

**Former National Guard Armory  
Haskell, 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 Haskell with the Final Remediation Report for the former Haskell 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 Haskell 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 floor tile mastic
- Asbestos abatement, including:
  - Removal of floor tile mastic

## TARGETED BROWNFIELD ASSESSMENT

In June 2011, DEQ provided a Phase I Targeted Brownfield Assessment to the City of Haskell. 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) inspection
- Lead dust wipe sampling
- LBP abatement, including:
  - Scraping and sealing military emblem on drill floor
- Indoor firing range cleanup, including:
  - Lead dust cleanup: high efficiency particulate air (HEPA) vacuuming, wet washing, and sealing with appropriate sealant floors, walls, and ceiling
- HEPA vacuuming and wet washing of floors in the building
- Proper disposal of associated waste



Additional copies of this report can be found at <http://www.deq.state.ok.us/lpdnew/scapIndex.htm> and DEQ Central Records at 707 N Robinson Oklahoma City, Oklahoma 73101.



This publication is issued by the Oklahoma Department of Environmental Quality authorized by Steven A. Thompson, Executive Director. Copies have been prepared at a cost of \$0.053 each. Copies have been deposited with the Publications Clearinghouse of the Oklahoma Department of Libraries. cmullins\LPD\Armories\_SCAP\ArmoryReports\HaskellArmory\_4\2012.

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**

WT  
9/14/0

**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 **Town of Haskell, Oklahoma**, Grantee, the following described real property in the premises lying and situated in County of Muskogee, and State of Oklahoma as follows:

A portion of the West half (W1/2) of Section 26, Township 16 North, Range 15 East, lying West of the Texas and Pacific Railroad right of way and East of U.S. Highway #64, more particularly described as follows:

Commencing at a point on the East line of said West half of Section 26, said point being 2,366.02 feet North of the Southeast corner of said West half, and on the West line of the Texas and Pacific Railroad right-of-way; thence N. 11°37'09"W. along said right-of-way line a distance of 392.00 feet to the POINT OF BEGINNING; thence due West a distance of 676.01 feet to the Easterly right of way line of Highway #64; thence N. 42°55'59" W. along said Easterly right-of-way line a distance of 512.85 feet; thence due East a distance of 948.13 feet to the Westerly right of way line of the Texas and Pacific Railroad; thence S11°37'09" E. along said right of way line a distance of 383.34 feet to the point of the beginning.

together with the improvements thereon and appurtenances thereunto belonging.

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

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**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.

*[Handwritten mark]*

STATE OF OKLAHOMA

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

ACKNOWLEDGMENT

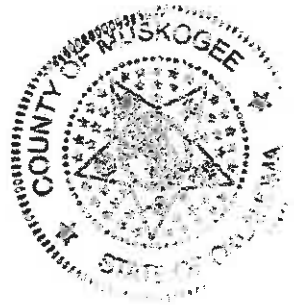
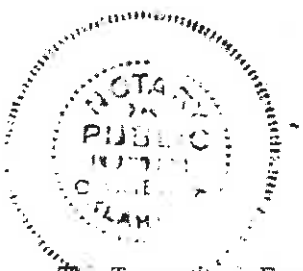
STATE OF OKLAHOMA )  
) ss  
COUNTY OF OKLAHOMA )

Before me, Jennifer Meyer in and for this state, on  
this 9 day of December, 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:  
1/23/12

My Commission Number:  
01060685



3179  
WLF

**NOTICE OF REMEDIATION AND EASEMENT  
FORMER HASKELL ARMORY  
HASKELL, OKLAHOMA**

1-2012-004802 Book 4270 Pg: 674  
05/01/2012 2:15 pm Pg 0674-0677  
Fee: \$ 19.00 Doc: \$ 0.00  
Dianna Cope - Muskogee County Clerk  
State of Oklahoma

**LEGAL BASIS FOR NOTICE:** The Oklahoma Department of Environmental Quality (DEQ) hereby files this Notice of Remediation pursuant to Oklahoma Statutes, 27A § 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.

The 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, Maintenance of said Engineering Controls herein described.

The Land Use Restrictions, Engineering Controls and Continuing Operation, 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 the 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.

The owner of the Affected Property has the legal authority to create, and does hereby voluntarily create, an easement granted to the DEQ and its employees and agents, for ingress and egress through, across and onto the parking and other outside areas of the Affected Property as they exist from time to time to assure the ongoing protection of the Remedy, Engineering Controls and Land Use Restrictions. This easement touches and concerns the land and runs with the land, is legally binding on all current and future owners and tenants of the Affected Property, and shall only be removed or modified if and when the DEQ modifies or removes the Land Use Restrictions, Engineering Controls and Continuing Operation, Maintenance of said Engineering Controls.

**REASON FOR NOTICE:** The below 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 March 29, 2011, indicated that there was asbestos, lead-based paint, and lead dust in the building.

**AFFECTED PROPERTY:** The Affected Property is the former Haskell Armory located at 1600 Northwest Haskell Blvd, Haskell, Muskogee County, Oklahoma.

The legal description is as follows:

In Muskogee County, Oklahoma, a portion of the West half (W1/2) of Section 26, Township 16 North, Range 15 East, lying West of the Texas and Pacific Railroad right of way and East of U.S. Highway #64, more particularly described as follows:

Commencing at a point on the East line of said West half of Section 26, said point being 2,366.02 feet North of the Southeast corner of said West half, and on the West line of the Texas and Pacific Railroad right-of-way; thence N. 11°37'09"W. along said right-of way line a distance of 392.00 feet to the POINT OF BEGINNING; thence due West a distance of 676.01 feet to the

Easterly right of way line of Highway #64; thence N. 42°55'59" W. along said Easterly right-of-way line a distance of 512.85 feet; thence due East a distance of 948.13 feet to the Westerly right of way line of the Texas and Pacific Railroad; thence S11°37'09" E. along said right of way line a distance of 383.34 feet to the point of the beginning.

**REMEDY:** Remediation activities (Remedy) at the Affected Property included abatement of asbestos, lead-based paint and lead-containing dust. The remedy was completed on November 9, 2011.

For more detailed information please refer to *Former National Guard Armory Haskell, 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.
- (B) **Sealant:** Following cleanup, sealant was applied to the Indoor Firing Range (IFR) and room floors where lead-based paint abatement was performed. Sealant should be inspected on a periodic basis and maintained as appropriate.

**LAND USE RESTRICTIONS:** The land use restrictions at the above-described Affected Property are:

- a. No residential use of the property by children age 6 or under. Residential use is defined as having a child present at the Affected Property for more than sixteen (16) hours within one twenty four (24) hour period.
- b. The IFR should not be used as a child occupied facility. Child-occupied facilities include, but are not limited to, day-care centers, preschools, and kindergarten classrooms where a child 6 or under spends at least 6 hours per week.

These land use restrictions apply to the entirety of the Affected Property described herein above.



**CHANGING LAND USE RESTRICTIONS:** Changes to land use restrictions must be approved by the DEQ or its successor agency. The person requesting the change in land use must demonstrate to the DEQ's satisfaction that contamination at the site has reached levels appropriate for the proposed new land uses and that further remediation is not necessary or that additional institutional or engineering controls are adequate to achieve levels protective of human health and the environment for the proposed uses.

The DEQ may require oversight costs, work plans, sampling, reports, and public participation as part of its review of the new information to support the requested change in land use restrictions. The person requesting the change will be required to follow agency procedures effective at the time of the request.

The DEQ at its discretion may determine, based on the new information submitted, that contaminants are present at the Site at levels that will not pose a risk to human health or the environment if the new land use restrictions being requested are allowed. Upon making this determination, the DEQ will file a recordable notice of remediation pursuant to state law in the land records in the in the office of the county clerk where the Site is located designating the new land use restrictions.

This Notice of Remediation and the restrictions and requirements contained herein run with the land and no change of ownership of the Affected Property will change the Land Use Restrictions.



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

4-24-12

Date

#### ACKNOWLEDGMENT


STATE OF OKLAHOMA  
COUNTY OF OKLAHOMA

Before me, a Notary Public, in and for said County and State, on this 24<sup>th</sup> day of April, 2012 personally appeared Steven 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:

2-18, 2013.

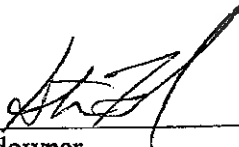


Notary Public



**HASKELL ARMORY EASEMENT**

I hereby certify that I have the legal right to, and do hereby, create an easement and encumber the real property as described in the foregoing Notice of Remediation. I hereby voluntarily grant an easement to the DEQ and its employees and agents, for ingress and egress through, across and onto the Affected Property to assure the ongoing placement, operation and protection of the remedy, engineering controls and land use restrictions described herein above.

  
\_\_\_\_\_  
Landowner

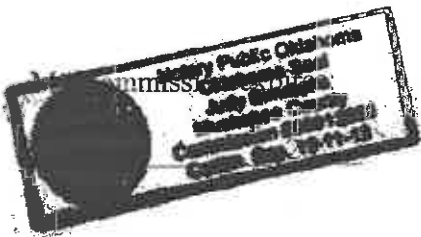
3-29-12  
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Date

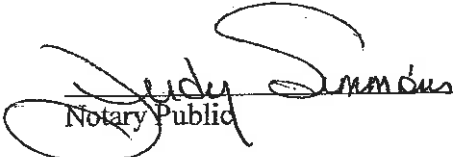
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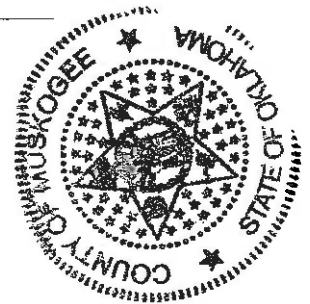
STATE OF OKLAHOMA  
COUNTY OF OKLAHOMA

Before me, a Notary Public, in and for said County and State, on this 29 day of March, 20 12, personally appeared Steve Ford 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.



  
\_\_\_\_\_  
Notary Public



## MAINTENANCE PLAN

**MAINTENANCE PLAN  
FORMER HASKELL ARMORY  
HASKELL, OKLAHOMA**

The Armory located at 1600 NW Haskell Boulevard, Haskell, 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 March 29, 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 November 9, 2011. 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. Firing Range – Walls of indoor firing range were cleaned and encapsulated with lead-based paint encapsulant to remediate surfaces below 40 ug/SF. The walls need to be re-encapsulated if lead-based paint encapsulant shows signs of deterioration, damage, or flaking. Floor of indoor firing range was cleaned and sealed with acrylic sealant to remediate surfaces below 40 µg/SF for lead. The floor needs to be resealed if acrylic sealant shows signs of deterioration, damage, or flaking.
2. The military emblem in the center of the Drill Floor contains lead-based paint. The emblem was wet scraped, re-painted, and sealed with clear acrylic sealant. This surface needs to be resealed if acrylic sealant shows signs of deterioration, damage, or flaking.

*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) 702-5115.

Sincerely,



Dustin Davidson  
Environmental Programs Specialist  
DEQ Land Protection Division  
Site Cleanup Assistance Program

# ATTACHMENT 1

## Land use Restrictions

**LAND USE RESTRICTIONS:** The land use restrictions at the above-described Affected Property are:

- a. No residential use of the property by children age 6 or under. Residential use is defined as having a child present at the Affected Property for more than sixteen (16) hours within one twenty four (24) hour period.
- b. The indoor firing range should not be used as a child occupied facility. Child occupied facilities include, but are not limited to, day-care centers, preschools, and kindergarten classrooms where a child under 6 spends at least 6 hours per week.

These land use restrictions apply to the entirety of the Affected Property described herein above.

## ATTACHMENT 2

### DEQ Approved Sealants and Encapsulants List

#### *Acrylic Sealant approved by DEQ*

KM-669 Acrylic

#### *Lead-Based Paint Encapsulants approved by DEQ*

<b>Encapsulant Manufacturer Product(s)</b>	<b>Encapsulant</b>
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

# *HASKELL ARMORY*

*DCS Contract Number: ID11070-5*



07-2011

*Asbestos Inspection*

**Prepared For:**

*Oklahoma Department of Environmental Quality*

*Land Protection Division*

*707 North Robinson*

*Oklahoma City, Oklahoma 73102*

**Prepared By:**

*Marshall Environmental Management, Inc.*

*1601 Southwest 89<sup>th</sup> Street, Suite A-100*

*Oklahoma City, Oklahoma 73159*



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**CERTIFICATION**

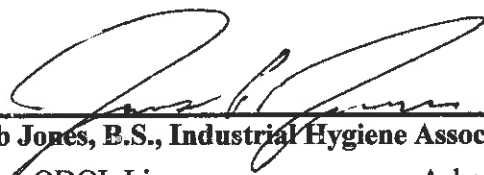
This is to certify that, on March 29, 2011 Marshall Environmental Management, Inc was contracted by the State of Oklahoma, Department of Central Services to conduct an Asbestos Inspection of the Haskell Armory located at 1600 Northwest Haskell Boulevard in Haskell, Oklahoma for the State of Oklahoma Department of Environmental Quality, Land Protection Division. This Asbestos Inspection was performed by a Licensed, Oklahoma Department of Labor, Asbestos Hazard Emergency Response Act Inspector Jacob Jones, representative of Marshall Environmental Management, Inc, under the direction of a Licensed, Oklahoma Department of Labor, Asbestos Hazard Emergency Response Act Management Planner Dr. Charles L. Marshall Certified Industrial Hygienist and President of Marshall Environmental Management, Inc. The findings and analytical data resulting from this Asbestos Inspection are believed to accurately, depict the condition(s) and location(s) of material(s) that contains asbestos on the date this Inspection was conducted.



4.26.11

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<b>Dr. Charles L. Marshall, CIH, CSP</b>		<b>Date</b>
Certified Industrial Hygienist - Comprehensive Practice Certification		#4489
Certified Safety Professional - Comprehensive Practice Certification		#9941
Registered Professional Environmental Specialist - State Department of Health		#710
Certified Hazardous Materials Manager, Master Level Certification		#1909
Certified Healthcare Safety Professional, Master Level Certification		#521
EPA AHERA Certifications	Asbestos Inspector	#400517
	Management Planner	#500396
	Project Designer	#2415
ODOL License	Project Designer	#OKMP-0028
	Management Planner	#OKMP-0246
	Asbestos Inspector	#OK-150343



4.26.11

---

<b>Jacob Jones, B.S., Industrial Hygiene Associate</b>		<b>Date</b>
ODOL License	Asbestos Inspector	#OK-159891

**LABORATORY ANALYSIS PERFORMED BY**

Marshall Environmental Management, Inc.  
 1601 Southwest 89<sup>th</sup> Street, A-100  
 Oklahoma City, OK 73159

## **HASKELL ARMORY**

### **EXECUTIVE SUMMARY**

On March 29, 2011, Marshall Environmental Management, Inc. (MEM) completed an Asbestos Inspection of the Haskell Armory so, if necessary, a strategy, which follows the regulations set forth by the Environmental Protection Agency (EPA), may be prepared for the management and/or abatement of Asbestos Containing Materials (ACM). As such, the analytical results correlating with the samples that were collected as part of this Asbestos Inspection identified the presence of asbestos containing floor-tile mastic in Room 1, 15 and Room 23. The homogenous areas (i.e. suspected ACM that are uniform in color and texture and believed to be applied during the same period) include Rooms 12, 13, 16, 17 and 22. The asbestos concentrations identified in the floor-tile mastic were greater than one percent (>1%). The asbestos containing mastic is considered non-friable, that which cannot be rendered to a powder by hand pressure, and is therefore categorized as "Category I Non-Friable."

Although asbestos containing mastic exists within the Armory, no action is required as long as the mastic remains in good condition and undisturbed. If the asbestos containing mastic remains in place, an Asbestos Management Plan is recommended to be written by a Licensed, Oklahoma Department Of Labor (ODOL) Management Planner for the purpose of preventing or assisting with activities that could disturb the asbestos containing mastic. However, the mastic must be abated should any activities have the potential to render the mastic friable. The abatement of the asbestos containing mastic is not regulated by the ODOL; though recommendations will suggest that an ODOL, Licensed Asbestos Abatement Contractor carryout the abatement of the mastic to make certain that Occupational Safety and Health Administration (OSHA) and EPA compliant methods are utilized.

A National Emission Standard for Hazardous Air Pollutants (NESHAP) notification must be submitted to the Oklahoma Department of Environmental Quality (ODEQ) 10-business days preceding the initiation of renovation and/or demolition activities where asbestos containing materials are present in quantities that meet or exceed 160-square feet, 260-linear feet or 35-cubic feet.

The remainder of this Report is comprised of the Sampling Strategy and Methodology, the Observations and Findings, Asbestos Response Actions, the Regulatory Review, Limitations of the Survey and the Appendix to this Report.

## **SAMPLING STRATEGY AND METHODOLOGY**

Each accessible area throughout the Armory was systematically inspected in order to collect samples of building materials suspected of containing asbestos. The sample collection process includes thoroughly documenting the location, condition, classification and the estimated quantity of material(s) suspected of containing asbestos. Suspect ACM that are uniform in color and texture and believed to be applied during the same period are described as "Homogenous." A specified number of samples are collected from a homogenous material and if laboratory analyses determine that the material contains asbestos, the entirety of the homogenous material is considered asbestos containing. The following are examples of the types of materials that were visually inspected and sampled during this Asbestos Inspection:

### **Surfacing Materials**

- Examples include but are not limited to blown on or troweled on surfacing material commonly observed on ceilings, walls or structural steel.

### **Thermal System Insulation**

- Examples include but are not limited to insulation on piping, thermal process or Heating Ventilation and Air Conditioning (HVAC) equipment and components.

### **Miscellaneous Materials**

- Examples include but are not limited to floor and ceiling tiles, mastics, vinyl sheet-flooring, wallboard, wallboard-tape and mud or joint compounds.

"Asbestos Containing Materials" are any materials, which consist of greater than one percent (>1%) asbestos as defined by the EPA Approved Analytical Method: 40 Code of Federal Regulations (CFR) Chapter I, Part 763, Subpart F, Appendix C, referred to as "*Interim Method for determination of Asbestos in Bulk Insulation Samples*," using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982. Each sample collected was submitted for analysis in accordance with the EPA authorized Method: 600 49 CFR Part 61 Subpart M, Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP) Rules.

## OBSERVATIONS AND FINDINGS

The Haskell Armory is a one-story structure comprised of a brick façade and a flat roof that was constructed on a concrete slab foundation circa 1983. The laboratory analyses detected asbestos in the floor-tile mastic in Room 1, 15 and Room 23 and the homogenous areas include Rooms 12, 13, 16, 17 and 22. Approximately 2,624-square foot (ft<sup>2</sup>) of asbestos containing floor-tile mastic was identified. Correlating chain of custody forms and laboratory analysis is provided for your records in the Appendix to this Report. The following Tables summarize the sampling locations and the description of the ACM, the percent and type of asbestos detected, the type and condition of the ACM and the respective quantities.

