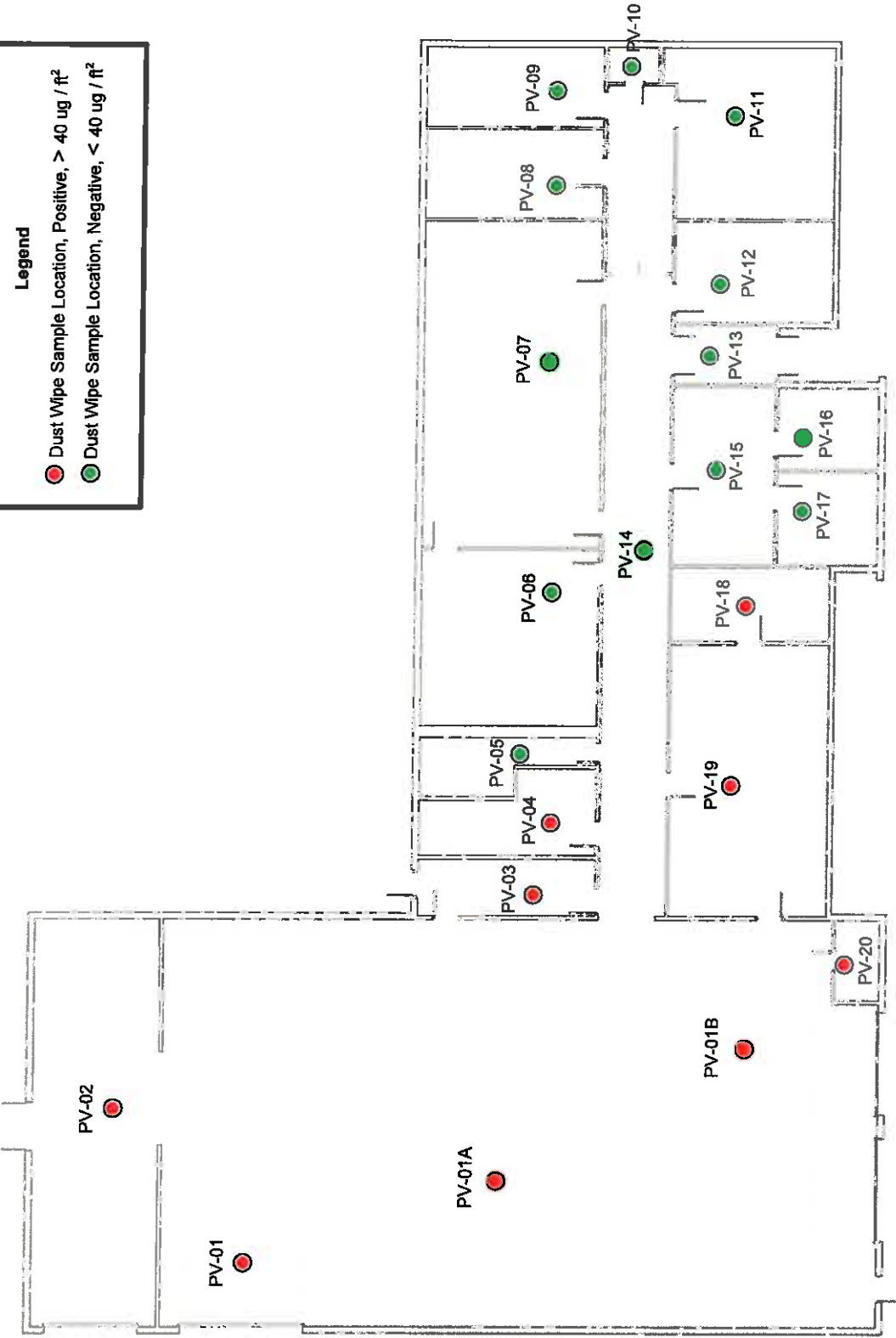


Figure 2
DUST WIPE SAMPLE LOCATIONS

Project No: ENMISC2175



National Guard Armory
1001 North Ash Street
Pauls Valley, OK

Client:
Oklahoma Department of Environmental
Quality
707 North Robinson
Oklahoma City, OK

APPENDIX B

Photographic Record – National Guard Armory – Pauls Valley, OK



Photo #1: Green Window Frame Room 1 – LBP.



Photo #2: Roof Support Trusses Room 1 – LBP.



Photo #3: Yellow Basketball Goal Frame Room 1 – LBP.



Photo #4: Gray Ceiling Deck Room 2 – LBP.



Photo #5: Gray/Brown Window Frame Room 2 – LBP.



Photo #6: Brown lenti Between Room 1 and 2 – LBP.

Photographic Record – National Guard Armory – Pauls Valley, OK



Photo #7: Yellow Window Frame and Brown Door and Frame Side C Exterior-Room 3 – LBP



Photo #8: Gray Edge Protector and Modified Bollard Side A Exterior – LBP.



Photo #9: Brown Edge Protectors and Modified Bollard Side C Exterior –LBP.



Photo #10: Red Window Frame – Center Right – Side A Exterior-Room 19 – LBP



Photo #11: Yellow Lentil Side B Exterior-Room 2 – LBP.



Photo #12: Gray Metal Entrance Doors – Side A Exterior – LBP

APPENDIX C



2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

Quantem Set ID: 190777
Date Received: 01/04/11
Received By: Sherric Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 1/5/2011

Client: Enercon Services, Inc.
6525 N. Meridian, Suite 400
Oklahoma City, OK 73116

Acct. No.: A845

Project: Armory
Location: Pauls Valley Armory

Project No.: N/A

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	PV-01	Wipe	Lead	62.17	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
002	PV-01A	Wipe	Lead	99.98	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
003	PV-01B	Wipe	Lead	78.27	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
004	PV-02	Wipe	Lead	4055.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
005	PV-03	Wipe	Lead	96.87	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
006	PV-04	Wipe	Lead	75.47	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
007	PV-05	Wipe	Lead	24.36	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
008	PV-06	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
009	PV-07	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
010	PV-08	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
011	PV-09	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.



2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

Quantem Set ID: 190777
Date Received: 01/04/11
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 1/5/2011

Client: Enercon Services, Inc.
 6525 N. Meridian, Suite 400
 Oklahoma City, OK 73116

Acct. No.: A845

Project: Armory
Location: Pauls Valley Armory

Project No.: N/A

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
012	PV-10	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
013	PV-11	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
014	PV-12	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
015	PV-13	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
016	PV-14	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
017	PV-15	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
018	PV-16	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
019	PV-17	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
020	PV-18	Wipe	Lead	78.71	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
021	PV-19	Wipe	Lead	62.87	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100
022	PV-20	Wipe	Lead	116.44	16.00	ug/sq. Ft.	01/05/11 13:15	EPA 3051 / NIOSH 9100

Note: Sample results have not been corrected for blank values.

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Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.



2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Environmental Chemistry Analysis Report

Quantem Set ID: 190777
Date Received: 01/04/11
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 1/5/2011

Client: Enercon Services, Inc.
6525 N. Meridian, Suite 400
Oklahoma City, OK 73116

Acct. No.: A845

Project: Armory
Location: Pauls Valley Armory

Project No.: N/A

AHHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
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Authorized Signature: Benton Miller
Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.



Lead Chain-of-Custody

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
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 www.quantem.com

This Box for Lab Use Only
 Lab No. 190777
 Accept Reject

Company Name: Energcon Acct.#: _____ Project Name: Army
 Project Location: Parks Valley Army Project Number: _____

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis	Units Requested	Sample Matrix Codes
16	PV-14	Floor	Attn: C	X	mg / sq ft	A - Soil
17	-15					B - Paint Chips
18	-16					C - Surface / Dust Wipes
19	-17					D - Bulk Miscellaneous
20	-18					E - Air Cassette
21	-19					F - Other (SPECIFY)
22	-20					

TURNAROUND TIME	
Same Day	<input type="checkbox"/>
24 Hour	<input checked="" type="checkbox"/>
3-Day	<input type="checkbox"/>
5-day	<input type="checkbox"/>

CONTACT INFORMATION	
Name:	<u>Marshall Blensum</u>
Phone:	
Report Results VIA (CHOOSE ONE):	<input checked="" type="checkbox"/> FAX <input type="checkbox"/> Quantem Website <input type="checkbox"/> E-Mail

Prepared by: Marshall Blensum Date: 14-1 2:45 PM
 Analyzed by: [Signature] Date: 14-1
 Sampled by: [Signature] Date: 14-1

Saturday FedEx Shipping - CALL TO SCHEDULE
 Use this address for Saturday FedEx only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517
 Mark Package 'HOLD FOR SATURDAY PICKUP'

APPENDIX D

Reading No	Time	Site	Room	Side	Component	Color	Condition	Substrate	Results	PbC	PbL	PbK
1	12/14/2010 10:51									1.02	0.15	0
2	12/14/2010 11:40	PAULS VALLEY ARMORY	CALIBRATE						Negative	0.9	0.9	0.7
3	12/14/2010 11:45	PAULS VALLEY ARMORY	CALIBRATE						Positive	1	1	0.6
4	12/14/2010 11:47	PAULS VALLEY ARMORY	CALIBRATE						Null	0.9	0.9	0.6
5	12/14/2010 11:48	PAULS VALLEY ARMORY	CALIBRATE						Negative	1	1	0.5
6	12/14/2010 12:16	PAULS VALLEY ARMORY	ROOM 1	B	Window Casing	White	Poor	Metal	Null	0.09	0.09	1.3
7	12/14/2010 12:17	PAULS VALLEY ARMORY	ROOM 1	B	Window Casing	White	Poor	Metal	Negative	0.27	0.27	0.01
8	12/14/2010 12:18	PAULS VALLEY ARMORY	ROOM 1	B	Window Frame	Green	Poor	Metal	Positive	4.3	1	4.3
9	12/14/2010 12:19	PAULS VALLEY ARMORY	ROOM 1	B	Roof Support Trusses	Gray	Intact	Metal	Positive	6.1	6.1	6.6
10	12/14/2010 12:22	PAULS VALLEY ARMORY	ROOM 1	B	Window Casing	Green	Poor	Metal	Null	0.7	0.7	2.8
11	12/14/2010 12:22	PAULS VALLEY ARMORY	ROOM 1	B	Window Casing	Green	Poor	Metal	Null	0.8	0.8	4.8
12	12/14/2010 12:22	PAULS VALLEY ARMORY	ROOM 1	B	Window Casing	Green	Poor	Metal	Null	0.7	0.7	5.6
13	12/14/2010 12:23	PAULS VALLEY ARMORY	ROOM 1	B	Window Casing	Green	Poor	Metal	Null	1	1	6.8
14	12/14/2010 12:24	PAULS VALLEY ARMORY	ROOM 1	B	Window Frame	Green	Poor	Metal	Positive	1.6	1.6	0.5
15	12/14/2010 12:25	PAULS VALLEY ARMORY	ROOM 1	B	Window Lintel	Grey	Intact	Wood	Null	0.7	0.7	-0.7
16	12/14/2010 12:25	PAULS VALLEY ARMORY	ROOM 1	B	Window Lintel	Grey	Intact	Wood	Null	0.14	0.14	0.06
17	12/14/2010 12:25	PAULS VALLEY ARMORY	ROOM 1	B	Window Lintel	Grey	Intact	Wood	Negative	0.16	0.16	0.13
18	12/14/2010 12:26	PAULS VALLEY ARMORY	ROOM 1	B	Roof Support Trusses	Gray	Intact	Metal	Positive	7.8	7.8	8.7
19	12/14/2010 12:29	PAULS VALLEY ARMORY	ROOM 1	D	Window Casing	Green	Intact	Metal	Positive	2.4	0.7	2.4
20	12/14/2010 12:30	PAULS VALLEY ARMORY	ROOM 1	D	Roof Support Trusses	Gray	Intact	Metal	Positive	4.1	4.1	5.3
21	12/14/2010 12:33	PAULS VALLEY ARMORY	ROOM 1	C	Basketball Goal	Yellow	Intact	Metal	Positive	2.2	2.2	3.2
22	12/14/2010 12:34	PAULS VALLEY ARMORY	ROOM 1	A	Wall Interior	Beige	Intact	Brick	Negative	0.01	0.01	-1.1
23	12/14/2010 12:35	PAULS VALLEY ARMORY	ROOM 1	B	Wall Interior	Beige	Intact	Brick	Negative	0.02	0.02	-1.1
24	12/14/2010 12:36	PAULS VALLEY ARMORY	ROOM 1	C	Wall Interior	Beige	Intact	Brick	Negative	0.01	0.01	-1.1
25	12/14/2010 12:37	PAULS VALLEY ARMORY	ROOM 1	D	Wall Interior	Beige	Intact	Brick	Negative	0	0	-0.8
26	12/14/2010 12:37	PAULS VALLEY ARMORY	ROOM 1	A	Roll Door	Brown	Fair	Metal	Negative	0.6	0.6	0.07
27	12/14/2010 12:38	PAULS VALLEY ARMORY	ROOM 1	A	Roll Door Track	Brown	Fair	Metal	Negative	0.5	0.5	-0.2
28	12/14/2010 12:39	PAULS VALLEY ARMORY	ROOM 1	A	Door	Brown	Intact	Metal	Negative	0.5	0.5	-0.1
29	12/14/2010 12:40	PAULS VALLEY ARMORY	ROOM 1	A	Door Frame	Brown	Intact	Metal	Negative	0.5	0.5	0.6
30	12/14/2010 12:40	PAULS VALLEY ARMORY	ROOM 1	A	Door Lintel	Brown	Intact	Metal	Positive	4.7	4.7	5.7
31	12/14/2010 12:42	PAULS VALLEY ARMORY	ROOM 1	C	Door Lintel	Brown	Fair	Metal	Positive	4.8	4.8	3.6
32	12/14/2010 12:43	PAULS VALLEY ARMORY	ROOM 1	D	Roll Door	Brown	Fair	Metal	Negative	0.5	0.5	0.07
33	12/14/2010 12:43	PAULS VALLEY ARMORY	ROOM 1	D	Door	Brown	Fair	Metal	Negative	0.13	0.13	0.05
34	12/14/2010 12:44	PAULS VALLEY ARMORY	ROOM 1	D	Door Frame	Brown	Intact	Metal	Negative	0.05	0.05	-0.3
35	12/14/2010 12:45	PAULS VALLEY ARMORY	ROOM 1	D	Pass Through Window	Brown	Intact	Wood	Negative	0.12	0.12	-0.1
36	12/14/2010 12:46	PAULS VALLEY ARMORY	ROOM 1	D	Window Casing	Brown	Intact	Wood	Negative	-0.3	0.24	-0.3
37	12/14/2010 12:46	PAULS VALLEY ARMORY	ROOM 1	D	Door Lintel	Brown	Intact	Wood	Negative	0.1	0.1	0.4
38	12/14/2010 12:48	PAULS VALLEY ARMORY	ROOM 1	D	Door Plate	White	Poor	Metal	Negative	0	0	0.01
39	12/14/2010 12:49	PAULS VALLEY ARMORY	ROOM 1 A	C	Door	Brown	Intact	Wood	Negative	0	0	-0.7
40	12/14/2010 12:50	PAULS VALLEY ARMORY	ROOM 1 A	A	Wall	Beige	Intact	Brick	Negative	0.01	0.01	-0.9

Reading No	Time	Site	Room	Side	Component	Color	Condition	Substrate	Results	PbC	PbL	PbK
41	12/14/2010 12:50	PAULS VALLEY ARMORY	ROOM 1 A	B	Wall	Beige	Intact	Drywall	Negative	0	0	-0.4
42	12/14/2010 12:50	PAULS VALLEY ARMORY	ROOM 1 A	C	Wall	Beige	Intact	Wood	Negative	0	0	-0.5
43	12/14/2010 12:51	PAULS VALLEY ARMORY	ROOM 1 A	D	Wall	Beige	Intact	Drywall	Negative	0.01	0.01	-0.3
44	12/14/2010 12:51	PAULS VALLEY ARMORY	ROOM 1 A		Ceiling	Beige	Intact	Drywall	Negative	0	0	-0.2
45	12/14/2010 12:56	PAULS VALLEY ARMORY	ROOM 2	A	Wall	Beige	Intact	Wood	Negative	0	0	-0.5
46	12/14/2010 12:58	PAULS VALLEY ARMORY	ROOM 2	B	Wall	Beige	Intact	Wood	Negative	0	0	-0.3
47	12/14/2010 12:58	PAULS VALLEY ARMORY	ROOM 2	C	Wall	Beige	Intact	Wood	Negative	0	0	-0.2
48	12/14/2010 12:59	PAULS VALLEY ARMORY	ROOM 2	D	Wall	Beige	Intact	Wood	Negative	0	0	-0.1
49	12/14/2010 12:59	PAULS VALLEY ARMORY	ROOM 2	D	Wall	Beige	Poor	Brick	Negative	0	0	-0.9
50	12/14/2010 12:59	PAULS VALLEY ARMORY	ROOM 2	D	Roll Door	Brown	Intact	Metal	Negative	0.6	0.6	0.28
51	12/14/2010 13:00	PAULS VALLEY ARMORY	ROOM 2	B	Window Sill	Beige	Intact	Wood	Negative	0	0	-0.4
52	12/14/2010 13:01	PAULS VALLEY ARMORY	ROOM 2	B	Window Casing	Gray/Brown	Fair	Metal	Negative	0.01	0.01	-0.4
53	12/14/2010 13:02	PAULS VALLEY ARMORY	ROOM 2	C	Window Frame	Gray/Brown	Fair	Metal	Positive	4.6	1.4	4.6
54	12/14/2010 13:06	PAULS VALLEY ARMORY	ROOM 2	C	Window Frame	Gray/Brown	Fair	Metal	Positive	5	0.8	5
55	12/14/2010 13:08	PAULS VALLEY ARMORY	ROOM 2	A	Wall	Beige	Fair	Brick	Negative	0	0	-1.1
56	12/14/2010 13:09	PAULS VALLEY ARMORY	ROOM 2	C	Wall	Beige	Fair	Brick	Negative	0	0	-0.9
57	12/14/2010 13:09	PAULS VALLEY ARMORY	ROOM 2	D	Wall	Beige	Fair	Brick	Negative	0	0	-1.1
58	12/14/2010 13:10	PAULS VALLEY ARMORY	ROOM 2	B	Wall	Beige	Fair	Brick	Null	0	0	-0.9
59	12/14/2010 13:10	PAULS VALLEY ARMORY	ROOM 2	B	Wall	Beige	Fair	Brick	Negative	0	0	-0.3
60	12/14/2010 13:11	PAULS VALLEY ARMORY	ROOM 2	C	Roof Support I-Beams	Beige	Fair	Metal	Positive	4.5	4.5	6.4
61	12/14/2010 13:12	PAULS VALLEY ARMORY	ROOM 2	C	Ceiling	Gray	Poor	Panel	Positive	3.9	3.9	4.9
62	12/14/2010 13:18	PAULS VALLEY ARMORY	ROOM 3	A	Wall	Beige	Intact	Concrete	Negative	0.02	0.02	-0.5
63	12/14/2010 13:18	PAULS VALLEY ARMORY	ROOM 3	B	Wall	Beige	Intact	Brick	Negative	0.22	0.22	-1.1
64	12/14/2010 13:19	PAULS VALLEY ARMORY	ROOM 3	C	Wall	Beige	Intact	Concrete	Negative	0.05	0.05	-1.6
65	12/14/2010 13:19	PAULS VALLEY ARMORY	ROOM 3	D	Wall	Beige	Intact	Concrete	Null	0.03	0.03	0.25
66	12/14/2010 13:20	PAULS VALLEY ARMORY	ROOM 3	D	Wall	Beige	Intact	Concrete	Negative	0.08	0.08	-0.2
67	12/14/2010 13:20	PAULS VALLEY ARMORY	ROOM 3	A	Door	Brown	Intact	Metal	Negative	0.06	0.06	-0.1
68	12/14/2010 13:21	PAULS VALLEY ARMORY	ROOM 3	A	Door Frame	Brown	Intact	Metal	Negative	0.06	0.06	-0.7
69	12/14/2010 13:21	PAULS VALLEY ARMORY	ROOM 3	B	Window Frame	Brown	Intact	Wood	Negative	0.29	0.29	-0.2
70	12/14/2010 13:22	PAULS VALLEY ARMORY	ROOM 3	B	Coat Rack	Beige	Intact	Wood	Negative	0.02	0.02	-0.3
71	12/14/2010 13:28	PAULS VALLEY ARMORY	ROOM 3		Ceiling	Beige	Poor	Wood	Negative	0.02	0.02	-0.4
72	12/14/2010 13:29	PAULS VALLEY ARMORY	ROOM 3	B	Ceiling Support	Beige	Intact	Wood	Negative	0.05	0.05	-0.2
73	12/14/2010 13:29	PAULS VALLEY ARMORY	ROOM 3	C	Door	Brown	Intact	Metal	Negative	0.23	0.23	0.21
74	12/14/2010 13:30	PAULS VALLEY ARMORY	ROOM 4	A	Wall	Beige	Intact	Concrete	Null	0.04	0.04	-1.5
75	12/14/2010 13:30	PAULS VALLEY ARMORY	ROOM 4	A	Wall	Beige	Intact	Concrete	Negative	0	0	-1.1
76	12/14/2010 13:31	PAULS VALLEY ARMORY	ROOM 4	B	Wall	Beige	Intact	Concrete	Negative	0.02	0.02	-0.9
77	12/14/2010 13:32	PAULS VALLEY ARMORY	ROOM 4	C	Wall	Beige	Intact	Concrete	Null	0.02	0.02	-1.2
78	12/14/2010 13:32	PAULS VALLEY ARMORY	ROOM 4	C	Wall	Beige	Intact	Concrete	Negative	0.1	0.1	-0.9
79	12/14/2010 13:32	PAULS VALLEY ARMORY	ROOM 4	D	Wall	Beige	Intact	Concrete	Negative	0.01	0.01	-1.1
80	12/14/2010 13:33	PAULS VALLEY ARMORY	ROOM 4		Ceiling	Beige	Poor	Wood	Negative	0.02	0.02	-0.5

Reading No	Time	Site	Room	Side	Component	Color	Condition	Substrate	Results	PbC	PbL	PbBk
81	12/14/2010 13:35	PAULS VALLEY ARMORY	ROOM 5	A	Wall	Beige	Intact	Brick	Negative	0.02	0.02	-0.6
82	12/14/2010 13:36	PAULS VALLEY ARMORY	ROOM 5	D	Wall	Beige	Intact	Brick	Null	0.06	0.06	-1.2
83	12/14/2010 13:36	PAULS VALLEY ARMORY	ROOM 5	D	Wall	Beige	Intact	Brick	Negative	0.03	0.03	-0.9
84	12/14/2010 13:36	PAULS VALLEY ARMORY	ROOM 5	B	Wall	Beige	Intact	Brick	Negative	0.01	0.01	-1.2
85	12/14/2010 13:37	PAULS VALLEY ARMORY	ROOM 5	C	Wall	Beige	Intact	Brick	Negative	0.01	0.01	-1.6
86	12/14/2010 13:37	PAULS VALLEY ARMORY	ROOM 5	B	Window Frame	Brown	Intact	Metal	Null	0.02	0.02	0.4
87	12/14/2010 13:38	PAULS VALLEY ARMORY	ROOM 5	B	Window Frame	Brown	Intact	Metal	Negative	0.02	0.02	-0.2
88	12/14/2010 13:38	PAULS VALLEY ARMORY	ROOM 5	B	Window Lintel	Brown	Intact	Metal	Negative	0.05	0.05	-0.4
89	12/14/2010 13:39	PAULS VALLEY ARMORY	ROOM 5	C	Stall	Brown	Intact	Metal	Negative	0	0	-0.7
90	12/14/2010 13:40	PAULS VALLEY ARMORY	ROOM 5	D	Door	Brown	Intact	Metal	Negative	0.03	0.03	-0.1
91	12/14/2010 13:40	PAULS VALLEY ARMORY	ROOM 5	D	Door Frame	Brown	Intact	Metal	Negative	0.05	0.05	-0.4
92	12/14/2010 13:43	PAULS VALLEY ARMORY	ROOM 6		Ceiling	Beige	Intact	Wood	Negative	0.05	0.05	-0.6
93	12/14/2010 13:44	PAULS VALLEY ARMORY	ROOM 6	A	Wall	White/Beige	Intact	Brick	Null	0.02	0.02	-0.6
94	12/14/2010 13:45	PAULS VALLEY ARMORY	ROOM 6	A	Wall	Red/White	Intact	Brick	Negative	0.01	0.01	-1.7
95	12/14/2010 13:46	PAULS VALLEY ARMORY	ROOM 6	A	Wall	Red/White	Intact	Brick	Negative	0.01	0.01	-1
96	12/14/2010 13:46	PAULS VALLEY ARMORY	ROOM 6	A	Wall	Yellow/White/Beige	Intact	Brick	Null	0.01	0.01	-1.4
97	12/14/2010 13:47	PAULS VALLEY ARMORY	ROOM 6	B	Wall	White	Intact	Brick	Null	0.01	0.01	-1.4
98	12/14/2010 13:48	PAULS VALLEY ARMORY	ROOM 6	B	Wall	White	Intact	Brick	Negative	0.08	0.08	-0.8
99	12/14/2010 13:48	PAULS VALLEY ARMORY	ROOM 6	C	Wall	Red	Intact	Brick	Negative	0.02	0.02	-1.3
100	12/14/2010 13:48	PAULS VALLEY ARMORY	ROOM 6	D	Wall	Yellow	Intact	Brick	Negative	0.06	0.06	-0.9
101	12/14/2010 13:50	PAULS VALLEY ARMORY	ROOM 6	A	Shower bench	Beige	Fair	Wood	Negative	0.12	0.12	-0.4
102	12/14/2010 13:50	PAULS VALLEY ARMORY	ROOM 6	C	Window Frame	Brown	Intact	Metal	Negative	0.09	0.09	-0
103	12/14/2010 13:51	PAULS VALLEY ARMORY	ROOM 6	B	Window Lintel	Brown	Intact	Metal	Negative	0.09	0.09	-1.2
104	12/14/2010 13:51	PAULS VALLEY ARMORY	ROOM 6	C	Door	Brown	Intact	Metal	Null	0.05	0.05	-1
105	12/14/2010 13:51	PAULS VALLEY ARMORY	ROOM 6	C	Door	Brown	Intact	Metal	Negative	0.05	0.05	-0.7
106	12/14/2010 13:52	PAULS VALLEY ARMORY	ROOM 6	A	Door	Blue/Gray	Intact	Metal	Negative	0.04	0.04	-0.4
107	12/14/2010 13:52	PAULS VALLEY ARMORY	ROOM 6	A	Door Frame	Blue/Gray	Intact	Metal	Negative	0.07	0.07	-0.7
108	12/14/2010 13:55	PAULS VALLEY ARMORY	ROOM 6	B	Stall	Red	Intact	Metal	Negative	0	0	-0.7
109	12/14/2010 13:56	PAULS VALLEY ARMORY	ROOM 7	A	Wall	White	Intact	Concrete	Null	0	0	-0.6
110	12/14/2010 13:56	PAULS VALLEY ARMORY	ROOM 7	A	Wall	White	Intact	Concrete	Null	0	0	-0.5
111	12/14/2010 13:56	PAULS VALLEY ARMORY	ROOM 7	A	Wall	White	Intact	Concrete	Null	0	0	-1.1
112	12/14/2010 13:57	PAULS VALLEY ARMORY	ROOM 7	A	Wall	White	Intact	Concrete	Negative	0.01	0.01	-0.7
113	12/14/2010 13:57	PAULS VALLEY ARMORY	ROOM 7	B	Wall	White	Intact	Brick	Negative	0	0	-1
114	12/14/2010 13:58	PAULS VALLEY ARMORY	ROOM 7	C	Wall	White	Intact	Concrete	Negative	0	0	-1.3
115	12/14/2010 13:58	PAULS VALLEY ARMORY	ROOM 7	D	Wall	White	Intact	Concrete	Null	0.03	0.03	-1.4
116	12/14/2010 13:59	PAULS VALLEY ARMORY	ROOM 7	D	Wall	White	Intact	Concrete	Null	0.05	0.05	-0.9
117	12/14/2010 13:59	PAULS VALLEY ARMORY	ROOM 7	D	Wall	White	Intact	Concrete	Negative	0.08	0.08	-1
118	12/14/2010 14:00	PAULS VALLEY ARMORY	ROOM 7	A	Wall Logo	Yellow/Red/White	Intact	Concrete	Null	0	0	-0.7
119	12/14/2010 14:00	PAULS VALLEY ARMORY	ROOM 7	A	Wall Logo	Yellow/Red/White	Intact	Concrete	Null	0	0	-0.6
120	12/14/2010 14:00	PAULS VALLEY ARMORY	ROOM 7	A	Wall Logo	Yellow/Red/White	Intact	Concrete	Negative	0.1	0.1	-0.9

Reading No	Time	Site	Room	Side	Component	Color	Condition	Substrate	Results	PbC	PbL	PbK
121	12/14/2010 14:01	PAULS VALLEY ARMORY	ROOM 7	A	Door	Blue/Gray	Intact	Metal	Negative	0.27	0.27	-0.4
122	12/14/2010 14:01	PAULS VALLEY ARMORY	ROOM 7	A	Door Frame	Blue/Gray	Intact	Metal	Negative	0.13	0.13	0.23
123	12/14/2010 14:03	PAULS VALLEY ARMORY	ROOM 7	B	Door	Brown	Intact	Metal	Negative	0.09	0.09	-0.3
124	12/14/2010 14:59	PAULS VALLEY ARMORY	ROOM 8	A	Door	Red	Intact	Metal	Negative	0	0	-0.5
125	12/14/2010 15:01	PAULS VALLEY ARMORY	ROOM 8	A	Door Frame	Gray	Intact	Metal	Null	0.01	0.01	1.4
126	12/14/2010 15:01	PAULS VALLEY ARMORY	ROOM 8	A	Door Frame	Gray	Intact	Metal	Negative	0	0	-0.6
127	12/14/2010 15:02	PAULS VALLEY ARMORY	ROOM 8	A	Wall	White	Intact	Drywall	Negative	0	0	-0
128	12/14/2010 15:02	PAULS VALLEY ARMORY	ROOM 8	B	Wall	White	Intact	Concrete	Null	0	0	0.5
129	12/14/2010 15:02	PAULS VALLEY ARMORY	ROOM 8	B	Wall	White	Intact	Concrete	Negative	0	0	-0.4
130	12/14/2010 15:03	PAULS VALLEY ARMORY	ROOM 8	C	Wall	Gray Tan	Intact	Concrete	Negative	0	0	-0.2
131	12/14/2010 15:03	PAULS VALLEY ARMORY	ROOM 8	D	Wall	Gray Tan	Intact	Drywall	Negative	0	0	-0.5
132	12/14/2010 15:05	PAULS VALLEY ARMORY	ROOM 9	A	Door	Gray	Intact	Metal	Negative	0	0	0.18
133	12/14/2010 15:06	PAULS VALLEY ARMORY	ROOM 9	A	Wall	White	Intact	Drywall	Negative	0	0	-0.1
134	12/14/2010 15:06	PAULS VALLEY ARMORY	ROOM 9	B	Wall	White	Intact	Drywall	Negative	0	0	-0.9
135	12/14/2010 15:07	PAULS VALLEY ARMORY	ROOM 9	C	Wall	White	Intact	Concrete	Negative	0	0	-1.6
136	12/14/2010 15:08	PAULS VALLEY ARMORY	ROOM 9	D	Wall	White	Intact	Concrete	Negative	0	0	-0.3
137	12/14/2010 15:14	PAULS VALLEY ARMORY	ROOM 10	A	Wall	Beige	Intact	Drywall	Negative	0	0	-0.7
138	12/14/2010 15:14	PAULS VALLEY ARMORY	ROOM 10	C	Wall	Beige	Intact	Drywall	Negative	0	0	-0.6
139	12/14/2010 15:15	PAULS VALLEY ARMORY	ROOM 10	D	Wall	Beige	Intact	Concrete Block	Negative	0	0	-1
140	12/14/2010 15:17	PAULS VALLEY ARMORY	ROOM 11	A	Wall	White	Intact	Concrete Block	Negative	0	0	-0.6
141	12/14/2010 15:17	PAULS VALLEY ARMORY	ROOM 11	C	Wall	Beige	Intact	Drywall	Negative	0	0	-0.3
142	12/14/2010 15:18	PAULS VALLEY ARMORY	ROOM 11	D	Wall	Red	Intact	Concrete Block	Negative	0.12	0.12	-0.6
143	12/14/2010 15:18	PAULS VALLEY ARMORY	ROOM 11	C	Door	Red	Intact	Metal	Negative	0	0	0.11
144	12/14/2010 15:19	PAULS VALLEY ARMORY	ROOM 11	C	Door Frame	Red	Intact	Metal	Negative	0	0	-0.3
145	12/14/2010 15:20	PAULS VALLEY ARMORY	ROOM 12	A	Wall	White	Intact	Concrete Block	Negative	0.01	0.01	-0.7
146	12/14/2010 15:20	PAULS VALLEY ARMORY	ROOM 12	B	Wall	White	Intact	Concrete Block	Negative	0	0	-1.2
147	12/14/2010 15:21	PAULS VALLEY ARMORY	ROOM 12	B	Wall	White	Intact	Concrete Block	Negative	0	0	-0.9
148	12/14/2010 15:21	PAULS VALLEY ARMORY	ROOM 12	C	Wall	Gray	Intact	Wood	Null	0	0	-0.5
149	12/14/2010 15:22	PAULS VALLEY ARMORY	ROOM 12	C	Wall	Gray	Intact	Wood	Negative	0	0	-0.4
150	12/14/2010 15:22	PAULS VALLEY ARMORY	ROOM 12	D	Wall	Gray	Intact	Concrete Block	Negative	0.08	0.08	-0.5
151	12/14/2010 15:24	PAULS VALLEY ARMORY	ROOM 13	A	Door	Gray	Intact	Metal	Negative	0.26	0.26	-0.4
152	12/14/2010 15:25	PAULS VALLEY ARMORY	ROOM 13	A	Wall	White	Intact	Concrete Block	Negative	0.01	0.01	-0.5
153	12/14/2010 15:26	PAULS VALLEY ARMORY	ROOM 13	B	Wall	Red	Intact	Concrete Block	Negative	0.28	0.28	-0.5
154	12/14/2010 15:26	PAULS VALLEY ARMORY	ROOM 13	C	Door	Gray	Intact	Metal	Negative	0.04	0.04	-0.3
155	12/14/2010 15:28	PAULS VALLEY ARMORY	ROOM 13	C	Wall	Yellow	Intact	Concrete Block	Negative	0.08	0.08	-0.6
156	12/14/2010 15:28	PAULS VALLEY ARMORY	ROOM 13	D	Wall	White	Intact	Concrete Block	Negative	0	0	-1.1
157	12/14/2010 15:29	PAULS VALLEY ARMORY	ROOM 13	A	Door Frame	Gray	Intact	Metal	Negative	0.23	0.23	-0.1
158	12/14/2010 15:30	PAULS VALLEY ARMORY	ROOM 14	A	Wall	White	Intact	Concrete Block	Negative	0.01	0.01	-0.4
159	12/14/2010 15:31	PAULS VALLEY ARMORY	ROOM 14	C	Wall	Yellow	Intact	Concrete Block	Negative	0.12	0.12	0.04
160	12/14/2010 15:33	PAULS VALLEY ARMORY	ROOM 14	B	Wall	Red	Intact	Brick	Negative	0.1	0.1	-1.1