TABLE I: SUMMARY OF ASBESTOS CONTAINING MATERIALS

SAMPLE NUMBER	SAMPLE LOCATION	SAMPLE DESCRIPTION	PERCENT ASBESTOS	TYPE OF ASBESTOS	TYPE OF MATERIAL	CONDITION OF MATERIAL
0028-02	Room 23 – North	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-04	Room 23 – South	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-06	Room 23 – West	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-08	Room 1 – South	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-10	Room 1 – North	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-12	Room 1 – East	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-23	Room 15 – East	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-25	Room 15 – West	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-27	Room 15 – Center	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good

TABLE II: QUANTITIES OF ASBESTOS CONTAINING MATERIALS

SAMPLE LOCATION	SAMPLE DESCRIPTION	INDIVIDUAL QUANTITY
Room 23	Floor-Tile Mastic	~448-ft <sup>2</sup>
Room 1	Floor-Tile Mastic	~720-ft <sup>2</sup>
Room 15	Floor-Tile Mastic	~168-ft <sup>2</sup>
Room 12	Floor-Tile Mastic	~280-ft <sup>2</sup>
Room 13	Floor-Tile Mastic	~196-ft <sup>2</sup>
Room 16	Floor-Tile Mastic	~132-ft <sup>2</sup>
Room 17	Floor-Tile Mastic	~120-ft <sup>2</sup>
Room 22	Floor-Tile Mastic	~560-ft <sup>2</sup>
TOTAL QUANTITIES		~2,624-ft <sup>2</sup>

## ***ASBESTOS RESPONSE ACTIONS***

- Although asbestos containing mastic exists within the Armory, no action is required as long as the mastic remains in good condition and undisturbed
- If the asbestos containing mastic remains in place, an Asbestos Management Plan is recommended to be written by a Licensed, ODOL Management Planner for the purpose of preventing or assisting with activities that could disturb the asbestos containing mastic
- The mastic must be abated should any activities have the potential to render the mastic friable
- The abatement of the asbestos containing mastic is not regulated by the ODOL; though recommendations will suggest that an ODOL, Licensed Asbestos Abatement Contractor carryout the abatement of the mastic to make certain that OSHA and EPA compliant methods are utilized
- A NESHAP notification must be submitted to the ODEQ 10-business days preceding the initiation of renovation and/or demolition activities where asbestos containing materials are present in quantities that meet or exceed 160-square feet, 260-linear feet or 35-cubic feet

## **REGULATORY REVIEW**

Prior to 1980 asbestos was commonly utilized during construction in addition to being found in various building materials. In 1994, Occupational Safety and Health Administration (OSHA) required employers to identify ACM in pre-1980 construction as part of its Standard for Occupational Exposure to Asbestos in Construction (29 CFR 1926.1101), this OSHA standard covers maintenance, repair and removal functions involving ACM or Presumed ACM (PACM). Without Asbestos Inspections, owners and/or operators must treat suspected ACM as asbestos. The EPA and the Oklahoma Department Of Labor (ODOL) define an ACM as any material that contains concentrations of asbestos >1%.

The ODOL regulates the Hazard Communication requirements for public employees as part of the ODOL Public Employees Occupational Safety and Health (PEOSH) Program. The State of Oklahoma Hazard Communication Standard (HAZCOM), revised as of August 2006, is provided in the Oklahoma Asbestos Control Act (OAC) 380 Chapter 45: [http://www.ok.gov/odol/documents/Asbestos\\_law\\_rules.pdf](http://www.ok.gov/odol/documents/Asbestos_law_rules.pdf)

Specific provisions of the OAC Standard (45-15-1) address asbestos notifications and labeling requirements. The labeling requirements specify that pipe insulation and various equipment insulation that contains asbestos as well as rooms where asbestos is present be identified with an Asbestos Warning Label. The asbestos warning labels are to be readily visible and include the following warning:

**DANGER**  
**CONTAINS ASBESTOS FIBERS**  
**AVOID BREATHING DUST**  
**CANCER AND LUNG DISEASE HAZARD**

Section 380:45-15-2 requires a notice to employees when ACM are used in acoustical materials on ceilings and walls this type of ACM is referred to as Surfacing Material.

The EPA requires asbestos inspections in school buildings in grades K through 12 as part of the Asbestos Hazard Emergency Response Act (AHERA), which is authorized in 40 CFR 763.6. If asbestos is present within School Facilities grades K-12 an Asbestos Management Plan is required by the Local Educational Authority (LEA) to be in place.

The AHERA sampling protocol addresses the systematic sample collection of all forms of ACM in addition to categorizing ACM materials as friable, that which can be rendered to a powder by hand pressure, Category I or II non-friable. The AHERA Inspection must also evaluate the condition and the potential for disturbance of ACM.

In addition to AHERA, the EPA also regulates commercial asbestos abatement activities. A NESHAP notification is required to be submitted to the ODEQ 10-business day prior to the abatement of ACM whenever the quantities meet or exceed 160-square feet, 260-linear feet or 35-cubic feet. Instruction regarding NESHAP notification requirements and ODEQ compliance are provided on the DEQ website at: <http://www.deq.state.ok.us/aqdnew/asbestos/index.htm>

Land disposal requirements are also regulated by the EPA through State Landfill Permits. These efforts are now administered by the ODEQ Air Quality and Land Protection regulations. The ODEQ requires the advance filing of a NESHAP notification when any demolition or renovation activities take place. The NESHAP notification process tracks abated ACM to an ODEQ approved landfill on a project-by-project basis.

The ODOL Asbestos Division regulates Asbestos Abatement by implementing the rules that govern the abatement of friable ACM. Under the ODOL asbestos rule, OAC 380:50, only adequately licensed Contractors can perform asbestos abatement, develop management plans and project designs. All abatement supervisors, abatement workers and asbestos inspectors must be licensed by the ODOL. The ODOL Rules are available on the ODOL web site at: <http://www.ok.gov/odol/>

### ***LIMITATIONS OF SURVEY***

This Asbestos Inspection was limited to certain aspects of the building construction these limitations may have restricted or prevented the complete inspection of hidden or inaccessible building materials; therefore, inaccessible building materials were not inspected. Furthermore, locations presenting a hazard to bystanders or the Inspector were not assessed.

The findings resulting from this Inspection are valid as of the date this Asbestos Inspection was performed; however, changes in the conditions of a property may certainly occur with the passage of time whether due to natural processes or the works of man. Additionally, changes in applicable or appropriate standards may also occur possibly resulting from legislation or the expansion of knowledge.

Our Investigation was conducted using the degree of care and skill ordinarily exercised by professional consultants under similar circumstances practicing in this or similar localities. Professional services have been performed; results associated with this Asbestos Inspection were obtained and reported in accordance with generally accepted principles and practices. No other representations either expressed or implied are made; thus, Marshall Environmental Management, Inc. is not responsible for independent conclusions, opinions, or recommendations made by others. It should also be noted that as-built plans were not available for review or use in the planning of this Asbestos Inspection.



# ***APPENDIX***

*CHAIN OF CUSTODY & ANALYTICAL RESULTS*

*LICENSES*

*FLOOR PLAN DIAGRAM*

PROJECT INFORMATION		INVOICE TO		REPORT TO	
Project Id.	0035-AB-032911	Client/Company	State of Oklahoma - Department of Central Services	Client/Company	Oklahoma Department of Environmental Quality - Land Protection Division
Project Name	Haskell Armory Asbestos Inspection	Attention Title	Cindy Melton Administrative Programs Director	Attention Title	Dustin Davidson
Project Address	1600 NW Haskell Blvd Haskell, OK	Invoice To Address	P.O. Box 53448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact	Duane Points	Phone Number	405-522-4805	Phone Number	405-702-5115
Phone Number	918-482-3933	Fax Number	405-522-0051	Fax Number	
Mobile Number	918-482-3148	Mobile Number		Mobile Number	
email		E-mail Address	Cindy.melton@dcs.state.ok.us	E-mail Address	dustin.davidson@deq.ok.gov

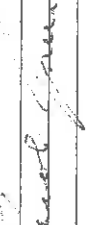
Lab Id.	Sample Date	Field Id.	Sample Location (lobby, bedroom, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time		Volume/ Area	Unit	Analysis/ Parameters
							On	Off			
0028	3/29/2011	PLM-1	White w/ Black Speck 12" x 12" Floor Tile	Room 23 - North	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-2	Black Tile Mastic	Room 23 - North	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-3	White w/ Black Speck 12" x 12" Floor Tile	Room 23 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-4	Black Tile Mastic	Room 22 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-5	White w/ Black Speck 12" x 12" Floor Tile	Room 23 - West	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-6	Black Tile Mastic	Room 23 - West	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-7	White w/ Tan Speck 12" x 12" Floor Tile	Room 1 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-8	Black Tile Mastic	Room 1 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-9	White w/ Tan Speck 12" x 12" Floor Tile	Room 1 - North	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-10	Black Tile Mastic	Room 1 - North	Bulk	NA	On	NA	NA	NA	Asbestos PLM

Collected By	Jacob Jones	(print)	Date	3/29/2011	Relinquished		Matrix		Media	
Received By	<i>Jacob Jones</i>	(signature)	Time	17:00	By		Air		SV	TL
		(print)	Date		Relinquished		Aqueous		MP	ST
		(signature)	Time		By		Bulk		Micro-Vacuum	Trap
		Condition Upon Receipt		Method of Shipment			Sludge		Mold Plate	Spore Trap
		Sample Notes					Soil		1	of
		Turn-Around-Time					Solid		Page	4
		5-7 Business Days								
		Rush								
		Immediate								

# Marshall Environmental Management, Inc. Chain Of Custody

PROJECT INFORMATION			INVOICE TO			REPORT TO			
Project Id.	0035-AB-032911	Client/Company	State of Oklahoma - Department of Central Services			Client/Company	Oklahoma Department of Environmental Quality - Land Protection Division		
Project Name	Haskell Armory Asbestos Inspection	Attention Title	Cindy Melton Administrative Programs Director			Attention Title	Dustin Davidson		
Project Address	1600 NW Haskell Blvd Haskell, OK	Invoice To Address	P.O. Box 53448 Oklahoma City, OK 73152-3448			Address	P.O. Box 1677 Oklahoma City, OK 73101		
Site Contact	Duane Points	Phone Number	405-522-4805			Phone Number	405-702-5115		
Phone Number	918-482-3933	Fax Number	405-522-0051			Fax Number			
Mobile Number	918-482-3148	Mobile Number				Mobile Number			
email		E-mail Address	Cindy_melton@dcs.state.ok.us			E-mail Address	custin.davidson@deq.ok.gov		

Lab Id.	Sample Date	Field Id.	Sample Location (lobby, bedroom, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time		Volume/ Area	Unit	Analysis/ Parameters
							On	Off			
0028	3/29/2011	PLM-11	White w/ Tan Speck 12" x 12" Floor Tile	Room 1 - East	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-12	Black Tile Mastic	Room 1 - East	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-13	Bedding Tape	Room 1 - NW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-14	Bedding Mud	Room 1 - NW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-15	Drywall	Room 1 - NW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-16	Bedding Tape	Room 15 - SW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-17	Bedding Mud	Room 15 - SW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-18	Drywall	Room 15 - SW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-19	Bedding Tape	Room 9 - NW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-20	Bedding Mud	Room 9 - NW	Bulk	NA	On	NA	NA	NA	Asbestos PLM

Collected By	Jacob Jones	(print)	Date	3/29/2011	Relinquished	By		Matrix		Media	
Received By		(signature)	Time	17:00	Relinquished	By		Air		MV	MP
		(print)	Date					Aqueous		ST	SW
		(signature)	Time					Bulk		TL	TL
								Sludge			
								Soil			
								Solid			
								Page	2		
											4

Turn-Around-Time  
Standard 5-7 Business Days  
Rush Next Day  
Immediate Same Day

Condition Upon Receipt  
Sample Notes


Method of Shipment



# Marshall Environmental Management, Inc. Chain Of Custody

PROJECT INFORMATION			INVOICE TO			REPORT TO			
Project Id.	0035-AB-032911	Client/Company	State of Oklahoma - Department of Central Services			Client/Company	Oklahoma Department of Environmental Quality - Land Protection Division		
Project Name	Haskell Army Asbestos Inspection	Attention Title	Cindy Melton Administrative Programs Director			Attention Title	Dustin Davidson		
Project Address	1600 NW Haskell Blvd Haskell, OK	Invoice To Address	P.O. Box 53448 Oklahoma City, OK 73152-3448			Address	P.O. Box 1677 Oklahoma City, OK 73101		
Site Contact	Duane Points	Phone Number	405-522-4805			Phone Number	405-702-5115		
Phone Number	918-482-3933	Fax Number	405-522-0051			Fax Number			
Mobile Number	918-482-3148	Mobile Number				Mobile Number			
email		E-mail Address	Cindy.melton@dcs.state.ok.us			E-mail Address	dustin.davidson@deq.ok.gov		

Lab Id.	Sample Date	Field Id.	Sample Location (lobby, bedroom, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time		Volume/ Area	Unit	Analysis/ Parameters
							On	Off			
0028	3/29/2011	PLM-31	Yellow Straight Run Insulation	Room 2 - West	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-32	Yellow Straight Run Insulation	Room 2 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-33	Yellow Straight Run Insulation	Room 2 - North	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-34	Yellow Plumbing Straight Run	Room 9 - NW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-35	Insulation Seam Tape	Room 9 - NW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-36	Yellow Elbow Insulation	Room 9 - NW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-37	Yellow Straight Run Insulation	Room 9 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-38	Tan 12" x 12" Floor Tile	Room 15 - West	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-39	Tan 12" x 12" Floor Tile	Room 15 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM

Collected By	Jacob Jones	Date	3/29/2011	Time	17:00	Relinquished By		Matrix	Air	Media	Mold Plate	4	of	4	
Received By		Date		Time		Relinquished By		Aqueous		Spore Trap					
Turn-Around-Time		Condition Upon Receipt		Method of Shipment		Matrix		Bulk		Micro-Vacuum		4		Page	
Standard	5-7 Business Days							Sludge		Mold Plate		4		Page	
Rush	Next Day							Soil		Mold Plate		4		Page	
Immediate	Same Day							Solid		Mold Plate		4		Page	

## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100  
Oklahoma City, OK 73159  
Phone: (405) 616-0401 Fax: (405) 681-6753  
marshenv@swbell.net

PROJECT LOCATION		INVOICE TO		REPORT TO	
<b>Project Identification</b>	0028-032911-PLM	<b>Client</b>	State of Oklahoma Department of Central Services Construction & Properties Division	<b>Client</b>	State of Oklahoma Department of Environmental Quality Land Protection Division
<b>Project</b>	Haskell Armory Asbestos Inspection	<b>Attention</b>	Cindy Melton	<b>Attention</b>	Dustin Davidson
<b>Project Address</b>	1600 Northwest Haskell Blvd. Haskell, OK 74436	<b>Address</b>	P.O. Box 53448 Oklahoma City, OK 73102	<b>Address</b>	P.O. Box 1677 Oklahoma City, OK 73102
<b>Contact</b>	Duane Points	<b>Phone</b>	405-5622-4805	<b>Phone</b>	405-702-5115
<b>Phone</b>	918-482-3933	<b>Fax</b>	405-522-0051	<b>Fax</b>	
<b>Cell</b>	918-724-1753	<b>Other</b>		<b>Other</b>	
<b>email</b>		<b>email</b>	cindy_melton@dcs.state.ok.us	<b>email</b>	dustin.davidson@deq.ok.gov

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED	
			COLOR	CONDITION		
0028-032911-PLM-01	March 29, 2011	Room 23 - North	White w/ Black Speck			2% Cellulose
		12" x 12" Floor Tile	Good			98% Vinyl Aggregate
			Miscellaneous			
0028-032911-PLM-02	March 29, 2011	Room 23 - North	Black			5% Chrysotile
		Floor Tile Mastic	Good			1% Cellulose
			Miscellaneous			94% Tar
0028-032911-PLM-03	March 29, 2011	Room 23 - South	White w/ Black Speck			2% Cellulose
		12" x 12" Floor Tile	Good			98% Vinyl Aggregate
			Miscellaneous			
0028-032911-PLM-04	March 29, 2011	Room 23 - South	Black			5% Chrysotile
		Floor Tile Mastic	Good			1% Cellulose
			Miscellaneous			94% Tar
0028-032911-PLM-05	March 29, 2011	Room 23 - West	White w/ Black Speck			2% Cellulose
		12" x 12" Floor Tile	Good			98% Vinyl Aggregate
			Miscellaneous			

Jamie Marshall 	April 7, 2011
ANALYST NAME (PRINT)	ANALYST SIGNATURE
DATE ANALYZED	

Polarized Light Microscopy Asbestos Analysis Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
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## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100  
Oklahoma City, OK 73159  
Phone: (405) 616-0401 Fax: (405) 681-6753  
marshenv@swbell.net

PROJECT LOCATION		INVOICE TO		REPORT TO	
<b>Project Identification</b>	0028-032911-PLM	<b>Client</b>	State of Oklahoma Department of Central Services Construction & Properties Division	<b>Client</b>	State of Oklahoma Department of Environmental Quality Land Protection Division
<b>Project</b>	Haskell Armory Asbestos Inspection	<b>Attention</b>	Cindy Melton	<b>Attention</b>	Dustin Davidson
<b>Project Address</b>	1600 Northwest Haskell Blvd. Haskell, OK 74436	<b>Address</b>	P.O. Box 53448 Oklahoma City, OK 73102	<b>Address</b>	P.O. Box 1677 Oklahoma City, OK 73102
<b>Contact</b>	Duane Points	<b>Phone</b>	405-5622-4805	<b>Phone</b>	405-702-5115
<b>Phone</b>	918-482-3933	<b>Fax</b>	405-522-0051	<b>Fax</b>	
<b>Cell</b>	918-724-1753	<b>Other</b>		<b>Other</b>	
<b>email</b>		<b>email</b>	cindy_melton@dcs.state.ok.us	<b>email</b>	dustin.davidson@deq.ok.gov

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		5% ASBESTOS DETECTED	
			COLOR	CONDITION		
0028-032911-PLM-06	March 29, 2011	Room 23 - West	Black	Good	5% Chrysotile	95% Tar
		Floor Tile Mastic	Miscellaneous			
0028-032911-PLM-07	March 29, 2011	Room 1 - South	White w/ Tan Speck	Good		1% Cellulose
		12" x 12" Floor Tile	Miscellaneous			99% Vinyl Aggregate
0028-032911-PLM-08	March 29, 2011	Room 1 - South	Black	Good	5% Chrysotile	95% Tar
		Floor Tile Mastic	Miscellaneous			
0028-032911-PLM-09	March 29, 2011	Room 1 - North	White w/ Tan Speck	Good		1% Cellulose
		12" x 12" Floor Tile	Miscellaneous			99% Vinyl Aggregate
0028-032911-PLM-10	March 29, 2011	Room 1 - North	Black	Good	5% Chrysotile	95% Tar
		Floor Tile Mastic	Miscellaneous			

Jamie Marshall Jamie Marshall, B.S., Industrial Hygiene Associate	April 7, 2011
<b>ANALYST NAME (PRINT)</b>	<b>ANALYST SIGNATURE</b>
<b>DATE ANALYZED</b>	

Polarized Light Microscopy Asbestos Analysis Test Method: 40 CFR Chapter 1, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
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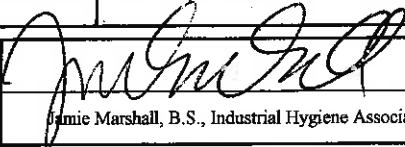
## Bulk Asbestos Analysis

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Phone: (405) 616-0401 Fax: (405) 681-6753  
marshenv@swbell.net

PROJECT LOCATION		INVOICE TO		REPORT TO	
<b>Project Identification</b>	0028-032911-PLM	<b>Client</b>	State of Oklahoma Department of Central Services Construction & Properties Division	<b>Client</b>	State of Oklahoma Department of Environmental Quality Land Protection Division
<b>Project</b>	Haskell Armory Asbestos Inspection	<b>Attention</b>	Cindy Melton	<b>Attention</b>	Dustin Davidson
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<b>Contact</b>	Duane Points	<b>Phone</b>	405-5622-4805	<b>Phone</b>	405-702-5115
<b>Phone</b>	918-482-3933	<b>Fax</b>	405-522-0051	<b>Fax</b>	
<b>Cell</b>	918-724-1753	<b>Other</b>		<b>Other</b>	
<b>email</b>		<b>email</b>	cindy_melton@dcs.state.ok.us	<b>email</b>	dustin.davidson@deq.ok.gov