Reading No	Time	Site	Room	Side	Component	Color	Condition	Substrate	Results	PbC	PbL	PbK
161	12/14/2010 15:34	PAULS VALLEY ARMORY	ROOM 14	B	Door	Red	Intact	Metal	Negative	0.06	0.06	-0.2
162	12/14/2010 15:34	PAULS VALLEY ARMORY	ROOM 14	B	Door Frame	Red	Intact	Metal	Negative	0.06	0.06	0.09
163	12/14/2010 15:34	PAULS VALLEY ARMORY	ROOM 14	A	Door	Gray	Intact	Metal	Negative	0.04	0.04	-0.2
164	12/14/2010 15:35	PAULS VALLEY ARMORY	ROOM 14	A	Door Frame	Gray	Intact	Metal	Negative	0.09	0.09	0.13
165	12/14/2010 15:36	PAULS VALLEY ARMORY	ROOM 14	C	Door	Gray	Intact	Metal	Negative	0.03	0.03	-0.1
166	12/14/2010 15:36	PAULS VALLEY ARMORY	ROOM 14	C	Door Frame	Gray	Intact	Metal	Negative	0.05	0.05	0.01
167	12/14/2010 15:37	PAULS VALLEY ARMORY	ROOM 14	A	Door	Gray	Intact	Metal	Negative	0	0	-0.8
168	12/14/2010 15:37	PAULS VALLEY ARMORY	ROOM 14	A	Door Frame	Gray	Intact	Metal	Negative	0	0	-0.4
169	12/14/2010 15:38	PAULS VALLEY ARMORY	ROOM 14	C	Door	Gray	Intact	Metal	Negative	0.11	0.11	-0.4
170	12/14/2010 15:39	PAULS VALLEY ARMORY	ROOM 14	C	Door Frame	Gray	Intact	Metal	Negative	0.14	0.14	-0.3
171	12/14/2010 15:40	PAULS VALLEY ARMORY	ROOM 16	C	Door	Gray	Intact	Metal	Negative	0	0	-1.7
172	12/14/2010 15:41	PAULS VALLEY ARMORY	ROOM 16	C	Door Frame	Gray	Intact	Metal	Negative	0.08	0.08	-0.6
173	12/14/2010 15:42	PAULS VALLEY ARMORY	ROOM 17	C	Door	Red Brown	Intact	Metal	Negative	0.06	0.06	-0.1
174	12/14/2010 15:42	PAULS VALLEY ARMORY	ROOM 17	C	Door Frame	Gray	Intact	Metal	Negative	0.15	0.15	-0.6
175	12/14/2010 15:45	PAULS VALLEY ARMORY	ROOM 18	A	Wall	Brown	Intact	Brick	Null	0.07	0.07	-0.2
176	12/14/2010 15:45	PAULS VALLEY ARMORY	ROOM 18	A	Wall	Brown	Intact	Brick	Null	0.06	0.06	0.22
177	12/14/2010 15:45	PAULS VALLEY ARMORY	ROOM 18	A	Wall	Brown	Intact	Brick	Null	0.05	0.05	-0.3
178	12/14/2010 15:46	PAULS VALLEY ARMORY	ROOM 18	A	Wall	Brown	Intact	Brick	Negative	0.05	0.05	-0.1
179	12/14/2010 15:47	PAULS VALLEY ARMORY	ROOM 18	A	Shelf	Brown	Intact	Wood	Negative	0.07	0.07	-0.2
180	12/14/2010 15:47	PAULS VALLEY ARMORY	ROOM 18	B	Wall	White	Intact	Brick	Null	0.03	0.03	-1.3
181	12/14/2010 15:47	PAULS VALLEY ARMORY	ROOM 18	B	Wall	White	Intact	Brick	Negative	0.04	0.04	-1.2
182	12/14/2010 15:48	PAULS VALLEY ARMORY	ROOM 18	C	Wall	White	Intact	Brick	Null	0.01	0.01	-0.2
183	12/14/2010 15:48	PAULS VALLEY ARMORY	ROOM 18	C	Wall	White	Intact	Brick	Negative	0.07	0.07	-1.6
184	12/14/2010 15:49	PAULS VALLEY ARMORY	ROOM 18	D	Wall	White	Intact	Brick	Negative	0.02	0.02	-1
185	12/14/2010 15:49	PAULS VALLEY ARMORY	ROOM 18	B	Door Frame	White	Intact	Metal	Negative	0.13	0.13	0.13
186	12/14/2010 15:50	PAULS VALLEY ARMORY	ROOM 18		Ceiling	White	Intact	Concrete	Null	0	0	-0.4
187	12/14/2010 15:50	PAULS VALLEY ARMORY	ROOM 18		Ceiling	White	Intact	Concrete	Negative	0	0	-0.4
188	12/14/2010 15:52	PAULS VALLEY ARMORY	ROOM 19	A	Wall	Beige	Poor	Concrete	Negative	0.04	0.04	-0.9
189	12/14/2010 15:52	PAULS VALLEY ARMORY	ROOM 19	B	Wall	Beige	Poor	Brick	Null	0.01	0.01	-0.2
190	12/14/2010 15:52	PAULS VALLEY ARMORY	ROOM 19	B	Wall	Beige	Poor	Brick	Null	0.17	0.17	-1.1
191	12/14/2010 15:53	PAULS VALLEY ARMORY	ROOM 19	B	Wall	Beige	Poor	Brick	Null	0.06	0.06	-1.3
192	12/14/2010 15:53	PAULS VALLEY ARMORY	ROOM 19	B	Wall	Beige	Poor	Brick	Null	0.02	0.02	-1
193	12/14/2010 15:53	PAULS VALLEY ARMORY	ROOM 19	B	Wall	Beige	Poor	Brick	Null	0.04	0.04	-0.1
194	12/14/2010 15:54	PAULS VALLEY ARMORY	ROOM 19	B	Wall	Beige	Intact	Brick	Negative	0.02	0.02	-1
195	12/14/2010 15:55	PAULS VALLEY ARMORY	ROOM 19	B	Door	Brown	Intact	Metal	Negative	0.11	0.11	-0.4
196	12/14/2010 15:55	PAULS VALLEY ARMORY	ROOM 19	B	Door Frame	Brown	Intact	Metal	Negative	0.11	0.11	0.4
197	12/14/2010 15:56	PAULS VALLEY ARMORY	ROOM 19	C	Wall	Beige	Intact	Concrete	Negative	-0.6	0.07	-0.6
198	12/14/2010 15:56	PAULS VALLEY ARMORY	ROOM 19	D	Wall	Beige	Intact	Concrete Block	Negative	0.07	0.07	-1.3
199	12/14/2010 15:57	PAULS VALLEY ARMORY	ROOM 19		Ceiling	Beige	Intact	Wood	Null	0.01	0.01	-0.4
200	12/14/2010 15:58	PAULS VALLEY ARMORY	ROOM 19		Ceiling	Beige	Intact	Wood	Null	0.01	0.01	-0.3

Reading No	Time	Site	Room	Side	Component	Color	Condition	Substrate	Results	PbC	PbL	PbK
201	12/14/2010 15:58	PAULS VALLEY ARMORY	ROOM 19		Ceiling	Beige	Intact	Wood	Null	0.04	0.04	0.26
202	12/14/2010 15:58	PAULS VALLEY ARMORY	ROOM 19		Ceiling	Beige	Intact	Wood	Null	0.02	0.02	-0.5
203	12/14/2010 15:58	PAULS VALLEY ARMORY	ROOM 19		Ceiling	Beige	Intact	Wood	Null	0	0	0.7
204	12/14/2010 15:59	PAULS VALLEY ARMORY	ROOM 19		Ceiling	Beige	Poor	Wood	Negative	0.05	0.05	-0.2
205	12/14/2010 16:01	PAULS VALLEY ARMORY	ROOM 19	A	Window	Red	Poor	Metal	Negative	0.05	0.05	-1
206	12/14/2010 16:02	PAULS VALLEY ARMORY	ROOM 19	A	Window	Red/Brown	Poor	Metal	Negative	0.05	0.05	-0.1
207	12/14/2010 16:15	PAULS VALLEY ARMORY	CALIBRATE						Negative	0.9	0.9	0.4
208	12/14/2010 16:16	PAULS VALLEY ARMORY	CALIBRATE						Null	1.1	1.1	0.5
209	12/14/2010 16:16	PAULS VALLEY ARMORY	CALIBRATE						Null	1.1	1.1	0.4
210	12/14/2010 16:16	PAULS VALLEY ARMORY	CALIBRATE						Null	1.1	1.1	0.7
211	12/14/2010 16:18	PAULS VALLEY ARMORY	CALIBRATE						Negative	0.9	0.9	0.4
212	12/14/2010 16:22	PAULS VALLEY ARMORY	CALIBRATE						Null	1	1	-0
213	12/14/2010 16:23	PAULS VALLEY ARMORY	CALIBRATE						Null	1.2	1.2	-0.3
214	12/14/2010 16:23	PAULS VALLEY ARMORY	CALIBRATE						Null	0.9	0.9	0.2
215	12/14/2010 16:23	PAULS VALLEY ARMORY	CALIBRATE						Null	0.8	0.8	0.4
216	12/14/2010 16:25	PAULS VALLEY ARMORY	CALIBRATE						Negative	0.9	0.9	-0.1
217	12/14/2010 16:34	PAULS VALLEY ARMORY	EXTERIOR	A	Door	Gray	Intact	Metal	Null	1.1	1.1	0.7
218	12/14/2010 16:35	PAULS VALLEY ARMORY	EXTERIOR	A	Door	Gray	Intact	Metal	Null	1.3	1.3	1
219	12/14/2010 16:36	PAULS VALLEY ARMORY	EXTERIOR	A	Door	Gray	Intact	Metal	Null	2.1	2.1	1.3
220	12/14/2010 16:39	PAULS VALLEY ARMORY	EXTERIOR	A	Door	Gray	Intact	Metal	Null	1.8	1.8	1.3
221	12/14/2010 16:39	PAULS VALLEY ARMORY	EXTERIOR	A	Door	Gray	Intact	Metal	Null	1.1	1.1	-0.2
222	12/14/2010 16:40	PAULS VALLEY ARMORY	EXTERIOR	A	Door	Gray	Intact	Metal	Null	1.7	1.7	2
223	12/14/2010 16:41	PAULS VALLEY ARMORY	EXTERIOR	A	Door	Gray	Intact	Metal	Positive	1.4	1.4	1.3
224	12/14/2010 16:42	PAULS VALLEY ARMORY	EXTERIOR	A	Door Frame	Gray	Intact	Metal	Positive	1.3	1.3	1.1
225	12/14/2010 16:43	PAULS VALLEY ARMORY	EXTERIOR	A	Door Lintel	Gray	Intact	Metal	Positive	1.4	1.4	1.2
226	12/14/2010 16:45	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Floor	Red	Poor	Concrete	Negative	0	0	-0.8
227	12/14/2010 16:46	PAULS VALLEY ARMORY	EXTERIOR	A	Wall Trim	Gray	Intact	Wood	Negative	0.02	0.02	-0.6
228	12/14/2010 16:47	PAULS VALLEY ARMORY	EXTERIOR	A	Window Lintel	Gray	Intact	Metal	Null	0.8	0.8	0.5
229	12/14/2010 16:47	PAULS VALLEY ARMORY	EXTERIOR	A	Window Lintel	Gray	Intact	Metal	Null	1.6	1.6	0.09
230	12/14/2010 16:47	PAULS VALLEY ARMORY	EXTERIOR	A	Window Lintel	Gray	Intact	Metal	Null	0.3	0.3	0.28
231	12/14/2010 16:48	PAULS VALLEY ARMORY	EXTERIOR	A	Window Lintel	Gray	Intact	Metal	Null	1	1	-0.3
232	12/14/2010 16:49	PAULS VALLEY ARMORY	EXTERIOR	A	Window Lintel	Gray	Intact	Metal	Negative	0.7	0.7	0.6
233	12/14/2010 16:50	PAULS VALLEY ARMORY	EXTERIOR	A	Window Sill	Gray	Intact	Concrete	Negative	0.03	0.03	-0.5
234	12/14/2010 16:52	PAULS VALLEY ARMORY	EXTERIOR	A	Entrance Canopy	Maroon	Intact	Wood	Positive	1.4	1.4	1
235	12/14/2010 16:53	PAULS VALLEY ARMORY	EXTERIOR	A	Entrance Canopy Beam	Maroon	Intact	Wood	Positive	1.7	1.7	1.4
236	12/14/2010 16:55	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	0.8	0.8	1.1
237	12/14/2010 16:55	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	0.8	0.8	1.3
238	12/14/2010 16:55	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	0.9	0.9	1.4
239	12/14/2010 16:56	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	1.2	1.2	0.8
240	12/14/2010 16:57	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	1	1	0.8

Reading No	Time	Site	Room	Side	Component	Color	Condition	Substrate	Results	PbC	PbL	PbK
241	12/14/2010 16:59	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	0.8	0.8	0.7
242	12/14/2010 16:59	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	0.6	0.6	2.3
243	12/14/2010 17:00	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	1	1	1.3
244	12/14/2010 17:00	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	1.1	1.1	1.5
245	12/14/2010 17:00	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	0.27	0.27	0.15
246	12/14/2010 17:01	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	2.1	2.1	1.6
247	12/14/2010 17:01	PAULS VALLEY ARMORY	EXTERIOR	A	Porch Fascia	Maroon	Intact	Wood	Null	1	1	1.3
248	12/14/2010 17:02	PAULS VALLEY ARMORY	EXTERIOR	A	Entrance Canopy Fascia	Maroon	Intact	Wood	Positive	1.2	1.2	1.4
249	12/14/2010 17:03	PAULS VALLEY ARMORY	EXTERIOR	A	Window Sill	Blue	Fair	Concrete	Negative	0.04	0.04	-1.3
250	12/14/2010 17:04	PAULS VALLEY ARMORY	EXTERIOR	A	Flag Pole	Gray	Poor	Metal	Negative	0	0	-1
251	12/14/2010 17:06	PAULS VALLEY ARMORY	EXTERIOR	A	Window Lintel	Blue	Fair	Wood	Null	1	1	0.9
252	12/14/2010 17:07	PAULS VALLEY ARMORY	EXTERIOR	A	Window Lintel	Blue	Fair	Wood	Positive	1.3	1.3	0.8
253	12/14/2010 17:08	PAULS VALLEY ARMORY	EXTERIOR	A	Window Frame	Blue	Fair	Wood	Negative	0.01	0.01	-0.3
254	12/14/2010 17:08	PAULS VALLEY ARMORY	EXTERIOR	A	Trim Board	Red	Fair	Wood	Null	0.1	0.1	0.19
255	12/14/2010 17:09	PAULS VALLEY ARMORY	EXTERIOR	A	Trim Board	Red	Fair	Wood	Negative	0	0	0.01
256	12/14/2010 17:09	PAULS VALLEY ARMORY	EXTERIOR	A	Window Sill	Red	Poor	Concrete	Null	0.22	0.22	-0.8
257	12/14/2010 17:10	PAULS VALLEY ARMORY	EXTERIOR	A	Window Sill	Red	Poor	Concrete	Negative	0.05	0.05	-1.2
258	12/14/2010 17:12	PAULS VALLEY ARMORY	EXTERIOR	A	Window Frame	Red	Poor	Metal	Positive	1.1	1.1	0.8
259	12/14/2010 17:13	PAULS VALLEY ARMORY	EXTERIOR	A	Roll Door	Gray	Fair	Metal	Negative	0.3	0.3	-0.2
260	12/14/2010 17:14	PAULS VALLEY ARMORY	EXTERIOR	A	Edge Protector	Gray	Fair	Metal	Positive	2.7	1.6	2.7
261	12/14/2010 17:15	PAULS VALLEY ARMORY	EXTERIOR	A	Modified Bollard	Gray	Fair	Concrete	Positive	4.8	1.5	4.8
262	12/14/2010 17:16	PAULS VALLEY ARMORY	EXTERIOR	A	Door	Gray	Fair	Metal	Negative	0.4	0.4	-0.3
263	12/14/2010 17:16	PAULS VALLEY ARMORY	EXTERIOR	A	Door Lintel	Gray	Fair	Metal	Positive	4.2	2.9	4.2
264	12/14/2010 17:18	PAULS VALLEY ARMORY	EXTERIOR	B	Window Sill	Yellow	Fair	Concrete	Negative	0.14	0.14	-0.8
265	12/14/2010 17:18	PAULS VALLEY ARMORY	EXTERIOR	B	Window Casing	Yellow	Poor	Concrete	Negative	0.4	0.4	0.16
266	12/14/2010 17:19	PAULS VALLEY ARMORY	EXTERIOR	B	Window Lintel	Yellow	Poor	Metal	Positive	3.3	3.3	4
267	12/14/2010 17:21	PAULS VALLEY ARMORY	EXTERIOR	D	Window Sill	Gray	Fair	Concrete	Null	0.09	0.09	-0.8
268	12/14/2010 17:22	PAULS VALLEY ARMORY	EXTERIOR	D	Window Sill	Gray	Fair	Concrete	Negative	-1	0.08	-1
269	12/14/2010 17:22	PAULS VALLEY ARMORY	EXTERIOR	D	Trim	Red	Fair	Wood	Negative	0.01	0.01	0.1
270	12/14/2010 17:23	PAULS VALLEY ARMORY	EXTERIOR	C	Window Sill	Gray	Fair	Concrete	Negative	0.04	0.04	-1.3
271	12/14/2010 17:29	PAULS VALLEY ARMORY	EXTERIOR	C	Door	Brown	Fair	Metal	Positive	1.1	1.6	1.2
272	12/14/2010 17:30	PAULS VALLEY ARMORY	EXTERIOR	C	Door Frame	Brown	Fair	Metal	Null	1.4	1.4	1.7
273	12/14/2010 17:31	PAULS VALLEY ARMORY	EXTERIOR	C	Door Frame	Brown	Fair	Metal	Null	1.5	1.5	1.5
274	12/14/2010 17:32	PAULS VALLEY ARMORY	EXTERIOR	C	Door Frame	Brown	Fair	Metal	Null	1.3	1.3	1.5
275	12/14/2010 17:33	PAULS VALLEY ARMORY	EXTERIOR	C	Door Frame	Brown	Fair	Metal	Positive	1.4	1.4	2
276	12/14/2010 17:34	PAULS VALLEY ARMORY	EXTERIOR	C	Window Casing	Yellow	Poor	Metal	Positive	1.6	1.6	1.6
277	12/14/2010 17:34	PAULS VALLEY ARMORY	EXTERIOR	C	Window Sill	Gray	Fair	Concrete	Negative	0.06	0.06	-0.8
278	12/14/2010 17:35	PAULS VALLEY ARMORY	EXTERIOR	C	Window Casing	Yellow	Fair	Metal	Negative	0.5	0.5	0.5
279	12/14/2010 17:37	PAULS VALLEY ARMORY	EXTERIOR	C	Roll Door	Brown	Intact	Metal	Negative	0.3	0.3	-0.2
280	12/14/2010 17:37	PAULS VALLEY ARMORY	EXTERIOR	C	Edge Protector	Brown	Fair	Metal	Positive	5.8	2.7	5.8

Reading No	Time	Site	Room	Side	Component	Color	Condition	Substrate	Results	PbC	PbL	PbK
281	12/14/2010 17:38	PAULS VALLEY ARMORY	EXTERIOR	C	Modified Bollard	Brown	Fair	Concrete	Positive	7.8	1.2	7.8
282	12/14/2010 17:38	PAULS VALLEY ARMORY	EXTERIOR	C	Down Spout	Tan	Poor	Metal	Negative	0.2	0.2	0.3
283	12/14/2010 17:40	PAULS VALLEY ARMORY	EXTERIOR	C	Door	Brown	Fair	Metal	Negative	0	0	-0.6
284	12/14/2010 17:43	PAULS VALLEY ARMORY	EXTERIOR	A	Trim	Black	Intact	Metal	Negative	0	0	-0.4
285	12/14/2010 17:43	PAULS VALLEY ARMORY	EXTERIOR	A	Gutter	Black	Intact	Metal	Negative	0	0	0.16
286	12/14/2010 17:49	PAULS VALLEY ARMORY	CALIBRATE						Positive	1	1	0.5
287	12/14/2010 17:52	PAULS VALLEY ARMORY	CALIBRATE						Null	1	1	0.3
288	12/14/2010 17:53	PAULS VALLEY ARMORY	CALIBRATE						Negative	0.9	0.9	0.24
289	12/14/2010 17:55	PAULS VALLEY ARMORY	CALIBRATE						Null	1	1	0.27
290	12/14/2010 17:58	PAULS VALLEY ARMORY	CALIBRATE						Negative	0.9	0.9	0.5

APPENDIX E

Performance Characteristic Sheet

EFFECTIVE DATE: September 24, 2004

EDITION NO.: 1

MANUFACTURER AND MODEL:

Make: Niton LLC

Tested Model: XLp 300

Source: ^{109}Cd

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

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

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

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

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

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

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

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

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm² (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm² in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm² film).

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

SUBSTRATE CORRECTION:

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

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

INCONCLUSIVE RANGE OR THRESHOLD:

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

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

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

OPERATING PARAMETERS:

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

SUBSTRATE CORRECTION VALUE COMPUTATION:

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

EVALUATING THE QUALITY OF XRF TESTING:

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

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

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

Compute the Retest Tolerance Limit by the following steps:

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

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

Square the average for each testing combination.

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

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

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

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

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

Compute the average of all ten original XRF results.

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

Find the absolute difference of the two averages.

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

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

TESTING TIMES:

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

Testing Times Using K+L Reading Mode (Seconds)						
Substrate	All Data			Median for laboratory-measured lead levels (mg/cm ²)		
	25 th Percentile	Median	75 th Percentile	Pb < 0.25	0.25 ≤ Pb < 1.0	1.0 ≤ Pb
Wood Drywall	4	11	19	11	15	11
Metal	4	12	18	9	12	14
Brick Concrete Plaster	8	16	22	15	18	16

CLASSIFICATION RESULTS:

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

DOCUMENTATION:

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

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

APPENDIX F

Department of Environmental Quality

This is to Certify That

ENERCON SVC INC

has met the specifications of the Oklahoma Lead-Based Paint Management Act and is certified as a Lead-Based Paint

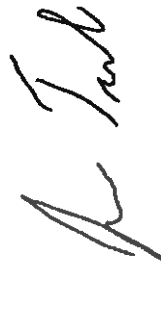
FIRM

Certification #: OKFIRM11152

This certificate is valid from the date of issuance and expires as prescribed by law

Issued on: **4/1/2010**

Expires on: **3/31/2011**



Division Director
Air Quality Division





Environmental Programs Manager
Air Quality Division

Department of Environmental Quality

This is to Certify That

MARSHALL BRANSCUM

has met the specifications of the Oklahoma Lead-Based Paint Management Act
and is certified as a Lead-Based Paint

INSPECTOR

Certification #: OKINSR13415

This certificate is valid from the date of issuance and expires as prescribed by law.

Issued on: **4/1/2010**

Expires on: **3/31/2011**

A. Todd

Division Director
Air Quality Division



Randall L. Wood

Environmental Programs Manager
Air Quality Division

Department of Environmental Quality

This is to Certify That

EMMETT MUENKER

has met the specifications of the Oklahoma Lead-Based Paint Management Act
and is certified as a Lead-Based Paint

INSPECTOR/RISK ASSESSOR

Certification #: OKRASR11260

This certificate is valid from the date of issuance and expires as prescribed by law.

Issued on: **4/1/2010**

Expires on: **3/31/2011**

[Signature]

Division Director
Air Quality Division



[Signature]

Environmental Programs Manager
Air Quality Division

SCOPES OF WORK

STATEMENT OF WORK

For

Remediation of Lead and Asbestos Contamination at The Former Pauls Valley National Guard Armory

The Oklahoma Department of Environmental Quality (DEQ) is requesting a work plan and cost estimate for remediation services at a former National Guard armory located in Pauls Valley, Oklahoma. This statement of work (SOW) describes the abatement of lead-based paint, remediation of lead contaminated dust, and removal and proper disposal of asbestos-containing material. This work must be performed to provide for safe re-use of the facility with unrestricted use such as storage areas, classrooms, or office space. A mandatory site visit and walk through will be held at the site to give a better understanding of the project. A floor plan map of the Pauls Valley Armory is attached for review (**Attachment 1**).

The building is located at 1001 North Ash Street, Pauls Valley, Oklahoma 73075. The building will not have available water and electricity to use during remediation.

SPECIAL PROVISIONS:

1. **Work Schedule:** The contractor shall schedule all work to be completed within 120 calendar days after date of the written "Notice to Proceed." Coordination of work shall be scheduled with DEQ.
 - a. A pre-construction meeting shall be held at the site after the Notice to Proceed date to review Statement of Work and answer any questions the contractor may have.
 - b. All on-site work shall be completed by the contractor five (5) days prior to the scheduled contract completion date, with the remaining five (5) days utilized for final inspection and correction of all deficiencies.
2. **Conditions of Work:** The following conditions of work will apply in accomplishment of this contract:
 - a. All work shall be performed in accordance with all applicable State and Federal regulations.
 - b. Contractor shall not cause damage to building structures, property, walls, fixtures, etc. during remediation/abatement process. If damage is caused to these items, contractor is responsible for repairing the damage.
 - c. Coordination of work areas shall be scheduled with DEQ.
 - d. All work shall be performed in such a manner that it does not put workers health and safety at risk (**Attachment 2**).
 - e. **Disposal of Removed Materials:** All materials removed by the Contractor under this contract shall be disposed of in accordance with State and Federal regulations. DEQ will sign as generator, if necessary.

CONTRACTOR SHALL:

- Attend mandatory site walk throughs;
- Possess a current lead-based paint firm license and have a certified lead-based paint supervisor in order to perform lead-based paint abatement;

- Possess a current Oklahoma Department of Labor (ODOL) Asbestos Abatement Contractor License in order to perform asbestos abatement;
- Follow all appropriate OSHA requirements;
- Follow OSHA Lead in Construction Interim Final Standard (29 CFR 1926.62) for lead-based paint abatement, and lead dust remediation;

Submit With Cost Estimate and Work Plan:

- Copy of lead-based paint firm license;
- Copy of lead-based paint supervisor license;
- Copy of ODOL Asbestos Abatement Contractor License;
- Three references with name, type of project, phone number, and location of similar work in the last three years.

Submit After Contract Award:

- A Work Plan Schedule to DEQ for approval

SEQUENCE OF EVENTS

The remediation of the building shall be as follows:

1. First – The asbestos abatement shall be completed.
2. Second – Enercon shall be contacted to confirm all asbestos has been appropriately removed.
3. Third – The lead-based paint abatement shall be completed.
4. Fourth – All floors of the entire building shall be cleaned.
5. Fifth – DEQ shall be contacted to perform third party confirmation sampling to confirm all floors have been appropriately remediated.

ASBESTOS ABATEMENT INSTRUCTIONS

- Non-friable and/or non-regulated Asbestos Containing Material (ACM) shall be removed as described in the instructions listed below. For more details see the attached Pauls Valley Armory Asbestos Inspection Report with floor plan map showing locations of ACM (**Attachment 3**).
 - Remove windows with asbestos-containing window glazing in Rooms 1, 2, 3, 19.
 - Removed windows shall be replaced (See the Window Section under Lead-based Paint Abatement Instructions for further detail on window replacement).
- Friable ACM shall be removed as described in the attached Asbestos Abatement Project Design (**Attachment 3**). For more details see the attached Pauls Valley Armory Asbestos Inspection Report with floor plan map showing locations of ACM (**Attachment 3**).
 - Remove approximately 275 lineal feet of asbestos-containing white and tan piping insulation which runs through Rooms 1, 3, 4, 5,6 ,7, 8, 9, 10, 14, and 19.
 - Remove 20 asbestos-containing pipe insulation fittings.
 - All pipes with asbestos containing pipe insulation and pipe fittings removed shall be re-insulated and re-fitted.
- Once Asbestos Abatement is complete, Enercon Services, Inc. (“Enercon”) shall be contacted to confirm abatement has been appropriately performed and all asbestos has been removed.

LEAD-BASED PAINT ABATEMENT INSTRUCTIONS

See Lead-Based Paint Inspection Report
for details (**Attachment 5**)

1. Non-Friction and Non-Impact Surfaces

- All items listed below shall be wet scraped, painted with a neutral colored primer, and encapsulated with DEQ approved elastomeric encapsulant. A list of DEQ approved elastomeric encapsulants is attached (**Attachment 4**). Encapsulant shall be a minimum of 20 mils thick. The Lead-Based Paint and Settled Dust Sampling Report with floor plan maps detailing the locations of the lead-based paint is attached for review (**Attachment 5**);
 - All interior and exterior metal window and door lintels
 - The gray ceiling panels above Room 2
 - The basketball goal frame in Room 1
 - The exterior main entrance ceiling (support beam and fascia) – Side A
 - The eight (8) modified bollards and wall edge protectors outside the overhead doors – Sides A and C
 - The four (4) overhead doors and overhead door frames in Rooms 1 and 2 shall be wet scraped and sealed only.
- Deteriorated paint removed from building surface will be properly disposed.

2. Friction and Impact Surfaces

Windows

- A Window Statement of Work with map, window measurements, specifications for window replacement, and specific details on abatement requirements for each window is attached (**Attachment 6**).
- All windows and frames with associated louvers containing lead-based paint shall be removed, properly disposed, and replaced with new windows.
- The window glazing contains asbestos. This material shall be handled appropriately during removal.
- Windows installed must meet all attached specifications.
- Window installation and oversight of window removal shall be performed by a third party professional window installation company that is certified and recommended by the window manufacturer of the windows being installed.
 - Window installer shall have no less than five (5) years of installation experience.
 - Window installer shall have experience with removal of steel casement windows.
- All interior and exterior window and vent sills shall be HEPA vacuumed and wet washed after windows are removed and replaced.
- Product Substitution: Substitutions include products differing from those required by the specification.

- Submit two (2) copies of each request for product substitution. Identify product to be replaced and provide complete documentation showing compliance of proposed substitution with applicable requirements. Include a full comparison with the specified product, and a list of changes to other work required to accommodate the substitution.
- Submit requests for product substitution in accordance with the time allotted to do so by the Statement of Work included within the Bid Solicitation
- State of Oklahoma, Department of Environmental Quality will review the proposed substitution and notify bidder of its acceptance or rejection within the time allotted to do so by the Statement of Work included within the Bid Solicitation.
- The nine (9) high bay windows located in the Drill Floor (Room 1) shall be replaced with General Aluminum Series #2700/2800 Picture Windows or equivalent. Specifications are attached (**Attachment 7**).
 - Windows shall be non-opening windows
 - Windows shall have Low E glazing
 - Windows shall have Bronze Finish on frame with powder baked on enamel
- The six (6) windows located in Room 2 and the windows located in rooms 3, 4, 5, 6, and 19 shall be replaced with General Aluminum Series #2700 Single Hung Thermal Break Windows or equivalent. Specifications are attached (**Attachment 7**).
 - Windows shall be functional windows
 - Windows shall have low E glazing
 - Windows shall have Bronze Finish on frame with powder baked on enamel

Doors

- A Door Statement of Work with map, door measurements, specifications for door replacement, and specific details on abatement requirements for each door is attached (**Attachment 8**).
- Doors and frames with lead-based paint shall have doors removed, all paint shall be removed from door frame, frame shall be painted with a neutral colored primer, and replacement door shall be installed with continuous geared hinges.
- Once lead-based paint has been removed from surfaces, DEQ will perform a visual inspection to confirm lead-based paint has been removed appropriately before surfaces are painted or sealed.
- All removed door shall be wrapped in 6 mil poly sheeting and properly disposed.
- Specifications for replacement items are attached (**Attachment 9**).
- Doors will be replaced with UL listed 90 minute standard metal doors.
- Doors will be replaced with Steelcraft L18 and L16 – Series Honeycomb Doors or equivalent.
- Contractor must submit product data for approval if different from doors or door frames in bid package.
- Replacement doors must meet all compliance and fire rating requirements in the attached specifications.

Exterior doors

- Exterior doors will be replaced with galvanized, 16 gage, honeycomb core insulated doors.
- Continuous Geared Door Hinges: As manufactured by Pemko or approved equal – Satin Nickel – Half Surface Safety Hinges: Standard (Specifications Attached).
- Threshold: As manufactured by National Guard Products or approved equal – 426E (Specifications Attached).
- Weather Strip: As manufactured by National Guard Products or approved equal – 160VA (Specifications Attached).
- Lever: As manufactured by Schlage or approved equal – D Series “Rhodes”, 626 finish, function ND60PD (Specifications Attached).
- Keying: All doors to be keyed alike.
- Provide sealant (caulking) per 07920 specifications attached.

3. Clearance Inspection

- Once lead-based paint has been removed from surfaces, DEQ will perform a visual inspection to confirm lead-based paint has been removed appropriately before surfaces are painted or sealed.
- Once lead-based paint abatement is complete and after room floors are cleaned, contact DEQ to perform post abatement clearance sampling in those areas.

4. Sampling and Disposal

- DEQ assumes that all lead-based paint chips removed from surfaces are considered hazardous waste. Lead-based paint removed from surfaces shall be disposed as appropriate.
 - DEQ assumes that all lead-based paint chips removed from surfaces are considered hazardous waste. Lead-based paint removed from surfaces shall be disposed as hazardous waste.
 - If Contractor uses a paint stripper that exhibits a characteristic of hazardous waste, or contains hazardous waste constituents, it is the contractor’s responsibility to characterize this waste under 40 CFR 262.11 and if it is determined to be hazardous waste, disposing of them as such. The final Report shall contain all relevant information regarding the waste determination.
 - A completed and signed waste manifest, Land Disposal Notification Form, Certificate of Disposal, or any other forms demonstrating that the paint chips were properly disposed must be included in the Final Report.

LEAD DUST REMEDIATION INSTRUCTIONS

See Survey for Lead in Settled Dust Report
for details (**Attachment 5**)

1. Lead Dust Remediation (See Attachment 5)

- Surfaces above the floors such as walls, shelves, etc. may have accumulated dust that has settled. This accumulation shall be removed prior to the cleaning of the floors. This shall be done to prevent recontamination of the floors after they are cleaned.
- All window sills shall require lead dust remediation.
- Contact DEQ to perform post remediation wipe sampling to confirm window sills have been appropriately remediated to at or below 250 micrograms per square foot (ug/SF).
- Areas above 250 ug/SF shall be cleaned and tested until results are at or below 250 ug/SF.
- Floors of the entire building shall require lead dust remediation;
 - Remove dust from all equipment, shelving, trash, etc, and remove these items from room before remediation begins;
 - Remove dust from all carpet, remove all carpet from rooms, and dispose of all carpet as non-hazardous waste before lead dust remediation of floor begins;
 - Dispose any materials, determined by the DEQ to be trash, as non-hazardous waste;
 - HEPA vacuum and wet wash floors of entire building;
 - Lead levels on the floor are high in many areas of the building and lead contaminated dust may be ground into the pores and cracks of the concrete. It may be necessary to clean floors several times or use alternate cleaning methods after HEPA vacuuming and wet washing to remove the lead dust from the concrete and get the lead levels down to 40 micrograms per square foot (ug/SF).
 - Contact DEQ to perform post remediation wipe sampling to confirm that room floors with lead contamination have been appropriately remediated to 40 micrograms per square foot (ug/SF). See Section C (Confirmation and Clearance Sampling) for additional information;
 - Areas above 40 ug/SF shall be re-cleaned and re-tested until results are at or below 40 ug/SF;
 - Lead dust and appropriate cleaning materials shall be disposed as appropriate.

2. Disposal of Materials

- Lead contaminated dust from the cleaning of the building, wash water, poly sheeting, personal protective equipment, mop heads, towels, brushes, wipes, other cleaning equipment, etc. shall be disposed as appropriate;

3. Confirmation and Clearance Sampling

FINAL REPORT

- Write final report and submit to DEQ;
- Final report shall include:
 - A detailed summary of work including any warranties and data;
 - Copy of post remediation sampling report;
 - Waste manifests (if any); and
 - Photo documentation of work
 - Photo documentation of work will have color digital photos with captions describing photo;
- Final report will be submitted in hard copy and electronically on disc.

OWNER REPRESENTATIVE

Owner's Representative: Brittany Downs
Oklahoma Department of Environmental Quality
Land Protection Division
707 N. Robinson
P.O. Box 1677
Oklahoma City, OK 73101-1677

Phone Numbers:
(405) 702-5112 (Office)
(405) 702-5101 (Fax)
E-Mail: brittany.downs@deq.ok.gov

ADDENDA TO STATEMENT OF WORK

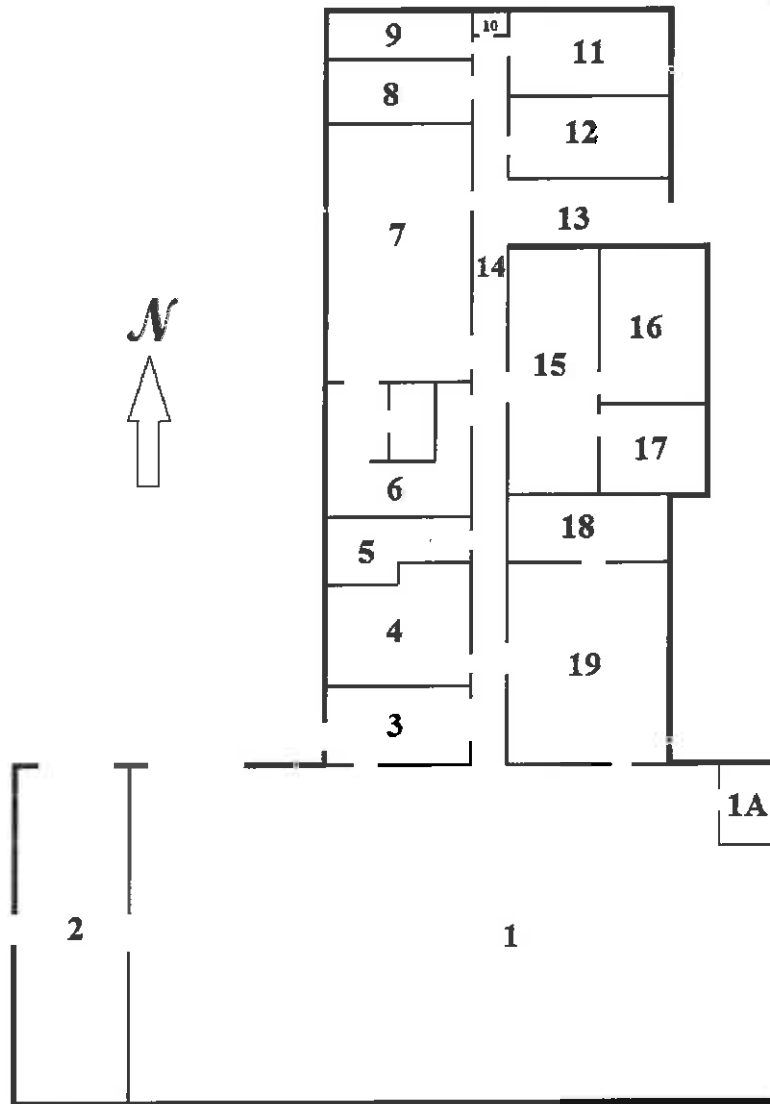
The following are changes to the original Statement of work for the Pauls Valley National Guard Armory, located at The building is located at 1001 North Ash Street, Pauls Valley, Oklahoma 73075. Please see the following attached pages of the original Statement of Work.

- The building **will** have available water and electricity to use during remediation
- The basketball goal frame in Room 1 contains lead-based paint. The goal frame shall be removed and disposed of instead of scraped and sealed.
- Contractor to provide large trash receptacle for the disposal of any materials determined as trash by DEQ.

ATTACHMENT 1

Pauls Valley Armory Floor Plan Map

Pauls Valley Armory Floor Plan Map



ATTACHMENT 2

Health & Safety Aspects to Consider

Health & Safety Aspects to Consider

Project Goal: To ensure that former National Guard Armories are free of lead dust. Specifically, indoor firing ranges (IFR's) and other areas that contain lead contamination.

Please Note: the following information is from the Departments of the Army and the Air Force, National Guard Bureau, Guidelines and Procedures for Rehabilitation and Conversion of Indoor Firing Ranges (**Attachment 4**).

Health and Medical Aspects

Health Effects

29 Code of Federal Regulations (CFR) 1910.1025, Appendix A, identifies lead as a highly toxic metal. Elemental lead is indestructible and common in the environment. Lead can enter the body by inhalation (breathing) or ingestion (eating). In addition, lead is a cumulative poison. It accumulates in the blood, bones, and organs, including the kidneys, brain and liver. Effects include nervous and reproductive system disorders, delays in neurological and physical development, cognitive and behavioral changes, and hypertension. Symptoms include loss of appetite, difficulty sleeping, irritability, fatigue, headache, and inability to concentrate. It can stay in the bones for decades. Worker awareness and training are important to ensure that employees can recognize the symptoms of exposure and get prompt medical attention.

Medical Surveillance for occupational Exposure to Lead

a. 29 CFR 1910.1025(j)(i-ii), Medical Surveillance - General: "The employer shall institute a medical surveillance program for all employees who are or may be exposed above the action level for more than 30 days per year. The employer shall assure all medical examinations and procedures are performed by or under the supervision of a licensed physician."

b. The DOD 6055.5-M, Occupational Medical Surveillance Manual - Table 2-I lists medical surveillance criteria for employees "who are or may be exposed above the action level for 30 days/year."

Personal Protective Equipment

29 CFR 1910.1025(f)(2), for housekeeping and rehabilitation the employer shall select respirators from among those approved for protection against dust, fume, and mist by the National Institute for Occupational Safety and Health (NIOSH), under the provision of 42 CFR part 84. The employer shall institute a respiratory protection program in accordance with 29 CFR 1910.134(b), (d), (e), and (f). As a minimum, personnel conducting the decontamination of the range shall be provided with the following personal protective equipment.

a. Under 29 CFR 1910.1025 (g). For employees engaged in range rehabilitation and/or range conversion, the employer shall provide at no cost to the employee, and ensure that the employee uses appropriate protective work clothing and equipment such as, but not limited to:

(1) Protective coveralls with hood and shoe covers or disposable Tyvek™ full body suit.

(2) Disposable rubber gloves; and disposable shoe coverlets (If necessary).

(3) Full-face air purifying respirator with P-100 cartridges.

b. The employer shall provide the clothing required in a clean and dry condition at least daily to employees engaged in the conversion of IFRs.

c. The employer shall provide for the cleaning, laundering, or disposal of used or contaminated protective clothing and equipment.

d. The employer shall assure that all protective clothing is removed at the completion of a work shift only in areas designated for that purpose (Change Areas or Change Rooms).

e. The employer shall ensure that contaminated protective clothing that is to be cleaned, laundered, or disposed of, is placed in a closed container in the change area that seals sufficiently enough to prevent dispersion of lead dust.

f. The employer shall further inform in writing any person who cleans or launders protective clothing or equipment of the potentially harmful effects of exposure to lead.

g. The employer shall ensure that the containers of contaminated protective clothing and equipment are labeled as follows: *CAUTION: CLOTHING CONTAMINATED WITH LEAD. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.*

Education, Maintenance, Cleaning and Conversion

Worker Education

a. 29 CFR 1910.1025, Appendix 13, requires an information and training program for **all employees exposed** to lead above the action level or who may suffer skin or eye irritation from lead. The program must inform the employees of the specific hazards associated with their work environment, protective measures which can be taken, the danger of lead to their bodies (including their reproductive systems), and their rights under the standard. In addition you must make readily available to all employees, including those exposed below the action level, a copy of this standard and its appendices. This training program shall be repeated annually for personnel in range cleanup operations.

b. The supervisor shall ensure that each individual employee is informed of the following:

- (1) The content of the standard and its appendices.
- (2) The specific nature of operations that could result in exposure to lead above the action level.
- (3) The purpose, proper selection, fitting, use, and limitations of respirators.
- (4) The purpose and a description of medical surveillance program.
- (5) Eating and drinking are prohibited in lead contaminated areas.
- (6) Smoking and smoking materials shall not be permitted in contaminated areas.
- (7) Employees must wash their hands and other exposed skin whenever they leave the work area.
- (8) The engineering controls and work practices associated with the individual's job assignment.
- (9) The contents of any compliance plan in effect.
- (10) Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies and should not be used at all except under the direction of a licensed physician.

REFERENCES

Section 1 Required Publications

There are no entries in this section

Section II Related Publications

ASTM E1792-03

Standard Specification for Wipe Sampling Materials for Lead in Surface Dust

AR 11-34

The Respiratory Protection Program

AR 40-5

Preventive Medicine

DODI 6055.5

Industrial Hygiene and Occupational Health

DOD 6055.5-M

Occupational Medical Surveillance Manual

29 CFR, Part 1910

Occupational Safety and Health Administration, Department of Labor

National Institute for Occupational Safety and Health (NIOSH) 76-130

Lead Exposure and Design Considerations for Indoor Firing Ranges, Department of Health, Education and Welfare

NGR 385-15

Policy and Responsibilities for Inspection, Evaluation and Operation Army National Guard National Guard Indoor Firing Ranges (IFRs).

NGR 415-5

Army National Guard Military Construction Program Development and Execution

NGR 420-10

Construction and Facilities Management Office Operations

Technical Manual, 5th Edition

Occupational Safety and Health Administration, Department of Labor Section III

ATTACHMENT 3

Pauls Valley Armory Asbestos Inspection Report And Pauls Valley Armory Asbestos Project Design

**ASBESTOS ABATEMENT PROJECT DESIGN
PIPING ABATEMENT – GLOVE-BAG
PAUL’S VALLEY ARMORY
PAUL’S VALLEY, OKLAHOMA**

A. INTRODUCTION: This Project Design was prepared by Enercon Services, Inc., in order to provide a prudent course of action for handling of asbestos abatement of piping in the Paul’s Valley Armory. Protocols to be used are to protect abatement workers from exposure to airborne asbestos fibers during the work being performed.

B. PROJECT INFORMATION:

1. Project Name: Glove-bag Asbestos Abatement, Paul’s Valley Armory
2. Description of Work/Occupancy: The work addressed herein involves abatement of line and fitting insulation on piping in the Paul’s Valley Armory. The facility is not occupied.
3. Project Type: Renovation.
4. Abatement Contractor: To be determined by bid.
5. Industrial Hygiene/Air Monitoring Firm: Enercon Services, Inc.
6. Analytical Laboratory: Enercon Services, Inc., AIHA PAT Laboratory 151368.

C. REGULATORY COMPLIANCE: The specific governing regulations affecting this work include, but are not limited to, 29 CFR 1926.1101 (OSHA Construction Industry Asbestos Standard), 29 CFR 1910.134 (OSHA Respiratory Protection), 40 CFR 61, Subpart M (Asbestos NESHAP) and OAC 380:50 (Oklahoma Rules for Abatement of Friable Asbestos). Waste transport and disposal is to be performed by an Oklahoma-licensed asbestos waste transporter with a waste disposal manifest/chain of custody signed by the receiving landfill. DOT Class 9 placards are to be displayed during transportation of asbestos waste.

D. WORK SEQUENCING/SCHEDULING: The work in the Paul’s Valley Armory is to be done in a single phase. The work is to be scheduled by the abatement contractor in coordination with Enercon Services and the Department of Environmental Quality. The work is planned for 10-hour work shifts on weekdays during normal work hours.

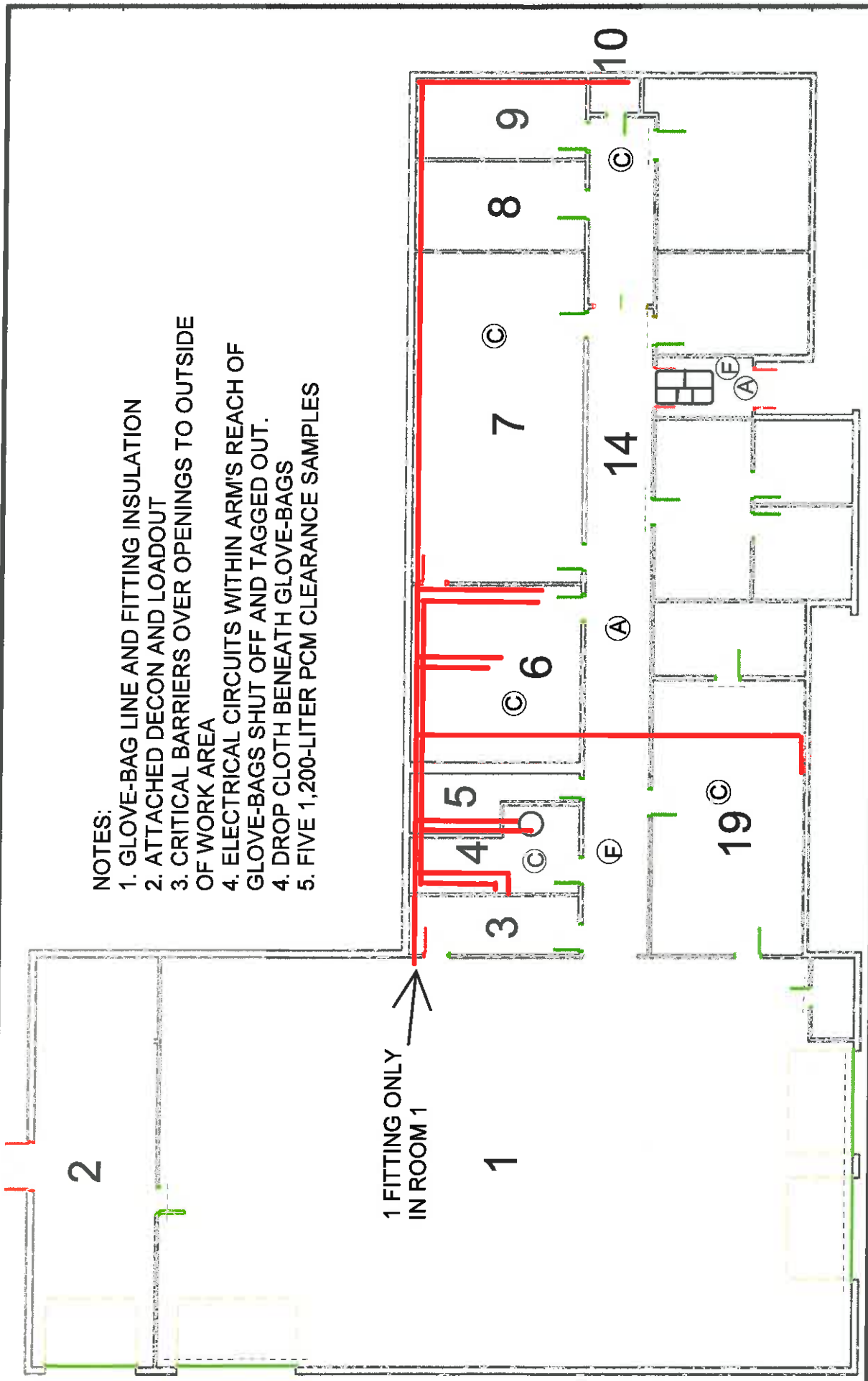
E. EGRESS AND FIRE PROTECTION: In the event emergency evacuation is necessary, the primary exit will be to exit the work area through the decon and out nearest exit to the outside of the building. There are multiple secondary exits available. Workers will be briefed on the available exit paths, emergency procedures and the assembly point at the beginning of the work shift. No special fire protection measures are required. One 10#ABC fire extinguisher will be placed inside the work area and one set at the remote decon. The work area extinguisher will be kept in the vicinity of the work crew.

F. MATERIALS TO BE ABATED:

1. Description: The material to be abated is line and fitting insulation on piping.
2. Amount, Location and Type of Asbestos-Containing Materials (ACM): There is approximately 275 linear feet of piping insulation with 20 fittings to be abated. The line insulation contains 10% Chrysotile and the fitting insulation contains 20% Amosite. The laboratory report is attached.

No contaminated soils are to be abated under this Project Design.

G. ASBESTOS ABATEMENT METHODS: The line and fitting insulation will be removed within critical barriers using glove-bag procedures and an attached decon. Poly drop cloths will be placed on the floor beneath



NOTES:

1. GLOVE-BAG LINE AND FITTING INSULATION
2. ATTACHED DECON AND LOADOUT
3. CRITICAL BARRIERS OVER OPENINGS TO OUTSIDE OF WORK AREA
4. ELECTRICAL CIRCUITS WITHIN ARM'S REACH OF GLOVE-BAGS SHUT OFF AND TAGGED OUT.
4. DROP CLOTH BENEATH GLOVE-BAGS
5. FIVE 1,200-LITER PCM CLEARANCE SAMPLES

1 FITTING ONLY
IN ROOM 1



Figure 1
Piping Locations

Project No: ENMISC2175



Legend:

- ACM-Insulated Piping (275 LF including 20 Fittings)
- - - Critical Barriers
- Ⓐ Area Air Monitor
- Ⓒ Clearance Air Sample
- Ⓕ Fire Extinguisher

National Guard Armory
1001 North Ash Street
Pauls Valley, OK



2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuantEM Lab No. 190334	Client:	Enercon Services, Inc.
Account Number: A845		6525 N. Meridian, Suite 400
		Oklahoma City, OK 73116
Date Received: 12/15/2010		
Received By: Sherrie Leftwich	Project:	Pauls Valley Armory
Date Analyzed: 12/17/2010	Project Location:	Pauls Valley, OK
Analyzed By: Joe Melton	Project Number:	ENMISC 2175
Methodology: EPA/600/R-93/116		

QuantEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	PV-01-01	Homogeneous	Tan Pipe Insulation	Asbestos Not Present	Cellulose 85 Synthetic 5	Paint Inert
002	PV-01-02	Homogeneous	Tan Pipe Insulation	Asbestos Present Chrysotile 10	Cellulose 75 Synthetic 5	Paint Inert
003	PV-01-03	Homogeneous	Tan Pipe Insulation	Asbestos Present Chrysotile 10	Cellulose 75 Synthetic 5	Tar Inert
004	PV-02-01	Homogeneous	White Insulation	Asbestos Present Amosite 20	NA	CaCO3
005	PV-02-02	Homogeneous	White Insulation	Asbestos Present Amosite 20	NA	CaCO3
006	PV-02-03	Homogeneous	White Insulation	Asbestos Present Amosite 20	NA	CaCO3

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuantEM is a NVLAP accredited TEM and PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any other agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.

Project Design Review Form

Oklahoma Department of Labor
Asbestos Division

3017 N. Stiles, Oklahoma City, OK 73105

Phone - 405.521.6464 Fax - 405.521-6026

Project Name: Pauls Valley Armory

Project No: 11 - 6543

Project Designer: Bill Muentzer

Date: 2-22-11

Approved: X
Disapproved: _____

ITEM	ACCEPTED	REJECTED	COMMENTS
1. A statement that DOL Abatement of Friable Materials Rules apply.	X		page one, C
2. Sequencing and phasing of work.	X		page one, D. One phase.
3. Identification of means of egress and a fire protection plan and a diagram for emergency escape routes, and fire extinguisher placements.	X		page one, E.
4. The quantity, type, percentage with bulk analysis unless presumed and a diagramed location of asbestos materials to be abated.	X		page one, F, 275 LN. FT. Piping, 10% Chry. 20 Fittings 20% amosite. (Bulks)
5. Abatement methods, and techniques, and numbers of containments, glove bags or mini-containments	X		pages one and two, G.
6. Details of personal and area air monitoring samples.	X		page two, H.
7. Numbers and locations of Clean Test samples and type of analysis to be employed.	X		page two, H. See drawings.
8. Numbers, capacities, a diagram to identify locations, and discharge points, if any, of negative air machines.	X		glovebag procedures no neg air reqired. Must pull air across shower.
9. Details of project containment(s), glove bag or mini-containments, including drawings. Details shall include all applicable subchapters, including but not limited to scaffolding and live electric isolation.	X		page two, J. Drawings
10. Details of decontamination system(s).	X		page two, K
11. The extent to which asbestos-contaminated soils, if any, must be removed, and the sampling methods of determining the efficacy of such removal.	X		page one, F.
12. Special materials or methods required to protect objects in the work area should be detailed, (plywood over carpeting or hardwood floors to prevent damage from scaffolds and/or falling materials.	X		page two, N.
13. Any variances from the Abatement of Friable Asbestos Materials Rules.	X		page two, O. None requested.

The Department of Labor reserves the right to require additional engineering or environmental controls consistent with the Abatement of Friable Asbestos Materials Rules which may be necessary because of discrepancies between this project design and field conditions, or from unanticipated changes in field conditions.

REVIEWED BY: Bill Muentzer DATE: 2-22-11
 REVIEWED BY: Bill Muentzer DATE: 2/22/11

**SPECIFICATION FOR
REMOVAL OF NON-FRIABLE ASBESTOS
PAULS VALLEY ARMORY**

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Approvals

Project Designer

Emmett W. Muenker
OK-PD140007

PART 1-GENERAL

1.1 SCOPE OF WORK

The work identified herein includes the removal and disposal of non-friable, asbestos-containing materials (ACM) by means that do not render them friable. The work noted in this Section is the special controls required by regulatory agencies having jurisdiction over such work. Most of the controls pertain to Contractor employees and site visitors' personal health and safety from exposure to asbestos fibers. The requirements will be monitored throughout each job by the asbestos project designer or his representative functioning as the Owner's Technical Representative.

- A. Approximately 5,700 square feet of Transite roof panels located above the drill room at the Pauls Valley Armory are to be removed and disposed. Procedures for Transite removal are stated in Paragraph 3.7. The location the roof is shown on Figure 1.

- B. Paragraph 3.6, Floor Tiles and Adhesive Removal, does not apply to this facility.
- C. Approximately 855 linear feet of window caulk/glazing, or portions thereof, when authorized by the contract documents. The procedures for caulk/glazing removal are stated in Paragraph 3.8. The locations of windows with ACM caulk/glazing are shown on Figure 2.

1.2 SEQUENCE OF WORK

- A. The work shall be conducted in a single phase. The work should be done prior to or following completion abatement of friable asbestos materials in the building. This work is not subject to inspections by the Oklahoma Department of Labor.

1.3 REGULATORY COMPLIANCE

- A. U.S. Department of Labor, OSHA Asbestos Regulations, Code of Federal Regulations Title 29, Part 1926, Section 1101. (29 CFR 1926.1101)
- B. U.S. EPA regulations for Asbestos-containing Materials in Schools, Code of Federal Regulations Title 40 Part 763. (40 CFR 763)
- C. The Contractor will keep copies of the above regulations available for reference at the work site.
- D. Other state and local ordinances, regulations, or rules pertaining to asbestos including its storage, transportation, and disposal.
- E. Where any conflicts exist between these specifications and regulations published by federal or state agencies which govern abatement, transportation and disposal of non-friable asbestos-containing materials, the more restrictive shall govern.

1.4 NOTIFICATIONS

No regulatory notifications required. The Contractor is to coordinate the work with the Owner's Asbestos Consultant. The Contractor shall notify The Owner's Asbestos Consultant a minimum of five working days in advance of mobilization on site.

1.5 SUBMITTALS

- A. Pre-work submittals: At least five (5) days prior to beginning asbestos abatement work, the contractor shall submit copies of the following information to the Owner's Technical Representative.
 - 1. The name of the asbestos supervisor to be used on the project.
 - 2. A statement signed by an officer of the Contractor's firm, that all workers employed

for the abatement of non-friable asbestos materials:

- a. Have completed AHERA worker or supervisor training or 8-OSHA training on removal of resilient floor coverings and adhesives.
 - b. Have had a medical examination within the previous year and are medically qualified to wear a respirator.
 - c. Have been fitted for the model and size respirator they will use on the job within the previous year.
3. A project schedule indicating planned work hours, work days and project start and completion dates.
 4. Documentation of an initial or negative exposure assessment indicating the breathing area fiber concentrations expected during removal of the materials and the PPE required during the work. Personal air monitoring will be required for two full work shifts if such assessment is not provided.
- C. During-work submittals:
1. If an exposure assessment is not provided, the Contractor shall conduct an initial exposure assessment and provide personal air monitoring results identifying worker name, work activity, PPE use, and TWA exposure level, in accordance with OSHA regulation 29 CFR 1926.1101.
 2. Copies of any inspection reports, consultation reports or other written project correspondence with any regulatory agency or The Owner's Asbestos Consultant.
- C. Post-work submittals: Within 15 days of completion of asbestos abatement, the contractor shall submit copies of the following documents to The Owner's Asbestos Consultant.
1. Copies of the waste disposal manifests confirming disposal at an authorized waste disposal facility.
 2. Any outstanding during-work submittals.
- D. Final payment to the contractor will not be authorized until all work is satisfactorily completed and the submittals have been provided to The Owner's Asbestos Consultant.

1.6 DEFINITIONS

The following definitions are adopted by reference. If statutory definitions are duplicated, the more stringent definition will apply.

- A. 29 CFR 1926.1101 (b)
- B. 40 CFR 61.141

PART 2-PRODUCTS

Not used.

PART 3-EXECUTION

3.1 WORKER PROTECTION

- A. Provide workers with personally issued and marked respiratory equipment approved by NIOSH and suitable for the asbestos exposure level in the work area, according to OSHA Standard 29 CFR 1926.1101. Where respirators with disposable filters are employed, provide sufficient filters for replacement as required by the worker or applicable regulation. Full beards, "mutton chop" sideburns, or any other facial hair that interferes with proper fit or use of respirators will not be allowed. Removal of non-friable asbestos shall begin with air-purifying respirators and their use will be continued until a statistically-significant negative exposure assessment is produced.
- B. Provide workers exposed to airborne concentrations of asbestos which exceed the levels prescribed in OSHA standard CFR 1926.1101 with sufficient sets of protective full-body clothing. Such clothing shall consist of full-body coveralls and headgear.
- C. Pursuant to OSHA requirements, the Contractor will provide an annual medical examination for each worker assigned to a project under this contract.
 1. The medical examinations will include, at a minimum, a posterior and anterior chest x-ray, pulmonary function tests (FVC and FEV), and a general health history.
 2. No medical additional examination is required of any employee, if adequate records show that an employee has been examined in accordance with this paragraph within the past one year period.
 3. Any employee found to have been exposed without proper protection at any time to airborne concentrations of asbestos fibers in excess of the limits prescribed in OSHA Standard 29 CFR 1926.1101 shall be notified in writing of the exposure as soon as practical but not later than five days of the finding. The employee shall also be timely notified of the corrective action being taken.
 4. The Contractor shall maintain records of these examinations for each worker, and upon request, provide them for review by the employee, Owner, Owner's Representative, OSHA officials, and State Inspectors as appropriate.

3.2 EQUIPMENT REMOVAL PROCEDURES

- A. Clean external surfaces of contaminated containers and equipment thoroughly by wet wiping before moving such items to uncontaminated areas.

3.3 DECONTAMINATION ENCLOSURE SYSTEMS:

- A. Not Required

3.4 CONTAINMENT FACILITIES

- A. Unless otherwise specified, ventilated isolation barriers and decontamination facilities will not be required for all separate work areas where only non-friable asbestos-containing materials are removed or encapsulated, as long as these materials are

removed essentially-intact using wet procedures. Where portions of the building are occupied during the work, critical barriers shall be installed between the work areas and the occupied portions of the building.

- B. The Contractor will post warning signs or install asbestos barrier tape around the perimeter of the entire work area, specifically at any entrance to the work area, and at any other location specified by The Owner's Asbestos Consultant. The signs shall meet the specifications outlined in OSHA Standard 29 CFR 1926.200 and 29 CFR 1926.1101(k)(7).
- C. The Contractor will restrict access to the work area to authorized individuals only. The work area will be secured at all times when contractor personnel are not present to control entry.

3.5 PREPARATION OF ASBESTOS ABATEMENT WORK AREA

- A. Remove movable objects from work areas to a temporary location within the building. Where carpeting is installed over floor coverings, the carpeting may be removed prior to or concurrently with the removal of the floor tiles.
- B. For removal of adhesive, protect walls and fixed objects within the work area and enclose with minimum 4-mil plastic sheeting sealed with tape, or protect with 36-inch high splash guards.
- C. Maintain emergency and fire exits from the work areas, or establish alternative exits in compliance with applicable fire codes.

3.6 ASBESTOS FLOOR TILES AND ADHESIVE REMOVAL

- A. Floor tiles shall be removed using the following procedures:
 - 1. The entire floor surface shall be wetted with surfactant-amended water. Floor tiles may not be removed dry.
 - 2. The tiles shall be removed by manual methods using a scraper or spade. Power chippers or grinders are not permitted.
 - 3. The tile shall be placed in minimum of 6-mil unlabeled plastic bags, preferably black opaque. They shall not be placed in asbestos disposal bags. The bags shall not be overfilled which promotes the tile tearing through the plastic.
 - 4. The bagged tiles shall be disposed in a sanitary landfill or construction debris landfill that accepts non-friable asbestos waste. Landfill disposal receipts are required in paragraph 1.5 C1 of this section.
- B. Floor tile adhesive shall be removed by the following procedures:
 - 1. A low-odor, non-flammable, non-toxic mastic/adhesive remover shall be mopped onto the floor. Using a broom, squeegee or scrub brush, the solvent shall be agitated

into the mastic/adhesive. The material may be worked onto additional areas until it reaches a tarry consistency at which point it shall be scraped up and bagged.

2. Repeat as necessary until the mastic/adhesive is removed.
3. A final cleaning with wiping rags shall be conducted. Used rags shall be placed in 6-mil unmarked plastic bags and disposed as non-friable asbestos waste.
4. No sanding, grinding or abrading of floors where asbestos-containing mastic/adhesive remains shall be permitted.

3.7 ASBESTOS-CEMENT (TRANSITE) MATERIAL REMOVAL

Transite materials shall be removed using the following procedures:

- A. Asbestos barrier tape is to be installed around the area of work to demarcate the regulated area.
- B. The Contractor shall place a drop cloth on the ground along the exterior the building and on the floor inside the drill room in the area where the roofing panels are to be removed to catch any breakage that may occur during removal of the panels. The drop cloths are to be moved as necessary to cover the surfaces beneath the active removal area during removal of the panels.
- C. The Contractor shall use boom lifts or other similar equipment to access the roof panels for removal. The material is to be wetted prior to removal, removed from the structural members intact, lowered to the ground and placed in a poly-lined dumpster for transport to the disposal landfill.
- D. Care is to be taken during removal to prevent breakage of the panels during removal and handling, as the panels are to be removed intact to maintain their classification as non-friable material.
- E. The Contractor shall ensure that the area is left clean and tidy following removal of the roof.
- F. Clearance air sampling is not required for wet removal of Transite outdoors.

3.8 ASBESTOS-CONTAINING CAULK AND WINDOW GLAZING

- A. Caulk and window glazing shall be removed using the following procedures:
 1. A poly drop cloth shall be placed beneath the area where the caulk/glazing is to be removed.
 2. Loose caulk/glazing shall be removed using a HEPA-filtered vacuum.
 3. The caulk/glazing that is not loose shall be wetted and removed using manual means. The material is to be kept wet while scraping or brushing. The area of removal is to be damp wiped following removal.
 4. The removed material shall be placed in a 6-mil minimum unlabeled opaque plastic contractor trash bags and sealed with duct tape for disposal. The bagged material shall be disposed in a sanitary landfill or construction debris landfill that accepts non-friable asbestos waste. Landfill disposal receipts are required in paragraph 1.5 C1 of this section.
 5. The Owner's Asbestos Consultant shall inspect the areas of removal following completion of the work.

6. The work area is to be left clean and tidy following removal of the caulk/glazing.
7. Clearance sampling is not required for removal of three linear feet or less of this material indoors or any amount outdoors.

3.9 PERSONAL PROTECTIVE EQUIPMENT/AIR MONITORING

- A. Air sampling for OSHA compliance is the Contractor's responsibility by statute. This section deals only with the air monitoring requirements of the Contractor in performing employee exposure assessments. Industrial hygiene samples for quality assurance and clearance tests are not required to be done by the contractor, but will be conducted by the Owner's Asbestos Consultant as deemed appropriate.
- B. Samples of airborne asbestos concentrations shall be collected with air sampling pumps on 25-mm cellulose ester membrane filters of 0.8 micrometer porosity mounted in an open-face filter holder. Pumps shall be calibrated before each sampling period and a record of this calibration entered in the air sampling log.
- C. Unless a negative exposure assessment (NEA) has been performed and is available on site, work shall commence in full-body suits and half-face air purifying respirators, and continuous breathing zone air monitoring shall be conducted from start to completion of the non-friable material removal, disturbance, or repair operation. Twenty-five percent (25%) of the workers, with a minimum of 2 workers, shall be monitored each work shift. Any sampling device shall not exceed eight (8) hours (real time) of operation with any one filter. At times, a lesser real time may be required for a particular cassette. Sampling may be discontinued at such time as an NEA is completed for the work task and work may proceed without full-body suits and respirators. A minimum of two full work shifts is considered sufficient for an exposure assessment.
- D. Sampling devices shall be located within the breathing zone of personnel, including those removing, bagging, and loading-out bagged waste.
- E. All laboratory determinations of airborne concentrations of asbestos fibers shall be made by the membrane filter method using phase contrast illumination and 400-450x magnification, according to NIOSH 7400. Analysts shall be successful participants in the AIHA Proficiency Analytical Testing program or be individually registered and proficient participants through the AIHA Asbestos Analyst Registry.
- F. If any air sample collected in the breathing zone exceeds 0.1 fibers/cc, the Contractor will immediately discontinue all work until the cause is identified and corrected. Work will resume in air purifying respirators and full-body protective coveralls.

3.10 CLEAN-UP

- A. After completing the asbestos work the areas shall be cleaned up as follows:
- B. Remove waste containers, and equipment from the work area.

- C. When a visual inspection by the Owner's Asbestos Consultant determines that the areas are free of visible accumulations of asbestos material and debris, the contractor shall remove the splash guards and his equipment, signs, barrier tape, etc., from the area and PCM clearance sampling will be conducted by the Owner's Asbestos Consultant.
- D. Following receipt of satisfactory clearance sample results, the work area released for unrestricted worker access.

3.11 CLEARANCE TESTING

- A. The Owner's Asbestos Consultant will collect and analyze five 1,200 liter PCM air samples where non-friable asbestos has been removed unless otherwise stated in Paragraphs 3.7 -3.8.

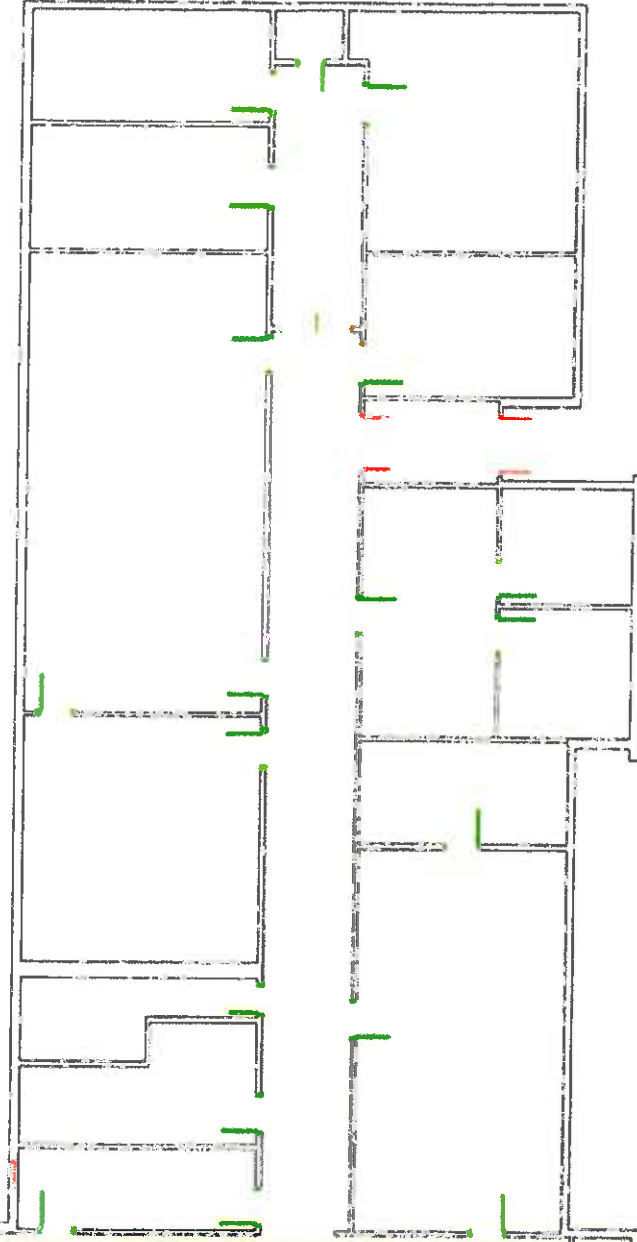
3.12 DISPOSAL OF NON-FRIABLE ASBESTOS WASTE/CONTAMINATED MATERIALS

- A. As the work progresses, and to prevent exceeding available storage capacity on site, remove sealed bags of waste/contaminated materials and dispose of such bags at a disposal site meeting EPA and state requirements for non-regulated ACM.

FIGURE(S) – NON-FRIABLE MATERIAL LOCATIONS - SEE FOLLOWING PAGE(S)

NOTES:

1. DROP CLOTH BENEATH AREA OF PANEL REMOVAL
2. DROP CLOTH ALONG BUILDING PERIMETER IN AREA OF REMOVAL
3. WET PANELS, LOWER TO GROUND AND PLACE IN POLY-LINED DUMPSTER FOR TRANSPORT TO DISPOSAL LANDFILL
4. NO DECON OR LOADOUT REQUIRED
5. TWO FULL SHIFTS PERSONAL AIR MONITORING REQUIRED UNLESS CONTRACTOR HAS A NEGATIVE EXPOSURE ASSESSMENT FOR TRANSITE PANEL REMOVAL
6. VISUAL INSPECTION BY ASBESTOS CONSULTANT AT COMPLETION



Legend:



Transite Roof - PACM (5,700 SF)



Not to Scale

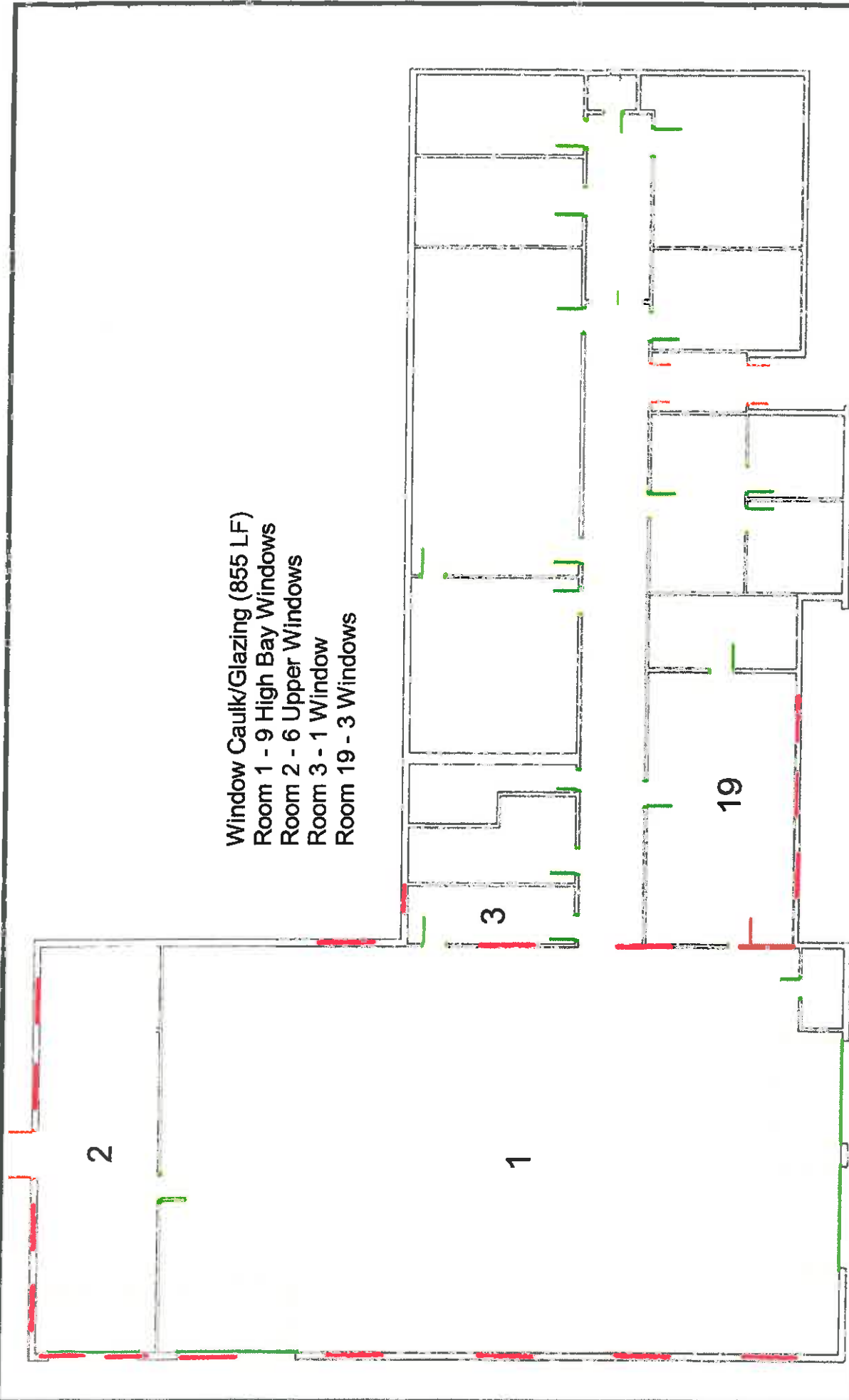
National Guard Armory
1001 North Ash Street
Pauls Valley, OK

FJ ENERCON

Figure 1

Location of Transite Roof Panels

Project No: ENMISC2175



ATTACHMENT 4

DEQ Approved Lead-Based Paint Encapsulants List

Sealant and Encapsulant Specifications

Lead-Based Paint Encapsulants approved by DEQ

Encapsulant Manufacturer	Encapsulant Product(s)
Coronado Paint Company	LEAD BLOCK™
Dumond Chemicals	LEAD STOP™
Dynacraft Industries, Inc.	Back to Nature Protect-A-Coat
Encap Systems Corporation	EncapSeal™ I
Encap Systems Corporation	EncapSeal™ II
Fiberlock Technologies, Inc.	Child GUARD interior/exterior
Fiberlock Technologies, Inc.	L-B-C® Type III
Global Encasement, Inc.	LeadLock™
Grace Construction Products	Lead Seal®
Grace Construction Products	Barrier Coat® II
Insl-x Products Corporation	INSL-CAP™
SAFE Encasement Systems	SE-120 Protective Skin
Specification Chemicals, Inc.	NU-WAL® #2500 Coating

ATTACHMENT 5

Pauls Valley Armory Lead-Based Paint and Lead in Settled Dust Inspection Report

ATTACHMENT 6

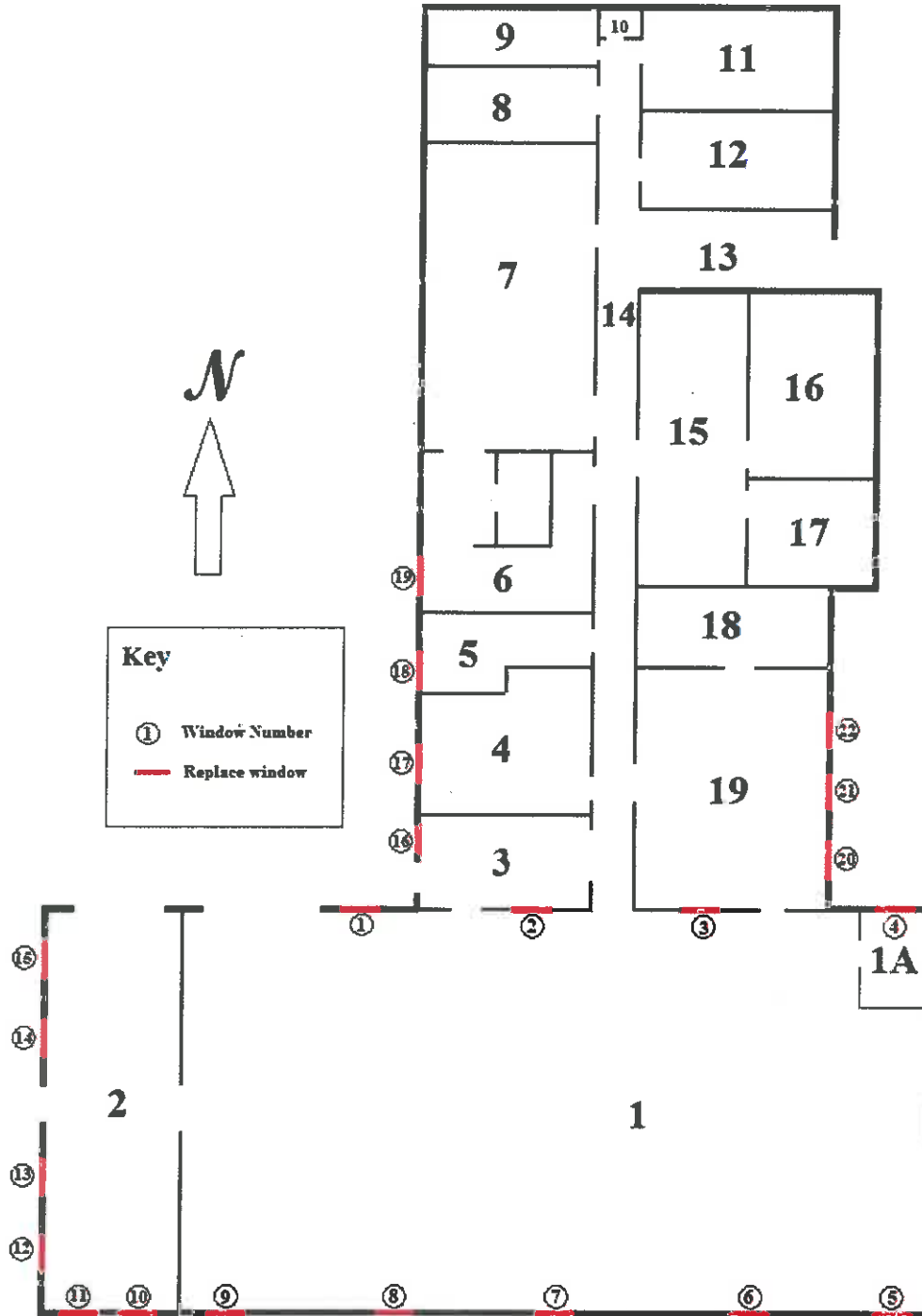
**Pauls Valley Armory Window Measurements
And
Statement of Work**

Pauls Valley Armory Window Measurements And Statement of Work

- Window measurements are listed as approximate Width X Height; *Contractor to field verify.*
 - Caulking/glazing around window frames is considered non-friable ACM and shall be removed in a manner that does not render ACM friable.
 - Caulking shall be removed from outside edges of window and properly disposed prior to window removal.
 - All removed window frames shall be properly disposed.
 - Window lintels shall be wet scraped and sealed with a DEQ approved encapsulant (See Attachment 4).
 - Interior and Exterior window sills shall be HEPA vacuumed and wet washed to remove remaining lead dust. Attached is the Pauls Valley Armory Floor Plan with designated window numbers that correspond with the numbers on this Statement of Work.
 - Specifications for replacement windows are attached.
1. 48" X 36" – Remove and replace window and window frame. Replacement window will be a non-opening window.
 2. 48" X 36" – Remove and replace window and window frame. Replacement window will be a non-opening window.
 3. 48" X 36" – Remove and replace window and window frame. Replacement window will be a non-opening window.
 4. 48" X 36" – Remove and replace window and window frame. Replacement window will be a non-opening window.
 5. 48" X 36" – Remove and replace window and window frame. Replacement window will be a non-opening window.
 6. 48" X 36" – Remove and replace window and window frame. Replacement window will be a non-opening window.
 7. 48" X 36" – Remove and replace window and window frame. Replacement window will be a non-opening window.
 8. 48" X 36" – Remove and replace window and window frame. Replacement window will be a non-opening window.
 9. 48" X 36" – Remove and replace window and window frame. Replacement window will be a non-opening window.