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED	
			COLOR	CONDITION		
0028-032911-PLM-11	March 29, 2011	Room 1 - East	White w/ Tan Speck			1% Cellulose
		12" x 12" Floor Tile	Good			99% Vinyl Aggregate
			Miscellaneous			
			NOTE			
0028-032911-PLM-12	March 29, 2011	Room 1 - East	Black			5% Chrysotile
		Floor Tile Mastic	Good			95% Tar
			Miscellaneous			
			NOTE			
0028-032911-PLM-13	March 29, 2011	Room 1 - Northwest	Beige			100% Cellulose
		Bedding Tape	Good			
			Miscellaneous			
			NOTE			
0028-032911-PLM-14	March 29, 2011	Room 1 - Northwest	White			99% Calcareous Material
		Bedding Mud	Good			1% Cellulose
			Surfacing			
			NOTE			
0028-032911-PLM-15	March 29, 2011	Room 1 - Northwest	White			98% Calcareous Material
		Drywall	Good			2% Cellulose
			Miscellaneous			
			NOTE			

Jamie Marshall ANALYST NAME (PRINT)	 Jamie Marshall, B.S., Industrial Hygiene Associate ANALYST SIGNATURE	April 7, 2011 DATE ANALYZED
--	--	--------------------------------

Polarized Light Microscopy Asbestos Analysis Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---



## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100

Oklahoma City, OK 73159

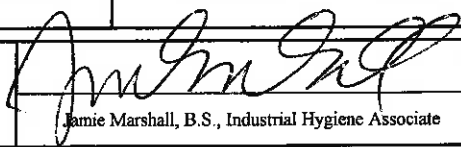
Phone: (405) 616-0401 Fax: (405) 681-6753

[marshenv@swbell.net](mailto:marshenv@swbell.net)

PROJECT LOCATION		INVOICE TO		REPORT TO	
<b>Project Identification</b>	0028-032911-PLM	<b>Client</b>	State of Oklahoma Department of Central Services Construction & Properties Division	<b>Client</b>	State of Oklahoma Department of Environmental Quality Land Protection Division
<b>Project</b>	Haskell Armory Asbestos Inspection	<b>Attention</b>	Cindy Melton	<b>Attention</b>	Dustin Davidson
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<b>Contact</b>	Duane Points	<b>Phone</b>	405-5622-4805	<b>Phone</b>	405-702-5115
<b>Phone</b>	918-482-3933	<b>Fax</b>	405-522-0051	<b>Fax</b>	
<b>Cell</b>	918-724-1753	<b>Other</b>		<b>Other</b>	
<b>email</b>		<b>email</b>	<a href="mailto:cindy_melton@dcs.state.ok.us">cindy_melton@dcs.state.ok.us</a>	<b>email</b>	<a href="mailto:dustin.davidson@deq.ok.gov">dustin.davidson@deq.ok.gov</a>

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED	
			COLOR	CONDITION		
0028-032911-PLM-16	March 29, 2011	Room 15 - Southwest	Beige	Good		100% Cellulose
		Bedding Tape				
0028-032911-PLM-17	March 29, 2011	Room 15 - Southwest	White	Good		99% Calcareous Material
		Bedding Mud				1% Cellulose
0028-032911-PLM-18	March 29, 2011	Room 15 - Southwest	White	Good		98% Calcareous Material
		Drywall				2% Cellulose
0028-032911-PLM-19	March 29, 2011	Room 9 - Northwest	Beige	Good		100% Cellulose
		Bedding Tape				
0028-032911-PLM-20	March 29, 2011	Room 9 - Northwest	White	Good		99% Calcareous Material
		Bedding Mud				1% Cellulose

Jamie Marshall



Jamie Marshall, B.S., Industrial Hygiene Associate

April 7, 2011

ANALYST NAME (PRINT)

ANALYST SIGNATURE

DATE ANALYZED

Polarized Light Microscopy Asbestos Analysis Test Method:  
40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.

Lab Accreditation:  
AIHA PAT ID# 102334

## Bulk Asbestos Analysis

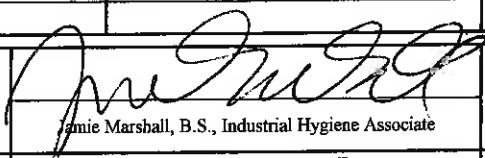
### Marshall Environmental Management, Inc.

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Oklahoma City, OK 73159  
Phone: (405) 616-0401 Fax: (405) 681-6753  
[marshenv@swbell.net](mailto:marshenv@swbell.net)

PROJECT LOCATION		INVOICE TO		REPORT TO	
<b>Project Identification</b>	0028-032911-PLM	<b>Client</b>	State of Oklahoma Department of Central Services Construction & Properties Division	<b>Client</b>	State of Oklahoma Department of Environmental Quality Land Protection Division
<b>Project</b>	Haskell Armory Asbestos Inspection	<b>Attention</b>	Cindy Melton	<b>Attention</b>	Dustin Davidson
<b>Project Address</b>	1600 Northwest Haskell Blvd. Haskell, OK 74436	<b>Address</b>	P.O. Box 53448 Oklahoma City, OK 73102	<b>Address</b>	P.O. Box 1677 Oklahoma City, OK 73102
<b>Contact</b>	Duane Points	<b>Phone</b>	405-5622-4805	<b>Phone</b>	405-702-5115
<b>Phone</b>	918-482-3933	<b>Fax</b>	405-522-0051	<b>Fax</b>	
<b>Cell</b>	918-724-1753	<b>Other</b>		<b>Other</b>	
<b>email</b>		<b>email</b>	<a href="mailto:cindy_melton@dcs.state.ok.us">cindy_melton@dcs.state.ok.us</a>	<b>email</b>	<a href="mailto:dustin.davidson@deq.ok.gov">dustin.davidson@deq.ok.gov</a>

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED		
			COLOR	CONDITION			
0028-032911-PLM-21	March 29, 2011	Room 9 - Northwest	White	Good	98%	Calcareous Material	
		Drywall			2%	Cellulose	
			Miscellaneous				
0028-032911-PLM-22	March 29, 2011	Room 15 - East	White w/ Gold Speck	Good	2%	Cellulose	
		12" x 12" Floor Tile			98%	Vinyl Aggregate	
			Miscellaneous				
0028-032911-PLM-23	March 29, 2011	Room 15 - East	Black	Good	5%	Chrysotile	
		Floor Tile Mastic			1%	Cellulose	
			Miscellaneous		94%	Tar	
0028-032911-PLM-24	March 29, 2011	Room 15 - West	White w/ Gold Speck	Good	2%	Cellulose	
		12" x 12" Floor Tile			98%	Vinyl Aggregate	
			Miscellaneous				
0028-032911-PLM-25	March 29, 2011	Room 15 - West	Black	Good	5%	Chrysotile	
		Floor Tile Mastic			1%	Cellulose	
			Miscellaneous		94%	Tar	

Jamie Marshall



Jamie Marshall, B.S., Industrial Hygiene Associate

April 7, 2011

**ANALYST NAME (PRINT)**

**ANALYST SIGNATURE**

**DATE ANALYZED**

Polarized Light Microscopy Asbestos Analysis Test Method:  
40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.

Lab Accreditation:  
AIHA PAT ID# 102334

## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100  
 Oklahoma City, OK 73159  
 Phone: (405) 616-0401 Fax: (405) 681-6753  
 marshenv@swbell.net

PROJECT LOCATION		INVOICE TO		REPORT TO	
<b>Project Identification</b>	0028-032911-PLM	<b>Client</b>	State of Oklahoma Department of Central Services Construction & Properties Division	<b>Client</b>	State of Oklahoma Department of Environmental Quality Land Protection Division
<b>Project</b>	Haskell Armory Asbestos Inspection	<b>Attention</b>	Cindy Melton	<b>Attention</b>	Dustin Davidson
<b>Project Address</b>	1600 Northwest Haskell Blvd. Haskell, OK 74436	<b>Address</b>	P.O. Box 53448 Oklahoma City, OK 73102	<b>Address</b>	P.O. Box 1677 Oklahoma City, OK 73102
<b>Contact</b>	Duane Points	<b>Phone</b>	405-5622-4805	<b>Phone</b>	405-702-5115
<b>Phone</b>	918-482-3933	<b>Fax</b>	405-522-0051	<b>Fax</b>	
<b>Cell</b>	918-724-1753	<b>Other</b>		<b>Other</b>	
<b>email</b>		<b>email</b>	cindy_melton@dcs.state.ok.us	<b>email</b>	dustin.davidson@deq.ok.gov

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED	
			COLOR	CONDITION		
0028-032911-PLM-26	March 29, 2011	Room 15 - Center	White w/ Gold Speck			2% Cellulose
		12" x 12" Floor Tile	Good			98% Vinyl Aggregate
			Miscellaneous			
0028-032911-PLM-27	March 29, 2011	Room 15 - Center	Black			5% Chrysotile
		Floor Tile Mastic	Good			2% Cellulose
			Miscellaneous			93% Tar
0028-032911-PLM-28	March 29, 2011	Room 17 - Center	White			65% Calcareous Material
		Ceiling Tile	Good			15% Cellulose
			Miscellaneous			10% Fibrous Glass
						10% Perlite
0028-032911-PLM-29	March 29, 2011	Room 23 - North	White			65% Calcareous Material
		Ceiling Tile	Good			15% Cellulose
			Miscellaneous			10% Fibrous Glass
						10% Perlite
0028-032911-PLM-30	March 29, 2011	Room 16 - South	White			65% Calcareous Material
		Ceiling Tile	Good			15% Cellulose
			Miscellaneous			10% Fibrous Glass
						10% Perlite

Jamie Marshall Jamie Marshall, B.S., Industrial Hygiene Associate	April 7, 2011
<b>ANALYST NAME (PRINT)</b>	<b>ANALYST SIGNATURE</b>
<b>DATE ANALYZED</b>	

Polarized Light Microscopy Asbestos Analysis Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
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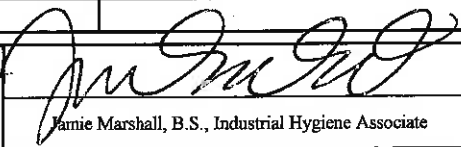
## Bulk Asbestos Analysis

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1601 Southwest 890th Street, Suite A-100  
Oklahoma City, OK 73159  
Phone: (405) 616-0401 Fax: (405) 681-6753  
marshenv@swbell.net

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<b>email</b>		<b>email</b>	cindy_melton@dcs.state.ok.us	<b>email</b>	dustin.davidson@deq.ok.gov

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED	
			COLOR	CONDITION		
0028-032911-PLM-31	March 29, 2011	Room 2 - West	Yellow	Good	100%	Fibrous Glass
		Straight Run Insulation		Thermal System Insulation		
0028-032911-PLM-32	March 29, 2011	Room 2 - South	Yellow	Good	100%	Fibrous Glass
		Straight Run Insulation		Thermal System Insulation		
0028-032911-PLM-33	March 29, 2011	Room 2 North	Yellow	Good	100%	Fibrous Glass
		Straight Run Insulation		Thermal System Insulation		
0028-032911-PLM-34	March 29, 2011	Room 9 - Northwest	Yellow	Good	100%	Fibrous Glass
		Plumbing Straight Run		Thermal System Insulation		
0028-032911-PLM-35	March 29, 2011	Room 9 - Northwest	Beige	Good	100%	Fibrous Glass
		Insulation Seam Tape		Miscellaneous		

Jamie Marshall  <b>ANALYST NAME (PRINT)</b>	 Jamie Marshall, B.S., Industrial Hygiene Associate  <b>ANALYST SIGNATURE</b>	April 7, 2011  <b>DATE ANALYZED</b>
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Polarized Light Microscopy Asbestos Analysis Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
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## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

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 Phone: (405) 616-0401 Fax: (405) 681-6753  
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<b>email</b>		<b>email</b>	<a href="mailto:cindy_melton@dcs.state.ok.us">cindy_melton@dcs.state.ok.us</a>	<b>email</b>	<a href="mailto:dustin.davidson@deq.ok.gov">dustin.davidson@deq.ok.gov</a>

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED	
			COLOR	CONDITION		
0028-032911-PLM-36	March 29, 2011	Room 9 - Northwest	Yellow	Good		100% Fibrous Glass
		Elbow Insulation		Thermal System Insulation		
0028-032911-PLM-37	March 29, 2011	Room 9 - South	Yellow	Good		100% Fibrous Glass
		Straight Run Insulation		Thermal System Insulation		

Jamie Marshall ANALYST NAME (PRINT)	 Jamie Marshall, B.S., Industrial Hygiene Associate ANALYST SIGNATURE	April 7, 2011 DATE ANALYZED
--	--	--------------------------------

Polarized Light Microscopy Asbestos Analysis Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
--	---

FEE: \$500.00

**Oklahoma Department of Labor**



**Charles Marshall**

has filed in the office of the Commissioner of Labor of the State of Oklahoma  
an application for a Limited Asbestos Contractor's license for

**AHERA MANAGEMENT PLANNER**

Now, therefore, The Commissioner of Labor of the State of Oklahoma, by virtue of  
the power vested in him by law hereby issues to the  
applicant license No. **OK-MP130246**.

*Lloyd L. Fields*

**LLOYD L. FIELDS**  
Commissioner of Labor

July 14, 2010

*Date of Issuance*

**EXPIRES: June 30, 2011**

FEE: \$25.00

**Oklahoma Department of Labor**



**Jacob Jones**

has filed in the office of the Commissioner of Labor of the State of Oklahoma  
an application for a Limited Asbestos Contractor's license for

**AHERA INSPECTOR**

Now, therefore, The Commissioner of Labor of the State of Oklahoma, by virtue of  
the power vested in him by law hereby issues to the  
applicant license No. **OK159891**.

*Lloyd L. Fields*

LLOYD L. FIELDS  
Commissioner of Labor

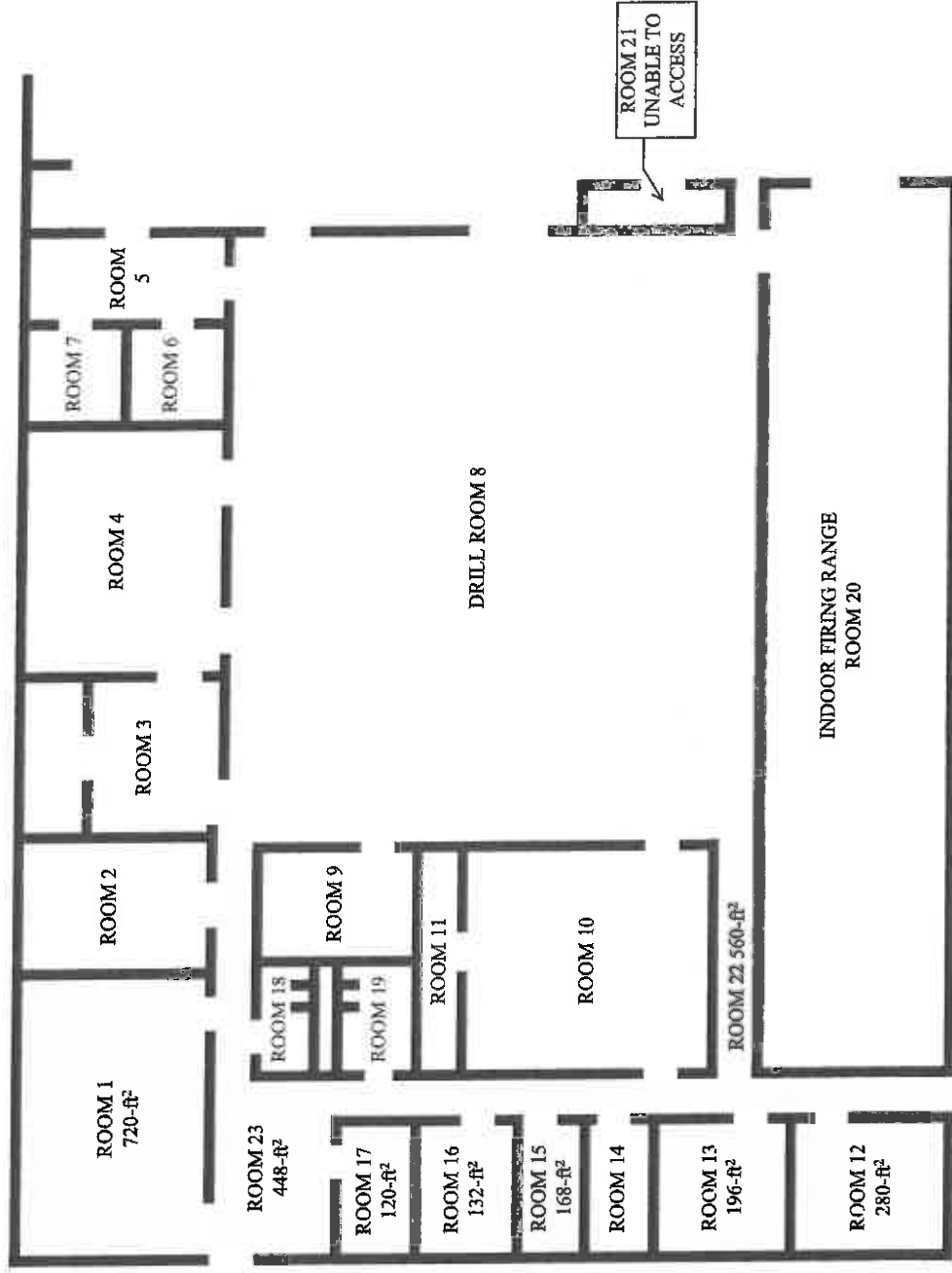
June 09, 2010

Date of Issuance

**EXPIRES: June 02, 2011**

# HASKELL ARMORY

ASBESTOS  
CONTAINING  
MATERIALS



Asbestos Containing  
Floor-Tile Mastic



# *HASKELL ARMORY*

*DCS Contract Number: ID11070-5*



*Lead-Based Paint Inspection &  
Settled-Dust Sampling*

**Prepared For:**

*Oklahoma Department of Environmental Quality*

*Land Protection Division*

*707 North Robinson*

*Oklahoma City, Oklahoma 73102*

**Prepared By:**

*Marshall Environmental Management, Inc.*

*1601 Southwest 89<sup>th</sup> Street, Suite A-100*

*Oklahoma City, Oklahoma 73159*

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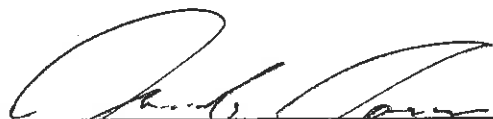
**CERTIFICATION**

This is to certify that, Marshall Environmental Management, Inc. was contracted by the State of Oklahoma, Department of Central Services to conduct a Lead-Based Paint Inspection in addition to collecting samples of settled dust within the Haskell Armory located at 1600 Northwest Haskell Boulevard in Haskell, Oklahoma for the State of Oklahoma Department of Environmental Quality, Land Protection Division. All services performed on March 29, 2011 were conducted by a Certified, Oklahoma Department of Environmental Quality, Lead-Based Paint Inspector/Risk Assessor Jacob Jones, representative of Marshall Environmental Management, Inc., under the direction of Dr. Charles L. Marshall Certified Industrial Hygienist and President of Marshall Environmental Management, Inc. The analytical results associated with this Lead-Based Paint Inspection and settled dust sampling are believed to accurately, reflect the concentrations of lead in paint and settled dust that were present at the time this Inspection was accomplished.

**OWNER INFORMATION**

City of Haskell

**CERTIFIED LEAD-BASED PAINT INSPECTOR/RISK ASSESSOR**



Jacob Jones, B.S., Industrial Hygiene Associate  
ODEQ Certification Number: OKRASR13457

4-26-11

Report Date

**CERTIFIED LEAD-BASED PAINT FIRM**

**Marshall Environmental Management, Inc.**  
1601 Southwest 89<sup>th</sup> Street, Suite A-100  
Oklahoma City, Oklahoma 73159  
ODEQ Certification Number: OKFIRM11160

**X-RAY FLUORESCENCE ANALYZER**

Analyzer Make: Niton XLP Spectrum Analyzer  
Analyzer Model: #XLP 300A  
Analyzer Serial Number: 12585  
Source Date: November 11, 2006

# HASKELL ARMORY

## LEAD-BASED PAINT INSPECTION & SETTLED DUST SAMPLING

### EXECUTIVE SUMMARY

On March 29, 2011, Marshall Environmental Management, Inc. (MEM) performed a Lead-Based Paint (LBP) Inspection in addition to collecting samples of settled dust within the Haskell Armory located at 1600 Northwest Haskell Boulevard in Haskell, Oklahoma. This Inspection and sampling event were accomplished as part of the Oklahoma Department of Environmental Quality (ODEQ), Land Protection Division (LPD) Site Cleanup Assistance Program and Armory Cleanup Program with the purpose of establishing the presence of LBP and lead-laden dust so, if necessary, a strategy may be prepared for remediation and/or abatement activities.

The analytical data resulting from the surfaces that were sampled identified LBP in the yellow paint utilized to create the emblem on the Drill Room floor. Furthermore, lead-laden dust was discovered on various surfaces within the Armory specified in the following Table and in the attached Floor Plan Diagram. The remainder of this Report is comprised of the Sampling Methodology, Scope of Service, Analytical Findings, the Disclaimer and Standard of Care, information regarding LBP and the obligation to disclose the results of this LBP Inspection.

### SAMPLING METHODOLOGY

This LBP Inspection and Settled Dust Sampling Event were conducted in accordance with the United States Department of Housing and Urban Development (HUD) guidelines, "*Guidelines for the Evaluation of Lead-Based Paint Hazards in Housing*," in addition to the requirements set forth by the Environmental Protection Agency (EPA), "*Requirements for Lead-based Paint Activities in Target Housing and Child-occupied Facilities*," 40 Code of Federal Regulations (CFR) Part 745.

### SCOPE OF SERVICE

#### LEAD-BASED PAINT

All painted surfaces within the Armory were representatively sampled and analyzed for lead content excluding non-fixed and factory painted items utilizing an X-Ray Fluorescence (XRF), direct reading, data logging instrument. The street facing side of the Armory was labeled as Side A and going in a clockwise direction, the remaining sides were categorized as Side B, Side C and Side D respectively. The corresponding analytical data, to include the start and stop times and calibration checks, and the floor plan diagram that illustrates room equivalents and positive LBP sampling locations are provided with the Appendix to this Report.

### LEAD-LADEN DUST

Settled dust collected from randomly selected floor surfaces throughout the Armory were sampled and analyzed for lead content. The settled dust is collected by placing a template of a known dimension firmly against the selected surface; next, the area within the template is wiped in a particular pattern utilizing a specified wipe; each wipe is then placed in an approved container for transportation purposes. The laboratory data resulting from the analysis of the surface samples coincides with the sampling locations indicated on the floor plan diagram attached with the Appendix to this Report.

### ANALYTICAL FINDINGS

#### LEAD-BASED PAINT

According to HUD/EPA "Lead-Based Paint" is characterized as paint that contains concentrations of lead greater than or equal to 1-milligram per square centimeter ( $\geq 1\text{-mg/cm}^2$ ). As such, LBP was identified in the yellow paint used to make the emblem on the Drill Room floor.

#### LEAD-LADEN DUST

In accordance with HUD/EPA, settled dust containing concentrations of lead equal to or greater than 40-micrograms per square foot ( $40\text{-}\mu\text{g/ft}^2$ ) represent lead contamination; this action level applies to all surfaces within the Armory excluding the Indoor Firing Range (IFR). According to the Departments of the Army National Guard (ARNG) and the Air Force National Guard (ANG) Bureau guidelines, "Guidelines and Procedures for Rehabilitation and Conversion of Indoor Firing Ranges", lead concentrations within an IFR equal to or greater than  $200\text{-}\mu\text{g/ft}^2$  represent lead contamination. Therefore, the table below reflects the concentrations of lead in settled dust that were established throughout the Armory, the "Bolded" data represents lead concentrations, which exceeded the respective clearance levels.

TABLE I: SURFACE WIPE ANALYSIS

SAMPLE ID	LOCATION	CONCENTRATION	CLEARANCE LEVEL
0036-01	ROOM 1	<21.3	40- $\mu\text{g/ft}^2$
0036-02	ROOM 2	<b>285</b>	40- $\mu\text{g/ft}^2$
0036-03	ROOM 3	22.7	40- $\mu\text{g/ft}^2$
0036-04	ROOM 4	37.9	40- $\mu\text{g/ft}^2$
0036-05	ROOM 5	<21.3	40- $\mu\text{g/ft}^2$
0036-06	ROOM 6	<21.3	40- $\mu\text{g/ft}^2$
0036-07	ROOM 7	<21.3	40- $\mu\text{g/ft}^2$
0036-08	ROOM 8	<b>74.1</b>	40- $\mu\text{g/ft}^2$
0036-09	ROOM 8 WEST	<16.0	40- $\mu\text{g/ft}^2$
0036-10	ROOM 8 CENTER	<16.00	40- $\mu\text{g/ft}^2$
0036-11	ROOM 8 EAST	<b>89.2</b>	40- $\mu\text{g/ft}^2$
0036-12	ROOM 9	<b>58.3</b>	40- $\mu\text{g/ft}^2$
0036-13	ROOM 10	<21.3	40- $\mu\text{g/ft}^2$
0036-14	ROOM 11	<21.3	40- $\mu\text{g/ft}^2$

SAMPLE ID	LOCATION	CONCENTRATION	CLEARANCE LEVEL
0036-15	ROOM 12	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-16	ROOM 13	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-17	ROOM 14	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-18	ROOM 15	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-19	ROOM 16	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-20	ROOM 17	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-21	ROOM 18	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-22	ROOM 19	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-23	ROOM 20 EAST	413	200- $\mu\text{g}/\text{ft}^2$
0036-24	ROOM 20 CENTER	726	200- $\mu\text{g}/\text{ft}^2$
0036-25	ROOM 20 WEST	6,880	200- $\mu\text{g}/\text{ft}^2$
0036-26	ROOM 22	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-27	ROOM 23	141	40- $\mu\text{g}/\text{ft}^2$

### ***HISTORICAL OVERVIEW OF LEAD-BASED PAINT ACTIVITIES***

Historical records were not provided for review nor was there evidence or information that would suggest that a prior LBP Inspection or Risk Assessment occurred within the Haskell Armory.

### ***DISCLAIMER AND STANDARD OF CARE***

The Haskell Armory is a one-story structure comprised of a brick façade and a flat roof that was constructed on a concrete slab circa 1983. Although the paint on various surfaces does not contain lead in concentrations that exceed the federal standard, a hazard could be presented if painted surfaces are disturbed. Occupational Safety and Health Administration (OSHA) regulations covering worker safety and health may apply when painted surfaces, lead-based paint or not, are disturbed. For any renovation that may disturb more than 2-square feet (2-ft<sup>2</sup>) of painted surface in a facility built before 1978 the EPA pre-renovation rule requires that the contractor provide a copy of the booklet "Protect Your Family From Lead in Your Home" or "Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools." Furthermore, if renovation of any kind takes place the contractor should provide a copy of "Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools." This Report was generated utilizing HUD/EPA protocols referenced in the Certification portion of this Report. The analytical results associated with this LBP Inspection are only applicable on the date(s) indicated and future activities may alter the results. At the time these services were completed, no deviations from the Scope of Service took place.

### ***DISCLOSURE STATEMENT AND OWNERS LEGAL OBLIGATION***

Under Federal law (24 CFR Part 35 and 40 CFR Part 745), this LBP Inspection Report must be disclosed and made available to prospective tenants before becoming obligated under a lease or sales contract where LBP is present. If an Inspection finds that LBP is not present in certain multifamily dwelling units, which are to be leased, the dwelling unit(s) is exempt from disclosure requirements. However, under federal law **even if no LBP is identified** the owner is still required to fulfill certain legal responsibilities when the property is sold not leased. Property owners and

sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that information is provided in order to protect children from LBP hazards.

Information regarding the legal obligation to disclose results associated with LBP inspections and/or risk assessments to tenants and/or purchasers can be obtained from the National Lead Information Center Clearinghouse (1-800-424-LEAD). This information is specified in 24 CFR Part 35 and 40 CFR Part 745 (published in the *Federal Register*, Volume 61, Number 45, April 6, 1996, beginning on p. 9064).

### *LEAD-BASED PAINT INFORMATION*

You may contact the National Lead Information Center Clearinghouse (1-800-424-LEAD) to obtain HUD/EPA brochures, question and answer booklets, regulations, mentioned in this Report, and other information regarding LBP disclosure.

***APPENDIX***

***XRF ANALYTICAL DATA***

***(CALIBRATION CHECKS & START & STOP TIMES)***

***SURFACE WIPES CHAIN OF CUSTODY & ANALYTICAL DATA***

***FLOOR PLAN DIAGRAMS***

***SURFACE WIPES***

***LBP SURFACES***

***CERTIFICATIONS***

***DIGITAL PHOTOGRAPHS***



Index	Date	Type	Units	Component	Substrate	Side	Color	Results	Depth Index	Action Level	PKK
2	2011-03-29 14:14	PAINT	mg / cm <sup>2</sup>					Positive	1.08	1.00	< LOD : 0.60
3	2011-03-29 14:14	PAINT	mg / cm <sup>2</sup>					Positive	1.09	1.00	< LOD : 0.60
4	2011-03-29 14:15	PAINT	mg / cm <sup>2</sup>					Positive	1.04	1.00	< LOD : 0.45
5	2011-03-29 14:18	PAINT	mg / cm <sup>2</sup>	WINDOW BOX	WOOD	A	WHITE	Negative	1.00	1.00	< LOD : 2.77
6	2011-03-29 14:19	PAINT	mg / cm <sup>2</sup>	WINDOW BOX	WOOD	B	WHITE	Negative	1.00	1.00	< LOD : 2.14
7	2011-03-29 14:20	PAINT	mg / cm <sup>2</sup>	WALL	CONCRETE	B	WHITE	Negative	1.00	1.00	< LOD : 1.29
8	2011-03-29 14:20	PAINT	mg / cm <sup>2</sup>	DOOR	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.11
9	2011-03-29 14:21	PAINT	mg / cm <sup>2</sup>	DOOR FRAME	METAL	C	ORANGE	Negative	2.50	1.00	< LOD : 3.64
10	2011-03-29 14:21	PAINT	mg / cm <sup>2</sup>	DOOR 2	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.60
11	2011-03-29 14:21	PAINT	mg / cm <sup>2</sup>	DOOR 2	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.26
12	2011-03-29 14:21	PAINT	mg / cm <sup>2</sup>	DOOR 2	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.39
13	2011-03-29 14:21	PAINT	mg / cm <sup>2</sup>	DOOR 2	METAL	C	ORANGE	Negative	5.25	1.00	< LOD : 3.22
14	2011-03-29 14:22	PAINT	mg / cm <sup>2</sup>	DOOR 2	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.59
15	2011-03-29 14:22	PAINT	mg / cm <sup>2</sup>	DOOR FRAME 2	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.47
16	2011-03-29 14:23	PAINT	mg / cm <sup>2</sup>	OVERHEAD DOOR 1	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.90
17	2011-03-29 14:23	PAINT	mg / cm <sup>2</sup>	OVERHEAD DOOR FRAME	METAL	C	WHITE	Negative	1.00	1.00	< LOD : 3.60
18	2011-03-29 14:24	PAINT	mg / cm <sup>2</sup>	OVERHEAD DOOR FRAME	METAL	C	WHITE	Negative	1.00	1.00	< LOD : 3.60
19	2011-03-29 14:24	PAINT	mg / cm <sup>2</sup>	DOOR 3	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 2.97
20	2011-03-29 14:24	PAINT	mg / cm <sup>2</sup>	DOOR FRAME 3	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.73
21	2011-03-29 14:24	PAINT	mg / cm <sup>2</sup>	DOOR FRAME 3	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.19
22	2011-03-29 14:24	PAINT	mg / cm <sup>2</sup>	DOOR FRAME 4	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.97
23	2011-03-29 14:25	PAINT	mg / cm <sup>2</sup>	DOOR 4	METAL	C	ORANGE	Negative	2.98	1.00	< LOD : 3.40
24	2011-03-29 14:26	PAINT	mg / cm <sup>2</sup>	OVERHEAD DOOR 2	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.28
25	2011-03-29 14:29	PAINT	mg / cm <sup>2</sup>	OVERHEAD DOOR FRAME 2	CONCRETE	C	WHITE	Negative	1.19	1.00	< LOD : 2.63
26	2011-03-29 14:30	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 1 A	WHITE	Negative	1.08	1.00	< LOD : 2.34
27	2011-03-29 14:30	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 1 B	WHITE	Negative	1.00	1.00	< LOD : 2.44
28	2011-03-29 14:30	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 1 B	RED	Negative	1.00	1.00	< LOD : 1.92
29	2011-03-29 14:31	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 1 B	YELLOW	Negative	1.00	1.00	< LOD : 1.67
30	2011-03-29 14:31	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 1 B	BLACK	Negative	1.46	1.00	< LOD : 1.99
31	2011-03-29 14:32	PAINT	mg / cm <sup>2</sup>	WINDOW FRAME	WOOD	RM 1 B	WHITE	Negative	1.00	1.00	< LOD : 3.76
32	2011-03-29 14:32	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 1 C	WHITE	Negative	1.84	1.00	< LOD : 1.89
33	2011-03-29 14:32	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 1 D	WHITE	Negative	1.00	1.00	< LOD : 1.91
34	2011-03-29 14:33	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 1 D	WHITE	Negative	1.00	1.00	< LOD : 2.30
35	2011-03-29 14:33	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 2 A	WHITE	Negative	1.00	1.00	< LOD : 2.08
36	2011-03-29 14:34	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 2 B	WHITE	Negative	1.00	1.00	< LOD : 2.32
37	2011-03-29 14:34	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 2 C	WHITE	Negative	1.00	1.00	< LOD : 2.23
38	2011-03-29 14:35	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 2 D	WHITE	Negative	1.00	1.00	< LOD : 1.95
39	2011-03-29 14:36	PAINT	mg / cm <sup>2</sup>	DOOR FRAME	METAL	RM 2 D	RED	Negative	1.00	1.00	< LOD : 3.68
40	2011-03-29 14:36	PAINT	mg / cm <sup>2</sup>	DOOR FRAME 1	METAL	RM 1 D	RED	Negative	2.28	1.00	< LOD : 3.19
41	2011-03-29 14:37	PAINT	mg / cm <sup>2</sup>	DOOR FRAME 2	METAL	RM 1 D	RED	Negative	1.99	1.00	< LOD : 3.36
41	2011-03-29 14:37	PAINT	mg / cm <sup>2</sup>	WALL	DRYWALL	RM 3 A	WHITE	Negative	1.00	1.00	< LOD : 2.00

Index	Date	Type	Units	Component	Substrate	Site	Color	Results	Depth Index	Action Level	PMK
42	2011-03-29 14:38	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 3 B	WHITE	Negative	1.00	1.00	< LOD : 1.91
43	2011-03-29 14:38	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 3 C	WHITE	Negative	3.35	1.00	< LOD : 2.41
44	2011-03-29 14:38	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 3 D	WHITE	Negative	2.06	1.00	< LOD : 1.92
45	2011-03-29 14:39	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 3 D	RED	Negative	1.00	1.00	< LOD : 3.60
46	2011-03-29 14:40	PAINT	mg/cm <sup>2</sup>	WALL	METAL	RM 4 A	BEIGE	Negative	1.00	1.00	< LOD : 2.24
47	2011-03-29 14:40	PAINT	mg/cm <sup>2</sup>	BEAM	METAL	RM 4 B	BEIGE	Negative	1.00	1.00	< LOD : 3.93
48	2011-03-29 14:41	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 4 C	BEIGE	Negative	1.00	1.00	< LOD : 1.88
49	2011-03-29 14:41	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 4 B	BEIGE	Negative	1.00	1.00	< LOD : 1.80
50	2011-03-29 14:42	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 4 D	BEIGE	Negative	1.00	1.00	< LOD : 2.23
51	2011-03-29 14:42	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 1	DRYWALL	RM 4 D	TAN	Negative	1.00	1.00	< LOD : 3.37
52	2011-03-29 14:42	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 2	METAL	RM 4 D	TAN	Negative	1.00	1.00	< LOD : 3.73
53	2011-03-29 14:47	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 5	RED	Negative	1.00	1.00	< LOD : 3.43
54	2011-03-29 14:48	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 6	RED	Negative	1.08	1.00	< LOD : 3.38
55	2011-03-29 14:48	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 7	RED	Negative	1.00	1.00	< LOD : 3.65
56	2011-03-29 14:49	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 7	RED	Negative	1.00	1.00	< LOD : 1.81
57	2011-03-29 14:50	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 8 A	WHITE	Negative	1.00	1.00	< LOD : 2.00
58	2011-03-29 14:50	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 8 A	BEIGE	Negative	1.00	1.00	< LOD : 2.00
59	2011-03-29 14:50	PAINT	mg/cm <sup>2</sup>	COLUMN	METAL	RM 8 A	BEIGE	Negative	1.00	1.00	< LOD : 1.85
60	2011-03-29 14:50	PAINT	mg/cm <sup>2</sup>	COLUMN	METAL	RM 8 A	BEIGE	Negative	1.00	1.00	< LOD : 1.88
61	2011-03-29 14:51	PAINT	mg/cm <sup>2</sup>	COLUMN	METAL	RM 8 B	BEIGE	Negative	1.00	1.00	< LOD : 2.35
62	2011-03-29 14:51	PAINT	mg/cm <sup>2</sup>	COLUMN	METAL	RM 8 B	WHITE	Negative	1.00	1.00	< LOD : 2.11
63	2011-03-29 14:51	PAINT	mg/cm <sup>2</sup>	BEAM	METAL	RM 8 B	WHITE	Negative	1.00	1.00	< LOD : 3.93
64	2011-03-29 14:52	PAINT	mg/cm <sup>2</sup>	BEAM	METAL	RM 8 B	WHITE	Negative	1.00	1.00	< LOD : 4.16
65	2011-03-29 14:52	PAINT	mg/cm <sup>2</sup>	WALL	METAL	RM 8 B	BEIGE	Negative	1.00	1.00	< LOD : 2.40
66	2011-03-29 14:52	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 8 C	BEIGE	Negative	1.13	1.00	< LOD : 2.24
67	2011-03-29 14:53	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 8 C	WHITE	Negative	1.00	1.00	< LOD : 2.13
68	2011-03-29 14:53	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 8 D	WHITE	Negative	1.44	1.00	< LOD : 2.52
69	2011-03-29 14:54	PAINT	mg/cm <sup>2</sup>	BEAM	CONCRETE	RM 8 D	BEIGE	Negative	1.00	1.00	< LOD : 3.30
70	2011-03-29 14:54	PAINT	mg/cm <sup>2</sup>	BEAM	METAL	RM 8 D	BEIGE	Negative	1.00	1.00	< LOD : 4.14
71	2011-03-29 14:55	PAINT	mg/cm <sup>2</sup>	DOOR 1	METAL	RM 8 D	WHITE	Negative	1.00	1.00	< LOD : 3.40
72	2011-03-29 14:55	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 1	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 3.87
73	2011-03-29 14:56	PAINT	mg/cm <sup>2</sup>	OVERHEAD DOOR	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 3.30
74	2011-03-29 14:57	PAINT	mg/cm <sup>2</sup>	ROLLER	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 3.73
75	2011-03-29 14:57	PAINT	mg/cm <sup>2</sup>	DOOR 2	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 3.13
76	2011-03-29 14:58	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 2	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 4.03
77	2011-03-29 14:58	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 2	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 2.68
78	2011-03-29 14:59	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 1	METAL	RM 8 A	RED	Negative	1.64	1.00	< LOD : 3.27
79	2011-03-29 15:00	PAINT	mg/cm <sup>2</sup>	WALL	METAL	RM 8 A	RED	Negative	1.00	1.00	< LOD : 1.91
80	2011-03-29 15:01	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 9 A	WHITE	Negative	1.00	1.00	< LOD : 2.47
81	2011-03-29 15:01	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 9 B	WHITE	Negative	3.03	1.00	< LOD : 2.26
82	2011-03-29 15:01	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 9 C	WHITE	Negative	1.00	1.00	< LOD : 2.36