10. 48" X 36" – Remove and replace window and window frame. Replacement window will be a functional window. Window lintel to be wet scraped, primed, and encapsulated.
11. 48" X 36" – Remove and replace window and window frame. Replacement window will be a functional window. Window lintel to be wet scraped, primed, and encapsulated.
12. 48" X 36" – Remove and replace window and window frame. Replacement window will be a functional window. Window lintel to be wet scraped, primed, and encapsulated.
13. 48" X 36" – Remove and replace window and window frame. Replacement window will be a functional window. Window lintel to be wet scraped, primed, and encapsulated.
14. 48" X 36" – Remove and replace window and window frame. Replacement window will be a functional window. Window lintel to be wet scraped, primed, and encapsulated.
15. 48" X 36" – Remove and replace window and window frame. Replacement window will be a functional window. Window lintel to be wet scraped, primed, and encapsulated.
16. 49" X 46" – Remove and replace window and window frame. Replacement window will be a functional window.
17. 46" X 46" – Remove and replace window and window frame. Replacement window will be a functional window.
18. 46" X 46" – Remove and replace window and window frame. Replacement window will be a functional window.
19. 46" X 46" – Remove and replace window and window frame. Replacement window will be a functional window.
20. 36" X 40" – Remove and replace window and window frame. Replacement window will be a functional window.
21. 36" X 40" – Remove and replace window and window frame. Replacement window will be a functional window.
22. 36" X 40" – Remove and replace window and window frame. Replacement window will be a functional window.

Pauls Valley Armory Window Map



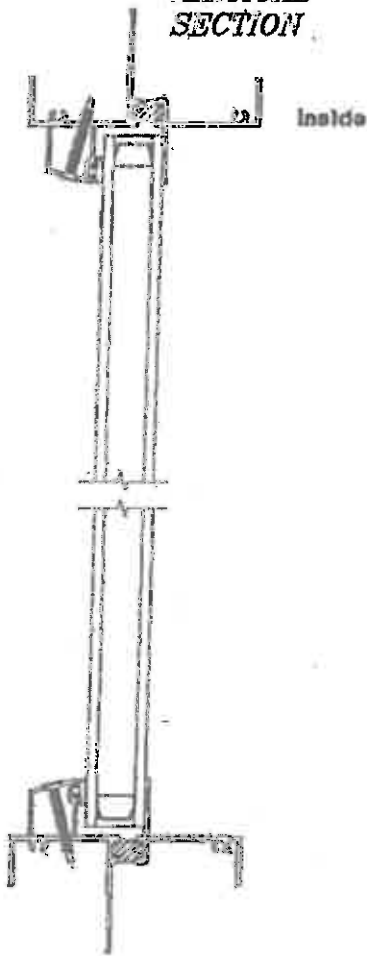
ATTACHMENT 7

Replacement Window Specifications



SERIES # 2700/2800 PICTURE WINDOW

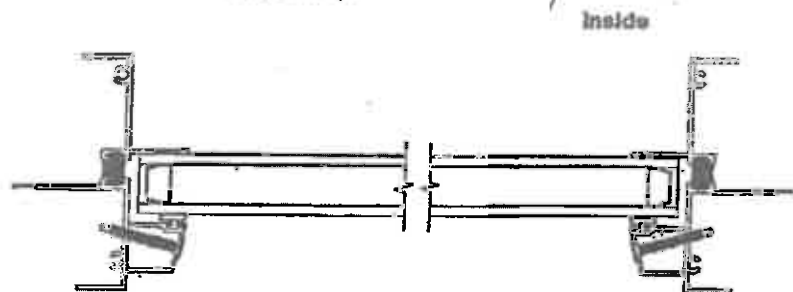
VERTICAL SECTION



SPECIFICATIONS

PICTURE WINDOW	
OUTSIDE NET DROP GLAZED	
SERIES 2700/2800 HAS 1/2" AIR SPACE INS. GLASS	
SERIES # 2700 IS FOR USE WITH STC 84	
SERIES # 2800 IS FOR USE WITH 1070 H.S. OR P.W.E.	
CASE FRAME DIMENSION	HORIZONTAL: CALL SIZE - 1/2"
	VERTICAL: CALL SIZE - 1/2"
ROUGH OPENING	HORIZONTAL: CALL SIZE
	VERTICAL: CALL SIZE
MINIMUM SIZE (I.P.D.)	6" X 6"
UP TO 36 SQUARE FT.	
MAXIMUM SIZE (TEMPERED GLASS 30 TO 36 SQ.FT.) AND NOT OVER 6'-6" IN EITHER DIRECTION.	
TEST REPORT NO.: 20-157	F-10116 70 x 70
GLASS SIZE	HORIZONTAL: CALL SIZE - 2"
	VERTICAL: CALL SIZE - 2"
MAXIMUM OVERALL GLASS THICKNESS:	1/8"
U-VALUE: 0.20 (WITH LOW-E GLASS AND WITH MUNTINS)	
R-VALUE: 0.20 (WITH LOW-E GLASS AND WITH MUNTINS)	
STC: 87 (INS. NET. GLASS/1/2 SPACER/INS. NET. GLASS)	
STC: 36 (5/16 EXT. GLASS/1/2 SPACER/3/16 INT. GLASS)	
DRAWN BY: PA (HALF SCALE) EXPIRATION DATE: 6/31/2011	
REVISION DATE: 8/27/2000	

HORIZONTAL SECTION



ATTACHMENT 8

Pauls Valley Armory Door Measurements And Statement of Work

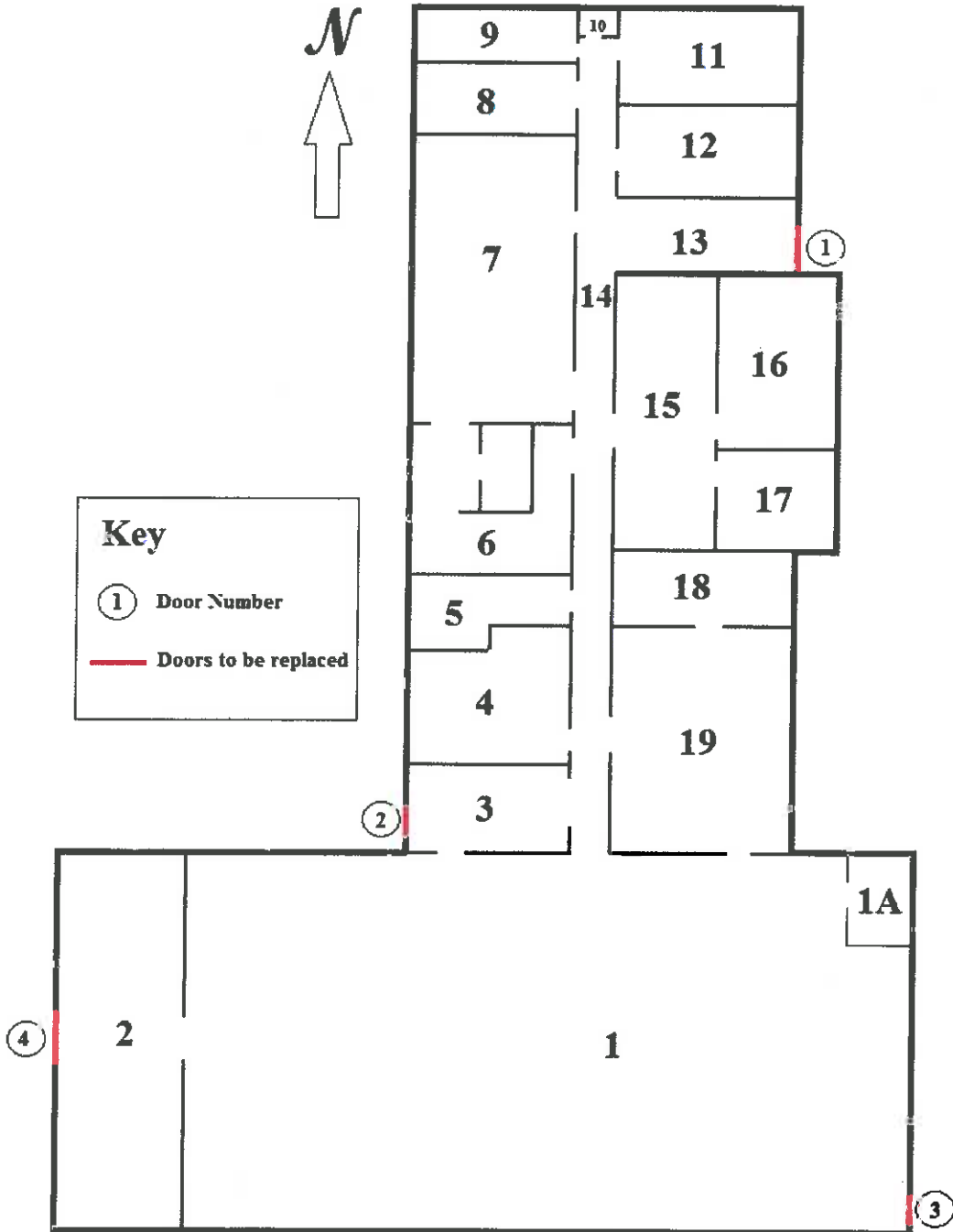
Pauls Valley Armory Door Measurements And Statement of Work

- Door measurements are listed as approximate Width X Height; *Contractor to field verify.*
- All removed doors shall be properly disposed.
- All removed lead-based paint will be properly disposed
- **Metal door frames shall have all LBP removed and shall be painted with a neutral colored primer.**
- Attached is a Pauls Valley Armory Floor Plan with designated door numbers that correspond with the numbers on this Statement of Work.
- Specifications for replacement doors are attached.
- All overhead doors shall be wet scraped and repainted with a neutral colored primer.

Doors

1. Remove Door. Remove all paint from original door frame and repaint with a neutral colored primer. Install replacement door equipped with continuous geared hinges. Door Measurements: 64" X 80"
2. Remove Door. Remove all paint from original door frame and repaint with a neutral colored primer. Install replacement door equipped with continuous geared hinges. Door Measurements: 34" X 75"
3. Remove Door. Remove all paint from original door frame and repaint with a neutral colored primer. Install replacement door equipped with continuous geared hinges. Door Measurements: 34" X 75"
4. Remove Door. Remove all paint from original door frame and repaint with a neutral colored primer. Install replacement door equipped with continuous geared hinges. Door Measurements: 72" X 84"

Pauls Valley Armory Door Map



ATTACHMENT 9

Replacement Door Specifications

SECTION 07920 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data.
- B. Warranty: Warranty materials and workmanship of sealing against leaks, adhesion, and cohesive failure for a period of two years from the date of substantial completion.
- C. References:
 - 1. American Society for Testing and Materials
 - a) ASTM C790 – Recommended practices for use of latex sealing compounds.
 - b) ASTM C920 – Elastomer Joint Sealants.
 - 2. Federal Specifications
 - a) FS TT-S-00230C (2), Sealing Compound, Elastomeric Type, Single Component (for caulking, sealing and glazing in buildings and other structures).
 - b) FS TT-S-00227E (3), Sealing Compound, Elastomeric Type, Multi-component (for caulking, sealing and glazing in buildings and other structures).

PART 2 - PRODUCTS

2.1 JOINT SEALANTS

- A. Compatibility: Provide joint sealants, joint fillers, and other related materials that have been tested and found compatible with one another and with joint substrates under service and application conditions.
- B. Interior Sealant: Provide ASTM C 834. If no color is specified, use Gray. Location(s) of sealant for the following:
 - 1. Small voids between walls or partitions and adjacent door frames, and similar items.
 - 2. Perimeter of frames at doors, windows, and access panels which adjoin exposed interior concrete and masonry surfaces.
- C. Exterior Sealant: Provide ASTM C 920, polyurethane or polysulfide, Type M, Grade NS, Class 25, Shore A hardness of 20-40. If no color is specified, use Gray. Location(s) of sealant for the following:
 - 1. Joints and recesses formed where frames and vents adjoin masonry, concrete, or metal frames. Use sealant at both exterior and interior surfaces of exterior wall penetrations. Color to match adjacent surface.

2.2 ACCESSORIES

- A. Primers: Provide a nonstaining, quick-drying type and consistency recommended by the sealant manufacturer for the particular application.
- B. Bond Breakers: Provide the type and consistency recommended by the sealant manufacturer to prevent adhesion of the sealant to backing or to bottom of the joint.
- C. Cleaning Solvents: Provide type(s) recommended by the sealant manufacturer, except for aluminum and bronze surfaces that will be in contact with sealant.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean surfaces from dirt, frost, moisture, grease, oil, wax, lacquer, paint, or other foreign matter that would tend to destroy or impair adhesion. Remove oil and grease with solvent. Surfaces must be wiped dry with clean cloths. When resealing an existing joint, remove existing caulk or sealant prior to applying new sealant. For surface types not listed below, contact sealant manufacturer for specific recommendations.
 - 1. Steel Surfaces: Remove loose mill scale by sandblasting or, if sandblasting is impractical or would damage finish work, scraping and wire brushing. Remove protective coatings by sandblasting or using a residue-free solvent.
 - 2. Aluminum or Bronze Surfaces: Remove temporary protective coatings from surfaces that will be in contact with sealant. When masking tape is used as a protective coating, remove tape and any residual adhesive just prior to sealant application. For removing protective coatings and final cleaning, use nonstaining solvents recommended by the manufacturer of the item(s) containing aluminum or bronze surfaces.
 - 3. Concrete and Masonry Surfaces: Where surfaces have been treated with curing compounds, oil, or other such materials, remove materials by sandblasting or wire brushing. Laitance, remove efflorescence and loose mortar from the joint cavity.

4. Wood Surfaces: Keep wood surfaces to be in contact with sealants free of splinters and sawdust or other loose particles.
- B. Do not add liquids, solvents, or powders to the sealant. Mix multi-component elastomeric sealants in accordance with manufacturer's instructions.

3.2 INSTALLATION

- A. Joint Width-to-Depth Ratios: Install per manufacturer's recommendation or as described below, whichever is more stringent.
 1. Acceptable Ratios:

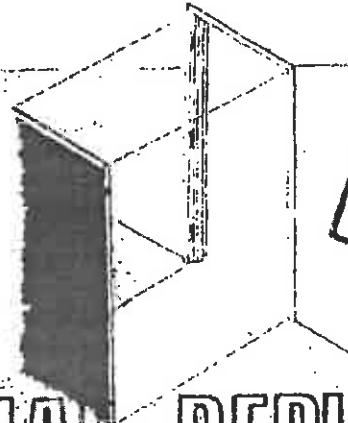
	<u>Minimum</u>	<u>Maximum</u>
a) For metal, glass, or other nonporous surfaces:		
(1) 1/4 inch (6 mm) (minimum)	1/4 inch (6 mm)	1/4 inch (6 mm)
(2) Over 1/4 inch (6 mm)	1/2 of width	Equal to width
b) For wood, concrete, masonry, or stone:		
(1) 1/4 inch (6 mm) (minimum)	1/4 inch (6 mm)	1/4 inch (6 mm)
(2) Over 1/4 inch (6 mm) to 1/2 inch (13 mm)	1/4 inch (6 mm)	Equal to width
(3) Over 1/2 inch (13 mm) to 2 inch (50 mm)	1/2 inch (50 mm)	5/8 inch (16 mm)
(4) Over 2 inch (50 mm)	(As recommended by sealant mfr.)	
 2. Unacceptable Ratios: Where joints of acceptable width-to-depth ratios have not been provided, clean out joints to acceptable depths and grind or cut to acceptable widths without damage to the adjoining work. Grinding is not required on metal surfaces.
- B. Masking Tape: Place masking tape on the finish surface on one or both sides of a joint cavity to protect adjacent finish surfaces from primer or sealant smears. Remove masking tape within 10 minutes after joint has been filled and tooled.
- C. Immediately prime prior to application of the sealant, clean out loose particles from joints. Where recommended by sealant manufacturer, apply primer to joints in concrete masonry units, wood, and other porous surfaces in accordance with sealant manufacturer's instructions. Do not apply primer to exposed finish surfaces.
- D. Provide bond breakers to the back or bottom of joint cavities, as recommended by the sealant manufacturer for each type of joint and sealant used, to prevent sealant from adhering to these surfaces. Carefully apply the bond breaker to avoid contamination of adjoining surfaces or breaking bond with surfaces other than those covered by the bond breaker.
- E. Provide a sealant compatible with the material(s) to which it is applied. Do not use a sealant that has exceeded shelf life or has jelled and can not be discharged in a continuous flow from the gun. Apply the sealant in accordance with the manufacturer's printed instructions with a gun having a nozzle that fits the joint width. Force sealant into joints to fill the joints solidly without air pockets. Tool sealant after application to ensure adhesion. Make sealant uniformly smooth and free of wrinkles. Upon completion of sealant application, roughen partially filled or unfilled joints, apply sealant, and tool smooth as specified. Apply sealer over the sealant when and as specified by the sealant manufacturer.
- F. Thresholds: Place double band of sealant under and along all sides of all exterior thresholds.

END OF SECTION 07920

Install a pre-hung



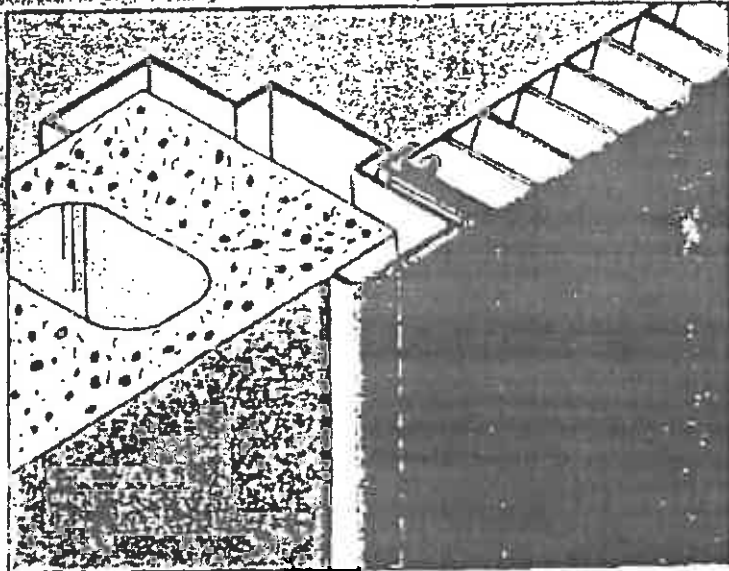
COMMERCIAL REPLACEMENT DOOR UNIT



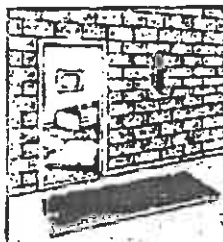
UL LISTED
1 1/2 HR (B) LABEL
can be used in existing
non-listed or listed
steel frame.

New beauty
and security
for worn out doors.

The Steelcraft Commercial Replacement Unit is the only product of its kind specifically designed for the rehab market. Fits these nominal sizes: 2868, 3068, 3668, 3868, 4068, 2870, 3070, 3670, 3870, 4070 single, and 5468, 5668, 5470 and 6070 double doors.

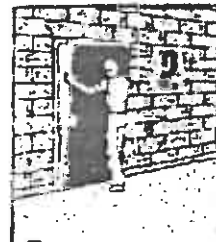


- Does not require removal of existing frame.
- Fits an "out-of-square" opening.
- Works with grouted or non-grouted frames.
- Installs quickly and easily.
- Includes rugged steel adapter frame.
- Permits door swing to be changed without major rework.
- Fills opening without re-mortising and filling hardware cutouts.
- Can be installed in existing steel or wood frame.
- Provides additional security.



QUICK

1. Remove old door, hardware, sill and any other item(s) projecting into opening.



'N EASY

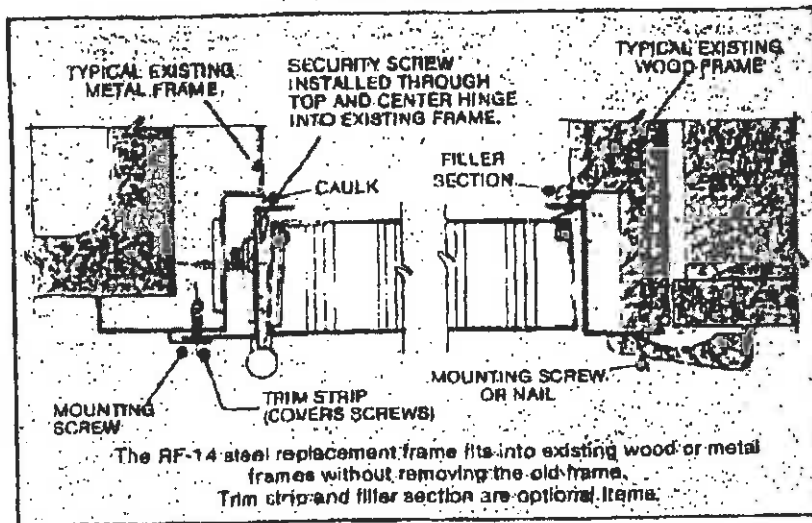
2. Set pre-hung unit into frame opening. Install mounting screws through face, cut banding and install security screws.



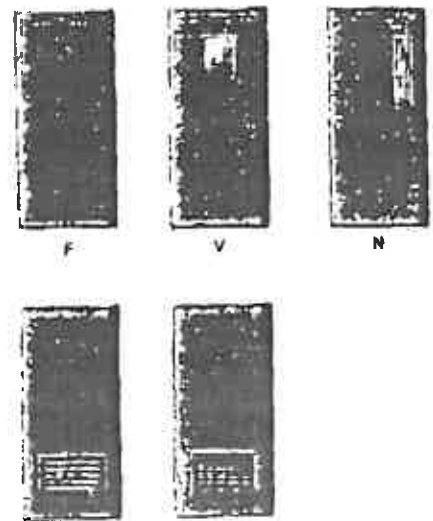
INSTALLATION

3. Mount hardware as required. Paint.

TYPICAL SECTION

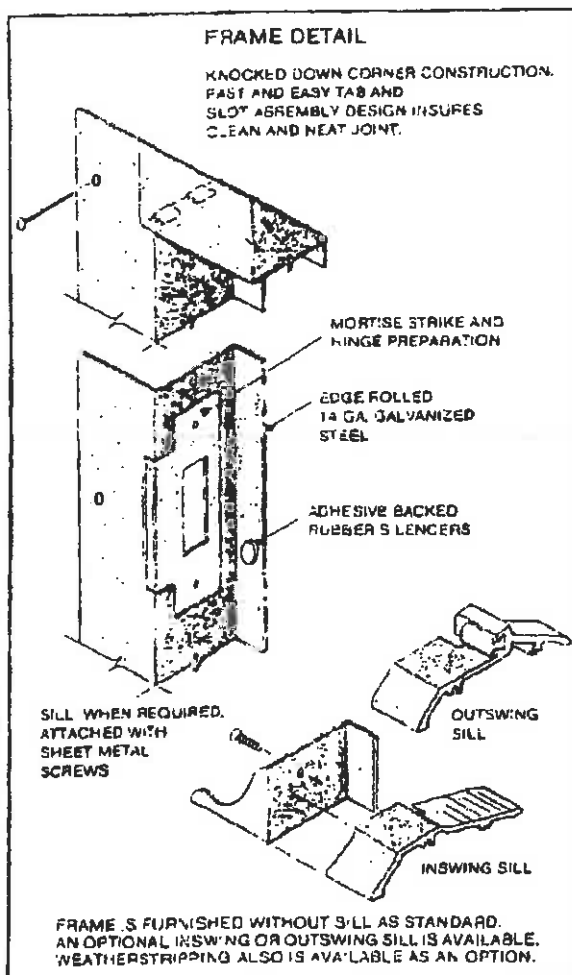


DESIGNS AND FINISHES AVAILABLE



LOUVERS

FRAME DETAIL



SPECIFICATIONS

Commercial Replacement Unit shall be supplied as a complete unit, consisting of 18 ga. door (RL-18) and 14 ga. frame (RF-14).

*Single openings shall be pre-hung, ready for quick and easy installation. Double openings shall be supplied as separate units (frame and two door leaves) not pre-hung.

Doors shall conform to the following:

Doors shall be as manufactured by Steelcraft, Cincinnati, Ohio, and designated as RL-18 (1/4" 18 ga. steel).

Doors shall be fabricated from cold rolled steel.

Doors shall have 1/8" bevel in 2" on hinge and lock edges.

Doors shall have vertical mechanical interlocking seams on hinge and lock edges with visible edge seam.

Doors shall be provided with top and bottom inverted steel channels, spotwelded within the door.

Doors shall be reinforced, stiffened and sound deadened with impregnated kraft honeycomb core completely filling the inside of the door and laminated to the inside faces of panels.

Doors shall be mortised and adequately reinforced for all hardware.

Doors shall be phosphatized and receive one coat of baked-on prime paint.

Frames shall conform to the following:

Frames shall be as manufactured by Steelcraft, Cincinnati, Ohio, and designated as RF-14 (14 ga.).

Frames shall be accurately formed from galvanized steel.

Frames shall be furnished knocked down (KD). Corners shall have tabs for secure and easy interlocking of jambs to head at each corner.

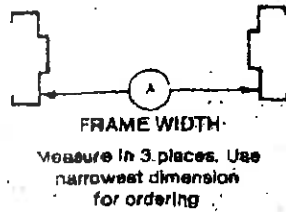
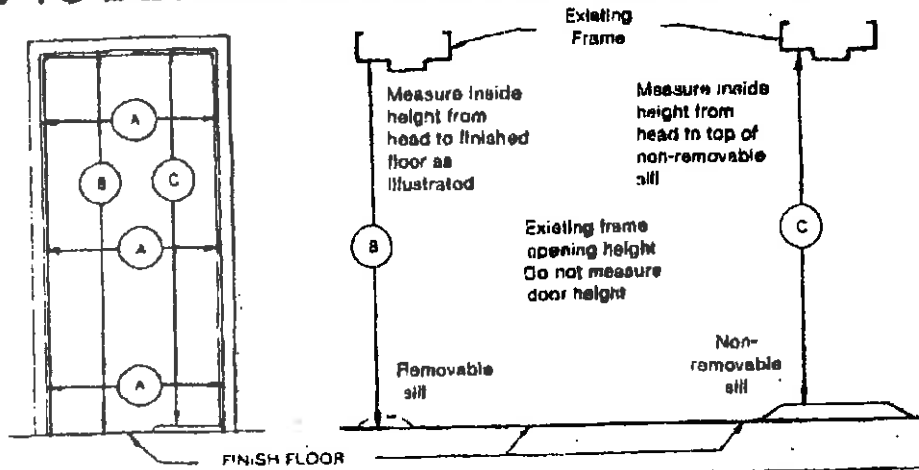
Frames shall be adequately reinforced for all hardware.

Frames shall be supplied with adhesive backed rubber pumpers; three per strike jamb, two per double door frame head.

Frames shall be phosphatized and receive one coat of baked-on prime paint.

*Single openings are designed to be pre-hung and installed. Units are supplied KD for pre-hanging at job site or by distributor.

HOW TO DETERMINE SIZE OF EXISTING FRAME



NOTE: ORDER UNITS BY NOMINAL SIZES.
DO NOT ORDER BY ACTUAL DIMENSIONS.

SIZE (Nominal)	FITS THESE EXISTING OPENINGS			
	A WIDTHS		B C HEIGHTS	
	MIN.	MAX.	MIN.	MAX.
2'8" x 6'8"	31 1/2"	32 3/4"	79 1/2"	80 1/2"
3'0" x 6'8"	35 1/2"	36 3/4"	79 1/2"	80 1/2"
3'2" x 6'8"	41 1/2"	42 3/4"	79 1/2"	80 1/2"
3'4" x 6'8"	43 1/2"	44 3/4"	79 1/2"	80 1/2"
4'0" x 6'8"	47 1/2"	48 3/4"	79 1/2"	80 1/2"
2'8" x 7'0"	31 1/2"	32 3/4"	83 1/2"	84 1/2"
3'0" x 7'0"	35 1/2"	36 3/4"	83 1/2"	84 1/2"
3'2" x 7'0"	41 1/2"	42 3/4"	83 1/2"	84 1/2"
3'4" x 7'0"	43 1/2"	44 3/4"	83 1/2"	84 1/2"
4'0" x 7'0"	47 1/2"	48 3/4"	83 1/2"	84 1/2"
5'4" x 6'8"	63 1/2"	64 3/4"	79 1/2"	80 1/2"
6'0" x 6'8"	71 1/2"	72 3/4"	79 1/2"	80 1/2"
5'4" x 7'0"	63 1/2"	64 3/4"	83 1/2"	84 1/2"
6'0" x 7'0"	71 1/2"	72 3/4"	83 1/2"	84 1/2"

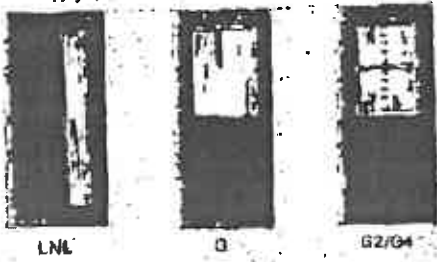
*MAX. OPENING HEIGHT MAY BE EXCEEDED BY BLOCKING DOWN EXISTING OPENING.

TO HAND A DOOR — FACE IT FROM THE OUTSIDE OR KEYSIDE

LEFT HAND Hinges on Left Opens Inward 	RIGHT HAND Hinges on Right Opens Inward 	LEFT HAND REVERSE Hinges on Left Opens Outward 	RIGHT HAND REVERSE Hinges on Right Opens Outward
LEFT HAND Hinges on Left Opens Inward 	RIGHT HAND Hinges on Right Opens Inward 	LEFT HAND REVERSE Hinges on Left Opens Outward 	RIGHT HAND REVERSE Hinges on Right Opens Outward

Steelcraft
 9617 Blue Ash Road Cincinnati, Ohio 45242 513/745-6408

E



LNL

O

G2/G4

FINISH PAINTED AND WOOD GRAIN FINISHES

HARDWARE

Replacement Units shall be prepared for the following hardware:

Hinges:

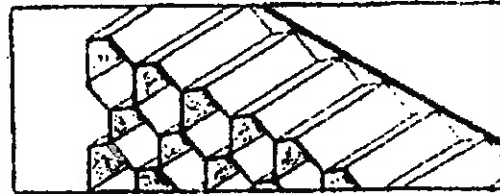
1-1/2 pair of 4-1/2 x 4-1/2 x .134 template hinges

Lock and Strikes:

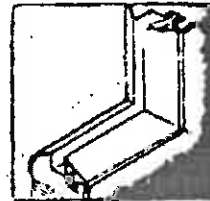
Government 167 (ANSI-A115.2) cylindrical or Government 88 (ANSI-A115.1) mortise lock with an ANSI-A115-1 or 2 strike.

Consult distributor for other hardware preparations.

DOOR DETAILS



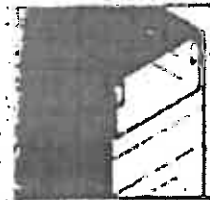
Full honeycomb core of phenolic resin-impregnated kraft paper reinforces the door every 1-inch, providing superior resistance to impact and assuring a flat surface.



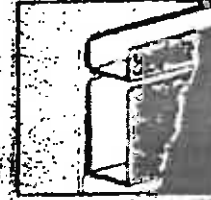
Aluminum glass insert (snap-in).



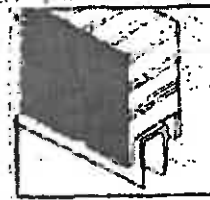
8-gage thick hinge reinforcement.



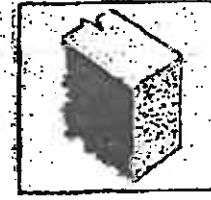
Snap-in steel top cap for exterior openings.



Steel top and bottom reinforcing channels with 14-gage closer reinforcement when required.



Door bottom with double sweep when required.



Insulated doors: one pound polystyrene core, 1 1/2 pound polyurethane core when required.

	NOMINAL SIZE	FRAME SIZE (FINISHED OPENING)		NET DOOR SIZE*		
		WIDTH	HEIGHT	WIDTH	HEIGHT	
SINGLE	2868	31"	79 1/2"	30-13/16"	79 1/2"	
	3068	35"		34-13/16"		
	3668	41"		40-13/16"		
	3868	43"		42-13/16"		
	4068	47"		46-13/16"		
	2870	31"	83 1/2"	30-13/16"	82 1/2"	
	3070	35"		34-13/16"		
	3870	41"		40-13/16"		
	3870	43"		42-13/16"		
4070	47"	46-13/16"				
PAIR	5468	63"	79 1/2"	30-13/16" & 31-13/16"		78 1/2"
	6068	71"		34-13/16" & 35-13/16"		
	5470	63"	83 1/2"	30-13/16" & 31-3/16"		82 1/2"
	6070	71"		34-13/16" & 35-13/16"		

*FOR PAIRS OF DOORS INACTIVE LEAF IS 1" WIDER THAN ACTIVE LEAF. CONSULT DISTRIBUTOR FOR OTHER SIZES.

PAIRS OF DOORS

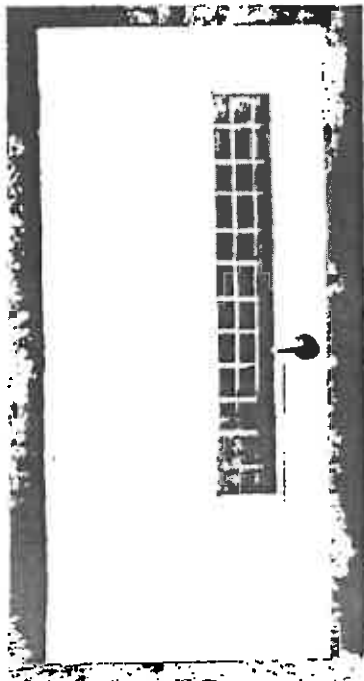
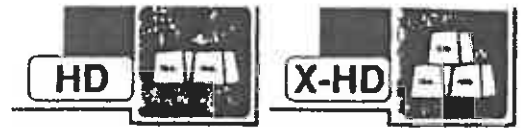


Designs shown may be combined for pairs of doors. Pairs of doors consist of two leaves and a 14 ga. steel "Z" astragal field mounted to inactive leaf of pair. Inactive leaf may be secured with flush bolts or surface bolts.