ID#	Date	Type	Units	Component	Substrate	Side	Color	Results	Depth Index	Action Level (PbK)
83	2011-03-29 15:02	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 9 C	RED	Negative	1.00	< LOD : 3.61
84	2011-03-29 15:02	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 9 C	RED	Negative	1.72	< LOD : 3.38
85	2011-03-29 15:03	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 10 A	WHITE	Negative	1.00	< LOD : 1.20
86	2011-03-29 15:03	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 10 B	WHITE	Negative	1.00	< LOD : 1.50
87	2011-03-29 15:04	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 10 C	WHITE	Negative	1.61	< LOD : 2.19
88	2011-03-29 15:04	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 10 D	WHITE	Negative	1.81	< LOD : 2.16
89	2011-03-29 15:05	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 11 A	WHITE	Negative	1.00	< LOD : 1.46
90	2011-03-29 15:06	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 11 B	WHITE	Negative	1.00	< LOD : 1.44
91	2011-03-29 15:06	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 11 C	WHITE	Negative	1.00	< LOD : 1.38
92	2011-03-29 15:06	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 11 D	WHITE	Negative	1.00	< LOD : 1.50
93	2011-03-29 15:06	PAINT	mg/cm <sup>2</sup>	CEILING	CONCRETE	RM 11	WHITE	Negative	1.25	< LOD : 2.67
94	2011-03-29 15:07	PAINT	mg/cm <sup>2</sup>	DOOR	METAL	RM 11	GREY	Negative	1.54	< LOD : 3.61
95	2011-03-29 15:07	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 11	GREY	Negative	1.18	< LOD : 3.78
96	2011-03-29 15:08	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 12 A	WHITE	Negative	1.00	< LOD : 1.87
97	2011-03-29 15:10	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 12 B	WHITE	Negative	1.00	< LOD : 2.35
98	2011-03-29 15:10	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 12 C	WHITE	Negative	1.00	< LOD : 2.12
99	2011-03-29 15:11	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 12 D	WHITE	Negative	1.00	< LOD : 2.26
100	2011-03-29 15:11	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	DRYWALL	RM 12	RED	Negative	1.00	< LOD : 3.35
101	2011-03-29 15:12	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 13	RED	Negative	1.00	< LOD : 3.18
102	2011-03-29 15:12	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 13 A	WHITE	Negative	1.00	< LOD : 2.41
103	2011-03-29 15:13	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 13 B	WHITE	Negative	1.00	< LOD : 2.44
104	2011-03-29 15:13	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 13 C	WHITE	Negative	1.00	< LOD : 2.47
105	2011-03-29 15:13	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 13 C	BEIGE	Negative	1.25	< LOD : 2.04
106	2011-03-29 15:13	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 13 D	WHITE	Negative	1.25	< LOD : 2.41
107	2011-03-29 15:14	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 14 A	WHITE	Negative	6.58	< LOD : 2.41
108	2011-03-29 15:14	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 14 A	WHITE	Negative	1.00	< LOD : 2.44
109	2011-03-29 15:14	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 14 B	WHITE	Negative	1.00	< LOD : 2.47
110	2011-03-29 15:14	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 14 C	WHITE	Negative	1.00	< LOD : 2.04
111	2011-03-29 15:15	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	DRYWALL	RM 14 D	WHITE	Negative	1.00	< LOD : 2.28
112	2011-03-29 15:15	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 14	RED	Negative	1.00	< LOD : 3.30
113	2011-03-29 15:16	PAINT	mg/cm <sup>2</sup>	WALL	METAL	RM 15	RED	Negative	1.11	< LOD : 3.54
114	2011-03-29 15:16	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 15 A	WHITE	Negative	1.00	< LOD : 2.26
115	2011-03-29 15:16	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 15 B	WHITE	Negative	1.00	< LOD : 2.29
116	2011-03-29 15:16	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 15 C	WHITE	Negative	1.00	< LOD : 2.39
117	2011-03-29 15:17	PAINT	mg/cm <sup>2</sup>	WINDOW FRAME	DRYWALL	RM 15 D	WHITE	Negative	1.00	< LOD : 2.33
118	2011-03-29 15:18	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	WOOD	RM 15 A	WHITE	Negative	1.00	< LOD : 3.16
119	2011-03-29 15:19	PAINT	mg/cm <sup>2</sup>	WALL	METAL	RM 16 C	RED	Negative	1.17	< LOD : 3.60
120	2011-03-29 15:19	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 16 A	WHITE	Negative	1.00	< LOD : 2.03
121	2011-03-29 15:19	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 16 B	WHITE	Negative	1.00	< LOD : 2.25
122	2011-03-29 15:19	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 16 C	WHITE	Negative	1.00	< LOD : 2.05
					DRYWALL	RM 16 D	WHITE	Negative	1.00	< LOD : 2.39

Index	Time	Type	Units	Component	Substrate	Site	Color	Results	Depth Index	Action Level	Prob
124	2011-03-29 15:20	PAINT	mg / cm ^2	DOOR FRAME	METAL	RM 16 B	RED	Negative	1.00	1.00	< LOD : 3.60
125	2011-03-29 15:21	PAINT	mg / cm ^2	WINDOW FRAME	WOOD	RM 16	WHITE	Negative	1.00	1.00	< LOD : 2.64
126	2011-03-29 15:21	PAINT	mg / cm ^2	WINDOW FRAME	WOOD	RM 17 A	WHITE	Negative	1.00	1.00	< LOD : 2.63
127	2011-03-29 15:22	PAINT	mg / cm ^2	WALL	DRYWALL	RM 17 A	WHITE	Negative	1.00	1.00	< LOD : 1.94
128	2011-03-29 15:22	PAINT	mg / cm ^2	WALL	DRYWALL	RM 17 B	WHITE	Negative	1.00	1.00	< LOD : 2.21
129	2011-03-29 15:22	PAINT	mg / cm ^2	WALL	DRYWALL	RM 17 C	WHITE	Negative	1.07	1.00	< LOD : 2.02
130	2011-03-29 15:22	PAINT	mg / cm ^2	WALL	DRYWALL	RM 17 D	WHITE	Negative	1.00	1.00	< LOD : 2.02
131	2011-03-29 15:22	PAINT	mg / cm ^2	WALL	DRYWALL	RM 17 D	WHITE	Negative	1.83	1.00	< LOD : 1.89
132	2011-03-29 15:23	PAINT	mg / cm ^2	DOOR FRAME	METAL	RM 17 B	RED	Negative	1.00	1.00	< LOD : 3.13
133	2011-03-29 15:24	PAINT	mg / cm ^2	WALL	DRYWALL	RM 22 A	WHITE	Negative	1.00	1.00	< LOD : 2.42
134	2011-03-29 15:24	PAINT	mg / cm ^2	WALL	DRYWALL	RM 22 C	WHITE	Negative	1.00	1.00	< LOD : 2.09
135	2011-03-29 15:24	PAINT	mg / cm ^2	WALL	DRYWALL	RM 22 B	WHITE	Negative	5.96	1.00	< LOD : 2.41
136	2011-03-29 15:24	PAINT	mg / cm ^2	WALL	DRYWALL	RM 22 D	WHITE	Negative	1.00	1.00	< LOD : 1.98
137	2011-03-29 15:25	PAINT	mg / cm ^2	WALL	DRYWALL	RM 23 A	WHITE	Negative	1.44	1.00	< LOD : 2.15
138	2011-03-29 15:26	PAINT	mg / cm ^2	WALL	DRYWALL	RM 23 B	WHITE	Negative	1.00	1.00	< LOD : 1.53
139	2011-03-29 15:26	PAINT	mg / cm ^2	WALL	DRYWALL	RM 23 C	WHITE	Negative	7.64	1.00	< LOD : 2.36
140	2011-03-29 15:26	PAINT	mg / cm ^2	WALL	DRYWALL	RM 23 D	WHITE	Negative	1.00	1.00	< LOD : 2.01
141	2011-03-29 15:28	PAINT	mg / cm ^2	WALL	CONCRETE	RM 20 A	YELLOW	Negative	1.00	1.00	< LOD : 2.25
142	2011-03-29 15:29	PAINT	mg / cm ^2	WALL	CONCRETE	RM 20 B	YELLOW	Negative	1.00	1.00	< LOD : 3.39
143	2011-03-29 15:30	PAINT	mg / cm ^2	DOOR	METAL	RM 20 B	BEIGE	Negative	1.00	1.00	< LOD : 4.01
144	2011-03-29 15:30	PAINT	mg / cm ^2	DOOR FRAME	METAL	RM 20 B	BEIGE	Negative	1.00	1.00	< LOD : 3.47
145	2011-03-29 15:31	PAINT	mg / cm ^2	OVERHEAD DOOR	METAL	RM 20 C	BEIGE	Negative	1.00	1.00	< LOD : 3.82
146	2011-03-29 15:32	PAINT	mg / cm ^2	ROLLER	METAL	RM 20 C	BEIGE	Negative	1.00	1.00	< LOD : 1.97
147	2011-03-29 15:32	PAINT	mg / cm ^2	WALL	CONCRETE	RM 20 C	YELLOW	Negative	1.00	1.00	< LOD : 2.10
148	2011-03-29 15:32	PAINT	mg / cm ^2	WALL	CONCRETE	RM 20 D	YELLOW	Negative	1.00	1.00	< LOD : 1.35
149	2011-03-29 16:38	PAINT	mg / cm ^2	FLOOR EMBLEM	CONCRETE	RM 8	RED	Negative	1.00	1.00	< LOD : 1.35
154	2011-03-29 16:38	PAINT	mg / cm ^2	FLOOR EMBLEM	CONCRETE	RM 8	YELLOW	Positive	1.93	1.00	< LOD : 4.65
155	2011-03-29 16:39	PAINT	mg / cm ^2	FLOOR EMBLEM	CONCRETE	RM 8	BLACK	Negative	1.57	1.00	< LOD : 1.35
156	2011-03-29 16:39	PAINT	mg / cm ^2	FLOOR EMBLEM (DUP)	CONCRETE	RM 8	RED	Negative	1.75	1.00	< LOD : 1.35
157	2011-03-29 16:39	PAINT	mg / cm ^2	FLOOR EMBLEM (DUP)	CONCRETE	RM 8	YELLOW	Positive	2.23	1.00	< LOD : 11.55
158	2011-03-29 16:40	PAINT	mg / cm ^2		CALIBRATE			Positive	1.07	1.00	0.70 ± 0.30
159	2011-03-29 16:41	PAINT	mg / cm ^2		CALIBRATE			Positive	1.08	1.00	0.90 ± 0.30
160	2011-03-29 16:41	PAINT	mg / cm ^2		CALIBRATE			Positive	1.10	1.00	0.80 ± 0.40

193465

PROJECT INFORMATION		INVOICE TO		REPORT TO	
Project Id.	0036-LBP-032911	Client/Company	Marshall Environmental Management Inc.	Client/Company	
Project Name		Attention Title		Attention Title	
Project Address		Invoice To Address		Address	
Site Contact		Phone Number		Phone Number	
Phone Number		Fax Number		Fax Number	
Mobile Number		Mobile Number		Mobile Number	
email		E-mail Address		E-mail Address	

Lab Id.	Sample Date	Field Id.	Sample Location (lobby, bedroom, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time	Volume/Area	Unit	Analysis/Parameters
0036	3/29/2011	1	Room 1	NA	Dust	Wipe	On NA Off NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	2	Room 2	NA	Dust	Wipe	On NA Off NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	3	Room 3	NA	Dust	Wipe	On NA Off NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	4	Room 4	NA	Dust	Wipe	On NA Off NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	5	Room 5	NA	Dust	Wipe	On NA Off NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	6	Room 6	NA	Dust	Wipe	On NA Off NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	7	Room 7	NA	Dust	Wipe	On NA Off NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	8	Room 8	NA	Dust	Wipe	On NA Off NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	8-W	Room 8 - West	West	Dust	Wipe	On NA Off NA	1-ft <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	8-C	Room 8 - Center	Center	Dust	Wipe	On NA Off NA	1-ft <sup>2</sup>	mg/Kg	Total Pb

Collected By	Jacob Jones	Date	3/29/2011	Time	16:00	Relinquished By	Jacob Jones	Date	3/30/2011	Time	10:50
Received By	<i>[Signature]</i>	Date	3/30/11	Time	10:50	Relinquished By	<i>[Signature]</i>	Date		Time	
Turn-Around-Time		Condition Upon Receipt		Method of Shipment		Matrix		Media		Page	
<input checked="" type="checkbox"/> Standard	5-7 Business Days	Sample Notes		Air		Micro-Vacuum		Mold Plate		1 of 3	
<input type="checkbox"/> Rush	Next Day	Please Email Results for dustin.davidson@deg.cok.gov		Bulk		Aqueous		Spore Trap		Swab	
<input type="checkbox"/> Immediate	Same Day			Soil		Sludge		Micro-Vacuum		Tape-Lift	

# Marshall Environmental Management, Inc. Chain Of Custody

193465

PROJECT INFORMATION			INVOICE TO			REPORT TO			
Project Id.	0036-LBP-032911	Client/Company	Marshall Environmental Management Inc.			Client/Company			
Project Name		Attention Title				Attention Title			
Project Address		Invoice To Address				Address			
Site Contact		Phone Number				Phone Number			
Phone Number		Fax Number				Fax Number			
Mobile Number		Mobile Number				Mobile Number			
email		E-mail Address				E-mail Address			

Lab Id.	Sample Date	Field Id.	Sample Location (lobby, bedroom, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time		Volume/Area	Unit	Analysis/ Parameters
							On	Off			
0036	3/29/2011	8-E	Room 8 - East	East	Dust	Wipe	NA	NA	1-ft <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	9	Room 9	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	10	Room 10	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	11	Room 11	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	12	Room 12	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	13	Room 13	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	14	Room 14	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	15	Room 15	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	16	Room 16	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	17	Room 17	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb

Collected By	Jacob Jones	Date	3/29/2011	Time	16:00	Reinquished By	Jacob Jones	Date	3/30/2011	Time	10:50	Matrix	Air	Media	SW	TL
Received By	<i>[Signature]</i>	Date	3/30/11	Time	10:50	Reinquished By	<i>[Signature]</i>	Date		Time		Matrix	Aqueous	Media	ST	
Turn-Around-Time		Condition Upon Receipt		Method of Shipment		Micro-Vacuum		Mold Plate		Spor Trap		Swab		Tape-Lift		
<input checked="" type="checkbox"/> Standard	5-7 Business Days															
<input type="checkbox"/> Rush	Next Day															
<input type="checkbox"/> Immediate	Same Day															
Sample Notes												Page	2	of	3	

# Marshall Environmental Management, Inc. Chain Of Custody

193465

PROJECT INFORMATION		INVOICE TO		REPORT TO	
Project Id.	0036-LBP-032911	Client/Company	Marshall Environmental Management Inc.	Client/Company	
Project Name		Attention Title		Attention Title	
Project Address		Invoice To Address		Address	
Site Contact		Phone Number		Phone Number	
Phone Number		Fax Number		Fax Number	
Mobile Number		Mobile Number		Mobile Number	
email		E-mail Address		E-mail Address	

Lab Id.	Sample Date	Field Id.	Sample Location (lobby, bedroom, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time		Volume/ Area	Unit	Analysis/ Parameters
							On	Off			
0036	3/29/2011	18	Room - 18	NA	Dust	Wipe	On	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	19	Room - 19	NA	Dust	Wipe	On	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	20-E	Room 20 - East	East	Dust	Wipe	On	NA	1-ft <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	20-C	Room 20 - Center	Center	Dust	Wipe	On	NA	1-ft <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	20-W	Room 20 - West	West	Dust	Wipe	On	NA	1-ft <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	22	Room 22	NA	Dust	Wipe	On	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	23	Room 23	NA	Dust	Wipe	On	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
							On				
							Off				
							On				
							Off				

Collected By	Jacob Jones	Date	3/29/2011	Time	16:00	Relinquished By	Jacob Jones	Date	3/30/2011	Time	10:50	Matrix	Air	Media	MV	MP	ST	SW	TL	
Received By	<i>Slythies</i>	Date	3/30/11	Time	10:50	Relinquished By	<i>[Signature]</i>	Date		Time		Aqueous	Bulk	Spore Trap						
Turn-Around-Time		Condition Upon Receipt		Method of Shipment		Sample Notes														
<input checked="" type="checkbox"/> Standard	5-7 Business Days																			
<input type="checkbox"/> Rush	Next Day																			
<input type="checkbox"/> Immediate	Same Day																			

21  
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27



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

## Environmental Chemistry Analysis Report

**QuanTEM Set ID:** 193465  
**Date Received:** 03/30/11  
**Received By:** Sherrie Leftwich  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** BM  
**Date of Report:** 4/5/2011

**Client:** Marshall Environmental Management, Inc.  
 1601 SW 89th Street, Ste. A-100  
 Oklahoma City, OK 73159  
  
**Acct. No.:** A331  
  
**Project:** N/A  
**Location:** N/A  
**Project No.:** 0036-LBP-032911

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	1	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
002	2	Wipe	Lead	285	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
003	3	Wipe	Lead	22.7	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
004	4	Wipe	Lead	37.9	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
005	5	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
006	6	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
007	7	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
008	8	Wipe	Lead	74.1	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
009	8-W	Wipe	Lead	<16.0	16	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
010	8-C	Wipe	Lead	<16.0	16	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
011	8-E	Wipe	Lead	89.2	16	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / 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:** 193465  
**Date Received:** 03/30/11  
**Received By:** Sherrie Leftwich  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:** BM  
**Date of Report:** 4/5/2011

**Client:** Marshall Environmental Management, Inc.  
 1601 SW 89th Street, Ste. A-100  
 Oklahoma City, OK 73159  
  
**Acct. No.:** A331  
  
**Project:** N/A  
**Location:** N/A  
**Project No.:** 0036-LBP-032911

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
012	9	Wipe	Lead	58.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
013	10	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
014	11	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
015	12	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
016	13	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
017	14	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
018	15	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
019	16	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
020	17	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
021	18	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
022	19	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / 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

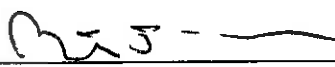
Quantem Set ID: 193465  
Date Received: 03/30/11  
Received By: Sherrie Leftwich  
Date Sampled:  
Time Sampled:  
Analyst: BM  
Date of Report: 4/5/2011

Client: Marshall Environmental Management, Inc.  
1601 SW 89th Street, Ste. A-100  
Oklahoma City, OK 73159

Acct. No.: A331  
Project: N/A  
Location: N/A  
Project No.: 0036-LBP-032911

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
023	20-E	Wipe	Lead	413	16	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
024	20-C	Wipe	Lead	726	16	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
025	20-W	Wipe	Lead	6,880	16	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
026	22	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
027	23	Wipe	Lead	141	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / 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.

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.

## Supplemental Report QAQC Results

QA ID: 8587  
Test: Lead

Date: 4/4/2011  
Matrix: Wipe

Lab Number: 193465  
Approved By: Benton Miller  
Date Approved: 4/4/2011

Notes:

**Blank Data:**

Type of Blank	Blank Value
FCB	0
ICB	0
Matrix Blank	0

**Standards Data:**

Standard	Low Limit	Obtained	High Limit
CCV	4.5	4.8	5.5
FCV	4.5	4.8	5.5
ICV	0.8	1.1	1.2
RLVS	0.256	0.297	0.384

**Duplicate Data:**

**Recovery Data:**

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W1	0.000	5.503	5.040	91.6	5.002	90.9	0.8
MS-W2	0.000	5.449	4.480	82.2	5.002	91.8	11.0

## Supplemental Report QAQC Results

QA ID: 8591  
Test: Lead

Date: 4/5/2011  
Matrix: Wipe

Lab Number: 193465  
Approved By: Benton Miller  
Date Approved: 4/5/2011

**Notes:**

**Blank Data:**

Type of Blank	Blank Value
ICB	0
FCB	0
Matrix Blank	0

**Standards Data:**

Standard	Low Limit	Obtained	High Limit
FCV	4.5	4.9	5.5
CCV	4.5	4.9	5.5
ICV	0.8	1.1	1.2
RLVS	0.256	0.278	0.384

**Duplicate Data:**

**Recovery Data:**

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W2	0.000	5.481	5.004	91.3			
MS-W1	0.000	5.416	4.975	91.9	5.269	97.3	5.7

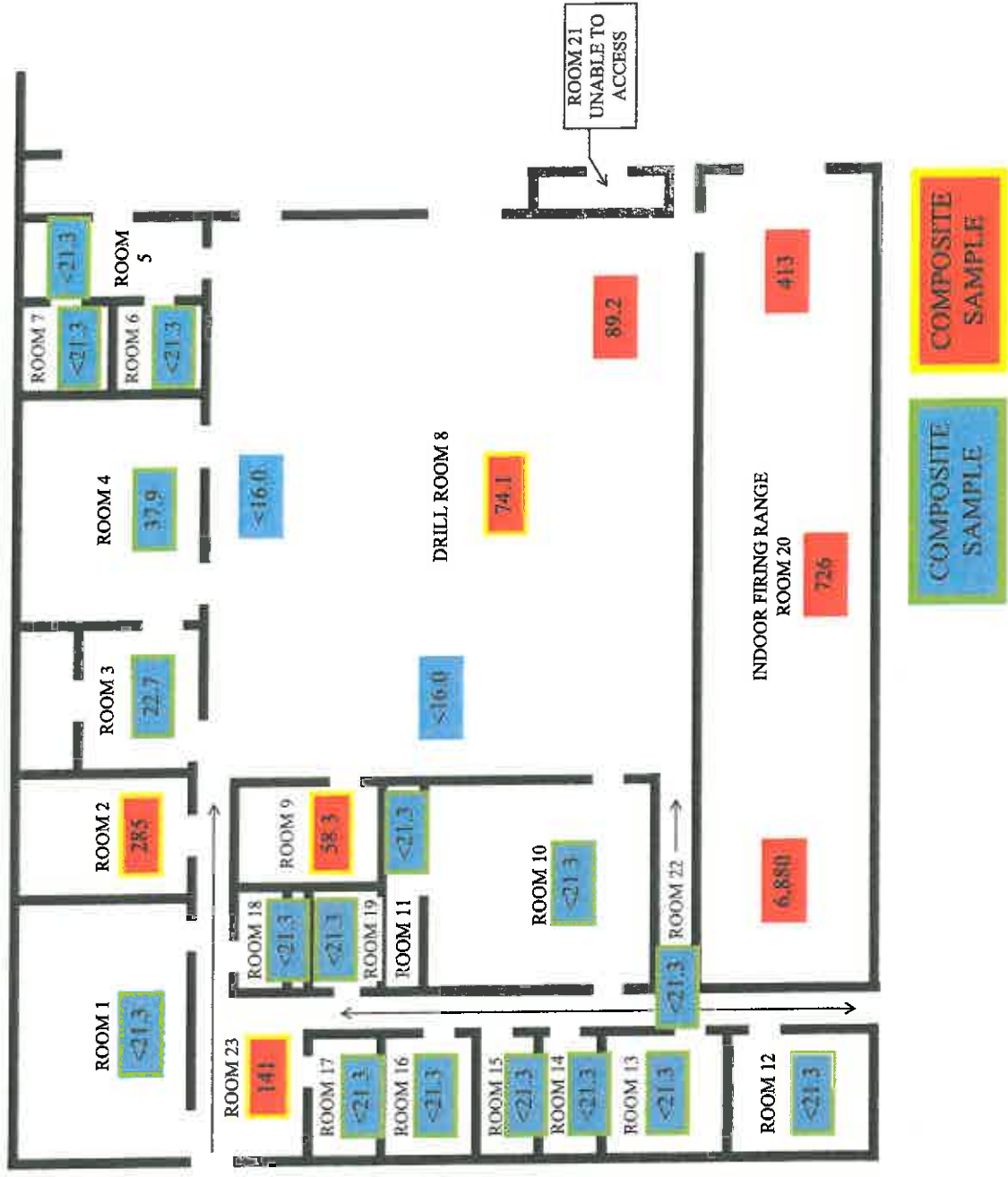
Authorized Signature: \_\_\_\_\_



Benton Miller, Analyst

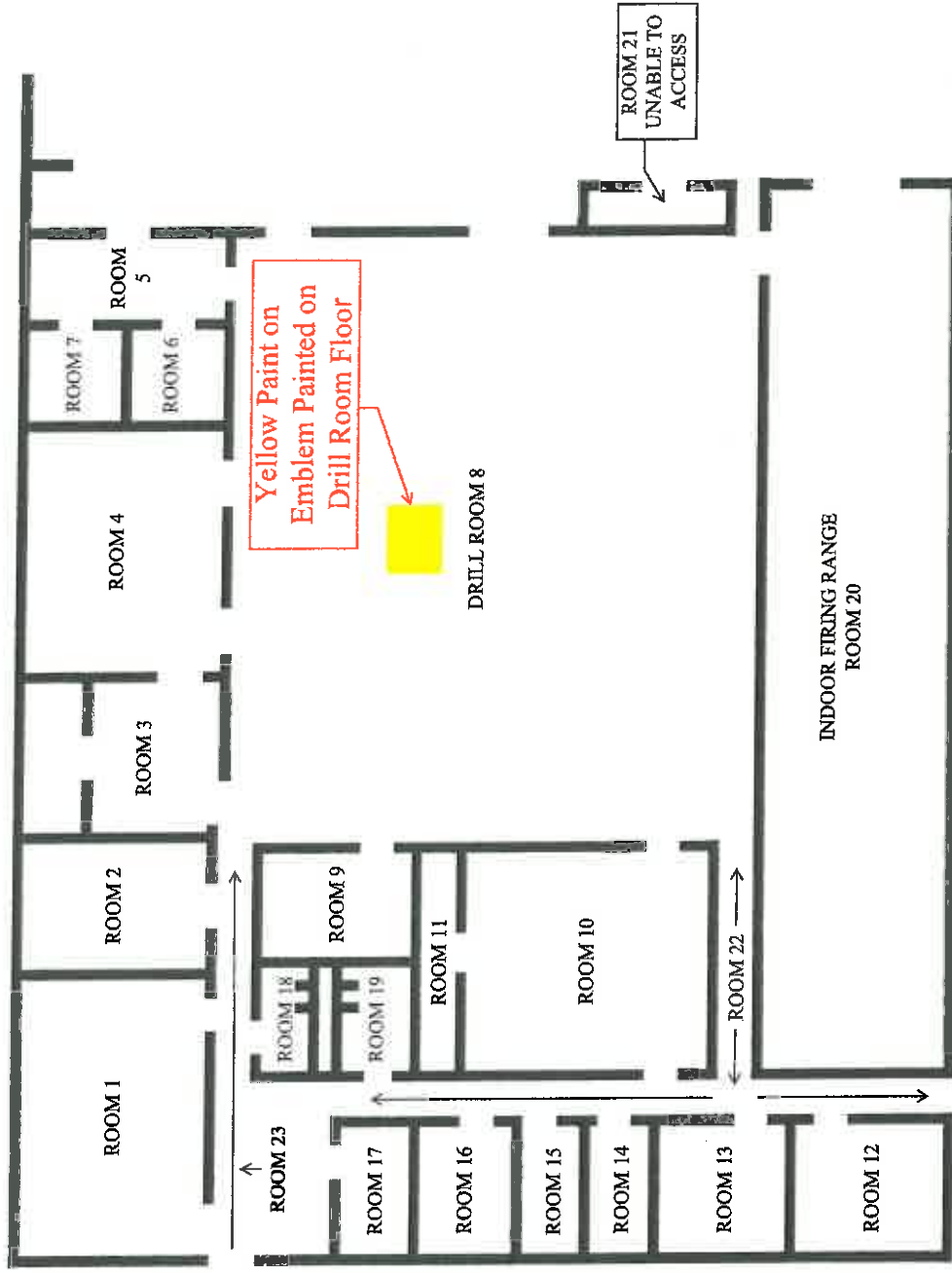
# HASKELL ARMORY

## LEAD CONCENTRATIONS IN SURFACE DUST



# HASKELL ARMORY

LEAD-BASED  
PAINTED  
SURFACES



# Department of Environmental Quality

This is to certify that

## MARSHALL ENVIRONMENTAL MANAGEMENT

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

### FIRM

Certification #: OKFIRM11160

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

He is to Certify That

**JACOB JONES**

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

## INSPECTOR/RISK ASSESSOR

Certification #: OKR\SR13457

This certificate is valid from the date of issuance and expires as provided by law.  
Issued on: **4/1/2010** Expires on: **3/31/2011**



Division Director  
Air Quality Division





Environmental Programs Manager  
Air Quality Division



245

BAT ENGINEERS

DRILL ROOM  
FLOOR  
YELLOW PAINT IN  
EMBLEM  
LEAD-BASED  
PAINTED SURFACE



## SCOPES OF WORK



State of Oklahoma  
Department of Central Services  
Construction and Properties

Change Order

IMPORTANT NOTE: THE WORK DESCRIBED HEREIN IS NOT AUTHORIZED UNTIL THIS CHANGE ORDER IS COMPLETED AND SIGNED BY ALL ENTITIES LISTED BELOW. DO NOT PROCEED WITH WORK UNTIL THE CHANGE ORDER IS COMPLETED AND SIGNED BY EACH PARTY.

This form is required and shall be prepared by the Contractor. All costs must be broken down.

DATE: 9/27/11 P. O. NUMBER: 2929014729 DCS/CAP PROJECT NUMBER: 11365

FROM PROPOSAL REQUEST NUMBER(S): \_\_\_\_\_ CONTRACT NUMBER: \_\_\_\_\_

PROJECT NAME: HASKELL Armory Remediation DCS/CAP PROJ. MANAGER: Rebekah Richardson

CONTRACTOR: Abatement Systems, Inc. CHANGE ORDER NUMBER: \_\_\_\_\_

BRIEF DESCRIPTION OF CHANGE:  
ADDITIONAL ASBESTOS MASTIC ON Floor filler and concrete (Approx. 728 SF).

BRIEF DESCRIPTION OF TIME DELAY:



Not valid until signed by the Contractor, Consultant and Authorized CAP Representative.

The original  Contract Sum  Guaranteed Maximum Price was ..... \$ 44,884.00  
 Net change by previously authorized Change Orders ..... \$ \_\_\_\_\_  
 The  Contract Sum  Guaranteed Maximum Price prior to this Change Order was ..... \$ \_\_\_\_\_  
 The  Contract Sum  Guaranteed Maximum Price will be  increased  decreased  unchanged  
 by this Change Order in the amount of ..... \$ 1,710.80  
 The new  Contract Sum  Guaranteed Maximum Price including this Change Order will be ..... \$ 46,594.80  
 The Contract Time will be  increased  decreased  unchanged by ..... 4 Calendar Days  
 The date of Substantial Completion as of the date of this Change Order therefore is ..... \_\_\_\_\_ Date

APPROVALS:  
Abatement Systems, Inc. \_\_\_\_\_ [Signature] \_\_\_\_\_ 10/6/11  
 Contractor Name Signature Date

Consultant Name \_\_\_\_\_ Signature \_\_\_\_\_ Date: \_\_\_\_\_  
 DEPARTMENT OF ENVIRONMENTAL QUALITY  
 Using Agency \_\_\_\_\_ [Signature] \_\_\_\_\_ SEP 29 2011  
 Signature Date  

GL Unit:	Acct:	Sub-Acct:	Fund Type:	Class	Fund:	Dept:	Bud Ref:
----------	-------	-----------	------------	-------	-------	-------	----------

Mike Jones \_\_\_\_\_ [Signature] \_\_\_\_\_ 10-13-11  
 Authorized CAP Representative Signature Date  
Rebekah Richardson \_\_\_\_\_ [Signature] \_\_\_\_\_ 10-13-11  
 DCS Project Manager Signature Date



State of Oklahoma  
Department of Central Services  
Construction and Properties

Explanation For Change Order

REQUESTED BY:  Contractor  Consultant  Using Agency  Owner (DCS/CAP)

REASON FOR CHANGE: (check box) Detailed explanation required below.

- Unforeseen site condition.
- Scope change: Using Agency request.
- Scope change: DCS/CAP request.
- Work not specified in Contract Documents, but essential to completion of the project.
- Other: (Describe) \_\_\_\_\_

Provide a detailed description of the proposed change in the Work and provide detailed reasons why this change is necessary.

DETAILED REASON FOR CHANGE IN THE WORK:

ADDITIONAL 728 SF OF ASBESTOS MASTIC ON  
FLOOR FILLER AND CONCRETE SURFACE

CONTRACT TIME REQUEST EXPLANATION:

Describe how the time requested will extend the "critical path" of the project schedule and will not be concurrent with other work.

Four (4) working DAYS



# DCS Construction & Properties

2401 N Lincoln Blvd, Suite 106, OKC 73105  
P.O. Box 53448  
Oklahoma City, OK 73152-3448  
Phone: 405-522-4079

DATE: 10/17/2011

TRANSMITTAL  
No. CO01

PROJECT: DCS# 11365  
Haskell Armory  
TO: DEQ

REF: Abatement Systems Inc.

FAX:

ATTN: Karen Rumsey

PHONE:

WE ARE SENDING:		SUBMITTED FOR:		ACTION TAKEN:	
<input type="checkbox"/>	Application for Payment	<input type="checkbox"/>	Approval	<input checked="" type="checkbox"/>	Approved as Submitted
<input checked="" type="checkbox"/>	Change Order	<input type="checkbox"/>	Your Use	<input type="checkbox"/>	Approved as Noted
				<input type="checkbox"/>	Returned After Loan
				<input type="checkbox"/>	Resubmit
				<input type="checkbox"/>	Submit
		<b>SENT VIA:</b>		<input type="checkbox"/>	Returned
		<input checked="" type="checkbox"/>	Attached	<input type="checkbox"/>	Returned for Corrections
<input type="checkbox"/>	Other:	<input type="checkbox"/>	Separate Cover Via:	<input type="checkbox"/>	Due Date:

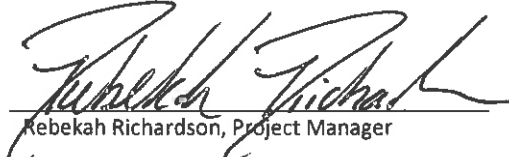
Remarks: DCS/CAP has approved Abatement Systems Inc.'s Change Order and is forwarding it to the DEQ for their records.

AMOUNT\$:

Notes:

CC: DCS/CAP FILES, UA, Contractor

Signed:

  
Rebekah Richardson, Project Manager



**Dept of Environmental Quality**  
 OK DEPT OF ENVIRONMENTAL QUALITY  
 SHIPPING & RECEIVING  
 707 N ROBINSON  
 OKLAHOMA CITY OK 73102

**Vendor:** 0000259206  
 ABATEMENT SYTEMS INC  
 PO BOX 773  
 BROKEN ARROW OK 74013-0773

## Purchase Order

### CHANGE ORDER

Dispatch via Print

<b>Purchase Order</b> 2929014729	<b>Date</b> 08/29/2011	<b>Revision</b> 1 - 10/18/2011	<b>Page</b> 1
<b>Payment Terms</b> 0 Days	<b>Freight Terms</b> Free on board at Destination		<b>Ship Via</b> Common
<b>Buyer</b> S Killingsworth (580)	<b>Phone</b> 405/522-0047		<b>Currency</b> USD

**Ship To:** OK DEPT OF ENVIRONMENTAL QUALITY  
 SHIPPING & RECEIVING  
 707 N ROBINSON  
 OKLAHOMA CITY OK 73102

**Bill To:** OK DEPT OF ENVIRONMENTAL QUALITY  
 ADMINISTRATIVE SERVICES  
 PO BOX 1677  
 OKLAHOMA CITY OK 73101-1677

Line-Sch	Item Id	Description	Quantity	UOM	PO Price	Extended Amt	Due Date
1- 1	1000017734	CONSTR:CAP-Over Statutory Amt, Public Bid, Construction Contract	1.0000	JA	46,594.8000	46,594.80	10/18/2011

BIDDING FOR LEAD REMEDIATION FOR HASKELL ARMORY AS PER SCOPE OF WORK

ENV REMEDIATION SERVICES:Task XXV Per Diem Unit Cost Rate~Environmental Remediation Services.  
 Furnish All Labor, Materials & Equipment Necessary Task XXV. Per diem unit cost rate

**Total PO Amount** 46,594.80

**COMMENTS:**

FY 2011

PROJECT: SITE CLEANUP ASSISTANCE PROGRAM - HASKELL ARMORY LEAD DUST, LEAD-BASED PAINT AND ASBESTOS ABATEMENT.

JUSTIFICATION: UNDER THE SITE CLEANUP ASSISTANCE PROGRAM THE DEQ WILL HIRE A LICENSED PROFESSIONAL TO ABATE ASBESTOS AND LEAD-BASED PAINT AND REMEDIATE LEAD DUST IN THE HASKELL ARMORY.

(FOR AGENCY USE ONLY)

CONTACT: KAREN RUMSEY/ASD/(405)702-1168  
 MARY JOHNSON/LPD/(405)702-5100  
 DUSTIN DAVIDSON/LPD/(405)702-5100

DEQ IS AN EQUAL OPPORTUNITY EMPLOYER.

FUNDING: 493

REQUISITION #2920003084 - PLEASE RETURN PO TO MARY JOHNSON

5/25/11

DCS#11365  
 REBEKAH RICHARDSON-DCS/CAP PROJECT MANAGER  
 405-522-0050

10/18/2011 - CO#1 - Additional asbestos mastic on floor filler and concrete (approximately 728 square feet). CONTRACT SUM INCREASED \$1,710.80. CONTRACT TIME INCREASED (4) FOUR DAYS.-SK

Authorized Signature

# Haskell Armory Lead and Asbestos Abatement

## Addenda #1 – Summary of Changes

### Correction –

1. The yellow emblem on the floor of the Drill Floor will not have lead based paint removed. Instead, the emblem shall be wet scraped, HEPA vacuumed, wet washed, and sealed with KM-669 Acrylic Sealer or equivalent (Corrected Page Attached).

- **Remove** floor tile and mastic from room 15. The quantity of floor tile and floor mastic is approximately 168 ft<sup>2</sup> in room 15.
- **Remove** floor tile and mastic from room 12. The quantity of floor tile and floor mastic is approximately 280 ft<sup>2</sup> in room 12.
- **Remove** floor tile and mastic from room 13. The quantity of floor tile and floor mastic is approximately 196 ft<sup>2</sup> in room 13.
- **Remove** floor tile and mastic from room 16. The quantity of floor tile and floor mastic is approximately 132 ft<sup>2</sup> in room 16.
- **Remove** floor tile and mastic from room 17. The quantity of floor tile and floor mastic is approximately 120 ft<sup>2</sup> in room 17.
- **Remove** floor tile and mastic from room 22. The quantity of floor tile and floor mastic is approximately 560 ft<sup>2</sup> in room 22.
- **There is a total of 2,624 ft<sup>2</sup> of floor tile and mastic that shall be removed from the building.**

## **LEAD-BASED PAINT ABATEMENT INSTRUCTIONS**

See Lead-Based Paint Inspection and Settled Dust  
Sampling Report for details (**Attachment 5**)

### **1. Yellow Drill Floor Emblem**

- The yellow emblem on the floor of the Drill Floor contains lead-based paint. All paint shall ~~be visibly removed from the concrete floor~~ be wet scraped and encapsulated. ~~Once visibly removed wet scraped,~~ that area of the floor shall be HEPA vacuumed, wet washed, and sealed with KM-669 Acrylic Sealer or equivalent;

### **2. Clearance Inspection**

- Once lead-based paint has been ~~removed from surfaces~~ wet scraped and encapsulated, DEQ will perform a visual inspection to confirm lead-based paint has been ~~removed appropriately before surfaces are painted or sealed~~ sealed appropriately.