Note: For pairs of doors, right hand will be active, unless specifically ordered.

STEELCRAFT

L18 AND L16-SERIES HONEYCOMB DOORS



ABOUT THE PRODUCT:

The L18 and L16-Series Flush Doors are designed to meet the architectural requirements for full flush doors. This premium door construction combines the strength and dimensional stability of steel with the structural integrity of the honeycomb core. The continuous bonding of core to metal provides an attractive flat door, free of face welding marks. Tests have proven that the L-Series door has integral high resistance to impact damage, low thermal conductivity, and high STC ratings.

To meet application, specification and performance requirements, the L-Series doors offer a wide range of specifiable options including sizes, glass lite designs, hardware (mechanical, pneumatic, electrical) preparations and edge constructions.

FEATURES AND BENEFITS:

Steelcraft's L-Series Doors offer the following standard unique features, which enhance long term performance and durability.

1. **Honeycomb core system** enhances the structural integrity of the door, while significantly reducing the weight.
2. **Full height, epoxy filled mechanical interlock edges** provide structural support and stability the full height of the door edges.
3. **Patented universal hinge preparations** allow for easy field conversion from standard weight (.134) hinges to heavy weight (.180) hinges.
4. **14 gage top and bottom channels** provide stability and protection for the top and bottom edges from abuse.
5. **Beveled hinge and lock edges** allow for tighter installation tolerances, ensure easier operation, and eliminate binding and sticking.
6. **Recessed Dezigner™ glass trim** provide a clean, neat, and flush finish with the door surface.
7. **Factory applied baked on rust inhibiting primer** in accordance with ANSI A250.10.

SPECIFICATION COMPLIANCE:

1. Door construction for the Steelcraft L18 and L16-Series Full Flush Doors meet the requirements of **ANSI A250.8-1998** (commonly referred to as **SDI-100**)
2. Hardware preparations and reinforcements are in accordance with ANSI A250.6-1997. Locations are in accordance with ANSI/DHI A115.

FIRE RATINGS:

The L-Series doors meet the broadest fire rating requirements. They are listed for installations requiring compliance to both negative pressure testing **ASTM E152** and **UL-10B**, and positive pressure standards **UBC 7-2** and **UL-10C**.

Steel Thickness	Opening	Usage Frequency ¹	Frame Applications
16 gage (1.3mm)	Interior & Exterior	Extra-heavy duty	• 16 & 14 gage steel frames
18 gage (1mm)	Interior & Exterior	Heavy duty	• 16 gage steel frames
Steel Type	Opening	Building Applications	
Non Galvanized ²	Mainly Interior	• Typical building conditions	
Galvanized ²	Mainly Exterior	• Used in locations with high humidity and/or weather exposure	

MATERIAL:

Depending on environmental conditions, exterior doors are generally galvanized and interior doors non galvanized. All doors are supplied with a factory applied baked on primer for field applied finish paints.

¹ Usage frequency is based on ANSI A250.8-1998

² Reinforcements for galvanized doors are also galvanized

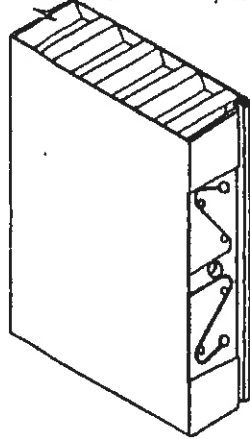
³ Commercial quality carbon steel

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IR Security & Safety

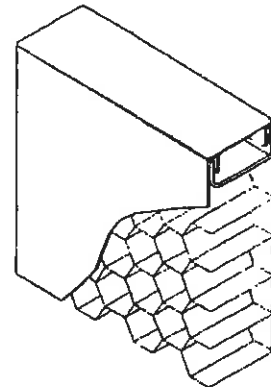
Details are subject to change without prior notice.

Universal Mortise Hinge Prep
4 1/2" - Standard 5" - Optional

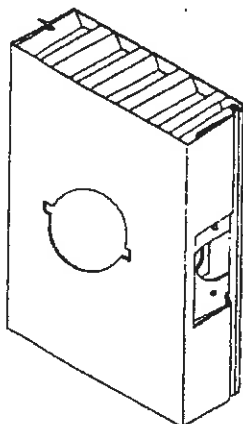


7 Gage Hinge Reinforcement

Optional Snap-In Top Cap

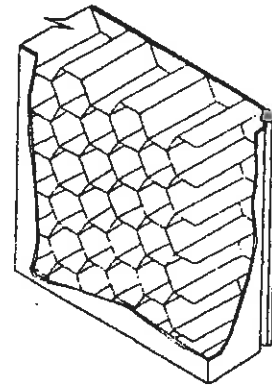


Lock Prep

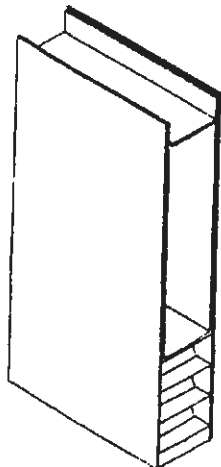


161 Cylindrical Lock shown

Rigid Honeycomb Core

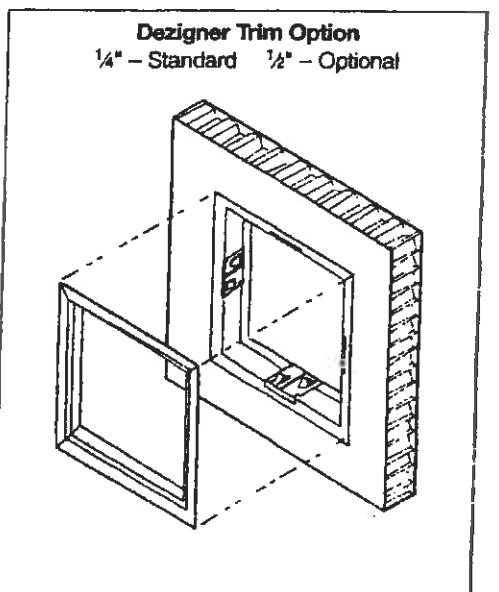
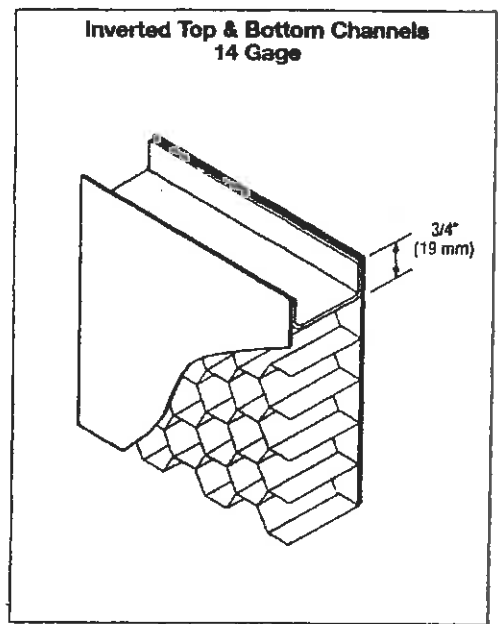
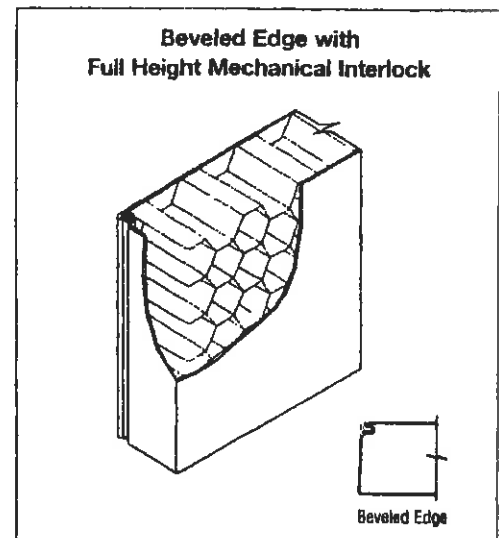
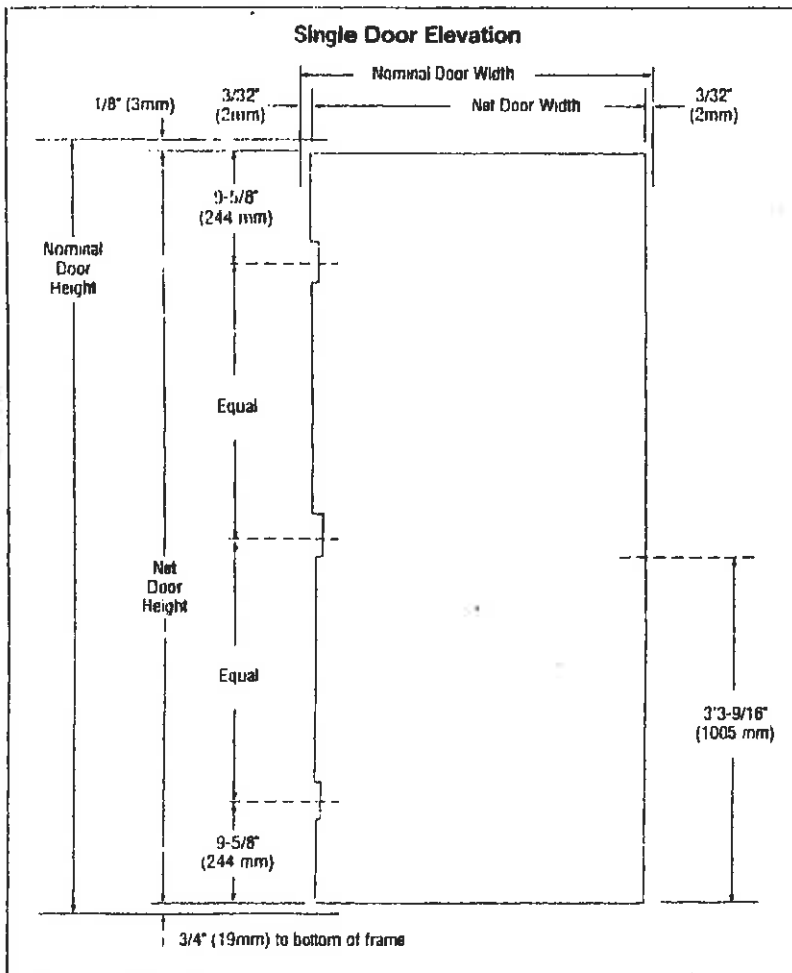


Optional 14 Gage Closer Reinforcement



GENERAL NOTES:

1. **Edge construction:**
 - Vertical edges (both hinge and lock) are beveled with a visible seam.
 - Top and bottom edges are closed with inverted 14 gage welded channels. Exterior applications require the addition of snap-in top caps to protect against the weather.
2. **Optional edge seams available in the L-Series door construction are as follows:**
 - LF - The mechanical edge seam is filled and finished prior to applying the factory primer.
 - LW - The mechanical edge seam is welded and finished prior to applying the factory primer.
3. **Optional cores available in the L-Series door construction:**
 - **Polystyrene** for exterior applications in extreme weather conditions.
 - **Polyurethane** for exterior applications in arctic weather conditions. Not Fire Rated.
4. **Standard hardware preparations: standard mortised and reinforced for:**
 - **Universal hinge preps** - 4 1/2" (114mm) patented preparation which allows easy and quick field conversion from standard to heavy weight hinges.
 - **Locks** - A multitude of standard lock preps are available. The most commonly used with a 4 7/8" (124mm) strike are 161, 61L and 86.



CONSTRUCTION NOTES:

1. Doors are $1\frac{3}{4}"$ (45mm) thick.
2. Door opening size maximum:
Single door opening size $4'0" \times 10'0"$ (1219mm x 3048mm)
Double door opening size $8'0" \times 10'0"$ (2438mm x 3048mm)
3. Standard operating clearances (installed in frame):
Head = $1/8"$ (3mm) to bottom of head or transom panel
Hinge and lock side = $3/32"$ (2mm) to rabbet on jamb
4. Standard core system:
1" (25mm) cell Kraft honeycomb core is laminated to both face sheets with contact adhesive. The honeycomb is phenolic resin impregnated and sanded to insure ultimate lamination and performance. To further enhance the structural stability of the door the honeycomb core material is subjected to several unique operations prior to assembly. If any of these operations are eliminated, the strength and durability of the door is compromised.
5. Hardware preparations: to meet specifications, doors can be prepared for all commercial mortised hardware, and can be factory reinforced for surface applied hardware applications.
 - Lock preps – details and dimensions shown are for cylindrical (ANSI 115.2) type locks. For mortise (ANSI A115.1) locks, the centerline of the lock is located $3/8"$ (9mm) lower.
6. Glass lites with Designer® trim and louvers: doors with glazed cutouts and doors with louvers are available (see *Lites and Louvers* section of *Spec Manual*).

INSTALLATION:

1. Installation shall conform to the published Steelcraft installation instructions, SDI 105 *Recommended Installation Instructions for Steel Frames*, and ANSI/DHI A115-IG *Installation Guide for Doors and Hardware*.
2. Fire Rated Assemblies must be in accordance with NFPA Pamphlet 80. The *Authority Having Jurisdiction* is the final authority in issues related to the installation and use of installed Fire Rated Doors.

DOOR EDGE APPLICATIONS:

The L-Series Doors are used in virtually all buildings and construction applications. The application and functionality dictate the door edge construction specified.

Edge	Usage	Application
L	Heavy & Extra-heavy duty	High traffic in all commercial applications
LF	Heavy & Extra-heavy duty	High traffic, in sanitation conditions
LW	Heavy & Extra-heavy duty	High traffic, in sanitation and high abuse conditions

CONVERSION CHART

ANSI A250.8 (SDI 100) *Recommended Specification for Standard Steel Doors and Frames*.

Series	Level	Model	Description	Edge Construction
L18	2	1	Full Flush	Full height, visible mechanical interlocked edge
LF18	2	2	Seamless	L-Series with epoxy filled edge seams
LW18	2	2	Seamless	L-Series with welded edge seams
L16	3	1	Full Flush	Full height, visible mechanical interlocked edge
LF16	3	2	Seamless	L-Series with epoxy filled edge seams
LW16	3	2	Seamless	L-Series with welded edge seams

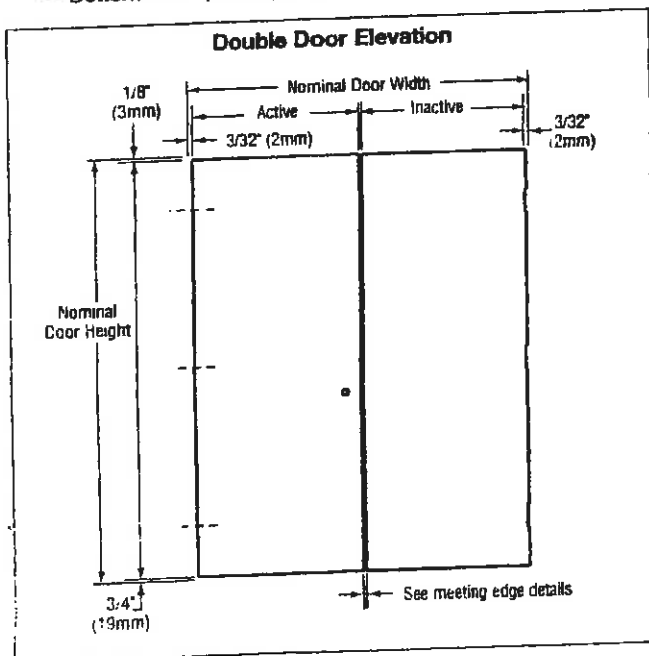
DOUBLE DOOR APPLICATIONS:

L-Series doors are available in double door elevations, with active and inactive leaves and an overlapping astragal.

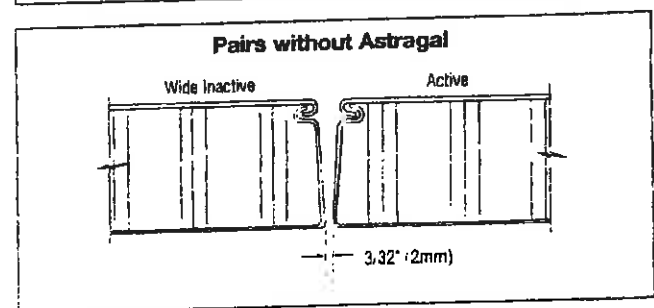
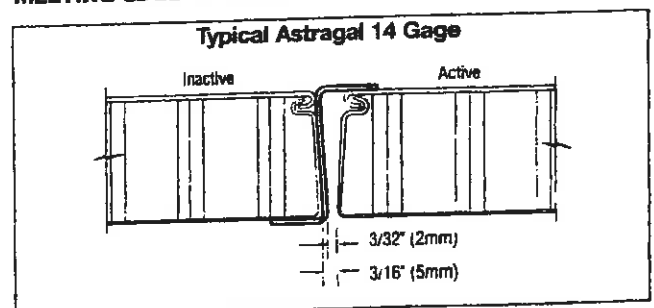
- **Standard operating clearances (installed in frame):**
 - Head = $\frac{1}{8}$ " (3mm) to bottom of head or transom panel
 - Hinge side = $\frac{3}{32}$ " (2mm) to rabbet on jamb
 - Meeting edges = $\frac{3}{32}$ " (2mm) with or without astragal. For openings without an astragal, a wide inactive leaf is used.
 - Bottom = $\frac{3}{4}$ " (19mm) to bottom of frame

Meeting edges:

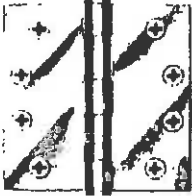
- 14 Gage astragal is furnished loose for installation in the field by others.
- Overlapping astragal kits are available to convert an active leaf to an inactive leaf.
- When an astragal is not used, the width of the inactive leaf is increased $\frac{3}{32}$ " (2mm).
- **Hardware preparations:** the inactive leaf can be prepared for hardware as specified.



MEETING EDGE DETAILS:



Five Knuckle



Plain Bearing - Standard Weight

For use on medium weight doors or doors requiring low frequency service

- 1191** Brass with Stainless Steel pin
- ANSI A2133
Stainless Steel with Stainless Steel pin
- ANSI A5133

- 1279** Steel with Steel pin
- ANSI A8133

- Non-rising removable pin with button tip and plug
- With door closer use ball bearing hinge

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
2 x 2	51 x 51	0.083	4	-	3/4 x 8
2 1/2 x 2 1/2	64 x 64	0.089	6	-	3/4 x 8
3 x 3	76 x 76	0.097	6	-	1 x 9
3 1/2 x 3 1/2	89 x 89	0.119	6	1/2 x 10-24	1 x 9
4 x 4	102 x 102	0.129	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 4 1/2	114 x 114	0.134	8	1/2 x 12-24	1 1/4 x 12
5 x 4	127 x 102	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 4 1/2	127 x 114	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 5	127 x 127	0.145	8	1/2 x 12-24	1 1/4 x 12
6 x 4 1/2	152 x 114	0.160	10	1/2 x 1/4-20	1 1/2 x 14
6 x 5	152 x 127	0.160	10	1/2 x 1/4-20	1 1/2 x 14
6 x 6	152 x 152	0.160	10	1/2 x 1/4-20	1 1/2 x 14

Five Knuckle



Plain Bearing - Standard Weight - Wide Throw

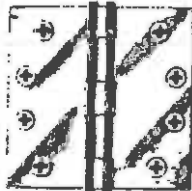
For use on medium weight doors or doors requiring low frequency service

- 1191** Wide Throw
Brass with Stainless Steel pin
- ANSI A2133
Stainless Steel with Stainless Steel pin
- ANSI A5133

- 1279** Wide Throw
Steel with Steel pin
- ANSI A8133

- Non-rising removable pin with button tip and plug
- With door closer use ball bearing hinge

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3 1/2 x 5	89 x 127	0.119	6	1/2 x 10-24	1 x 9
3 1/2 x 6	89 x 152	0.119	6	1/2 x 10-24	1 x 9
4 x 5	102 x 127	0.129	8	1/2 x 12-24	1 1/4 x 12
4 x 6	102 x 152	0.129	8	1/2 x 12-24	1 1/4 x 12
4 x 7	102 x 178	0.129	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 5	114 x 127	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 6	114 x 152	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 7	114 x 178	0.134	8	1/2 x 12-24	1 1/4 x 12
4 1/2 x 8	114 x 203	0.134	8	1/2 x 12-24	1 1/4 x 12
5 x 6	127 x 152	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 7	127 x 178	0.145	8	1/2 x 12-24	1 1/4 x 12
5 x 8	127 x 203	0.145	8	1/2 x 12-24	1 1/4 x 12



Concealed Bearing - Standard Weight

For use on medium weight doors or doors requiring medium frequency service

- CB1191** Stainless Steel with Stainless Steel pin
- ANSI A5112

- Non-rising removable pin with button tip and plug
- Only available with SecureCoat® Lifetime finish (US3SC)
- Specify machine screws

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3 1/2 x 3 1/2	89 x 89	0.119	6	-	1 x 9
4 x 4	102 x 102	0.129	8	-	1 1/4 x 12
4 1/2 x 4	114 x 102	0.134	8	-	1 1/4 x 12
4 1/2 x 4 1/2	114 x 114	0.134	8	-	1 1/4 x 12
5 x 4	127 x 102	0.145	8	-	1 1/4 x 12
5 x 4 1/2	127 x 114	0.145	8	-	1 1/4 x 12
5 x 5	127 x 127	0.145	8	-	1 1/4 x 12
6 x 4 1/2	152 x 114	0.160	10	-	1 1/2 x 14
6 x 5	152 x 127	0.160	10	-	1 1/2 x 14
6 x 6	152 x 152	0.160	10	-	1 1/2 x 14



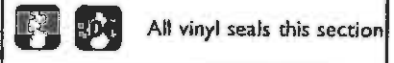
NATIONAL GUARD PRODUCTS, INC.

Vinyl Seals

Properties:

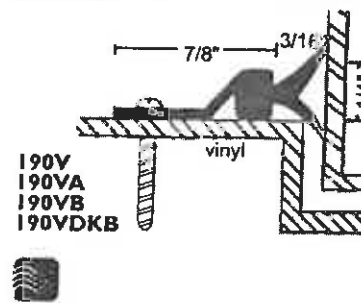
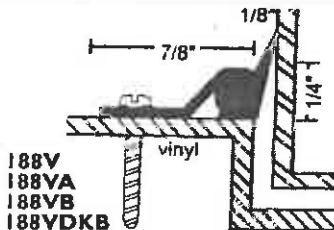
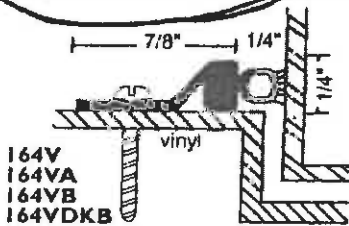
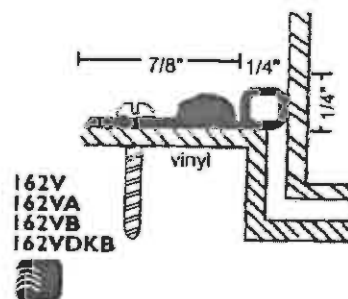
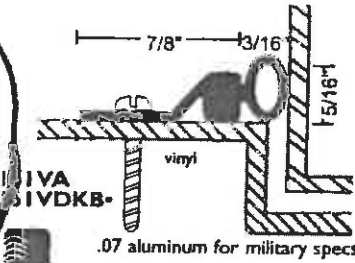
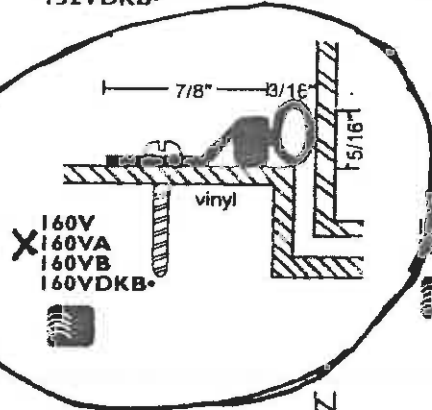
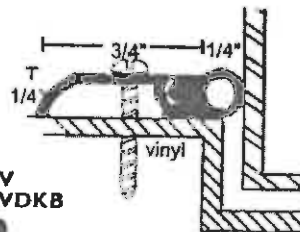
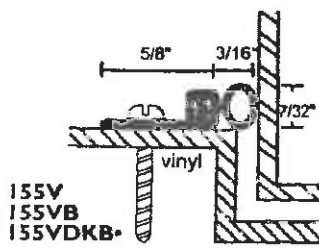
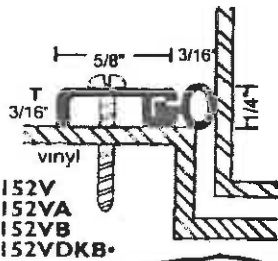
- Synthetic polymer: Polyvinyl Chloride
- Economical
- Flame resistant
- Moisture resistant
- Temperature range 0F to 140F
- Plasticizers evaporate with age and exposure to UV, Cold, Heat causing hardening, loss of memory, loss of resilience, cracking and crazing

#6 x 3/4" Stainless Steel Sheet Metal Screws furnished
 Screw holes slotted for adjustment

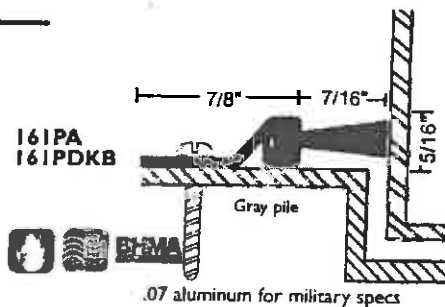
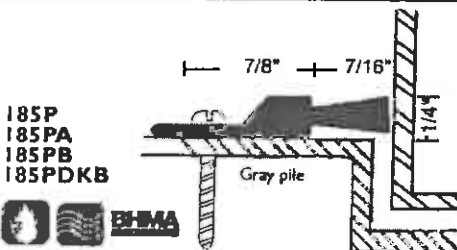


All vinyl seals this section

A - clear
 B - gold
 DKB - dark bronze
 no suffix - mill
 Vinyl is gray
 (exception: -vinyl is black)



Pile Seals



Vinyl Perimeter Seals

Pile Seals



Saddle Thresholds






 All thresholds this page

MATERIALS & FINISHES

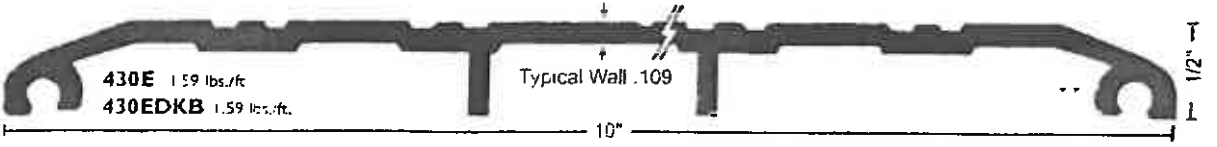
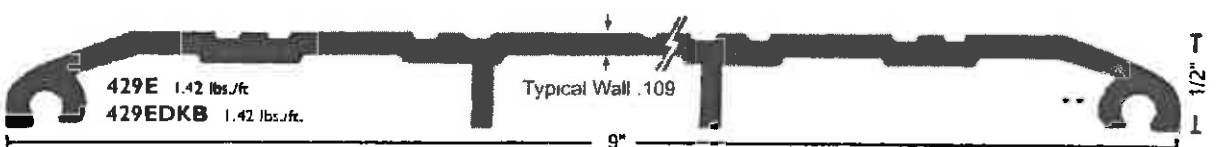
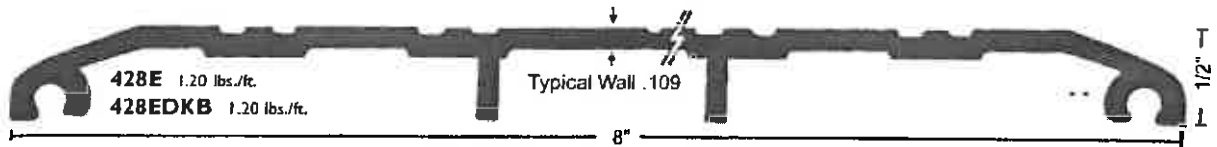
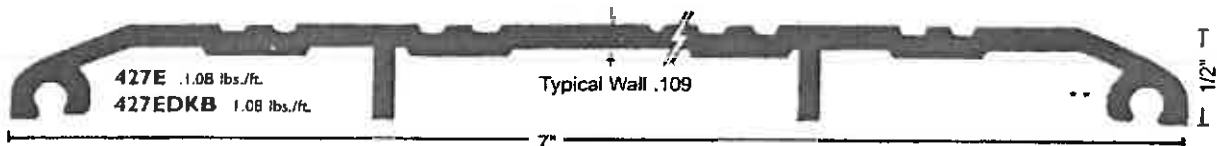
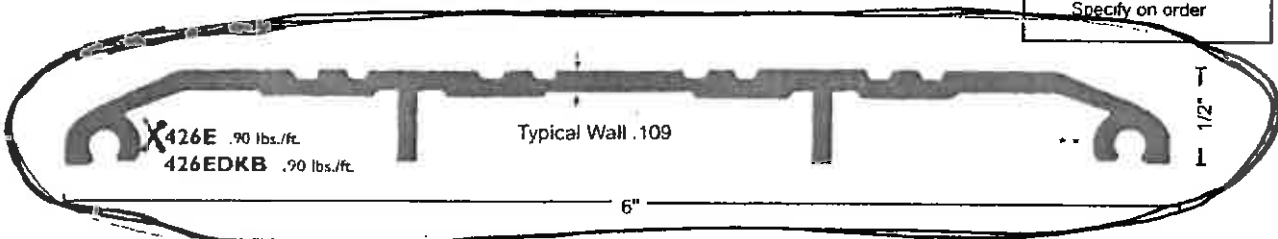
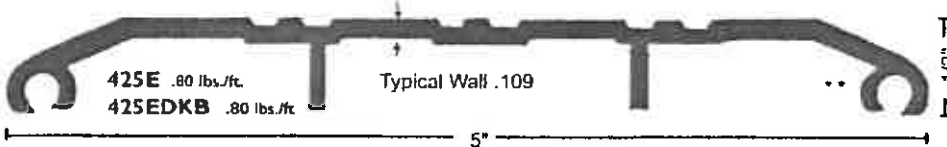
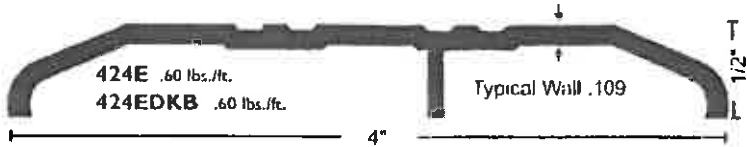
- Aluminum mill finish
- DKB - Aluminum dark bronze finish

Slip Resistant SIA Finish 

All thresholds are available with our slip resistant, non-skid finish for better traction, Suffix "SIA".

**

VINYL FOOT SEAL
 used instead of caulking to increase the weather resistance of the threshold.
 Specify on order



Specifications

Handing:

All D-Series lever locksets are non-handed.

Door Thickness:

1 $\frac{1}{8}$ " to 2 $\frac{1}{8}$ " (41mm–54mm) standard including Vandlgard® functions.

See accessories (Page 12) for spacers required for 1 $\frac{1}{8}$ " doors.

Backsets:

2 $\frac{1}{4}$ " (70mm) standard. 2 $\frac{3}{8}$ ", 3 $\frac{1}{4}$ " and 5" (60mm, 95mm, 127mm) optional.

Faceplates:

Brass, bronze or stainless steel. 1 $\frac{1}{8}$ " x 2 $\frac{1}{4}$ " (29mm x 57mm) square corner, beveled.

Lock Chassis:

Zinc plated for corrosion resistance.

Latch Bolts:

Steel, $\frac{1}{2}$ " (12mm) throw, deadlocking on keyed and exterior functions. $\frac{3}{4}$ " (19mm) throw anti-friction latch available for pairs of fire doors.

Exposed Trim:

Levers: Pressure cast zinc, plated to match finish symbols.
Roses: Solid brass.

Strikes:

ANSI curved lip strike 1 $\frac{1}{4}$ " x 4 $\frac{7}{8}$ " x 1 $\frac{3}{16}$ " lip to center standard. Optional strikes, lip lengths and ANSI strike box available. See page 11.

Cylinder & Keys:

6-pin Everest C123 keyway standard with two patented nickel silver keys per lock.

Keying Options:

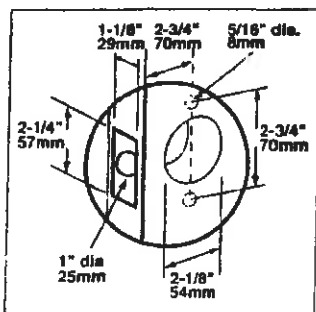
Interchangeable core and Primus® high security cylinders. Master keying, grand master keying and construction keying.

Warranty:

Seven-year limited for all functions including Vandlgard®.

Door Preparation

Lever Designs



Certifications

ANSI

Meets or exceeds A156.2 Series 4000, Grade 1 strength and operational requirements. Meets A117.1 Accessibility Code.

Federal

Meets FF-H-106C Series 161.

California State Reference Code

(Formerly Title 19, California State Fire Marshal Standard)

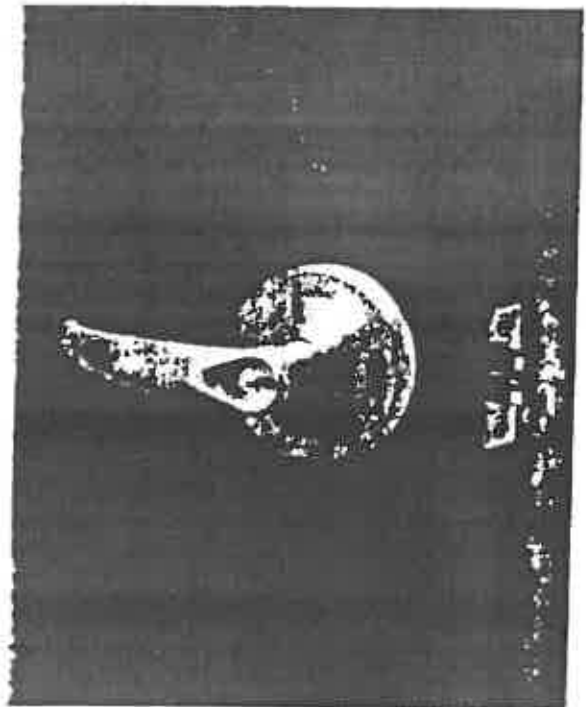
All levers with returns comply; levers return to within $\frac{1}{2}$ " of door face.

UL / cUL:

All locks listed for A label single doors, 4' x 8'.

Letter F and UL symbol on latch front indicate listing. Electrified functions are UL19X Listed for single point locking applications.

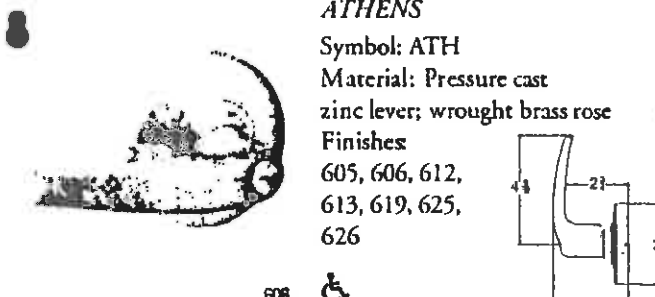
UL437 Listed locking cylinder optional: specify Primus 20-500 Series cylinder.




D SERIES LEVERS

Lever Designs & Finishes

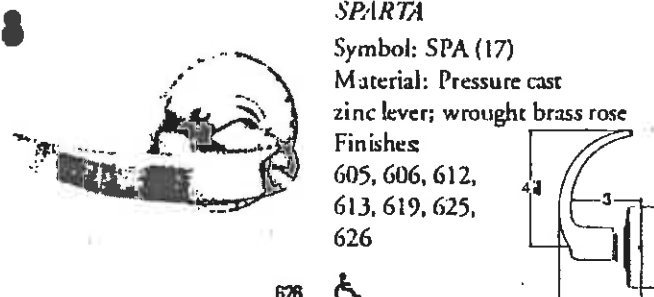
ATHENS
 Symbol: ATH
 Material: Pressure cast zinc lever; wrought brass rose
 Finishes: 605, 606, 612, 613, 619, 625, 626




608 

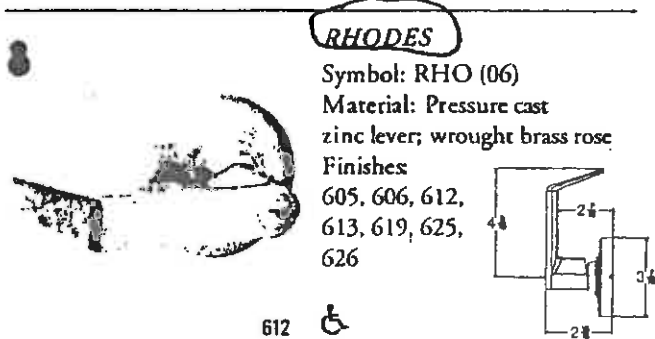
Lever Designs & Finishes


SPARTA
 Symbol: SPA (17)
 Material: Pressure cast zinc lever; wrought brass rose
 Finishes: 605, 606, 612, 613, 619, 625, 626



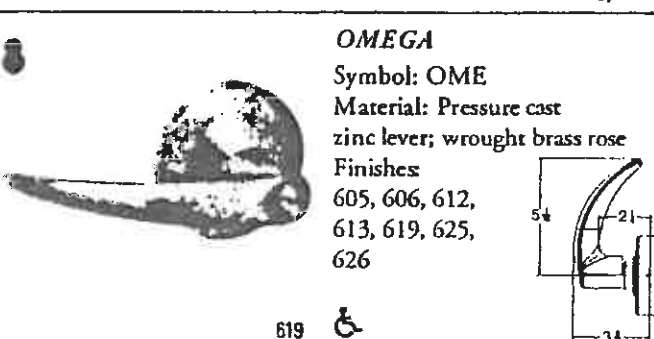
628 


RHODES
 Symbol: RHO (06)
 Material: Pressure cast zinc lever; wrought brass rose
 Finishes: 605, 606, 612, 613, 619, 625, 626



612 

OMEGA
 Symbol: OME
 Material: Pressure cast zinc lever; wrought brass rose
 Finishes: 605, 606, 612, 613, 619, 625, 626



619 



605
Bright Brass



606
Satin Brass



612
Satin Bronze



613
Oil Rubbed Bronze




619
Satin Nickel

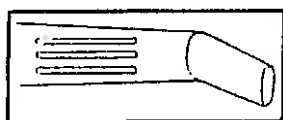


625
Bright Chromium Plated



626
Satin Chromium Plated

 Keyed functions available with interchangeable core options. Levers are available for full size and small format interchangeable cores.



TACTILE WARNING (KNURLING)

Change symbol designation as follows:

8AT for Athens
8RO for Rhodes
8SP for Sparta

Finishes

605 Bright Brass
 606 Satin Brass
 612 Satin Bronze
 613 Oil Rubbed Bronze
 619 Satin Nickel
 625 Bright Chromium Plated
 626 Satin Chromium Plated

Only outside lever is knurled unless otherwise specified.

Not available with Omega trim

D SERIES LEVERS

Functions

Non-Keyed Locks

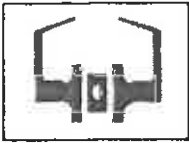
SCHLAGE ANSI

ND10S F75



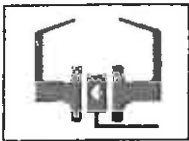
Passage Latch
Both levers always unlocked.

ND12D F89



Exit Lock
Outside lever always fixed. Inside lever always unlocked.

ND12DEL



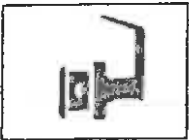
Electrically Locked (Fail Safe)
Outside lever continuously locked electrically. Unlocked by switch or power failure. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever always free for immediate exit.

ND12DEU



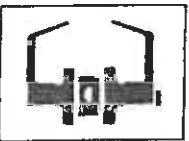
Electrically Unlocked (Fail Secure)
Outside lever continuously locked until unlocked by electric current. Auxiliary latch deadlocks latchbolt when door is closed. Inside lever always free for immediate exit.

ND25D



Exit Lock
Blank plate outside. Inside lever always unlocked.

ND40S F76



Bath/Bedroom Privacy Lock
Push-button locking. Can be opened from outside with small screwdriver. Turning inside lever or closing door releases button.

ND44S



Hospital Privacy Lock
Push-button locking. Unlocked from outside by turning emergency turn-button. Turning inside lever or closing door releases button.

ND170

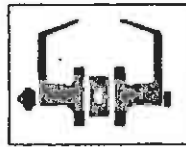


Single Dummy Trim
Dummy trim for one side of door. Used for door pull or as matching inactive trim.

Keyed Locks

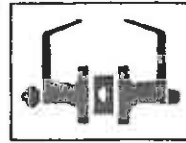
SCHLAGE ANSI

ND50PD F82



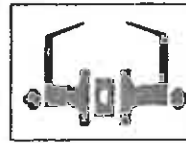
Entrance/Office Lock*
Push-button locking. Push-button locks outside lever until unlocked with key or by turning inside lever.

ND53PD F109



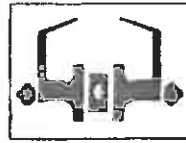
Entrance Lock*
Turn/push-button locking; pushing and turning button locks outside lever, requiring use of key until button is manually unlocked. Push-button locking; pushing button locks outside lever until unlocked by key or by turning inside lever.

ND60PD F88



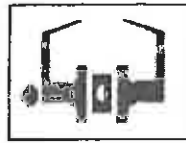
Vestibule/Classroom Security Lock*
Latch retracted by key from outside when outside lever is locked by key in inside lever. Inside lever is always unlocked.

ND66PD F91



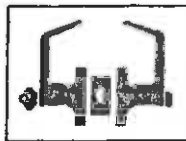
Store Lock*†
Key in either lever locks or unlocks both levers.

ND70PD F84



Classroom Lock*
Outside lever locked and unlocked by key. Inside lever always unlocked.

ND73PD F90



Corridor Lock*
Outside lever locked by key outside or push-button inside. Push-button released by rotating inside lever or closing door. When outside lever is locked by key, key must be used to unlock it. Inside lever is always unlocked.

001 24 2000

* Available functions for small format interchangeable core.

† Caution: Double cylinder locks on residences and any door in any structure which is used for egress are a life safety hazard in times of emergency and their use is not recommended. Installation should be in accordance with existing codes only.

Specifications

Handing:

Keyed functions are reversible. Non-keyed functions are not handed.

Door Thickness:

1 3/8" to 1 7/8" (35 mm to 48 mm) standard.
2" (51 mm) to 2 1/2" (64 mm) optional extended inside.

Backsets:

2 3/4" (60 mm) standard. 2 3/4" (70 mm), 3 3/4" (95 mm) and 5" (127 mm) optional.

Front:

Steel. 1 1/8" x 2 1/4" square corner, beveled, for 2 3/4" backset standard. Optional 1" square corner, 1" radius corner, and non-UL drive-in / round face. For availability with specific backsets, see page 6.

Lock Chassis:

Steel, zinc dichromate plated for corrosion resistance.

Latch Bolt:

Brass, chrome plated, 1/2" throw, deadlocking on keyed and exterior functions.

Exposed Trim:

Wrought brass, bronze or stainless steel. Levers are pressure cast zinc, plated to match finish symbols.

Strike:

T-strike 1 1/8" x 2 3/4" (29 mm x 70 mm) x 1 1/8" (29 mm) lip to center with box standard. Optional strikes, lip lengths and ANSI strike box available. See page 7.

Cylinder & Keys:

Commercial: 6-pin patented Everest C123 keyway standard with two nickel silver keys per lock.

Residential: 6-pin C keyway, keyed 5-pin.

Keying Options:

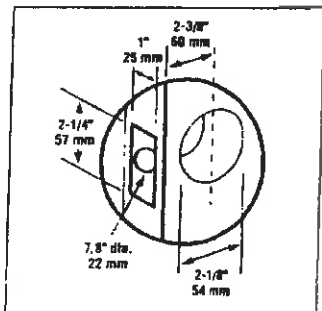
Interchangeable core and Primus[®] high security cylinders. Master keying, grand master keying, and construction keying.

Warranty:

Commercial: three-year limited.

Residential: Full mechanical lifetime.

Door Preparation



Certifications

ANSI

Meets or exceeds A156.2 Series 4000, Grade 2 strength and operational requirements.

Federal

Meets FF-H-106C.

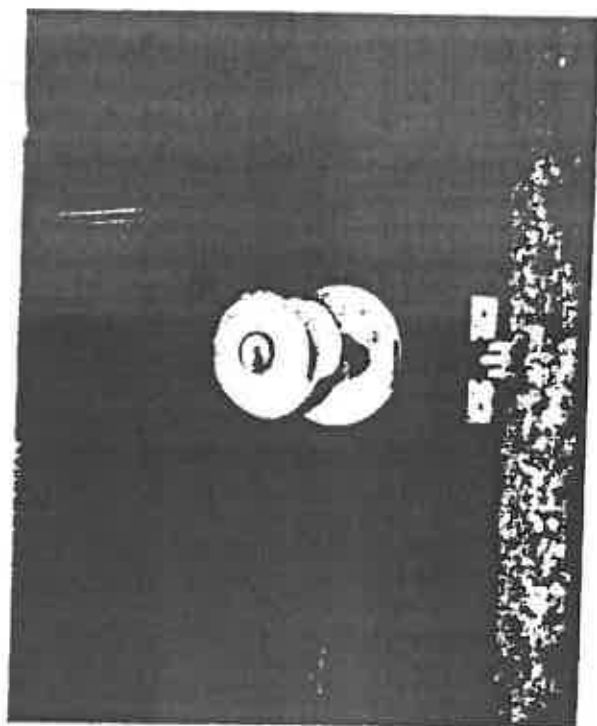
California State Reference Code

(Formerly Title 19, California State Fire Marshal Standard)

All levers with returns comply; levers return to within 1/2" of door face.

UL / ULC:

All locks listed for A label single doors, 4' x 8'. Letter F and UL symbol on latch front indicate listing. UL437 Listed locking cylinder optional: specify Primus 20-500 Series cylinder.



Designs & Finishes



609

GEORGIAN

Symbol: GEO
Material: Wrought brass
Finishes: 605, 606,
609, 610,
625, 626



605

LEVON

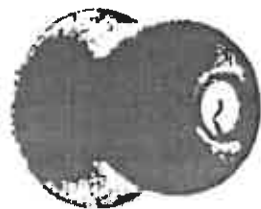
Symbol: LEV
Material: Pressure cast
zinc lever; wrought brass
or bronze rose
Finishes: 605, 612,
613, 626



Note: Levon available as inside trim only on deadlatch functions. Specify complete trim application and door handing when ordering with deadlatch functions.

Finishes

- 605 Bright Brass
- 606 Satin Brass
- 609 Antique Brass
- 610 Bright Brass, Blackened
- 611 Bright Bronze
- 612 Satin Bronze
- 613 Oil Rubbed Bronze
- 616 Antique Bronze
- 625 Bright Chromium Plated
- 626 Satin Chromium Plated
- 629 Bright Stainless Steel
- 630 Satin Stainless Steel



613

ORBIT

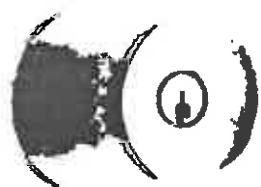
Symbol: ORB
Material: Wrought brass
or bronze
Finishes: 605, 606, 609,
610, 611, 612, 613,
616, 625, 626



605

PLYMOUTH

Symbol: PLY
Material: Wrought brass,
bronze, or stainless steel
Finishes: 605, 606, 609, 610,
611, 612, 613, 616, 625,
626, 629, 630




626

TULIP

Symbol: TUL
Material: Wrought brass
Finishes: 605, 606,
609, 610,
625, 626



 Keyed functions available with full size interchangeable core option for Orbit design.

Functions

ANSI A156.2 Series 4000 Grade 2

Non-Keyed Functions

SCHLAGE ANSI
A10S F75

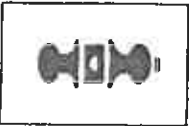
Passage Latch
Both knobs always unlocked.



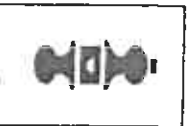
A25D Exit Lock
Blank plate outside. Inside knob always unlocked. Specify door thickness, 1-1/8" or 1-3/4".



A30D F77 Patio Lock
Push-button locking. Turning inside knob or closing door releases button, preventing lock-out.



A40S F76 Bath/Bedroom Privacy Lock
Push-button locking. Can be opened from outside with small screwdriver. Turning inside knob or closing door releases button.



A43D F79 Communicating Lock
Turn-button in outer knob locks and unlocks knob and inside thumbturn.



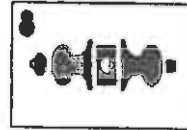
A170 Single Dummy Trim
Dummy trim for one side of door. Used for door pull or as matching inactive trim.



Keyed Functions

SCHLAGE ANSI
A53PD F109

Entrance Lock
Turn/push-button locking: pushing and turning button locks outside knob requiring use of key until button is manually unlocked. Push-button locking: pushing button locks outside knob until unlocked by key or by turning inside knob.



A70PD F84 Classroom Lock
Outside knob locked and unlocked by key. Inside knob always unlocked.



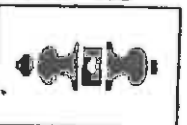
A79PD Communicating Lock
Locked or unlocked by key from outside. Blank plate inside.



A80PD F86 Storeroom Lock
Outside knob fixed. Entrance by key only. Inside knob always unlocked.



A85PD F93 Hotel/Motel Lock
Outside knob fixed. Entrance by key only. Push-button in inside knob activates visual occupancy indicator, allowing only emergency masterkey to operate. Rotation of inside spanner-button provides lock-out feature by keeping indicator thrown.



Keyed functions available with full size interchangeable core option for Orbit design.

Pemko Manufacturing Company
5535 Distribution Drive
Memphis, TN 38141
Phone: (800) 824-3018
Fax: (800) 243-3656
E-mail: pemkosales@pemko.com
www.pemko.com

**SECTION 08710
DOOR HARDWARE
(CONTINUOUS GEARED DOOR HINGES)**

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes: Continuous Geared Door Hinges.

Specifier Note: Revise paragraph below to suit project requirements. If a reader of this section could reasonably expect to find a product or component specified in this section, but it is actually specified elsewhere, then the related section number(s) should be listed in the paragraph below. Add section numbers and titles per CSI *MasterFormat* and specifier's practice. In the absence of related sections, delete paragraph below.

B. Related Sections:

1. Division 6 Section(s): Wood Frames.
2. Division 8 Section(s): Steel Doors, Wood Doors, Sound Control Doors, Aluminum Frame Storefront Doors.
3. Division 10 Section(s): Compartments and Cubicles, Partitions.
4. Division 13 Section(s): Special Facilities, Integrated Construction, Special Structures, Special Purpose Rooms.

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain References Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Division 1 References Section may establish the edition date of standards. This article does not require compliance with standard. It is a listing of all references used in this section.

1.02 REFERENCES

A. ASTM International:

1. ASTM E2074 Standard Test Method for Fire Tests of Door Assemblies, Including Positive Pressure Testing of Side-Hinged and Pivoted Swinging Door Assemblies.

B. American National Standards Institute/Builders Hardware Manufacturers Association (ANSI/BHMA):

1. ANSI/BHMA A156.18 Materials and Finishes.
2. ANSI/BHMA A156.26 Standards for Continuous Hinges.

C. American National Standards Institute/Steel Door Institute (ANSI/SDI):

1. ANSI A250.8/SDI-100 Recommended Specifications for Standard Steel Doors and Frames.

D. American National Standards Institute/Window and Door Manufacturers Association (ANSI/WDMA):

1. ANSI/WDMA I.S.1-A Architectural Wood Flush Doors.

E. Federal Government:

1. U.S. Architectural & Transportation Barriers Compliance Board. Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG), 1992.
2. Federal Standard FED-STD-795-1988 (Revised 1989) Uniform Federal Accessibility Standards.

F. Underwriters Laboratories, Inc. (UL):

1. UL 10B Fire Tests of Door Assemblies.

2. UL 10C Fire Tests of Door Assemblies.
 3. UL 752 Bullet Resistant Equipment.
- G. International Code Council (ICC):
1. UBC 7-2 Fire Test of Door Assemblies (Positive Pressure).
 2. International Building Code (IBC) Code 2000 (Positive Pressure).
 3. ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities.
- H. British Standards (BS):
1. BS 476 Fire Tests on Building Materials and Structures.
- I. National Fire Protection Association (NFPA):
1. NFPA 1 Fire Prevention Code.

Specifier Note: Article below should be restricted to statements describing design or performance requirements and functional (not dimensional) tolerances of a complete system. Limit descriptions to composite and operational properties required to link components of a system together and to interface with other systems.

1.03 SYSTEM DESCRIPTION

- A. Design Requirements: Provide continuous geared door hinges which have been manufactured, fabricated and installed to meet the following design criteria:
1. Continuous geared configuration, designed to distribute loads uniformly.
 2. Identical operation in each leaf, designed to reduce door opening effort.
 3. UL labeled for 3 hour fire classification.
 4. Durability tested to ANSI/BHMA A156.26 Grade 1, 2, 3.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.

1.04 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit manufacturer's product data and installation instructions.
- C. Shop Drawings: Provide drawings indicating required component locations, installation interface with adjacent materials, anchorage, fastening and similar information.
- D. Samples: Submit one each of manufacturer's standard selection samples.
- E. Quality Assurance/Control Submittals: Submit the following:
1. Test Reports: Upon request, submit [Fire] [And] [Durability] test reports from recognized testing laboratory.
 2. Certificates: Submit manufacturer's certificate that products meet or exceed specified requirements.
- F. Closeout Submittals: Submit the following:
1. Warranty documents specified herein.

Specifier Note: Article below should include statements of prerequisites, standards, limitations and criteria that establish an overall level of quality for products and workmanship for this section. Coordinate article below with Division 1 Quality Assurance Section.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar size and complexity.

Specifier Note: Paragraph below should list obligations for compliance with specific code requirements particular to this section and authority having jurisdiction. General statements to comply with a particular code are typically addressed in Conditions of the Contract and Division 1 Regulatory Requirements Section. Repetitive statements should be avoided.

- B. Regulatory Requirements and Approvals: [Specify applicable requirements of regulatory agencies.]

1. [Code agency name].
 - a. [Report or approval number].
- C. Certifications: [Specify requirement for certifications.].
- D. Field Samples: [Specify requirement for field samples.].
- E. Mock-Ups: [Specify requirements for mock-up.].
 1. Subject to acceptance by owner, mock-up may be retained as part of finish work.
 2. If mock-up is not retained, remove and properly dispose of mock-up.

Specifier Note: Retain paragraph below if preinstallation meeting is required.

- F. Preinstallation Meetings: [Specify requirements for meeting.].

Specifier Note: Article below should include specific protection and environmental conditions required during storage. Coordinate article below with Division 1 Product Requirements Section.

1.06 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirement Section.
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

Specifier Note: Coordinate article below with Conditions of the Contract and with Division 1 Closeout Submittals (Warranty) Section. Use this article to require special or extended warranty or bond covering the work of this section.

1.07 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under contract documents.

Specifier Note: Coordinate subparagraph below with manufacturer's warranty requirements.

1. Warranty Period: Warranty for life of door opening, beginning with date of substantial completion.

PART 2 PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

2.01 CONTINUOUS GEARED DOOR HINGES

Specifier Note: Paragraph below is an addition to CSI *SectionFormat* and a supplement to MANU-SPEC. Retain, edit or delete paragraph below to suit project requirements and specifier practice.

- A. Manufacturer: Pemko Manufacturing Company.
 1. Contact: PO Box 3780, 4226 Transport Street, Ventura, CA 93003; Telephone: (800) 283-9988, (805) 642-2600; Fax: (805) 642-4109; E-mail: pemkosales@pemko.com; website: www.pemko.com.
- B. Proprietary Products/Systems: Continuous Geared Door Hinges, including the following:
 1. Continuous Geared PemkoHinges:
 - a. Material: Extruded tempered aluminum.
 - b. Material Standard: 6063-T6 alloy.
 - c. Configuration: Three interlocking extrusions in pinless assembly, installed to full height of door frame.
 - d. Finish (ANSI/BHMA A156.18): [Clear anodized] [Dark anodized] [Gold anodized].
 - e. Type: [Full mortise] [Full surface] [Half surface] [Full mortise residential: 1 3/4 inches (45 mm)] [Full

- mortise residential. 3/8 inches (35 mm)] [Special full mortise] [Je throw full mortise].
- f. Length: [79 inches (2007 mm)] [83 inches (2108 mm)] [85 inches (2159 mm)] [95 inches (2413 mm)] [120 inches (3048 mm)].
- g. Hinge Options: [Safety] [Short leaf flush] [Short leaf inset] [Standard] [Safety short leaf inset] [Center pivot].
- h. Electrical Modifications: [Specify electrical modifications.].
- i. Strength: [Standard Duty: 14 bearings each leaf for 83 inch (2108 mm) hinge, minimum door weight 280 lb (127 kg)] [Heavy Duty: 27 bearings each leaf for 83 inch (2108 mm) hinge, minimum door weight 540 lb (245 kg)].
- j. Mortise Fasteners: TEK, #12 x 3/4 inch, FHUC, Phillips head screws.
- k. Fire Label Certification: Comply with ASTM E2074, NFPA 1, UBC 7-2, BS 476, UL 10B, UL 10C, [90 minutes for wood doors] [3 hours for hollow metal doors].
- l. Testing Standard: Tested according to ANSI/BHMA A156.26.

Specifier Note: Edit Article below to suit project requirements. If substitutions are permitted, edit text below. Add text to refer to Division 1 Project Requirements (Product Substitutions Procedures) Section.

2.02 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

PART 3 EXECUTION

Specifier Note: Article below is an addition to the CSI *SectionFormat* and a supplement to MANU-SPEC. Revise article below to suit project requirements and specifier's practice.

3.01 MANUFACTURER'S INSTRUCTIONS

- A. Comply with the instructions and recommendations of the continuous geared door hinge manufacturer.

Specifier Note: Specify actions to physically determine that conditions are acceptable to receive primary products of the section.

3.02 EXAMINATION

- A. Site Verification of Conditions:

1. Verify that site conditions are acceptable for installation of continuous geared door hinges.
 - a. Examine doors and frames for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction and other conditions affecting performance.
 - b. Ensure frame is square and plumb before installation.
 - c. Examine roughing-in for electrical wiring connections.
2. Do not proceed with installation of continuous geared door hinges until unacceptable conditions are corrected.

Specifier Note: Specify actions required to physically prepare the surface, area or site or to incorporate the primary products of the section.

3.03 PREPARATION

- A. Wood Door Preparation: Comply with ANSI/WDMA I.S.1-A.
- B. Steel Door and Frame Preparation: Drill doors and frames for hardware per manufacturer's installation instructions. Comply with ANSI A250.8/SDI-100.

Specifier Note: Coordinate article below with manufacturer's recommended installation requirements.

3.04 INSTALLATION

- A. Mounting Location: Comply with the following requirements, unless otherwise indicated:
 1. Steel Doors and Frames:
 - a. Comply with ANSI A250.8/SDI-100.
 - b. Ensure frames are properly sized, plumb and square.

c. [Specify standard or specific requirements.]

2. Wood Doors:

a. Comply with ANSIS/DMA I.S.1-A.

b. Ensure doors are properly sized, plumb and square.

c. [Specify standard or specific requirements.]

B. Adjust and reinforce attachment substrates as necessary for proper installation and operation.

C. Space fasteners and anchors according to manufacturer's product instructions.

Specifier Note: Specify the final actions required to prepare installed equipment or other completed work to properly function or perform.

3.05 ADJUSTING

A. Perform adjustments required to ensure that continuous geared door hinges function in compliance with manufacturer's performance criteria prior to acceptance by Owner.

1. Adjust door control devices to compensate for final operation of HVAC system and to comply with accessibility requirements.

Specifier Note: Specify the final actions required to clean installed equipment or other completed work to properly function or perform. Coordinate article below with Division 1 Execution Requirements (Cleaning) Section.

3.06 CLEANING

A. Remove any protective films and clean components as necessary following manufacturer's recommended procedures.

Specifier Note: Specify provisions for protecting work after installation but prior to acceptance by Owner. Coordinate article below with Division 1 Execution Requirements Section.

3.07 PROTECTION

A. Protect installed work from damage due to subsequent construction activity on the site.

END OF SECTION



ASSA ABLOY

**PEMKOHINGE™ CONTINUOUS GEARED HINGES:
HALF SURFACE SAFETY HINGES:
STANDARD**

HS_SF BHMA

AVAILABLE FINISHES: BL, C, D, PW, SN

WIDTH: 2" (50.8 mm)

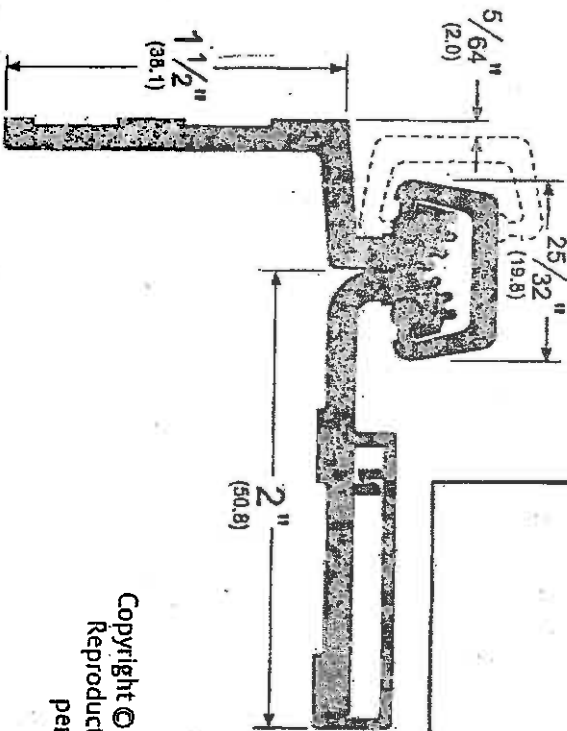
(between frame leaf and door leaf edge)

CAP WIDTH: 25/32" (19.8 mm)

HEIGHT: 1-1/2" (38.1 mm)

(frame edge side - leaf)

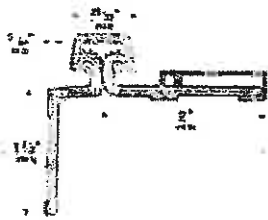
- BL (Black Anodized) - special request only
- C (Clear Anodized)
- D (Dark Bronze Anodized)
- PW (Painted White) - special request only
- SN (Satin Nickel Anodized)



TITLE:
PREPARED FOR:
PREPARED BY:
DATE:
COMMENTS:

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Reproduction in whole or in part without the express written
permission of Pemko Manufacturing Co. is prohibited.

HS_SF_CUT Rev 2, 10.04.10

_HS_SF

 [Enlarge Image](#)

Pemko's standard duty anodized aluminum Half Surface Safety continuous geared hinges are designed mainly for retrofit work in child care and nursing facilities and are applied to the exposed surface of the frame rabbet. Also available in heavy duty models.

- Designed for use with hollow metal frames, where the inset conforms to S.D.I. specifications for aligning doors and frames.
- Allows for adjustments in order to properly align the edge of the door to the frame.
- BL (Black Anodized) and PW (Painted White) are special finishes available upon request.
- Fasteners - Frame Portion - All fasteners are #12-24 x 7/16" FHUC, Type C, threadforming.
- Standard model: 16 fasteners required for each leaf.
- Wood screws available on request (specify on order).
- Fasteners - Door Portion - a. Thru-bolt - 1/4-20 x 1-5/8". - Standard Duty Hinges - 4 required. - b. Shoulder Bolt - 1/4-20 x 1" PCH. - Standard Duty Hinges - 4 required. - c. Pan Head Self Drilling #12 x 3/4". - Standard Duty Hinges - 6 required.
- Standard duty hinge. 6" between bearing centers.
- Standard duty hinges conform to Grade 3-150 and Grade 3-300 cycle requirements per BHMA standard ANSI/BHMA A156.26-2006.
- Aluminum continuous hinges for use on swinging type fire doors of the hollow metal, tin-clad, sheet metal and steel covered composite type rated up to 3 hours, wood covered composite type rated up to and including 1-1/2 hours. Also wood core rated up to and including 20 minutes without hose stream.
- PemkoHinge products are guaranteed for the life of the opening against defects in material or workmanship with the exception of AL, RS, standard duty and Grade 3 hinges, which carry a 10 year warranty.
- Weight bearing (per BHMA standard ANSI/BHMA A156.26-2006) for standard models: 63" and 65" = 14 bearings, door weight = 260 lbs.; 95" = 16 bearings, door weight = 320 lbs.; 120" = 20 bearings, door weight = 400 lbs.
- Width: 2" (50.8 mm) (between frame leaf and door leaf edge).
- Cap Width: 25/32" (19.8 mm).
- Height: 1-1/2" (38.1 mm) (frame edge side - leaf).



[Ratings Explained](#) | [View Finishes](#)

<input type="checkbox"/> CHSSF	C - Clear Anodized Aluminum
<input type="checkbox"/> DHSSF	D - Dark Bronze Anodized Aluminum
<input type="checkbox"/> GHSSF	G - Gold Anodized Aluminum, (Special Order Finish)
<input type="checkbox"/> BLHSSF	BL - Black Anodized Aluminum, (Special Order Finish)
<input type="checkbox"/> PWHSSF	PW - Painted White Aluminum, (Special Order Finish)
<input type="checkbox"/> SNHSSF	SN - Satin Nickel Anodized Aluminum, (Special Order Finish)

FINAL ABATEMENT REPORTS



DEQ
707 N. Robinson
Oklahoma City, OK 73101

April 6, 2015

Re: Documentation Close- Out – Pauls Valley Armory
Attn: Brittany Downs

CAP PO# 2929019321 and CAP Project # EN15004-03 for the Pauls Valley Armory Asbestos, LBP and Lead Dust Remediation has been completed. This letter certifies that all asbestos and lead cleaning/removal/disposal and new installation work has been completed according to the work scope specifications. All applicable documentation is included with this letter.

Asbestos

Remove /dispose by glovebag method 275 linear feet of pipe insulation and 20 fittings in Rooms 1,3,4,5,6,7,8,9,10,14, & 19.

Remove/dispose by OSHA Class II unit removal procedures 855 Linear Feet of window caulk/glazing on 19 windows in rooms 1,2,3 & 19.

All Asbestos waste was disposed of properly.

All asbestos removed TSI pipe insulation was sealed then Re-insulated with fiber glass type insulation after DOL inspection approval

LBP

Unit removal/disposal/recycle of 19 windows in Rooms 1,2,3 & 19

Unit removal/disposal/recycle of one basketball goal in Room 1 Main structure

Unit removal/disposal/recycle of 4 doors in Rooms 1,2,3 and main entrance 13

A TCLP test was performed on the bulk waste and it was determined to be acceptable to be disposed of as Construction debris waste.

All overhead garage door frames and facia, wood window frame in Room 3 Main structure and sliding door frame between rooms 13 & 13 Main structure were wet scraped and sealed with Fiberlock LBC Lead barrier.

The following items were wet scraped and painted with LBC lead lock
All interior and exterior metal window and door lintels
Gray ceiling panels and roof trusses in Room 2
The exterior Main entrance ceiling /porch roof
8 exterior bollards and edge protectors at the overhead doors
4 overhead doors and frames inside and exterior in Rooms 1 and 2

All floors in the structures were cleaned by HEPA vacuum and steam or wet mopped. The large floor in the Main building was power washed twice. All wash water collected was analyzed and disposed of properly. The large floor in the Main building was sealed with epoxy floor coating as specified.

All LBP vacuum waste, debris chips, wash water filters, mop heads, towels and other cleaning items were disposed of as Non-Hazardous Waste as a result of the TCLP test results.

New windows and doors were installed at the removal locations as specified.

Thank you for the opportunity to conduct the stated project. Please contact us when our services are needed again.

Respectfully,



Donald J. Nist - TEC-AN, Inc.

Post-it Fax Not:	TA 71	Date	# of pages
To	Bent	From	
Co/Dept.		Co.	
Phone #		Phone	
Fax #		Fax #	

Oklahoma Department of Labor

X Initial Notification

E



Revised Notification

O&M Notification

Lloyd L. Fields
Commissioner

ASBESTOS PROJECT CHECKLIST

NAME	ADDRESS	CITY	PHONE
Job Site	Pauls Valley National Guard Armory	1001 N. Ash Street	Pauls Valley, OK 405-702-5112
Contractor:	Tec-An, Inc.	2517 S. Purdue	Okc, OK 405-606-3022
Site Owner	St. of Oklahoma - DEQ	707 N. Robinson	Okc, Ok 405-521-5112
Gen. Contractor:			
Project Designer:	Enercon	6525 N. Meridian	Okc, OK 405-204-4500
Air Monitoring Firm:	Enercon	6525 N. Meridian	Okc, OK 405-204-4500
Air Monitoring Firm:			
Landfill:	WasteConnections	1600 SW 15th St	Okc, Ok 405-745-3091
Hauler:	TEC-AN, Inc.	2517 S. Purdue	Okc, OK 405-681-7076
MOBILIZATION DATE	12/1/2014	SCHEDULED DATE OF ASBESTOS REMOVAL:	12/8/2014
PROJECT COMPLETION DATE:	12/31/2014	RENOVATION:	X
		DEMOLITION:	EMER:
Type and percentage asbestos (attach lab reports):			
pipe insulation 10% chrysotile & 20% Amosite			
AMOUNT OF ASBESTOS TO BE ABATED:			
295 linear feet of pipe insulation			
ABATEMENT TECHNIQUES:			
Glovebag Removal			
SUBMITTALS NECESSARY BEFORE ABATEMENT MAY BEGIN, CHECK OFF <u>ONLY</u> THOSE ATTACHED TO THIS CHECKLIST OR WHICH ARE ON FILE AT THE OKLAHOMA STATE DEPARTMENTS OF LABOR.			
NESHAPS		Varances	
Project specifications		See Project Design	
Bonds and/or Insurance Certificates			
X	Plans for Decontamination Facilities		
X	Respirator Program		
	Employee Physicals		
	Permission from owner for all rented vehicles/trailers used to haul asbestos-containing material.		
	# of Mini-containments		
	100 Glovebags		
	1 # of Containments		
	1 # of Phases		
Comments:			

[Signature]
Contractor/Responsible Party Signature

Date

11/24/2014

EPA NOTIFICATION OF DEMOLITION OR RENOVATION

OFFICE USE ONLY: DATE RECEIVED: _____ **JOB / PERMIT / ID NUMBER** _____

I. FACILITY INFORMATION:

OWNER: State of Oklahoma - DEQ **PHONE NUMBER:** (405) 702-5112

STREET ADDRESS: 707 North Robinson **CITY:** Oklahoma City **STATE:** OK **ZIP:** 73101

FACILITY REPRESENTATIVE: Britty Downs **PHONE:** (405) 702-5112

ASBESTOS ABATEMENT CONTRACTOR: TEC-AN, Inc.

STREET ADDRESS: 2517 S. Purdue **CITY:** Oklahoma City **STATE:** Oklahoma **ZIP:** 73128

REPRESENTATIVE: Donald J. Nist **PHONE:** (405) 681-7076

PAGER: () NA **MOBILE PHONE:** (405) 740-7167

AIR MONITORING FIRM OR OTHER OPERATOR: Enercon

STREET ADDRESS: 6525 N. Meridian **City:** Oklahoma City **STATE:** OK **ZIP:** 73116

REPRESENTATIVE: Bill Muenker **PHONE:** (405) 204-4500

II. TYPE OF NOTIFICATION: (O = ORIGINAL) OR (R = REVISED) O

III. TYPE OF OPERATION: (D = DEMOLITION) (R = RENOVATION) (ER = EMERGENCY RENOVATION): R

IV. IS ASBESTOS CONTAINING MATERIAL (ACM) PRESENT ? YES X NO _____ DON'T KNOW: _____

V. FACILITY / BUILDING DESCRIPTION (BE SPECIFIC AND DETAILED AS TO NAME, # FLOORS, EXACT ACM LOCATION, ROOM NUMBERS, ETC.)

FACILITY: Pauls Valloey National Guard Armory **ADDRESS:** 1001 N. Ash Street

CITY: Pauls Valley **STATE:** OK **ZIP CODE:** 73075 **COUNTY:** Garvin

WHERE IS ACM LOCATED? In the pipe insulation, in the transite roof panels and in some window caulking

BUILDING SIZE: SQ. FT.: 10,000 **AGE:** 65 YRS. **# FLOORS:** 1

PRESENT USE: Vacant **PREVIOUS USE:** National Guard Armory

VI. PROCEDURES USED TO DETERMINE PRESENCE OF ACM INCLUDING ANALYTICAL METHODS :

Bulk sampling utilizing OSHA protocol and PLM analysis

Page 1 of 3

NAME OF EPA ACCREDITED INSPECTOR WHO PERFORMED INSPECTION AND SAMPLING INCLUDING AFFILIATION AND OKLAHOMA DOL LICENSE NUMBER:

Bill Muenker OK-MP- 130435

EPA NOTIFICATION OF DEMOLITION OR RENOVATION CONTINUED

VII. AMOUNTS OF REGULATED ASBESTOS CONTAINING MATERIAL (RACM) TO BE REMOVED; ALSO AMOUNTS OF CATEGORY I OR II MATERIALS WHICH WILL / WILL NOT BE REMOVED (circle one):

TSI Material – 295 linear feet

Surfacing Material: Square Feet: _____

CATEGORY - - SQ. FT. ; CATEGORY II – 5700 square feet 855 Linear Ft.

VIII. SCHEDULED DATES OF ASBESTOS REMOVAL: START: December 8, 2014 FINISH: December 15, 2014

IX. SCHEDULED DATES OF DEMO / RENO: START: December 1, 2014 FINISH: December 31, 2014

X. DESCRIPTION OF THE PLANNED ASBESTOS REMOVAL TECHNIQUES TO BE EMPLOYED (e.g. gross removal, glove bagging, manual scrape, etc.)

The pipe insulation will be removed using glove bag techniques, and the window caulking will be removed under OSHA Class II unit removal techniques.

XI. DESCRIPTION OF THE CONTROLS AND WORK PRACTICES TO BE USED TO PREVENT ASBESTOS FIBER EMISSIONS (e.g. full containment with negative pressure, adequate wetting):

Decontamination unit, poly drop cloth, critical barriers, HEPA Filtration, glovebag removal.

XII. LICENSED ASBESTOS WASTE TRANSPORTER: TEC-AN, Inc.

ADDRESS: 2517 S. Purdue Ave. CITY: Okla. City STATE: OK ZIP: 73128

REPRESENTATIVE: Donald J. Nist PHONE: (405) 681-7076

XIII. STATE PERMITTED ASBESTOS WASTE DISPOSAL SITE: Waste Connections

ADDRESS: 7600 SW 15th Street CITY: Oklahoma City STATE: OK ZIP: 73128

REPRESENTATIVE: Bryan PHONE: (405) 745-3002

XIV. IS DEMOLITION IS ORDERED BY A GOVERNMENT AGENCY? YES: _____ NO: X

NAME OF AGENCY: _____ REPRESENTATIVE: _____

DATE OF ORDER: _____ DATE DEMOLITION IS TO START: _____

XV. IS THIS RENOVATION REQUIRED DUE TO AN EMERGENCY? YES: _____ NO: X

DATE OF EMERGENCY: _____ HOUR OF DAY EMERGENCY OCCURRED: _____

DESCRIPTION OF THE SUDDEN, UNEXPECTED EVENT CAUSING THE EMERGENCY: NA

EXPLANATION OF HOW THIS CAUSED 1) UNSAFE CONDITIONS; 2) SERIOUS DISRUPTION OF NORMAL BUILDING OPERATIONS; AND/OR 3) IMPOSES AN UNREASONABLE FINANCIAL BURDEN? (be specific and detailed):

NA

EPA NOTIFICATION OF DEMOLITION OR RENOVATION CONTINUED

XVI. DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NON-FRIABLE ASBESTOS BECOMES FRIABLE (crumbled, pulverized, abraded, or reduced to powder, etc.):

Stop work, sample/analyze material using PLM, revise notification, and utilize approved removal techniques.