### **3. 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 hazardous waste.

[Type text]



## STATEMENT OF WORK

For

### Remediation of Lead and Asbestos Contamination at the Haskell Armory

The Oklahoma Department of Environmental Quality (DEQ) is requesting bids from qualified bidders for remediation services at a former National Guard armory located in Haskell, Oklahoma. This statement of work (SOW) describes the abatement of lead-based paint located on surfaces throughout the building, 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 to give a better understanding of the site. A floor plan map of the Haskell Armory is attached for review (Attachment 1).

The building is located at 1600 NW Haskell Boulevard, Haskell, Oklahoma 74436. The building does have available water and electricity to use during remediation.

#### SPECIAL PROVISIONS:

1. Work Schedule: The Contractor shall schedule all work to be complete within thirty (30) calendar days after date of the written "Notice to Proceed".
  - a. A pre-construction meeting shall be held at the site after the Notice to Proceed date to review Scope 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. The contractor shall perform this work in such a manner as to cause a minimum of interruption to normal work being performed in the contract area.
  - c. Coordination of work areas shall be scheduled with DEQ.
  - d. 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 pre-bid meeting and site walk through;
- Posses a current lead-based paint firm license and have a certified lead-based paint supervisor in order to perform lead-based paint abatement;
- Posses a current Oklahoma Department of Labor (ODOL) Asbestos Abatement Contractor License in order to perform asbestos abatement;
- Follow all appropriate OSHA requirements;

[Type text]

- Read Guidelines for Rehabilitation and Conversion of Indoor Firing Ranges, November 3, 2006, Departments of the Army and Air Force, National Guard Bureau (**Attachment 6**), and refer to this document as a reference and guideline for remediating IFR lead contamination.
- Follow OSHA Lead in Construction Interim Final Standard (29 CFR 1926.62) for lead-based paint abatement, indoor firing range remediation, and lead dust remediation;

**Submit With Bid:**

- 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 with planned activities and schedule to DEQ for approval;

## SEQUENCE OF EVENTS

The remediation of the building shall be as follows:

1. First – The asbestos and lead-based paint abatement shall be completed.
2. Second – Marshall Environmental shall be contacted to confirm all asbestos has been appropriately removed and DEQ shall be contacted to confirm lead-based paint abatement has been appropriately performed.
3. Third – All floors of the entire building shall be cleaned.
4. Fourth – DEQ shall be contacted to perform third party confirmation sampling to confirm indoor firing range (IFR) and all floors have been appropriately remediated.

## ASBESTOS ABATEMENT INSTRUCTIONS

- Non-friable and/or non-regulated ACM shall be removed as described in the instructions listed below.
- For more details see the attached Haskell Armory Asbestos Inspection Report with floor plan map showing locations of ACM (**Attachment 2**).
- Once Asbestos Abatement is complete, Marshall Environmental shall be contacted to confirm abatement has been appropriately performed and all asbestos has been removed.
  - Remove floor tile and mastic from room 23. The quantity of floor tile and floor mastic is approximately 448 ft<sup>2</sup> in room 23.
  - Remove floor tile and mastic from room 1. The quantity of floor tile and floor mastic is approximately 720 ft<sup>2</sup> in room 1.

[Type text]

- Remove floor tile and mastic from room 15. The quantity of floor tile and floor mastic is approximately 168 ft<sup>2</sup> in room 15.
- Remove floor tile and mastic from room 12. The quantity of floor tile and floor mastic is approximately 280 ft<sup>2</sup> in room 12.
- Remove floor tile and mastic from room 13. The quantity of floor tile and floor mastic is approximately 196 ft<sup>2</sup> in room 13.
- Remove floor tile and mastic from room 16. The quantity of floor tile and floor mastic is approximately 132 ft<sup>2</sup> in room 16.
- Remove floor tile and mastic from room 17. The quantity of floor tile and floor mastic is approximately 120 ft<sup>2</sup> in room 17.
- Remove floor tile and mastic from room 22. The quantity of floor tile and floor mastic is approximately 560 ft<sup>2</sup> in room 22.
- There is a total of 2,624 ft<sup>2</sup> of floor tile and mastic that shall be removed from the building.

## **LEAD-BASED PAINT ABATEMENT INSTRUCTIONS**

See Lead-Based Paint Inspection and Settled Dust  
Sampling Report for details (Attachment 5)

### **1. Yellow Drill Floor Emblem**

- The yellow emblem on the floor of the Drill Floor contains lead-based paint. All paint shall be visibly removed from the concrete floor. Once visibly removed, that area of the floor shall be HEPA vacuumed, wet washed, and sealed with KM-669 Acrylic Sealer or equivalent;

### **2. 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.

### **3. 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 hazardous waste.

[Type text]

- 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 they are 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, and Certificate of Disposal demonstrating that the paint chips were properly disposed at a hazardous waste facility must be included in the Final Report.

## **LEAD DUST REMEDIATION INSTRUCTIONS**

See Lead-Based Paint Inspection and Settled Dust  
Sampling Report for details (**Attachment 5**)

### **1. Indoor Firing Range (IFR)**

The IFR is a long narrow room where the Oklahoma Military Department would target practice with weapons. The IFR is to be cleaned by removal of all lead contaminated materials, including removal of all removable acoustical tiles and lead contaminated dust and other lead containing particulates on the floor, walls, and ceiling of the IFR.

#### • Pre-remediation Preparation

- To ensure cross contamination does not occur, use engineering controls such as:
  - Sealing openings with 6 mil poly sheeting to contain dust inside IFR;
  - Covering floor of area outside IFR with 6 mil poly sheeting to make sure not to track lead dust into clean areas;
  - Securing IFR at the end of the work day. At no time shall the IFR be accessible for unauthorized entry without the contractor present;
- When inside IFR wear appropriate personal protective equipment (See **Attachment 3**).

#### • Water Removal

- All wash water from the building shall be filtered through a 1 micron filter and stored on site in containers;
- The wash water will be sampled for total lead and total phosphorus; Total lead shall be run by ICP and total phosphorus shall be run by EPA Method 365.3;
- Sample results shall be submitted to DEQ to determine if wash water can be disposed at the local Waste Water Treatment Facility;
- Wash water shall be disposed appropriately.

[Type text]

- **Pre-remediation Removal**

- Decontaminate all items to be removed from the IFR, wrap in poly sheeting, and properly dispose.
  - Items such as acoustical tiles or other porous materials shall be HEPA vacuumed, washed, and sampled for TCLP. Acoustical tile will have 3 – five part composite samples taken. All other materials shall have 1 – five part composite sample taken of each material. If samples pass TCLP then properly dispose. If any samples fail TCLP, dispose of that item as hazardous waste.

- **Remediation**

- HEPA vacuum and wet wash walls, floor, ceiling, vent fan, and other structures that are contaminated;
- If acoustical tile cannot be removed from the ceiling, tiles shall be HEPA vacuumed, wet washed, and then sealed with DEQ approved lead-based paint encapsulant (**Attachment 4**);
- Dispose lead contaminated dust, wash water, and appropriate cleaning materials as hazardous waste or as appropriate (See section 3. Disposal of Materials for detailed information).

- **Post-remediation**

- All post-remediation sampling shall be performed by DEQ. The Contractor shall provide DEQ a minimum of five (5) calendar days prior notice to perform sampling. See Section C (Confirmation and Clearance Sampling) for contact information;
- Post remediation sampling is required to confirm the IFR has been remediated to 200 micrograms per square foot (ug/SF);
  - Areas above 200 ug/SF shall be re-cleaned and re-tested until results are at or below 200 ug/SF;
- If surfaces of the IFR cannot be cleaned and DEQ determines that these surfaces contain imbedded lead fragments, construction grout shall be used over these surfaces.
  - Surfaces shall be thoroughly cleaned;
  - BASF Acryl 60 or DEQ approved equivalent shall be applied to surfaces according to manufacturer's specifications. Specifications are attached (**Attachment 4**);
  - BASF Construction Grout or DEQ approved equivalent shall be applied (sprayed or troweled) to surfaces according to manufacturer's specifications. Specifications are attached (**Attachment 4**).
- Once the IFR has been remediated to 200 ug/SF, seal the floor, ceiling, and walls with appropriate sealant;

[Type text]

- Floor, ceiling, and walls will be sealed with KM-669 Acrylic Sealer or equivalent. Specifications attached (**Attachment 4**);
- IFR area will have forced air applied to room 4 days after sealer is applied. This will be done to remove all vapors from the area;
- After surfaces are sealed, the Contractor shall provide DEQ a minimum of five (5) calendar days prior notice to perform post remediation wipe sampling to confirm the IFR has been remediated to 40 ug/SF;
- Areas above 40 ug/SF shall be cleaned to remove lead dust from sealed surface. Once cleaned, the area shall be retested to confirm area has been remediated to 40 ug/SF;
- All re-testing of previously failed areas shall be performed by DEQ. Contractor shall provide DEQ a minimum of five (5) calendar day's prior notice to perform sampling.
- The chart below summarizes the clearance numbers for the indoor firing range. All lead wipe samples must be at or below those numbers in order for the room to be considered clean.

<b>Post Remediation</b>	<b>Post Sealant</b>
<b>200 ug/SF</b>	<b>40 ug/SF</b>

## 2. Remaining Building

### 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.
- 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 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

[Type text]

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.
- Wash Water Disposal
  - All wash water from the building shall be filtered through a 1 micron filter and stored on site in containers;
  - The wash water will be sampled for total lead and total phosphorus; Total lead shall be run by ICP and total phosphorus shall be run by EPA Method 365.3;
  - Sample results shall be submitted to DEQ to determine if wash water can be disposed at the local Waste Water Treatment Facility;
  - Wash water shall be disposed appropriately.

### 3. Disposal of Materials

#### Hazardous Waste

- Lead contaminated sand shall be disposed as hazardous waste;
- Lead contaminated dust from the cleaning of the IFR and remaining building shall be disposed as hazardous waste;
- Wash water filters shall be disposed as hazardous waste;
- Mop heads, towels, brushes, wipes, and other cleaning supplies shall be disposed as hazardous waste;

#### Other

- Poly Sheeting shall be disposed as appropriate. If contractor plans to dispose as non-hazardous waste, best management practices such as vacuuming, washing, wiping down, or cleaning poly sheeting prior to disposal shall be implemented.
- Personal protective equipment (gloves, tyvec, face masks, etc.) shall be disposed as appropriate.

[Type text]

#### 4. Confirmation and Clearance Sampling

- Contractor may use his own lab to check progress of remediation, however all DEQ decisions shall be based on analytical data from samples taken by DEQ.
- DEQ will be responsible for taking all post remediation samples.
- DEQ shall be notified five (5) days prior to each sampling event.
- Contact Information:           DEQ  
  Contact: Dustin Davidson  
  Phone: (405) 702-5115
- The third-party sampling shall not be included in the contractors base bid.
- All post remediation sampling done outside the indoor firing range will be performed after all initial abatement, remediation, and cleaning is complete.
- The chart below summarizes the clearance numbers for the building. All lead wipe samples shall be at or below these numbers in order for these areas to be considered clean.

IFR Post Remediation	IFR Post Sealant	Room Floors
200 ug/SF	40 ug/SF	40 ug/SF

#### 5. 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.

[Type text]



**OWNER REPRESENTATIVE**

**Owner's Representative:**

Dustin Davidson  
Oklahoma Department of Environmental Quality  
Land Protection Division  
707 N. Robinson  
Oklahoma City, OK 73102

**Phone Numbers:**

(405) 702-5115 (Office)

(405) 702-5101 (Fax)

E-Mail: [Dustin.Davidson@deq.ok.gov](mailto:Dustin.Davidson@deq.ok.gov)

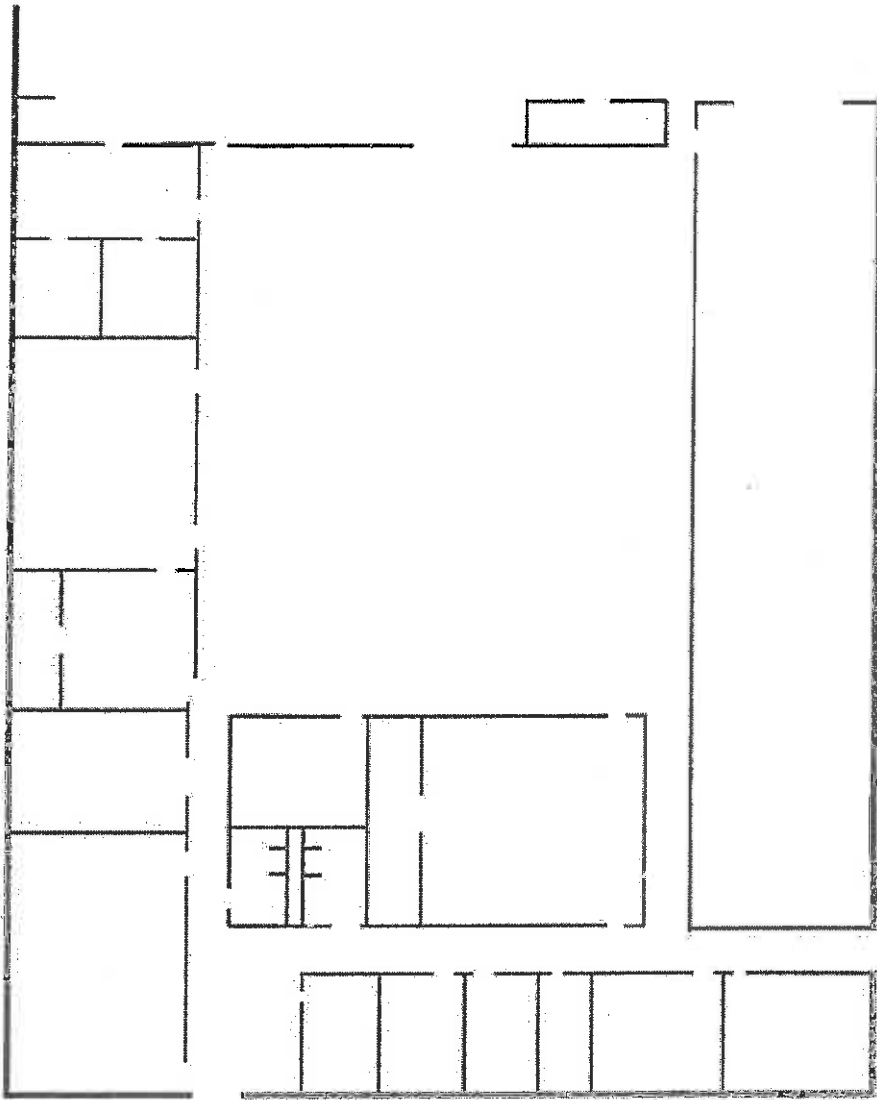
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# ATTACHMENT 1

## Floor Plan Map

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# Haskell Armory



*Not to scale  
Floor plan approximate*

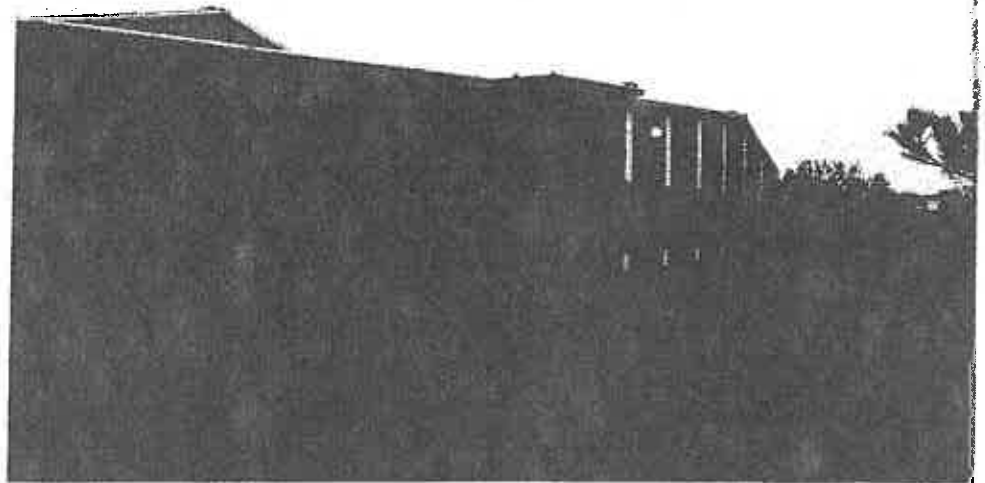
## **ATTACHMENT 2**

### **Haskell Asbestos Inspection Report**

[Type text]

# *HASKELL ARMORY*

*DCS Contract Number: ID11070-5*



## *Asbestos Inspection*

**Prepared For:**

*Oklahoma Department of Environmental Quality*

*Land Protection Division*

*707 North Robinson*

*Oklahoma City, Oklahoma 73102*

**Prepared By:**

*Marshall Environmental Management, Inc.*

*1601 Southwest 89<sup>th</sup> Street, Suite A-100*

*Oklahoma City, Oklahoma 73159*

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**CERTIFICATION**

This is to certify that, on March 29, 2011 Marshall Environmental Management, Inc was contracted by the State of Oklahoma, Department of Central Services to conduct an Asbestos Inspection of the Haskell Armory located at 1600 Northwest Haskell Boulevard in Haskell, Oklahoma for the State of Oklahoma Department of Environmental Quality, Land Protection Division. This Asbestos Inspection was performed by a Licensed, Oklahoma Department of Labor, Asbestos Hazard Emergency Response Act Inspector Jacob Jones, representative of Marshall Environmental Management, Inc. under the direction of a Licensed, Oklahoma Department of Labor, Asbestos Hazard Emergency Response Act Management Planner Dr. Charles L. Marshall Certified Industrial Hygienist and President of Marshall Environmental Management, Inc. The findings and analytical data resulting from this Asbestos Inspection are believed to accurately, depict the condition(s) and location(s) of material(s) that contains asbestos on the date this inspection was conducted.

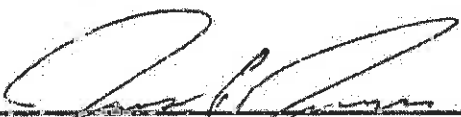


4-26-11

**Dr. Charles L. Marshall, CIH, CSP**

**Date:**

Certified Industrial Hygienist - Comprehensive Practice Certification		#4489
Certified Safety Professional - Comprehensive Practice Certification		#9941
Registered Professional Environmental Specialist - State Department of Health		#710
Certified Hazardous Materials Manager, Master Level Certification		#1909
Certified Healthcare Safety Professional, Master Level Certification		#521
EPA AHERA Certifications	Asbestos Inspector	#400517
	Management Planner	#500396
	Project Designer	#2415
ODOL License	Project Designer	#OKMP-0028
	Management Planner	#OKMP-0246
	Asbestos Inspector	#OK-150343



4-26-11

**Jacob Jones, B.S., Industrial Hygiene Associate**

**Date:**

ODOL License                      Asbestos Inspector

#OK-159891

**LABORATORY ANALYSIS PERFORMED BY**

Marshall Environmental Management, Inc.  
 1601 Southwest 89<sup>th</sup> Street, A-100  
 Oklahoma City, OK 73159

## *HASKELL ARMORY*

### *EXECUTIVE SUMMARY*

On March 29, 2011, Marshall Environmental Management, Inc. (MEM) completed an Asbestos Inspection of the Haskell Armory so, if necessary, a strategy, which follows the regulations set forth by the Environmental Protection Agency (EPA), may be prepared for the management and/or abatement of Asbestos Containing Materials (ACM). As such, the analytical results correlating with the samples that were collected as part of this Asbestos Inspection identified the presence of asbestos containing floor-tile mastic in Room 1, 15 and Room 23. The homogenous areas (i.e. suspected ACM that are uniform in color and texture and believed to be applied during the same period) include Rooms 12, 13, 16, 17 and 22. The asbestos concentrations identified in the floor-tile mastic were greater than one percent (>1%). The asbestos containing mastic is considered non-friable, that which cannot be rendered to a powder by hand pressure, and is therefore categorized as "Category I Non-Friable."