XVII. I CERTIFY THAT AN INDIVIDUAL TRAINED IN THE PROVISIONS OF THIS REGULATION (40 CFR, PART 61, SUBPART M - NESHAP) WILL BE ON SITE DURING THE DEMOLITION OR RENOVATION AND EVIDENCE OF HIS/HER TRAINING AND CERTIFICATION / LICENSING WILL BE AVAILABLE (OR BE POSTED) FOR INSPECTION DURING BUSINESS HOURS:

SIGNATURE OF OWNER / OPERATOR:  DATE: November 24, 2013

PRINTED NAME: Donald J. Nist

XVIII. I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT TO THE BEST OF MY KNOWLEDGE:

SIGNATURE OF OWNER / OPERATOR:  DATE: November 24, 2013

PRINTED NAME: Donald J. Nist

DEFINITION: OWNER OR OPERATOR: Any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises the demolition or renovation, or both.

ADDITIONAL COMMENTS: _____

EPA NESHAP AUTHORITY: OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Quality Div., 707 N. Robinson, P.O. Box 1677
OKC, OK 73101-1677 or
Tulsa Regional Office, 5051 S. 129th E. Ave., Tulsa, OK 74134-2842

NOTE: Please submit your Notification to the DEQ office closer to your job site.



Notice of Inspection
Oklahoma Department of Labor
Mark Costello, Commissioner
 www.labor.ok.gov

Oklahoma City
 3017 N. Stiles, Suite 100
 Oklahoma City, OK 73105
 405-521-6464
 888-269-5353
 Fax 405-521-6025

Tulsa
 440 South Houston, Suite 300
 Tulsa, OK 74127
 918-581-2400
 Fax 918-581-2431

1. INVESTIGATION IDENTIFICATION			2. TIME	3. COMPANY NAME
DATE	INSPECTOR NO.	DAILY SEQ NO.	950	Tec An
12-04-14	19	001		
3. INSPECTOR ADDRESS			4. COMPANY ADDRESS	
3017 N. Stiles OKC, OK 73105			2517 S. Purdue OKC, OK	

REASON FOR INSPECTION

Under the authority of Section 11 of the Toxic Substances Control Act:

For the purpose of inspecting (including taking samples, photographs, statements and other inspection activities) an establishment, facility or other premises in which chemical substances or mixtures or articles containing same are manufactured, processed or stored, or held before or after their distribution in commerce (including records, files, papers, processes, controls, and facilities) and any conveyance being used to transport chemical substances, mixtures or articles containing same in connection with their distribution in commerce (including records, files, papers, processes, controls and facilities) bearing on whether the requirements of the Act applicable to the chemical substances, mixtures or articles within or associated with such premises or conveyance have been complied with.

In addition, this inspection extends to (check appropriate boxes):

- A. Financial data
- B. Sales data
- C. Pricing data
- D. Personnel data (40 CFR Part 763 Subpart E)
- E. Research data

The nature and extent of inspection of such data specified in A through E above is as follows:

To verify licensure of asbestos workers, supervisors and air technician on the Pault Valley National Guard Armory project.

CERTIFICATION

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

INSPECTOR SIGNATURE		RECIPIENT SIGNATURE	
<i>Clark Powell</i>		<i>Ricky Bell</i>	
NAME		NAME	
Clark Powell		Ricky Bell	
TITLE	DATE SIGNED	TITLE	DATE SIGNED
Inspector	12-04-14	Supervisor	12-04-14



Oklahoma Department of Labor
Mark Costello, Commissioner
www.labor.ok.gov

Oklahoma City
3017 North Snow, Suite 100
Oklahoma City, OK 73105
405-521-5448
888-269-3833
Fax 405-521-6025

Abatement Preparation Inspection Form

Abatement Project: 10000 South Valley Primary
Project No.: _____
Project Address/Location: 10000 N. 9th Street
Contractor: Tec 9m
Project Phone No.: 405-212-5112
Project Owner: ODOL

Date: 12-04-17 Time: 10:00
Phase: Pre-Abatement
City: South Valley Zip: _____
Contact Person: Ricky Bell
Contractor's Home/Office Phone No: _____
Owner's Rep.: _____

A = Acceptable
D = Denied; must be correct and re-inspected before asbestos removal is begun.
N/A = Not applicable to this project.

X = Deficiencies which must be corrected before asbestos removal begins. If the only deficiencies are the "X" type, after correction, asbestos abatement may begin.
Beginning asbestos removal before the deficiencies are correct shall constitute a Serious Violation.

	A	D	N/A	X		A	D	N/A	X		A	D	N/A	X
(1) Work site barriers and warning signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(21) Extension cords in acceptable condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(39) Make-up air sources provide adequate circulation and air cleaning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) Toilet facilities provided	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(22) Equipment properly grounded	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(40) Access controlled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3) Worker licenses	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(23) Tension relief on electric cords	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(41) Scaffolding over 10' high has 42" siderails and 4" toeboards	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(4) Emergency telephone #'s	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(24) De-con firmly constructed, opaque, with triple flaps	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(42) Scaffolding from 4' to 10' high, but less than 42" wide, has side rails	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(5) OSHA forms, poster (min. wage, workers comp, equal opportunity)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(25) De-con trailers properly grounded	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(43) Scaffolding with people working under has mesh or solid barrier on platform	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(6) Air mon. results from prior phases, if applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(26) Storage lockers for workers and ODOL inspectors' street clothes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(44) Scaffolding floorboards in good condition and secured	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(7) Respirator program and project design on-site	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(27) Shower with hot water supply, stable nonskid surface, lights	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(45) Aerial lifts have full-body harness with shock lanyards	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(8) Respirator, air system and equipment manuals	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(28) Shower drains, filter, proper water disposal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(46) Ladders are non-conducting and stable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(9) Compressor does not discharge oil	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(29) Soap from dispenser, and towels provided	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(47) Heat stress monitors in place	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(10) CO monitor, high temp and low pressure alarm tested on-site	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(30) Hearing protection provided if required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(48) HEPA vacuum is clean with filters properly installed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(11) Cascade system secure and certificate of air quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(31) Hard hats provided, if required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(49) Temporary lighting is adequate and properly wired and grounded	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(12) Automatic back-up air of proper quantity in full-containers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(32) Appropriate footwear/safety shoes provided, if required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(50) 10 # ABC fire extinguishers inspected	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(13) Bull hoses and respirators free of oil residue	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(33) Electrical system in abatement area locked out / tagged out	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(51) Adequate escape routes are properly marked and illuminated with emergency lighting and battery back-up	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(14) In-line pressure gauge at manifold	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(34) Ventilation serving or passing through the abatement area deactivated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(52) Acceptable amended water sprayers and chemicals provided	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(15) NIOSH-approved respirators, clean, parts in working order	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(35) Critical barriers in place	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(53) Load-out sealed unless needed for make-up air	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(16) Electrical panel outside work area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(36) Neg. air quantity and pressure drop confirmed on-site with recording manometer	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(54) Disposal bags and/or barrels provided and properly labeled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(17) Temporary wiring installed by licensed electrician	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(37) Neg. air machine(s) have properly installed filters, clean pre-filters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(55) Disposal vehicle properly lined	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(18) Temporary panel boards properly grounded	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(38) Prep. work secure with negative air on	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(56) Disposal vehicle properly tagged and marked	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(19) Ground fault interruption provided from outside work area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						(57) Area monitoring locations identified	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(20) Live electrical requirement met	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>										

47 # OF GLOVEBAGS # OF FULL CONTAINMENTS # OF MINI CONTAINMENTS

Recommendation & Remarks: Prep accepted so abatement can proceed

Orders: [Signature] Inspector's Signature [Signature] Contractor's or Representative's Signature

Oklahoma Department of Labor
Mark Costello, Commissioner
Asbestos Division

3017 North Stiles, Suite 100
 Oklahoma City, OK 73105
 (405-521-6464) FAX (405-521-6025)



Visual/Final Inspection Form

DOL Project #:	_____	12	08	14	1015
Facility:	WFO Park Valley Energy	Month	Day	Year	Time
Contractor #:	_____	County #:	_____	FY #:	15
Address/Location:	1711 N. A. Street	Address City:	Park Valley	_____	
Owner/Occupant:	WFO	Contractor:	TEC AM	_____	
Contact Name:	_____	Contractor's Rep.:	Ricky Bell	_____	
Facility Phone #:	(214) 222-5112	Contractor's Phone #:	(405) 606-3022	_____	

1. Description of Area: low bag removal of pipe insulation

2. Areas requiring further cleaning: None

3. Air Counts (PCM/TEM) On-Site?: 5 PCM & 2 TEM samples accepted

4. DOL Recommendations: remove all poly & dispose

5. Will a FINAL Inspection be required?: This is final

6. Notes: Visual Accepted - Final Accepted when poly is removed & project is complete.

7. Note any violations cited: 380:50-

8. Contractor's Comments: _____

[Signature]
 Inspector's Signature

[Signature]
 Contractor's Signature

Project

Job location. Pauls Valley Army
Owner National Guard Army

This is to Certify that I have personally performed, supervised and or verified the following electrical work to accommodate the above referenced project. GFI board was hooked up and all power in building was cut off.

* Mark ~~Jensen~~ lic number OK 3660

Enercon Services, Inc.
 6525 N. Meridian, Suite 400
 Oklahoma City, OK 73116
 Phone: 405-722-7883
 Fax: 405-722-7884
 www.enercon.com



Project: PAULSVALLEY ARMORY

Pump Number	Sample Number	Date Sampled	Time 1 On-Off	Time 2 On-Off	Collection Information	25 mm		PF = Fiber Count	Field of View =	Fiber Density	Fibers Per CC	Det. Limit	OF LCL	UCL
						Flow Rate (L/M)	Post. Avg.							
	1	12/4/14	-	-	BLANK	0	0.00	0.0	0	0.000	NA	NA	NA	1
	2	12/4/14	-	-	BLANK	0	0.00	0.0	0	0.000	NA	NA	NA	1
667		12/4/14	10:30 AM - 5:30 PM	-	CLINTON MATTHEWS (400485) GLOVEBAG REMOVAL	2.00	2.00	4.0	420	5.086	BDL	0.004	0.001	0.004
656		12/4/14	10:30 AM - 5:30 PM	-	BRANDON COURSEY (401148) GLOVEBAG REMOVAL	2.00	1.85	2.5	420	3.185	BDL	0.004	0.001	0.004
3648		12/4/14	10:32 AM - 5:30 PM	-	INSIDE AREA NORTH ROOMS	2.00	1.90	3.0	418	3.822	BDL	0.004	0.001	0.004
535		12/4/14	10:32 AM - 5:30 PM	-	INSIDE AREA CENTRAL CONF ROOM	2.00	2.00	6.0	418	8.843	BDL	0.004	0.001	0.004
538		12/4/14	10:35 AM - 5:30 PM	-	GLOVEBAG REMOVAL CONTAINMENT EXIT	2.00	1.95	2.0	415	809.3	BDL	0.004	0.001	0.004
661		12/4/14	10:40 AM - 5:30 PM	-	EXTERIOR OF POP-UP	2.00	2.00	2.0	410	820.0	BDL	0.004	0.001	0.004
536		12/4/14	10:35 AM - 5:30 PM	-	DECON NEG AIR EXHAUST (INT VENT) INSIDE CONT. MAIN HALL CLEAN ROOM	2.00	2.00	3.0	415	830.0	BDL	0.004	0.001	0.004
662		12/4/14	4:34 PM - 5:30 PM	-	INSIDE LOAD OUT LOAD OUT PATH SOUTH EXIT	2.00	2.00	2.0	58	112.0	BDL	0.031	0.005	0.031

I hereby certify that the above samples were collected and analyzed in compliance with applicable standards and regulations.

Vincent Colbert
 AM Technician
 Location: 1001 ASH RD PAULS VALLEY, OK
 Contractor: TEC-AN
 Project Number: ASBT81417

ANALYST PARTICIPATING IN LAB AHA-151368
 MC = Not Counted. Reasons: 1. Overfeed; 2. Damaged Filter; 3. Pump Failure; 4. Missing Filter
 Rotometer Number: MF-1
 Calibration Date: 12/3/14

7/1/2010
 REV 1

Enercon Services, Inc.
 6525 N. Meridian, Suite 400
 Oklahoma City, OK 73116
 Phone: 405-722-7693
 Fax: 405-722-7694
 www.enercon.com



Project: PAULSVALLEYARMORY

Pump Number	Sample Number	Date Sampled	Time 1 On-Off	Time 2 On-Off	Collection Information	T Case Dia = 25 mm		PF =	Field of View =		Fibers Per CC	Pg. 1	OF LCL	UCL
						Para Exp.	Flow Rate (L/M)		Pre	Post				
	11	12/5/14	-	-	BLANK	0	0	0.00	0	0	0.000	NA	NA	NA
	12	12/5/14	-	-	BLANK	0	0	0.00	0	0	0.000	NA	NA	NA
667		12/5/14	8:00 AM 10:00 AM	-	BRANDON COURSEY (401148) FINAL CLEAN	<0.01	2.00	2.00	120	240.0	2.548	BDL	0.014	0.014
654		12/5/14	8:00 AM 10:00 AM	-	JOHNQUELLIOUS BANKS (400382) FINAL CLEAN	<0.01	2.00	2.00	120	240.0	5.986	BDL	0.014	0.014
3053		12/5/14	8:02 AM 10:00 AM	-	INSIDE AREA NORTH ROOM FINAL CLEAN	A	2.00	1.95	118	230.1	2.548	BDL	0.015	0.015
535		12/5/14	8:02 AM 10:00 AM	-	INSIDE AREA SOUTH WEST ROOM FINAL CLEAN	A	2.00	1.90	115	218.5	3.822	BDL	0.016	0.016
538		12/5/14	8:00 AM 10:00 AM	-	CONTAINMENT EXIT EXTERIOR OF POP-UP	A	2.00	2.00	120	240.0	1.911	BDL	0.014	0.014
661		12/5/14	8:02 AM 10:00 AM	-	DECON NEG AIR EXHAUST (INT VENT) INSIDE CONT. MAIN HALL	A	2.00	1.90	118	230.1	1.274	BDL	0.015	0.015
536		12/5/14	8:10 AM 10:00 AM	-	CLEAN ROOM INSIDE	A	2.00	2.00	110	220.0	2.548	BDL	0.016	0.016
661		12/5/14	8:10 AM 10:00 AM	-	LOAD OUT LOAD OUT PATH SOUTH EXIT	A	2.00	2.00	50	100.0	3.822	BDL	0.034	0.034

I hereby certify that the above samples were collected and analyzed in compliance with applicable standards and regulations.

Vincent Colbert
 AM Technician:

Vincent Colbert
 Location: 1001 ASH RD PAULS VALLEY, OK
 Contractor: TEC-AN
 Project Number: ASBTS1417

ANALYST PARTICIPATING IN LAB AHA-151368
 NC = Not Counted. Reasons: 1. Overload; 2. Damaged Filter; 3. Pump Failure; 4. Missing Filter
 Robometer Number: MF-1
 Calibration Date: 12/3/14

NIOSH 7400 METHOD
 7/1/2010
 REV 1

Enercon Services, Inc.
 6525 N. Meridian, Suite 400
 Oklahoma City, OK 73116
 Phone: 405-722-7693
 Fax: 405-722-7694
 www.enercon.com



Excelsior — Every project, every day.

Project: PAULSVALLEYARMORY

Pump Number	Sample Number	Date Sampled	Time 1 On-Off	Time 2 On-Off	Collection Information	25 mm.			PF =	Field of View =	Fiber Density	Fiber Per CC	Dist. Limit	OF	UCL
						Flow Rate (L/M)	Pre	Post							
	21	12/5/14			BLANK	0	0	0.00	0.0	0.0	0.000	NA	NA	NA	1
	22	12/5/14			BLANK	0	0	0.00	0.0	0.0	0.000	NA	NA	NA	1
HV1008		12/5/14	10:00 AM 12:00 PM		CLEARANCE NORTH END	10.00	10.00	10.00	2.0	1200.0	2.548	BDL	0.003	0.001	0.003
HV377		12/5/14	10:00 AM 12:00 PM		CLEARANCE CONFERENCE ROOM	10.00	10.00	10.00	4.0	1200.0	6.088	BDL	0.003	0.001	0.003
HV1012		12/5/14	9:55 AM 12:00 PM		CLEARANCE SOUTH BATHROOM	10.00	10.00	10.00	2.0	1250.0	2.548	BDL	0.003	0.000	0.003
HV378		12/5/14	10:05 AM 12:05 PM		CLEARANCE SOUTH EAST ROOM	10.00	10.00	10.00	3.0	1200.0	3.822	BDL	0.003	0.001	0.003
HV182		12/5/14	10:10 AM 12:10 PM		CLEARANCE MAIN HALL NEAR SOUTH EXIT	10.00	10.00	10.00	1.5	1200.0	1.811	BDL	0.003	0.000	0.003

I hereby certify that the above samples were collected and analyzed in compliance with applicable standards and regulations.

Vincent Colbert
 Vincent Colbert
 1001 ASH RD PAULS VALLEY, OK
 TEC-AN
 ASBTS 1417

ANALYST PARTICIPATING IN LAB AHA-151388
 NC = Not Counted. Reasons: 1. Overload; 2. Damaged Filter; 3. Pump Failure; 4. Missing Filter
 Robometer Number: MF-1
 Calibration Date: 12/8/14

7/12/010
 REV 1

Oklahoma Department of Labor



Mark Costello
COMMISSIONER OF LABOR

December 18, 2014

TEC-AN Inc
2517 South Purdue
Oklahoma City, OK 73128

Under the authority of Title 40, Sections 450 and 456, Oklahoma Statutes as Amended, the Oklahoma State Department of Labor has determined that the asbestos abatement project consisting of:

_____ 3 cubic yards of ACM
_____ cubic feet of ACM
_____ square feet of ACM
_____ 855 linear feet of ACM:

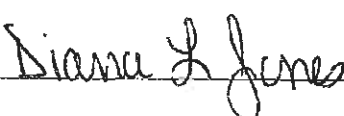
At: ODEQ-Pauls Valley Armory
Owned by: Department of Environmental Quality
Start Date: 12/4/2014 End Date: 12/8/2014
Project No: 20116543

has been completed in accordance with the Rules for Abatement of Friable Asbestos Materials.

Inspector and Supervisor have reviewed the project documentation, and recommend acceptance and closure of the project file.

Inspector  Date 1-5-15

Supervisor  Date 1/6/15

Director  Date 1-6-15

West Recycling

900 N. Villa
Oklahoma City, OK 73107
405-525-0991 Phone /
405-525-3312 Fax
JOHN LEWIS HICKS
EDMOND, OK 73034-0

Driver's Lic: *****OR

Ticket No.

91577

Date: 12/18/14 9:28 am

LICENSE:

- "M" Manually Entered Weight
- "S" Scale Scaled Weight
- "A" Automatic Tare Weight

*Ames
Haley
Ames
1409-16*

Tracking ID WHITE TRAILA

Item	Gross	Tare	Net
Price			Total

Mixed Iron / Tin

14,100.0 ^S	1,000.0 ^S	13,100.0
\$7.000 CWT		

Plastic was found. Weight
Adjusted by 400.0

Total

Payment

Ownership: I hereby affirm
under penalty of prosecution
that I am the rightful owner of
the herein described
merchandise; Or I am an
authorized representative of
the rightful owner to sell the
herein described merchandise and
that for payment received in
full, hereby acknowledged, I
sell and convey title of same
to WEST RECYCLING
Thank You for your Business
Please Come Again
We will be closed July 4th
2014.

John Lewis Hicks

X

Please Sign Here:
For Favor First Agil:



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 800.822.1650

Environmental Chemistry Analysis Report

QuantEM Set ID: 246029
Date Received: 01/29/15
Received By: Judy Rowan
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 2/3/2015

Client: Enercon Services, Inc.
 1601 Northwest Expressway
 Suite 1000
 Oklahoma City, OK 73118

Acct. No.: A845

Project: Pauls Valley Armory Confirmation Samples
Location: 1001 N Ash, Paul Valley OK
Project No.: N/a

AIHA ID: 101352

QuantEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	PVC-1-1	Wipe	Lead	13.7	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
002	PVC-1-2	Wipe	Lead	12.2	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
003	PVC-1-3	Wipe	Lead	<9.00	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
004	PVC-1-4	Wipe	Lead	19.1	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
005	PVC-1-5	Wipe	Lead	19.5	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
006	PVC-1-6	Wipe	Lead	36.7	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
007	PVC-1A-1	Wipe	Lead	<9.00	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
008	PVC-1A-2	Wipe	Lead	<9.00	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
009	PVC-1A-3	Wipe	Lead	<9.00	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
010	PVC-2-1	Wipe	Lead	30.7	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
011	PVC-2-2	Wipe	Lead	101	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
012	PVC-2-3	Wipe	Lead	115	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
013	PVC-3-1	Wipe	Lead	35.9	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
014	PVC-3-2	Wipe	Lead	73.8	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
015	PVC-3-3	Wipe	Lead	44.1	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
016	PVC-4-1	Wipe	Lead	20.6	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
017	PVC-4-2	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100

Note: Sample results have not been corrected for blank values.

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Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 : 1.800.822.1650

Environmental Chemistry Analysis Report

Quantem Set ID: 246029
Date Received: 01/29/15
Received By: Judy Rowan
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 2/3/2015

Client: Enercon Services, Inc.
 1601 Northwest Expressway
 Suite 1000
 Oklahoma City, OK 73118

Acct. No.: A845

Project: Pauls Valley Armory Confirmation Samples
Location: 1001 N Ash, Paul Valley OK
Project No.: N/a

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
018	PVC-4-3	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
019	PVC-14-1	Wipe	Lead	36.5	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
020	PVC-14-2	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
021	PVC-14-3	Wipe	Lead	31.1	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
022	PVC-14-4	Wipe	Lead	36.4	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
023	PVC-14-5	Wipe	Lead	30.8	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
024	PVC-14-6	Wipe	Lead	32.5	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
025	PVC-18-1	Wipe	Lead	13.2	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
026	PVC-18-2	Wipe	Lead	9.04	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
027	PVC-18-3	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
028	PVC-19-1	Wipe	Lead	30.5	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
029	PVC-19-2	Wipe	Lead	9.07	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
030	PVC-19-3	Wipe	Lead	12.3	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100

Note: Sample results have not been corrected for blank values.

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EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified



LEAD CHAIN OF CUSTODY

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502
 (800) 822-1650 • (405) 755-7272 • Fax: (405) 755-2058

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LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

Contact Information Company: <u>AMERICAN SERVICES, INC.</u> Contact: <u>C. PACE</u> Account #: _____		Project Information Project Name: <u>PAINT MILEY HOUSE CENTER</u> Project Location: <u>1801 N. 44th, Oklahoma City, OK</u> Project ID: _____	
Sampled By: <u>E. PACE</u> Name: <u>E. PACE</u> Date: <u>1/28/15</u>		Report Results: <input checked="" type="checkbox"/> One box <input type="checkbox"/> Other <u>5 boxes</u>	
RELINQUISHED BY: <u>E. PACE</u> DATE & TIME: <u>1/28/15</u> VIA: <u>Hand</u>		RECEIVED BY: <u>Judy Ross</u> DATE & TIME: <u>1/28/15 10:15</u>	

For Lab Use Only
 Lab No. 246029
 Accept Reject

REQUESTED SERVICES (Please the Appropriate Boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis	Units (<input checked="" type="checkbox"/> ONE box only)					Sample Matrix Codes
							Pb	Pb	Pb	Pb	Pb	
							mg / l	µg / ft ²	µg / m ²	mg / cm ²		
1	1A-1	Room 1 Floor										
2	1A-2											
3	1A-3											
4	1A-4											
5	1A-5											
6	1A-6											
7	1A-1	Room 1A										
8	1A-2											
9	1A-3											
10	1A-1	Room 2										
11	1A-2											
12	1A-3											

TURNAROUND TIME	
Same Day	
24 - Hour	
3 - Day	<input checked="" type="checkbox"/>
5 - Day	



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For Lab Use Only:
 Lab No. 246029
 Accept Reject

Project Information
 Company: ANTHONY SERVICES, INC Project Name: PAULS WALKER BOUNDARY Project Location: 1001 N 10th, PAULS WALKER, OK

REQUESTED SERVICES (Please the Appropriate Boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume/Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis					Sample Matrix Codes	
						PPM	Wt %	mg/l	µg/ft ²	µg/m ³		mg/cm ²
13	13C-3-1	Room 3 Floor										
14	3-2											
15	3-3											
16	4-1	Room 4										
17	4-2											
18	4-3											
19	14-1	Room 14										
20	14-2											
21	14-3											
22	14-4											
23	14-5											
24	14-6											
25	16-1	Room 16										
26	16-2											
27	16-3											
28	19-1	Room 19										
29	19-2											
30	19-3											

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-8517 • Mark Package "Hold for Saturday Pickup"



ED
PACK
CALL
414-5303

2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Environmental Chemistry Analysis Report

Quantem Set ID: 246585
Date Received: 02/13/15
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 2/16/2015

Client: Enercon Services, Inc.
1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118
Acct. No.: A845
Project: Pauls Valley Armory Conf. Sampl.
Location: 1001 N. Ash, Pauls Valley, OK
Project No.: N/A

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	PVC2-2-1	Wipe	Lead	23.5	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100
002	PVC2-2-2	Wipe	Lead	120	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100
003	PVC2-2-3	Wipe	Lead	49.0	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100
004	PVC2-3-1	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100
005	PVC2-3-2	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100
006	PVC2-3-3	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100

Authorized Signature: _____

Carter Cox, Laboratory Technician

Note: Sample results have not been corrected for blank values.

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EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified



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LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

Company: ENERCON SERVICES, INC Contact: E. Pack Account #: Sampled By: E. Pack		Contact Information: Phone: (405) 722-7693 Cell Phone: (405) 414-5303 E-mail: epack@enercon.com		Project Information: Project Name: PAULS VALLEY ARMORY ONE SHIRT Project Location: 1001 N. ASH, PAULS VALLEY, OK Project ID:	
RELINQUISHED BY: E. Pack		DATE & TIME: 4/19/15		VIA: Hand	
RECEIVED BY: Judy FLEWEN		DATE & TIME: 3/13/14 9:40		Sample Matrix Codes: A Soil B Paint Chips C Surface / Dust Wipes D Bulk Miscellaneous E Air Cassette	

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (Per matrix code box)	Analysis					Sample Matrix Code		
						PPM	Wt %	mg / l	µg / ft ²	µg / m ²		mg / cm ²	
1	PVC2-2-1	Floor Rm. 2		1 SF	C								
2	-2-2				C								
3	-2-3				C								
4	PVC2-3-1	Rm. 3			C								
5	-3-2				C								
6	-3-3				C								
7													
8													
9													
10													
11													
12													

TURNAROUND TIME	
Same Day	
24 - Hour	✓
3 - Day	
5 - Day	

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 42.0 N. Santa Fe Ave., Oklahoma City, OK 73105-8317 • Mark Package "Hold for Saturday Pickup"



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Environmental Chemistry Analysis Report

Quantem Set ID: 246888
Date Received: 02/24/15
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 2/26/2015

Client: Enercon Services, Inc.
1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118
Acct. No.: A845
Project: Pauls Valley Armory Conf. Samp.
Location: N/A
Project No.: N/A

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	PVC3-2-1	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/25/15 15:00	W NIOSH 9100
002	PVC3-2-2	Wipe	Lead	9.84	9	ug/sq. Ft.	02/25/15 15:00	W NIOSH 9100
003	PVC3-2-3	Wipe	Lead	12.7	9	ug/sq. Ft.	02/25/15 15:00	W NIOSH 9100

Authorized Signature: _____

Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

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EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified

LEAD CHAIN OF CUSTODY

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 (800) 822-1650 • (405) 755-7272 • Fax: (405) 755-2038

www.QuantEM.com

LEGAL DOCUMENT - PLEASE PRINT LEGIBLY

Company: EMERSON SERVICES, INC Contact: C. PACK Account #:		Project Name: PAULS VALLEY HIGHWAY CONSTRUCTION Project Location:	
Contact Information Name: C. PACK Phone: 405 414 5303 Cell Phone: E-mail: cpack@emerson.com		Project Information Report Results <input checked="" type="checkbox"/> one box <input checked="" type="checkbox"/> QuantEM Website <input checked="" type="checkbox"/> Other	
Sampled By: C. PACK Name: C. PACK Date: 2/24/15		RECEIVED BY: JUDY RAWAN DATE & TIME: 2/24/15 9:20	

Relinquished By: C. PACK Date & Time: 2/24/15	Received By: JUDY RAWAN Date & Time: 2/24/15 9:20
--	--

REQUESTED SERVICES: (Please the Appropriate Boxes)

No.	Sample ID (10 Character's Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis					Sample Matrix Codes	
						PPM	Wt %	mg / l	µg / ft ²	µg / m ²		mg / cm ²
1	PVC3-2-1	FLOOR - Rm 2	1.8 ft ³		C							A
2	-2				C							B
3	-3				C							C
4												D
5												E
6												
7												
8												
9												
10												
11												
12												

TURNAROUND TIME Same Day 24 - Hour <input checked="" type="checkbox"/> 3 - Day 5 - Day	
--	--

SATURDAY SAMPLE DELIVERY - CALL TO SCHEDULE • Use this address for Saturday Delivery only: 4220 N. Santa Fe Ave., Oklahoma City, OK 73105-9517 • Mark Package "Hold for Saturday Pickup"



ENVIRONMENTAL TESTING, INC.

4619 N. Santa Fe
Oklahoma City, OK 73118
405.488.2400 Phone
405.488.2404 Fax
www.etilab.com

Tec-An Inc. 2517 S. Purdue Ave. Oklahoma City OK, 73128	Project: Pauls Valley Armory Project Number: 1409-16 Project Manager: Mr. Don Nist	Reported: 03/03/15 11:11
---	--	-----------------------------

02- Waste Water

ESB0385-02 (Aqueous) - Sampled: 02/24/15 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Qualifiers
---------	--------	-----------------	-------	----------	-------	---------	----------	--------	------------

Environmental Testing, Inc.

Conventional Chemistry Parameters by Standard Methods

Phosphorus (total)	990	150	mg/L	1000	EDC0006	MKB	03/02/15 11:55	SM 4500-P B 5	
--------------------	-----	-----	------	------	---------	-----	----------------	---------------	--

Metals by EPA 200 Series Methods

Lead	0.854	0.0100	mg/L	1	EDB0515	LSB	02/27/15 10:30	EPA 200.7	
Metals Digestion	Completed		N/A		EDB0515	LSB	02/26/15 16:25	EPA 200.7	

Environmental Testing, Inc.

Russell Britten, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document and meet all laboratory accreditation requirements unless noted otherwise. This analytical report must be reproduced in its entirety.



ENVIRONMENTAL TESTING, INC.

4619 N. Santa Fe
Oklahoma City, OK 73118
405.488.2400 Phone
405.488.2404 Fax
www.etilab.com

Tec-An Inc.
2517 S. Purdue Ave.
Oklahoma City OK, 73128

Project: Pauls Valley Armory
Project Number: 1409-16
Project Manager: Mr. Don Nist

Reported:
03/03/15 11:11

01- Rags, Mops, PPE, Paint Chips, Poly, Tape
ESB0385-01 (Solid) - Sampled: 02/24/15 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Qualifiers
---------	--------	-----------------	-------	----------	-------	---------	----------	--------	------------

Environmental Testing, Inc.

TCLP Extraction by EPA 1311

TCLP Extraction	Completed		N/A		EDB0522	LSB	02/26/15 16:00	EPA 1311	
-----------------	-----------	--	-----	--	---------	-----	----------------	----------	--

TCLP Metals by 6000/7000 Series Methods

Lead	0.965	0.100	mg/L		EDB0524	LSB	03/02/15 12:47	EPA 6010C	
Metals Digestion	Completed		N/A		EDB0524	LSB	02/27/15 10:10	EPA 3010A	

Environmental Testing, Inc.

Russell Britten, President

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ENVIRONMENTAL TESTING, INC.

4619 NORTH SANTA FE AVE.
OKLAHOMA CITY, OK 73118
(405) 488-2400
FAX: (405) 488-2404



CHAIN OF CUSTODY RECORD

PAGE: 1 OF 1

SAMPLE SERIES # 15180815

SHADDED AREAS FOR LABORATORY USE ONLY

COMPANY: TEZ-AV, INC.
ADDRESS: 2517 S. PARKWAY AVE
OKLA. CITY, OK
PHONE #: 405-681-7676
EMAIL: DORRIST@TEZ-AV.COM
P.O. #: _____
CLIENT CONTACT: BOB NIST
PROJECT #: 1409-16 /MANAGER:
SITE LOCATION: Davis Valley Ramsey

- SAMPLE TYPE
1. WATER
 2. SOIL
 3. SLUDGE
 4. OIL
 5. OTHER
- CONTAINER TYPE
- P-PLASTIC
 - G-GLASS
 - V-VOA
 - O-OTHER
 - T-TERLON

ETA SAMPLE #	CLIENT SAMPLE IDENTIFICATION	SAMPLE TYPE	CONTAINER		SAMPLING DATE	SAMPLING TIME	PRESERVATIVES	ANALYSIS	LAB COMMENTS
			TYPE	#					
1	01 - RAAS, MOPS, PPE, PAINT CHIPS, PAINT	S BAG	P	1	2/24/15	2:00 PM	NA	TCLP - Pb	
2	02 - WASTE WATER	1	P	1	2/24/15	2:00 PM	DA		XXX

TOTAL Pb By TCLP
TOTAL P By EPA 365.3

RECEIVED ON ICE EQUIPMENT: 318
REQUESTED TURNAROUND TIME: REGULAR (5 DAYS) 3 DAYS 2 DAYS 1 DAY
RUSH REQUIRED: (ADDITIONAL FEES MAY APPLY)

REINQUISHED BY: [Signature]
RECEIVED BY: [Signature]
DATE: 2/24/15
TIME: 2:15

REINQUISHED BY: [Signature]
RECEIVED BY: [Signature]
DATE: 2/24/15
TIME: 4:15

REINQUISHED BY: _____
RECEIVED BY: _____
DATE: _____
TIME: _____

FIELD PH: _____
TEMP: _____
COND: _____
CALIB: 4 7 10

COMMENTS: _____
DATE: _____
TIME: _____

OKLAHOMA CITY LANDFILL/WCI
7600 SW 15TH STREET
OKLAHOMA CITY, OK 73128

02 01233469 NE Carolyn C
12/15/14 12/15/14 07:23 07:23 TECH-ANN1

007583 TEC-AN INC
2517 S. PURDUE
OKLAHOMA CITY OK 73128

REFERENCE ORIGIN

Scale 1 Gross Wt. 12700 LB
Stored Tare Wt. 11000 LB
Net Weight 1700 LB

Inbound - Charge ticket

QTY.	UNIT	DESCRIPTION	DATE	EXTENSION	FEE
5.00	CU YD	WASTE/ WASTE Pauk Valley Const Debris 1409-16			

Is this load from the OKC limits? Yes No..I certify this load contains no unauthorized hazardous waste & understand falsification of a waste manifest is a criminal offense & hereby affirm this information is correct. Phone: 405-745-3091

SIGNATURE Ricky Bell

Pauls Valley Armory Photo Log















CONFIRMATION SAMPLING


CERTIFICATE OF FINAL ACCEPTANCE
ASBESTOS-CONTAINING BUILDING MATERIALS
1001 N. ASH ST.
PAULS VALLEY, OKLAHOMA

On December 8, 2014, the Armory at 1001 N. Ash St. in Pauls Valley, Oklahoma (Site) was inspected by Enercon Services, Inc (ENERCON) to verify abatement of asbestos-containing building materials (ACBM). The inspection was performed by Vincent Colbert, AHERA Inspector OK-401046.


The Site consisted of an Armory office building and warehouse storage area. The structure was comprised of 5,000 SF of office space and 3,000 SF of warehouse space. The ACBM piping insulation specified in the Project Design (friable ACM) was removed by properly-licensed workers in compliance with the Project Design. The visual inspection of piping abatement areas was performed December 8, 2014 at 9:00 a.m. by Vincent Colbert, AHERA Inspector OK-401046. The Oklahoma Department of Labor (ODOL) final inspection was performed and approved by Greg Horner ODOL Inspector, at 10:15 a.m., December 8, 2015.

Non-friable ACM (window caulking) was abated by Tec-An by removing and disposing of the entire affected window component. These windows were observed as abated by Edward A. Pack, AHERA Management Planner (OKMP#400630) during follow-on lead dust confirmation sampling work. ENERCON assumes that these materials/components were disposed of at an EPA-approved landfill in accordance with the State of Oklahoma regulations. As a precaution we recommend that copies of waste manifest documents be requested from the abatement contractor and a copy placed with our project files in case they are needed for future reference.

This is to certify that the property at 1001 N. Ash St. was inspected according to accepted criteria for Asbestos Abatement Final Acceptance Inspections and that the foregoing findings are based on direct observations and the Inspectors' professional judgment.



Vincent Colbert
AHERA Inspector, OK-401046
OKMP#400630
Date of Inspection: 12/08/2014



Edward A. Pack
AHERA Asbestos Management Planner,
Date of Certification: 2/23/2014

**ARMORY LEAD CONFIRMATION SAMPLING
PAULS VALLEY ARMORY
1001 NORTH ASH
PAULS VALLEY, OKLAHOMA**

Prepared for:
Oklahoma Department of Environmental Quality
Land Protection Division
707 N. Robinson Avenue
Oklahoma City, OK 73102

March 3, 2015



ENERCON SERVICES, INC.
1601 N.W. Expressway, Suite 1000
Oklahoma City, Oklahoma 73118
(405) 722-7693 Fax: (405) 722-7694

Prepared by:

A handwritten signature in black ink, appearing to read 'E. Pack', positioned above a horizontal line.

Edward A. Pack
Lead-Based Paint Inspector
OKINSR13725

Reviewed by:

A handwritten signature in black ink, appearing to read 'Emmett W. Muenker', positioned above a horizontal line.

Emmett W. Muenker, M.E.
Lead-Based Paint Inspector/Risk Assessor
OKRASR-11260

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3.0 CONFIRMATION PROCEDURES	1
4.0 CONFIRMATION SAMPLING	2
5.0 CONCLUSIONS	2

APPENDICES

- APPENDIX A – Scope of Work for Confirmation Lead Sampling
- APPENDIX B – Lead-Based Paint Firm and Individual License
- APPENDIX C – Post Remediation Initial Confirmation Sampling Results – Drill Floor, Office Areas, and Other Rooms
- APPENDIX D – Post Remediation Confirmation Sampling Results – After Re-cleaning Rooms 2 & 3
- APPENDIX E – Post Remediation Final Confirmation Sampling Results – After Re-cleaning Room 2

1.0 PURPOSE AND SCOPE

This clearance sampling was requested by the Oklahoma Department of Environmental Quality, Land Protection Division, in order to confirm that lead remediation at the Pauls Valley Armory, 1001 North Ash, Pauls Valley, Oklahoma, had been satisfactorily completed. Enercon was contracted to conduct confirmation wipe samples following remediation using the sampling protocols described in the Scope of Work provided in Appendix A.

2.0 BACKGROUND

The State of Oklahoma has determined that a number of armories located throughout the State that are no longer needed are to be transferred to local communities. Prior to these transfers, environmental investigations were conducted by the Oklahoma Department of Environmental Quality to determine if there were any environmental issues associated with these armories. As a result, inspections for lead contamination and lead-based paint were conducted, resulting in contracts for remediation of lead contamination by private contractors. In order to determine if the contamination has been satisfactorily remediated, confirmation testing was scheduled following remediation. An independent, third-party firm licensed by the State to conduct Lead-Based Paint Inspections and Clearance Tests was engaged to complete the testing. The lead remediation contractor for the Pauls Valley Armory was Tec-An, Inc., 2517 Purdue Ave, Oklahoma City, OK 73128.

3.0 CONFIRMATION PROCEDURES

Confirmation of the adequacy of remediation was accomplished by collecting wipe samples on the floors of the armory on a room by room basis using the sampling criteria set forth in the Scope of Work (Appendix A). All wipe samples were collected by an Oklahoma-licensed LBP Inspector or Risk Assessor employed by an Oklahoma-licensed Lead-Based Paint Firm. Copies of these licenses are provided in Appendix B. The procedure involves using a floor plan layout of the armory to mark all sample locations and collecting samples using a 12" by 12" template and lead wipes to collect the samples. The floors were gridded using a 3 x 3 grid for rooms 50 feet long or less. For rooms longer than 50 feet, the room was divided into two halves, with each half using a 3 x 3 grid for sampling. For other areas of the armories, wipe samples were collected from the floor in areas where lead-based paint abatement had been completed and from a 3 x 3 gridded area for elevated lead dust levels. Following remediation, confirmation wipe samples were collected. If any sample exceeded 40 $\mu\text{g}/\text{ft}^2$, the entire 3 x 3 gridded area was re-cleaned and re-tested. Sample locations were collected within ten feet of the doorway for smaller rooms and closets, and all rooms (including the drill floor) were

sampled using a 3 x 3 grid. Procedures for individual wipe samples as outlined for EPA/HUD dust wipe sampling were used for this project.

4.0 CONFIRMATION SAMPLING

4.1 Results of Initial Confirmation Sampling in the Drill Floor, Office Areas, and Other Rooms

On January 28, 2015, initial confirmation wipe samples were collected from the floors of the Drill Floor, Office Areas, and other rooms. Thirty (30) floor wipe samples were collected initially. Four (4) floor sample exceeded the 40 $\mu\text{g}/\text{ft}^2$ threshold. A floor plan layout showing the location of the initial wipe samples, the rooms that exceeded the threshold amount, and the laboratory report and chain of custody are included in Appendix C.

4.2 Results of Confirmation Re-Sampling in Rooms 2 and 3

On February 12, 2015, following additional cleaning in the two rooms (Rooms 2 and 3) that exceeded the threshold, six (6) confirmation wipe samples were collected. Two of these samples exceeded the 40 $\mu\text{g}/\text{ft}^2$ threshold. A floor plan layout showing the location of these wipe samples, the room that exceeded the threshold amount, and the laboratory report and chain of custody are included in Appendix D.

4.3 Results of Confirmation Re-Sampling in Rooms 2

On February 23, 2015, following additional cleaning in Rooms 2 that exceeded the threshold, three (3) confirmation wipe samples were collected. None of these samples exceeded the 40 $\mu\text{g}/\text{ft}^2$ threshold. A floor plan layout showing the location of these wipe samples and the laboratory report and chain of custody are included in Appendix E.

5.0 CONCLUSIONS

Based upon the foregoing confirmation sampling, it is concluded that the lead dust hazard associated with the floors in the Drill Room, Office Areas, and other rooms has been effectively mitigated.

APPENDIX A

SCOPE OF WORK
For
Armory Lead Confirmation Sampling
At
Bristow, Pauls Valley, Lawton, Anadarko and Eufaula Armories

The Department of Environmental Quality will soon be hiring contractors to remediate lead-based paint and lead contaminated dust from former National Guard Armories located in Bristow, Pauls Valley, Lawton, Anadarko, and Eufaula Oklahoma. Once abatement is complete, confirmation wipe samples will need to be taken on floors in areas where lead-based paint abatement was performed, on window sills, and in rooms that previously tested high for lead dust on floors. Attached is the Confirmation Sampling Instructions (Attachment 1).

Below is a detailed list of what will be required at each site.

- Perform each sampling event within five (5) days of notice from remediation contractor.
- Provide DEQ with sampling plan for approval prior to each sampling event.
- Travel to the each armory up to (5) times to take confirmation wipe samples.
 - Bristow Armory – Up to 100 samples will be taken.
 - Pauls Valley – Up to 100 samples will be taken.
 - Lawton Armory - Up to 150 samples will be taken.
 - Anadarko Armory - Up to 300 samples will be taken.
 - Eufaula Armory - Up to 300 samples will be taken.
- A total of 950 confirmation wipe samples will be taken for this project.
- Samples will be run with a 24 hour turnaround time and results with sample location map will be submitted to DEQ for review.
- Once all sampling is complete at an armory, a Confirmation Sampling Report will be submitted to DEQ for approval.
 - A total of five (5) Confirmation Sampling Reports shall be submitted.
 - One report will be submitted for each armory.

Confirmation Sampling Instructions

Indoor Firing Range

1. To properly sample the IFR, a 3 section by 3 section grid system shall be used. Samples shall not be collected on all one section or end of a grid. A total of 3 samples shall be collected per 3 section by 3 section grid.
 - Each range surface less than 50 feet in length shall be divided into a 3 section by 3 section grid. (Figure 1 and Figure 2)
 - Each range surface more than 50 feet in length shall be divided in half and a 3 section by 3 section grid shall be established on each half. (Figure 3 and Figure 4)
2. If a sample fails, the entire 3 section by 3 section grid shall be re-cleaned and re-sampled.
 - Confirmation samples taken *after remediation* are considered to have failed if results exceed **200 ug/SF**.
 - Confirmation samples taken *after sealing* are considered to have failed if results exceed **40 ug/SF**.
3. DEQ reserves the right to take additional confirmation samples.

Areas Where Lead-Based Paint Abatement Has Been Performed

1. One (1) confirmation wipe sample shall be taken on the floor within ten feet of the abatement area.
 - a. If a confirmation sample for lead dust is located within ten feet of the lead-based paint abatement area, this sample can count as both the lead-based paint and lead dust confirmation sample (See below for details on lead dust confirmation sampling).
2. Sample results in excess of **40 ug/SF** are considered to have failed. If a sample result fails, the area shall be re-cleaned by remediation contractor and re-sampled by consultant.

Window Sills

1. All window sills in rooms where previous window sills have failed shall have confirmation wipe samples taken.
2. Ten (10) other window sills shall be randomly tested throughout the building.
3. Sample results in excess of **250 ug/SF** are considered to have failed. If a sample result fails, the area shall be re-cleaned by remediation contractor and re-sampled by consultant.

Room Floors

- A. All Rooms that had lead samples above 40 ug/SF in the inspection report will require confirmation samples to be taken.
- B. All Rooms and hallways connected to rooms that had samples above 40 ug/SF in the inspection report will require confirmation samples to be taken.
 - 1. A 3 section by 3 section grid system shall be used. Samples shall not be collected on all one section or end of a grid. A total of 3 samples shall be collected per 3 section by 3 section grid.
 - Room floors shall be divided into a 3 section by 3 section grid. (Figure 1 and Figure 2)
 - The Drill Floor shall be divided in half and a 3 section by 3 section grid shall be established on each half. (Figure 3 and Figure 4)
 - 2. Sample results in excess of **40 ug/SF** are considered to have failed. If a sample fails, the entire 3 section by 3 section grid shall be re-cleaned and re-sampled.
 - 3. DEQ reserves the right to take additional confirmation samples.

Figure 1. ACCEPTABLE FOR SURFACES LESS THAN 50 FEET

Wipe Sample		
	Wipe Sample	
		Wipe Sample

Figure 2. NOT ACCEPTABLE FOR SURFACES LESS THAN 50 FEET

Wipe Sample	<u>OR</u> Wipe Sample	Wipe Sample
Wipe Sample		
Wipe Sample		

Figure 3. ACCEPTABLE FOR SURFACES GREATER THAN 50 FEET

Wipe Sample					Wipe Sample
	Wipe Sample		Wipe Sample		
		Wipe Sample		Wipe Sample	

Surface Center

Figure 4. NOT ACCEPTABLE FOR SURFACES GREATER THAN 50 FEET

				Wipe Sample	
Wipe Sample	Wipe Sample	Wipe Sample		Wipe Sample	
				Wipe Sample	

Surface Center

APPENDIX B

Department of Environmental Quality

This is to Certify That

ENERCON SERVICES INC

has met the specifications of the Oklahoma Lead-Based Paint Management Act
and is certified as a Lead-Based Paint

FIRM

Certification #: OKFIRM1152

This certificate is valid from the date of issuance and expires as prescribed by law.

Issued on: **4/1/2014**

Expires on: **3/31/2015**



Division Director
Air Quality Division



Environmental Programs Manager
Air Quality Division

Department of Environmental Quality

This is to Certify That

EMMETT MUENKER

has met the specifications of the Oklahoma Lead-Based Paint Management Act
and is certified as a Lead-Based Paint

INSPECTOR/RISK ASSESSOR

Certification #: OKRASR11260

This certificate is valid from the date of issuance and expires as prescribed by law.

Issued on: **4/1/2014**

Expires on: **3/31/2015**



Division Director
Air Quality Division





Environmental Programs Manager
Air Quality Division

Department of Environmental Quality

This is to Certify That

EDWARD PACK

has met the specifications of the Oklahoma Lead-Based Paint Management Act
and is certified as a Lead-Based Paint

INSPECTOR

Certification #: **OKINSR13725**

This certificate is valid from the date of issuance and expires as prescribed by law.

Issued on: **4/1/2014**

Expires on: **3/31/2015**



Division Director
Air Quality Division



Environmental Programs Manager
Air Quality Division

APPENDIX C

Legend

- Dust Wipe Sample Location, Positive, > 40 ug / ft²
- Dust Wipe Sample Location, Negative, < 40 ug / ft²

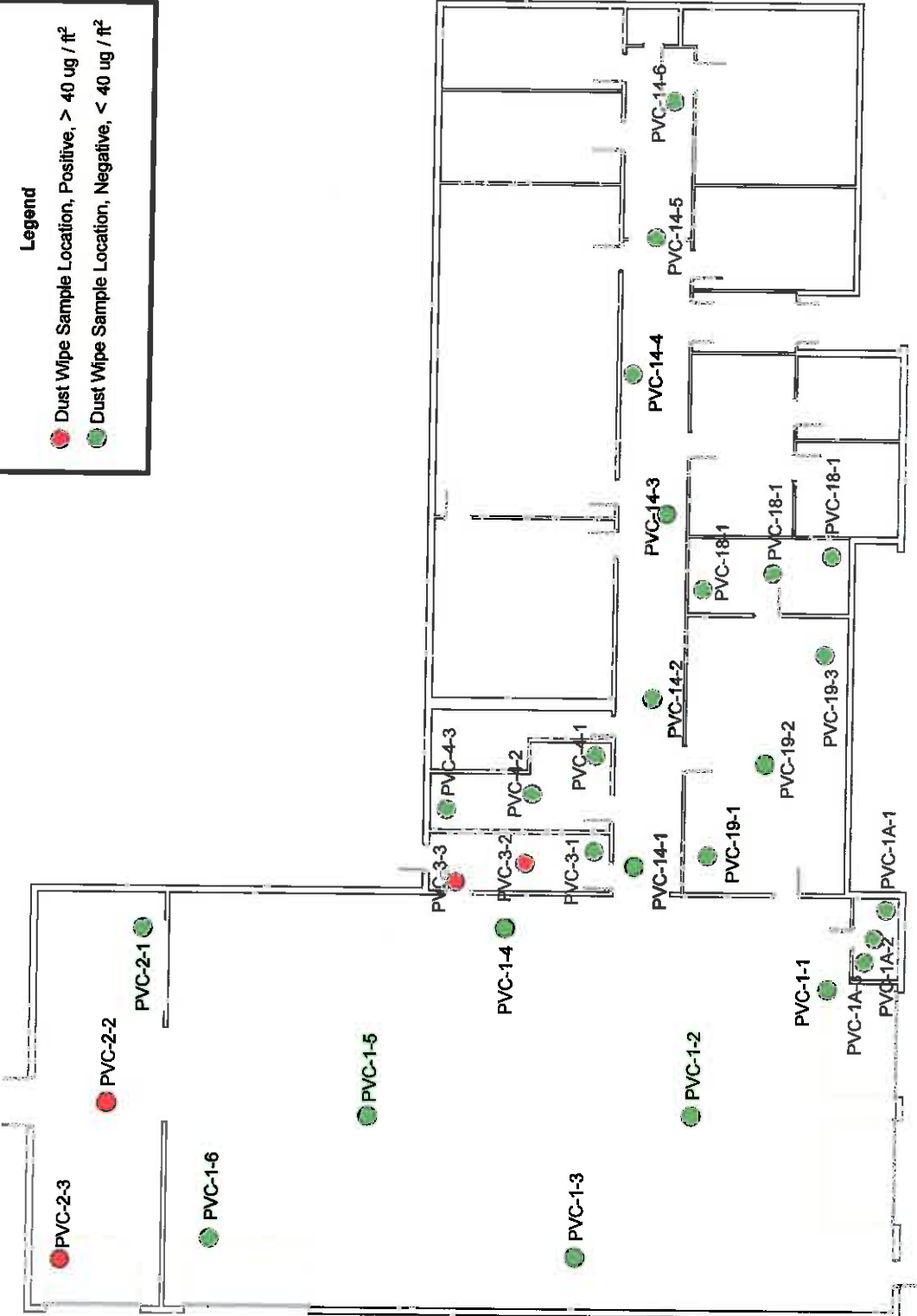


Figure 1
DUST WIPE CONFIRMATION
SET #1 - SAMPLE LOCATIONS
 Project No: ENMISC3302



National Guard Armory
1001 North Ash Street
Pauls Valley, OK

Client:
 Oklahoma Department of Environmental
 Quality
 707 North Robinson
 Oklahoma City, OK



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 800.822.1650

Environmental Chemistry Analysis Report

Quantem Set ID: 246029
Date Received: 01/29/15
Received By: Judy Rowan
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 2/3/2015

Client: Enercon Services, Inc.
 1601 Northwest Expressway
 Suite 1000
 Oklahoma City, OK 73118

Acct. No.: A845

Project: Pauls Valley Armory Confirmation Samples
Location: 1001 N Ash, Paul Valley OK
Project No.: N/a

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	PVC-1-1	Wipe	Lead	13.7	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
002	PVC-1-2	Wipe	Lead	12.2	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
003	PVC-1-3	Wipe	Lead	<9.00	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
004	PVC-1-4	Wipe	Lead	19.1	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
005	PVC-1-5	Wipe	Lead	19.5	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
006	PVC-1-6	Wipe	Lead	36.7	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
007	PVC-1A-1	Wipe	Lead	<9.00	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
008	PVC-1A-2	Wipe	Lead	<9.00	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
009	PVC-1A-3	Wipe	Lead	<9.00	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
010	PVC-2-1	Wipe	Lead	30.7	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
011	PVC-2-2	Wipe	Lead	101	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
012	PVC-2-3	Wipe	Lead	115	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
013	PVC-3-1	Wipe	Lead	35.9	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
014	PVC-3-2	Wipe	Lead	73.8	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
015	PVC-3-3	Wipe	Lead	44.1	9	ug/sq. Ft.	01/30/15 2:45	W NIOSH 9100
016	PVC-4-1	Wipe	Lead	20.6	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
017	PVC-4-2	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission. Quantem is not responsible for user-supplied data used in calculations.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 800.822.1650

Environmental Chemistry Analysis Report

Quantem Set ID: 246029
Date Received: 01/29/15
Received By: Judy Rowan
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 2/3/2015

Client: Enercon Services, Inc.
 1601 Northwest Expressway
 Suite 1000
 Oklahoma City, OK 73118

Acct. No.: A845

Project: Pauls Valley Armory Confirmation Samples
Location: 1001 N Ash, Paul Valley OK
Project No.: N/a

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
018	PVC-4-3	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
019	PVC-14-1	Wipe	Lead	36.5	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
020	PVC-14-2	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
021	PVC-14-3	Wipe	Lead	31.1	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
022	PVC-14-4	Wipe	Lead	36.4	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
023	PVC-14-5	Wipe	Lead	30.8	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
024	PVC-14-6	Wipe	Lead	32.5	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
025	PVC-18-1	Wipe	Lead	13.2	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
026	PVC-18-2	Wipe	Lead	9.04	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
027	PVC-18-3	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
028	PVC-19-1	Wipe	Lead	30.5	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
029	PVC-19-2	Wipe	Lead	9.07	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100
030	PVC-19-3	Wipe	Lead	12.3	9	ug/sq. Ft.	02/02/15 15:00	W NIOSH 9100

Note: Sample results have not been corrected for blank values.

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Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 1.800.822.1650

Environmental Chemistry Analysis Report

Quantem Set ID: 246029
Date Received: 01/29/15
Received By: Judy Rowan
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 2/3/2015

Client: Enercon Services, Inc.
1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118
Acct. No.: A845
Project: Pauls Valley Armory Confirmation Samples
Location: 1001 N Ash, Paul Valley OK
Project No.: N/a

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
------------	-----------	--------	-----------	---------	------------------	-------	--------------------	--------

Authorized Signature: _____

Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

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EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified

Supplemental Report QAQC Results

QA ID: 12686
Test: Lead

Date: 1/30/2015
Matrix: Wipe

Lab Number: 246029
Approved By: Benton Miller
Date Approved: 1/30/2015

Notes:

Blank Data:

Type of Blank	Blank Value
FCB	0
Matrix Blank	0

Standards Data:

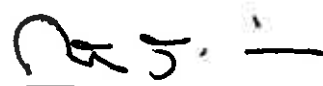
Standard	Low Limit	Obtained	High Limit
CCV	4.5	5.2	5.5
FCV	4.5	5.1	5.5
ICV	0.9	0.98	1.1
RLVS	0.144	0.156	0.216

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.422	4.535	83.6	4.670	86.1	2.9
MS-W2	0.000	5.455	4.545	83.3	4.451	81.6	2.1
MS-W3	0.000	5.466	4.637	84.8	4.374	80.0	5.8

Authorized Signature: _____



Benton Miller, Analyst

Supplemental Report QAQC Results

QA ID: 12690
Test: Lead

Date: 2/2/2015
Matrix: Wipe

Lab Number: 246029
Approved By: Benton Miller
Date Approved: 2/2/2015

Notes:

Blank Data:

Type of Blank	Blank Value
FCB	0
Matrix Blank	0

Standards Data:

Standard	Low Limit	Obtained	High Limit
CCV	4.5	5.4	5.5
FCV	4.5	5.5	5.5
ICV	0.9	1.09	1.1
RLVS	0.144	0.165	0.216

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.422	5.651	104.2	5.597	103.2	1.0
MS-W2	0.000	5.444	5.398	99.2	5.660	104.0	4.7

Authorized Signature: 

Benton Miller, Analyst



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 Lab No. 246 029
 Accept Reject
 Report Results one box
 QuantEM Website
 Other None

Company: Carroll Services, Inc
 Contact: C. Park
 Account #: _____
 Project Information
 Project Name: PEAS VALLEY ENERGY CENTER
 Project Location: 1001 N ASH PARKS WINTERGARDEN
 Project ID: _____

Sampled By: C. Park Date: 1/28/15
 RELINQUISHED BY: C. Park DATE & TIME: 1/28/15
 VIA: Hand
 RECEIVED BY: Judy Brown DATE & TIME: 1/28/15 10:15

REQUESTED SERVICES (Please the Appropriate Boxes)

No.	Sample ID (10 Characters Max.)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis					Sample Matrix Codes
						PPM	mg / l	mg / ft ²	µg / m ²	mg / cm ²	
1	QC-1-1	Blank			Pb						A
2	1-2	Blank									B
3	1-3										C
4	1-4										D
5	1-5										E
6	1-6										
7	1A-1	Blank									
8	1A-2										
9	1A-3										
10	2-1	Blank									
11	2-2										
12	2-3										

TURNAROUND TIME	
Same Day	
24 - Hour	
3 - Day	<input checked="" type="checkbox"/>
5 - Day	



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Lab No. 246 029

Accept Reject

Project Information

Company: CARBON SERVICES, INC.

Project Name: FALLS VALLEY HARBOR DEVELOPMENT

Project Location: 1001 N. HIGLEY AVENUE

REQUESTED SERVICES (Please check the appropriate boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (length x width)	Sample Matrix (see matrix code box)	Analysis	Units (check ONE box only)					Sample Matrix Codes
							PPM	mg/l	µg/ft²	µg/m³	mg/cm²	
13	<u>PVC-3-1</u>	<u>Room 3 Floor</u>		<u>14F</u>		<u>Pb</u>						A
14	<u>3-2</u>											B
15	<u>3-3</u>											C
16	<u>4-1</u>	<u>Room 4</u>										D
17	<u>4-2</u>											E
18	<u>4-3</u>											
19	<u>14-1</u>	<u>Room 14</u>										
20	<u>14-2</u>											
21	<u>14-3</u>											
22	<u>14-4</u>											
23	<u>14-5</u>											
24	<u>14-6</u>											
25	<u>18-1</u>	<u>Room 18</u>										
26	<u>18-2</u>											
27	<u>18-3</u>											
28	<u>19-1</u>	<u>Room 19</u>										
29	<u>19-2</u>											
30	<u>19-3</u>											

APPENDIX D

Legend

- Dust Wipe Sample Location, Positive, > 40 ug / ft²
- Dust Wipe Sample Location, Negative, < 40 ug / ft²

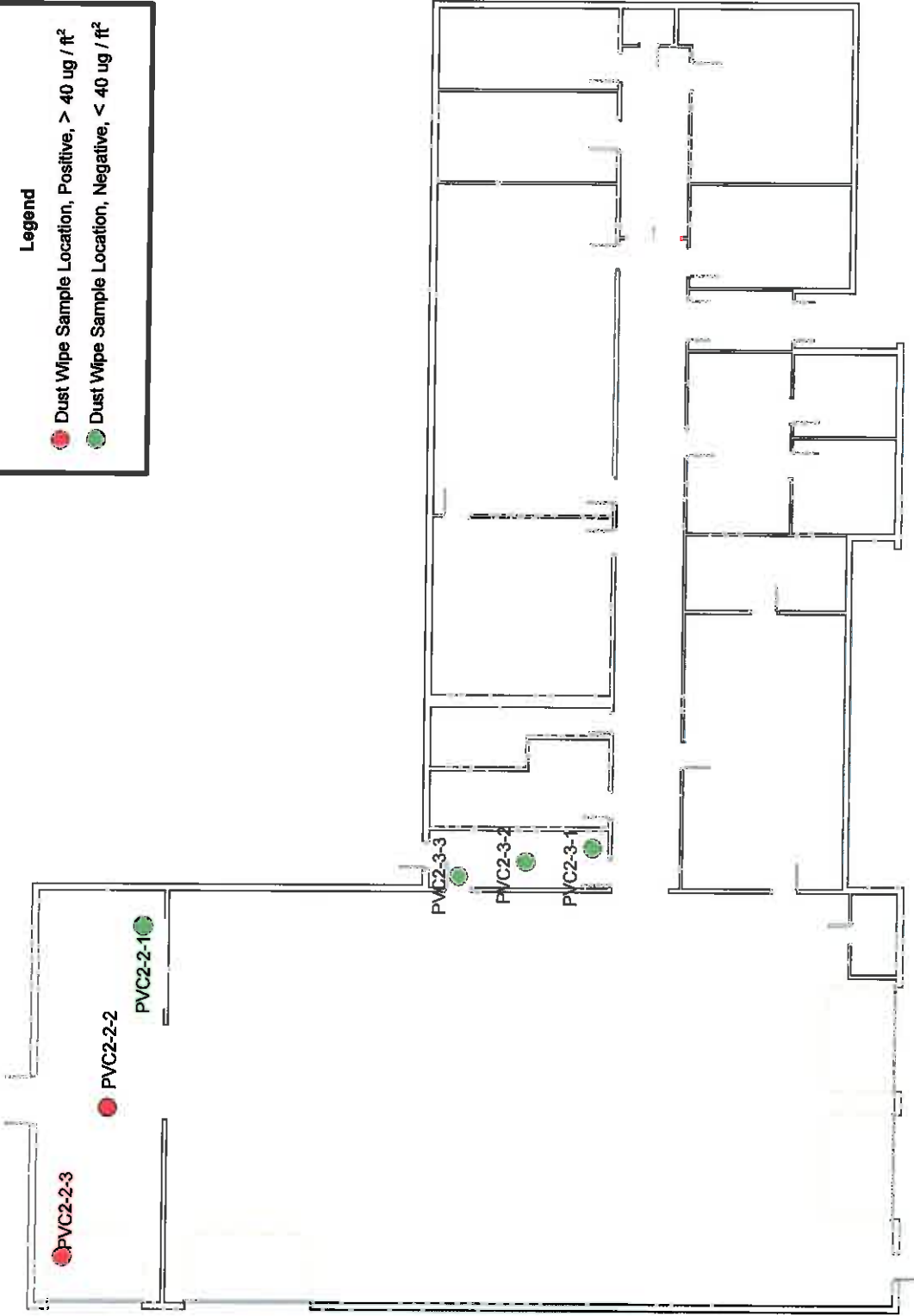


Figure 2
DUST WIPE CONFIRMATION
SET # 2 - SAMPLE LOCATIONS

Project No: ENMISC3302



Not to Scale

National Guard Armory
1001 North Ash Street
Pauls Valley, OK

Client:
Oklahoma Department of Environmental
Quality
707 North Robinson
Oklahoma City, OK



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 800.822.1650

Environmental Chemistry Analysis Report

Quantem Set ID: 246585
Date Received: 02/13/15
Received By: Sherrie Leftwich
Date Sampled:
Time Sampled:
Analyst: BM
Date of Report: 2/16/2015

Client: Enercon Services, Inc.
1601 Northwest Expressway
Suite 1000
Oklahoma City, OK 73118
Acct. No.: A845
Project: Pauls Valley Armory Conf. Sampl.
Location: 1001 N. Ash, Pauls Valley, OK
Project No.: N/A

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	PVC2-2-1	Wipe	Lead	23.5	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100
002	PVC2-2-2	Wipe	Lead	120	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100
003	PVC2-2-3	Wipe	Lead	49.0	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100
004	PVC2-3-1	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100
005	PVC2-3-2	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100
006	PVC2-3-3	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/13/15 15:00	W NIOSH 9100

Authorized Signature: _____

Carter Cox, Laboratory Technician

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission. Quantem is not responsible for user-supplied data used in calculations.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified

Supplemental Report QAQC Results

QA ID: 12721
Test: Lead

Date: 2/13/2015
Matrix: Wipe

Lab Number: 246585
Approved By: Benton Miller
Date Approved: 2/13/2015

Notes:

Blank Data:

Type of Blank	Blank Value
FCB	0
Matrix Blank	0

Standards Data:

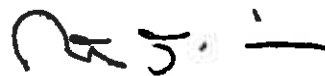
Standard	Low Limit	Obtained	High Limit
CCV	4.5	4.9	5.5
FCV	4.5	4.9	5.5
ICV	0.9	1.02	1.1
RLVS	0.144	0.156	0.216

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.422	4.744	87.5	4.778	88.1	0.7

Authorized Signature: _____



Benton Miller, Analyst



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 Lab No. 246585
 Accept Reject

Report Results (one box)
 Quantem Website
 Other separate

Contact Information
 Company: **ENERCON SERVICES, INC** Phone: (405) 722-7693
 Contact: **E. Pack** Cell Phone: (405) 414-5303
 Account #: E-mail: epack@enercon.com

Project Information
 Project Name: PAULS VALLEY AERODROME CONF. SHED
 Project Location: 1001 N. ASIA PAULS VALLEY, OK
 Project ID: _____

Sampled By: E. Pack Name: E. Pack Date: _____
 RELINQUISHED BY: E. Pack DATE & TIME: 2/19/15 VIA: Hand
 RECEIVED BY: Judy DeWan DATE & TIME: 2/13/14 9:40

REQUESTED SERVICES (Please the Appropriate Boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (Length x Width)	Sample Matrix (see matrix code box)	Analysis					Sample Matrix Codes	
						Pb	mg/l	µg/ft ²	µg/m ³	mg/cm ²		Units (<input checked="" type="checkbox"/> ONE box only)
1	PC2-2-1	FLOOR Rm. 2		1 SF	C	✓						A
2	-2-2				C	✓						B
3	-2-3				C	✓						C
4	PC2-3-1	Rm 3			C	✓						D
5	-3-2				C	✓						E
6	-3-3				C	✓						E
7												
8												
9												
10												
11												
12												

TURNAROUND TIME

Same Day	
24 - Hour	✓
3 - Day	
5 - Day	

APPENDIX E

Legend

- Dust Wipe Sample Location, Positive, > 40 ug / ft²
- Dust Wipe Sample Location, Negative, < 40 ug / ft²

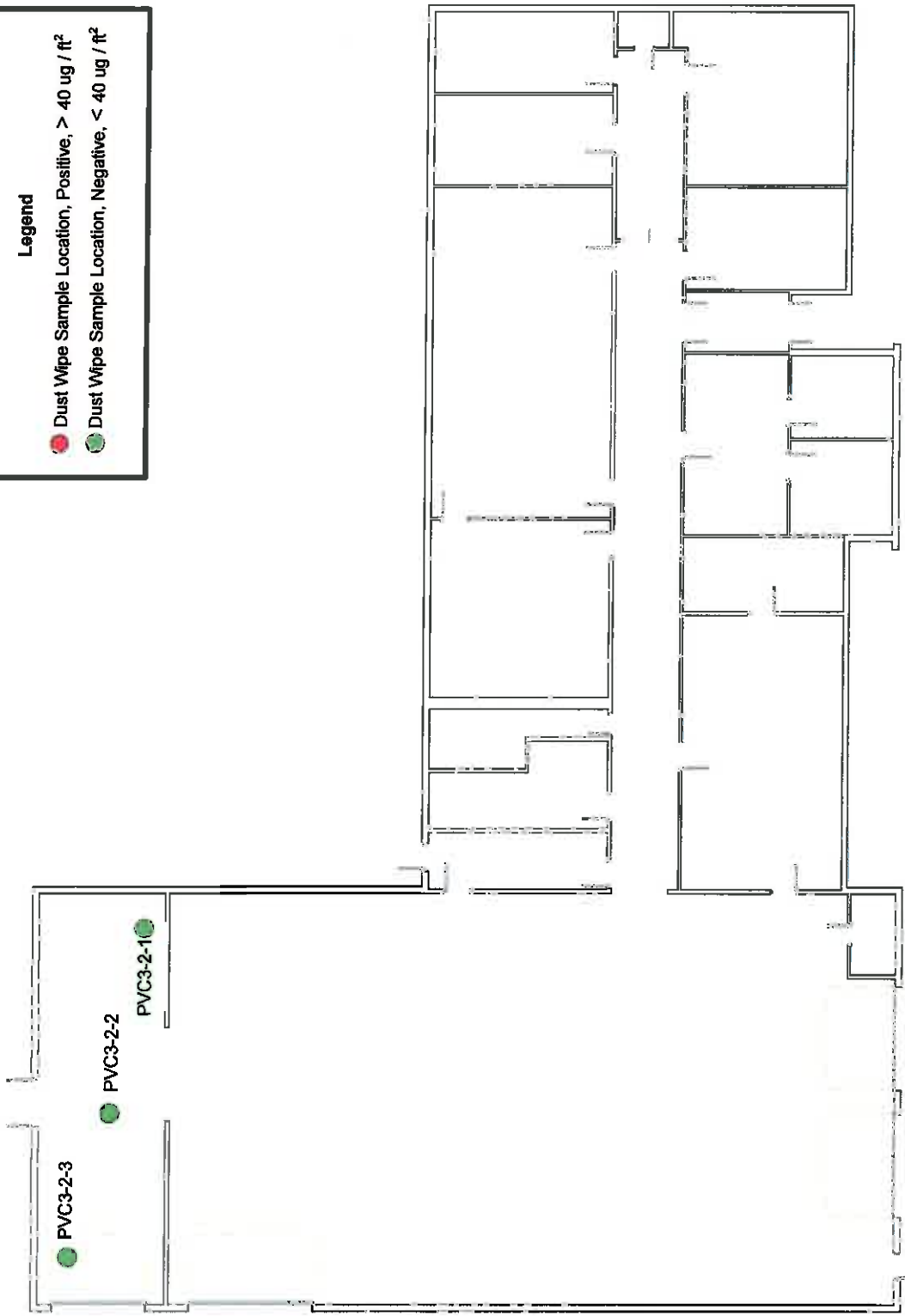


Figure 3
DUST WIPE CONFIRMATION
SET # 3 - SAMPLE LOCATIONS

Project No: ENMISC3302



National Guard Armory
1001 North Ash Street
Pauls Valley, OK

Client:
Oklahoma Department of Environmental
Quality
707 North Robinson
Oklahoma City, OK



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 800.822.1650

Environmental Chemistry Analysis Report

QuanTEM Set ID: 246888 **Client:** Enercon Services, Inc.
Date Received: 02/24/15 **Address:** 1601 Northwest Expressway
Received By: Sherrie Leftwich **City:** Suite 1000
Date Sampled: **State:** Oklahoma City, OK 73118
Time Sampled: **Acct. No.:** A845
Analyst: BM **Project:** Pauls Valley Armory Conf. Samp.
Date of Report: 2/26/2015 **Location:** N/A
Project No.: N/A

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	PVC3-2-1	Wipe	Lead	<9.00	9	ug/sq. Ft.	02/25/15 15:00	W NIOSH 9100
002	PVC3-2-2	Wipe	Lead	9.84	9	ug/sq. Ft.	02/25/15 15:00	W NIOSH 9100
003	PVC3-2-3	Wipe	Lead	12.7	9	ug/sq. Ft.	02/25/15 15:00	W NIOSH 9100

Authorized Signature: _____

Benton Miller, Analyst

Note: Sample results have not been corrected for blank values.

This report applies only to the standards or procedures indicated and to the specific samples tested. It is not indicative of the qualities of apparently identical or similar products or procedures, nor does it represent an ongoing assurance program unless so noted. These reports are for the exclusive use of the client and are not to be reproduced without specific written permission. QuanTEM is not responsible for user-supplied data used in calculations.

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Wipe materials must meet ASTM E1792 criteria. Method detection limits and resultant reporting limits may not be valid for non-ASTM E1792 wipe material.

EPA Method 7000B (1) = EPA 600/R-93/200 Preparation Modified. EPA 7000B Analysis Modified

EPA Method 7082 (2) = EPA 600/R-93/200 Preparation Modified. EPA 7082 Analysis Modified

Supplemental Report QAQC Results

QA ID: 12754
Test: Lead

Date: 2/25/2015
Matrix: Wipe

Lab Number: 246888
Approved By: Benton Miller
Date Approved: 2/25/2015

Notes:

Blank Data:

Type of Blank	Blank Value
FCB	0
Matrix Blank	0

Standards Data:

Standard	Low Limit	Obtained	High Limit
CCV	4.5	4.8	5.5
FCV	4.5	5.4	5.5
ICV	0.9	0.92	1.1
RLVS	0.144	0.178	0.216

Duplicate Data:

Recovery Data:

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.422	4.729	87.2	5.462	100.7	14.4
MS-W2	0.000	5.433	5.195	95.6	5.012	92.2	3.6

Authorized Signature: _____



Benton Miller, Analyst



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For Lab Use Only

Lab No. 246888

Accept Reject

Report Results (one box)

QUANTEM Website

Other email

Company: EMERSON SERVICES, INC

Contact: C. PACK

Account #: _____

Sampled By: C. PACK

Name: C. PACK

Phone: 405 414 5313

Cell Phone: _____

Email: cpack@emerson.com

Project Name: PANAS VALLEY PRIMARY CONT. SUMP

Project Location: _____

Project ID: _____

RELINQUISHED BY: C. PACK

DATE & TIME: 4/24/15

RECEIVED BY: JUDY ROUSAN

DATE & TIME: 4/24/15 9:20

REQUESTED SERVICES (Please the Appropriate Boxes)

No.	Sample ID (10 Characters Max)	Sample Description	Volume (Liters)	Volume Area (sq. ft. x Wash)	Sample Matrix (see matrix code box)	Analysis	Units (<input checked="" type="checkbox"/> ONE box only)					Sample Matrix Codes
							PPM	Wt %	mg / l	µg / ft ²	µg / m ²	
1	<u>PNC3-2-1</u>	<u>FLOOR Rm. 2</u>	<u>1.8ft</u>		<u>C</u>	<u>Pb</u>			<input checked="" type="checkbox"/>			A
2	<u>-2</u>				<u>C</u>				<input checked="" type="checkbox"/>			B
3	<u>-3</u>				<u>C</u>				<input checked="" type="checkbox"/>			C
4												D
5												E
6												
7												
8												
9												
10												
11												
12												

TURNAROUND TIME

Same Day	
24 - Hour	
<input checked="" type="checkbox"/> 3 - Day	
5 - Day	