Although asbestos containing mastic exists within the Armory, no action is required as long as the mastic remains in good condition and undisturbed. If the asbestos containing mastic remains in place, an Asbestos Management Plan is recommended to be written by a Licensed, Oklahoma Department Of Labor (ODOL) Management Planner for the purpose of preventing or assisting with activities that could disturb the asbestos containing mastic. However, the mastic must be abated should any activities have the potential to render the mastic friable. The abatement of the asbestos containing mastic is not regulated by the ODOL; though recommendations will suggest that an ODOL, Licensed Asbestos Abatement Contractor carryout the abatement of the mastic to make certain that Occupational Safety and Health Administration (OSHA) and EPA compliant methods are utilized.

A National Emission Standard for Hazardous Air Pollutants (NESHAP) notification must be submitted to the Oklahoma Department of Environmental Quality (ODEQ) 10-business days preceding the initiation of renovation and/or demolition activities where asbestos containing materials are present in quantities that meet or exceed 160-square feet, 260-linear feet or 35-cubic feet.

The remainder of this Report is comprised of the Sampling Strategy and Methodology, the Observations and Findings, Asbestos Response Actions, the Regulatory Review, Limitations of the Survey and the Appendix to this Report.



## **SAMPLING STRATEGY AND METHODOLOGY**

Each accessible area throughout the Armory was systematically inspected in order to collect samples of building materials suspected of containing asbestos. The sample collection process includes thoroughly documenting the location, condition, classification and the estimated quantity of material(s) suspected of containing asbestos. Suspect ACM that are uniform in color and texture and believed to be applied during the same period are described as "Homogenous." A specified number of samples are collected from a homogenous material and if laboratory analyses determine that the material contains asbestos, the entirety of the homogenous material is considered asbestos containing. The following are examples of the types of materials that were visually inspected and sampled during this Asbestos Inspection:

### **Surfacing Materials**

- Examples include but are not limited to blown on or troweled on surfacing material commonly observed on ceilings, walls or structural steel.

### **Thermal System Insulation**

- Examples include but are not limited to insulation on piping, thermal process or Heating Ventilation and Air Conditioning (HVAC) equipment and components.

### **Miscellaneous Materials**

- Examples include but are not limited to floor and ceiling tiles, mastics, vinyl sheet-flooring, wallboard, wallboard-tape and mud or joint compounds.

"Asbestos Containing Materials" are any materials, which consist of greater than one percent (>1%) asbestos as defined by the EPA Approved Analytical Method: 40 Code of Federal Regulations (CFR) Chapter I, Part 763, Subpart F, Appendix C, referred to as "*Interim Method for determination of Asbestos in Bulk Insulation Samples*," using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982. Each sample collected was submitted for analysis in accordance with the EPA authorized Method: 600 49 CFR Part 61 Subpart M, Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP) Rules.

## OBSERVATIONS AND FINDINGS

The Haskell Armory is a one-story structure comprised of a brick façade and a flat roof that was constructed on a concrete slab foundation circa 1983. The laboratory analyses detected asbestos in the floor-tile mastic in Room 1, 15 and Room 23 and the homogenous areas include Rooms 12, 13, 16, 17 and 22. Approximately 2,624-square foot (ft<sup>2</sup>) of asbestos containing floor-tile mastic was identified. Correlating chain of custody forms and laboratory analysis is provided for your records in the Appendix to this Report. The following Tables summarize the sampling locations and the description of the ACM, the percent and type of asbestos detected, the type and condition of the ACM and the respective quantities.

TABLE I: SUMMARY OF ASBESTOS CONTAINING MATERIALS

SAMPLE NUMBER	SAMPLE LOCATION	SAMPLE DESCRIPTION	PERCENT ASBESTOS	TYPE OF ASBESTOS	TYPE OF MATERIAL	CONDITION OF MATERIAL
0028-02	Room 23 - North	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-04	Room 23 - South	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-06	Room 23 - West	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-08	Room 1 - South	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-10	Room 1 - North	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-12	Room 1 - East	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-23	Room 15 - East	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-25	Room 15 - West	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good
0028-27	Room 15 - Center	Floor-Tile Mastic	%5	Chrysotile	Miscellaneous	Good

TABLE II: QUANTITIES OF ASBESTOS CONTAINING MATERIALS

SAMPLE LOCATION	SAMPLE DESCRIPTION	INDIVIDUAL QUANTITY
Room 23	Floor-Tile Mastic	~448-ft <sup>2</sup>
Room 1	Floor-Tile Mastic	~720-ft <sup>2</sup>
Room 15	Floor-Tile Mastic	~166-ft <sup>2</sup>
Room 12	Floor-Tile Mastic	~280-ft <sup>2</sup>
Room 13	Floor-Tile Mastic	~196-ft <sup>2</sup>
Room 16	Floor-Tile Mastic	~132-ft <sup>2</sup>
Room 17	Floor-Tile Mastic	~120-ft <sup>2</sup>
Room 22	Floor-Tile Mastic	~560-ft <sup>2</sup>
TOTAL QUANTITIES		~2,624-ft <sup>2</sup>

### ***ASBESTOS RESPONSE ACTIONS***

- Although asbestos containing mastic exists within the Armory, no action is required as long as the mastic remains in good condition and undisturbed
- If the asbestos containing mastic remains in place, an Asbestos Management Plan is recommended to be written by a Licensed, ODOL Management Planner for the purpose of preventing or assisting with activities that could disturb the asbestos containing mastic
- The mastic must be abated should any activities have the potential to render the mastic friable
- The abatement of the asbestos containing mastic is not regulated by the ODOL; though recommendations will suggest that an ODOL, Licensed Asbestos Abatement Contractor carryout the abatement of the mastic to make certain that OSHA and EPA compliant methods are utilized
- A NESHAP notification must be submitted to the ODEQ 10-business days preceding the initiation of renovation and/or demolition activities where asbestos containing materials are present in quantities that meet or exceed 160-square feet, 260-linear feet or 35-cubic feet

## **REGULATORY REVIEW**

Prior to 1980 asbestos was commonly utilized during construction in addition to being found in various building materials. In 1994, Occupational Safety and Health Administration (OSHA) required employers to identify ACM in pre-1980 construction as part of its Standard for Occupational Exposure to Asbestos in Construction (29 CFR 1926.1101), this OSHA standard covers maintenance, repair and removal functions involving ACM or Presumed ACM (PACM). Without Asbestos Inspections, owners and/or operators must treat suspected ACM as asbestos. The EPA and the Oklahoma Department Of Labor (ODOL) define an ACM as any material that contains concentrations of asbestos >1%.

The ODOL regulates the Hazard Communication requirements for public employees as part of the ODOL Public Employees Occupational Safety and Health (PEOSH) Program. The State of Oklahoma Hazard Communication Standard (HAZCOM), revised as of August 2006, is provided in the Oklahoma Asbestos Control Act (OAC) 380 Chapter 45: [http://www.ok.gov/odol/documents/Asbestos\\_law\\_rules.pdf](http://www.ok.gov/odol/documents/Asbestos_law_rules.pdf)

Specific provisions of the OAC Standard (45-15-1) address asbestos notifications and labeling requirements. The labeling requirements specify that pipe insulation and various equipment insulation that contains asbestos as well as rooms where asbestos is present be identified with an Asbestos Warning Label. The asbestos warning labels are to be readily visible and include the following warning:

**DANGER**  
**CONTAINS ASBESTOS FIBERS**  
**AVOID BREATHING DUST**  
**CANCER AND LUNG DISEASE HAZARD**

Section 380:45-15-2 requires a notice to employees when ACM are used in acoustical materials on ceilings and walls this type of ACM is referred to as Surfacing Material.

The EPA requires asbestos inspections in school buildings in grades K through 12 as part of the Asbestos Hazard Emergency Response Act (AHERA), which is authorized in 40 CFR 763.6. If asbestos is present within School Facilities grades K-12 an Asbestos Management Plan is required by the Local Educational Authority (LEA) to be in place.

The AHERA sampling protocol addresses the systematic sample collection of all forms of ACM in addition to categorizing ACM materials as friable, that which can be rendered to a powder by hand pressure, Category I or II non-friable. The AHERA Inspection must also evaluate the condition and the potential for disturbance of ACM.

In addition to AHERA, the EPA also regulates commercial asbestos abatement activities. A NESHAP notification is required to be submitted to the ODEQ 10-business day prior to the abatement of ACM whenever the quantities meet or exceed 160-square feet, 260-linear feet or 35-cubic feet. Instruction regarding NESHAP notification requirements and ODEQ compliance are provided on the DEQ website at: <http://www.deq.state.ok.us/aqdcnw/asbestos/index.htm>

Land disposal requirements are also regulated by the EPA through State Landfill Permits. These efforts are now administered by the ODEQ Air Quality and Land Protection regulations. The ODEQ requires the advance filing of a NESHAP notification when any demolition or renovation activities take place. The NESHAP notification process tracks abated ACM to an ODEQ approved landfill on a project-by-project basis.

The ODOL Asbestos Division regulates Asbestos Abatement by implementing the rules that govern the abatement of friable ACM. Under the ODOL asbestos rule, OAC 380:50, only adequately licensed Contractors can perform asbestos abatement, develop management plans and project designs. All abatement supervisors, abatement workers and asbestos inspectors must be licensed by the ODOL. The ODOL Rules are available on the ODOL web site at: <http://www.ok.gov/odol/>

### ***LIMITATIONS OF SURVEY***

This Asbestos Inspection was limited to certain aspects of the building construction these limitations may have restricted or prevented the complete inspection of hidden or inaccessible building materials; therefore, inaccessible building materials were not inspected. Furthermore, locations presenting a hazard to bystanders or the Inspector were not assessed.

The findings resulting from this Inspection are valid as of the date this Asbestos Inspection was performed; however, changes in the conditions of a property may certainly occur with the passage of time whether due to natural processes or the works of man. Additionally, changes in applicable or appropriate standards may also occur possibly resulting from legislation or the expansion of knowledge.

Our Investigation was conducted using the degree of care and skill ordinarily exercised by professional consultants under similar circumstances practicing in this or similar localities. Professional services have been performed; results associated with this Asbestos Inspection were obtained and reported in accordance with generally accepted principles and practices. No other representations either expressed or implied are made; thus, Marshall Environmental Management, Inc. is not responsible for independent conclusions, opinions, or recommendations made by others. It should also be noted that as-built plans were not available for review or use in the planning of this Asbestos Inspection.

# ***APPENDIX***

*CHAIN OF CUSTODY & ANALYTICAL RESULTS*

*LICENSES*

*FLOOR PLAN DIAGRAM*

# Marshall Environmental Management, Inc. Chain Of Custody

PROJECT INFORMATION			INVOICE TO			REPORT TO			
Project Id.	0035-AB-032911	Client/Company	State of Oklahoma - Department of Central Services			Client/Company	Oklahoma Department of Environmental Quality - Land Protection Division		
Project Name	Rockwell Army Airbase Inspection	Attention Title	Cindy Melton, Administrative Programs Director			Attention Title	Dustin Davidson		
Project Address	1600 NW Haskell Blvd Haskell, OK	Invoice To Address	P.O. Box 53148 Oklahoma City, OK 73152-3448			Address	P.O. Box 1677 Oklahoma City, OK 73101		
Site Contact	Duane Poins	Phone Number	405-522-4305			Phone Number	405-702-5115		
Phone Number	918-483-2933	Fax Number	405-522-0051			Fax Number			
Mobile Number	918-483-3148	Mobile Number				Mobile Number			
email		E-mail Address	Cindy.melton@dcps.state.ok.us			E-mail Address	davidson@deq.state.ok.us		

Lab Id.	Sample Date	Field Id.	Sample Location (lobby, bedroom, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time		Volume/ Area	Unit	Analysis/ Parameters
							On	Off			
6028	3/29/2011	PLM-1	White w/ Black Speck 12" x 12" Floor Tile	Room 23 - North	Bulk	NA	On	NA	NA	NA	Asbestos PLM
6026	3/29/2011	PLM-2	Black Tile Mastic	Room 23 - North	Bulk	NA	On	NA	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-3	White w/ Black Speck 12" x 12" Floor Tile	Room 22 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-4	Black Tile Mastic	Room 22 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-5	White w/ Black Speck 12" x 12" Floor Tile	Room 23 - West	Bulk	NA	On	NA	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-6	Black Tile Mastic	Room 23 - West	Bulk	NA	On	NA	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-7	White w/ Tan Speck 12" x 12" Floor Tile	Room 1 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-8	Black Tile Mastic	Room 1 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-9	White w/ Tan Speck 12" x 12" Floor Tile	Room 1 - North	Bulk	NA	On	NA	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-10	Black Tile Mastic	Room 1 - North	Bulk	NA	On	NA	NA	NA	Asbestos PLM

Collected By	Jacob Jones	Date	3/29/2011	Relinquished By	
Received By	<i>[Signature]</i>	Date	3/29/2011	Relinquished By	
Turn-Around Time		Condition Upon Receipt			
Standard	5-7 Business Days	Sample Notes			
Rush	Next Day	Method of Shipment			
Immediate	Same Day				
		Matrix		Media	
		Air		Micro-Vacuum	
		Aqueous		Mold Plate	
		Bulk		Spore Trap	
		Sludge		Top-Lit	
		Soil		of	
		Solid		3	
		Page		3	

# Marshall Environmental Management, Inc. Chain Of Custody

PROJECT INFORMATION			INVOICE TO			REPORT TO		
Project Id.	0035-AB-032911	Client/Company	State of Oklahoma - Department of Central Services	Client/Company	Oklahoma Department of Environmental Quality - Land Protection Division			
Project Name	Haskell Army, Asbestos Inspection	Attention	Cindy Melton	Attention	Dustin Davidson			
Project Address	1630 NW Haskell Blvd Haskell, OK	Invoice To Address	Administrative Programs Director P.O. Box 33448 Oklahoma City, OK 73152-0448	Address	P.O. Box 1677 Oklahoma City, OK 73101			
Site Contact	Duane Points	Phone Number	405-523-4805	Phone Number	405-702-5115			
Phone Number	918-482-3933	Fax Number	405-522-0051	Fax Number				
Mobile Number	918-482-3148	Mobile Number		Mobile Number				
email		E-mail Address	Cindy.melton@dcsc.state.ok.us	E-mail Address	cust@deq.state.ok.us			

Lab Id.	Sample Date	Field Id.	Sample Location (lobby, room, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time		Volume/Area	Unit	Analytical Parameters
							On	Off			
0028	3/29/2011	PLM-11	White w/ Tan Speck 12" x 12" Floor Tile	Room 1 - East	Bulk	NA	NA	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-12	Black Tile Mastic	Room 1 - East	Bulk	NA	NA	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-13	Bedding Tape	Room 1 - NW	Bulk	NA	NA	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-14	Bedding Mud	Room 1 - NW	Bulk	NA	NA	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-15	Drywall	Room 1 - NW	Bulk	NA	NA	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-16	Bedding Tape	Room 15 - SW	Bulk	NA	NA	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-17	Bedding Mud	Room 15 - SW	Bulk	NA	NA	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-18	Drywall	Room 15 - SW	Bulk	NA	NA	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-19	Bedding Tape	Room 9 - NW	Bulk	NA	NA	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-20	Bedding Mud	Room 9 - NW	Bulk	NA	NA	NA	NA	NA	Asbestos PLM

Collected By	Jacob Jones	Date	3/29/2011	Retinquired By	
Received By		Date	17:00	Retinquired By	
Turn-Around-Time		Condition Upon Receipt		Method of Shipment	
Standard	5-7 Business Days				
Rush	Next Day				
Immediate	Same Day				
Sample Notes					



# Marshall Environmental Management, Inc. Chain Of Custody

PROJECT INFORMATION		INVOICE TO		REPORT TO	
Project Id.	6035-AB-032911	Client/Company	State of Oklahoma - Department of Central Services	Client/Company	Oklahoma Department of Environmental Quality - Liquid Protection Division
Project Name	Haskell Armory Asbestos Inspection	Attention Title	Cindy Melton	Attention Title	Dustin Davidson
Project Address	1600 NW Haskell Blvd Haskell, OK	Invoice To Address	P.O. Box 31448 Oklahoma City, OK 73157-3448	Address	P.O. Box 1677 Oklahoma City, OK 73161
Site Contact	Duane Poine	Phone Number	405-522-4805	Phone Number	405-702-5115
Phone Number	918-482-3933	Fax Number	405-522-0051	Fax Number	
Mobile Number	918-482-3148	Mobile Number		Mobile Number	
email		E-mail Address	Cindy.melton@stateok.gov	E-mail Address	davidson@deq.stateok.gov


Lab #	Sample Date	Field Id.	Sample Location (lobby, bedroom, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time	Volume/ Area	Unit	Analysis/ Parameters
6022	3/29/2011	PLM-21	Drywall	Room 9 - NW	Bulk	NA	On/Off	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-22	White w/ Gold Speck 12" x 12" Floor Tile	Room 15 - East	Bulk	NA	On/Off	NA	NA	Asbestos PLM
6026	3/29/2011	PLM-23	Black Mastic	Room 15 - East	Bulk	NA	On/Off	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-24	White w/ Gold Speck 12" x 12" Floor Tile	Room 15 - West	Bulk	NA	On/Off	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-25	Black Mastic	Room 15 - West	Bulk	NA	On/Off	NA	NA	Asbestos PLM
6022	3/29/2011	PLM-26	White w/ Gold Speck 12" x 12" Floor Tile	Room 15 - Center	Bulk	NA	On/Off	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-27	Black Mastic	Room 15 - Center	Bulk	NA	On/Off	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-28	White Ceiling Tile	Room 17 - Center	Bulk	NA	On/Off	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-29	White Ceiling Tile	Room 23 - North	Bulk	NA	On/Off	NA	NA	Asbestos PLM
6028	3/29/2011	PLM-30	White Ceiling Tile	Room 16 - South	Bulk	NA	On/Off	NA	NA	Asbestos PLM

Collected By	Jacob Jones	Date	3/29/2011	Time	12:00	Refiniquished By	
Received By	<i>[Signature]</i>	Date		Time		Refiniquished By	
Turn-Around-Time	Standard	5-7 Business Days	Next Day	Immediate	Same Day	Condition Upon Receipt	Method of Shipment
Sample Notes							
Matrix	Air	Aqueous	Bulk	Soil	Solid	Media	MV MP ST SW TL
Pages	3	of	4				

# Marshall Environmental Management, Inc. Chain Of Custody

PROJECT INFORMATION		INVOICE TO		REPORT TO	
Project Id.	0033-AB-03-911	Client/Company	State of Oklahoma - Department of Central Services	Client/Company	Oklahoma Department of Environmental Quality - Land Protection Division
Project Name	Haskell Agency Asbestos Inspection	Attention	Cindy Melton	Attention	Dustin Davidson
Project Address	1600 NW Haskell Blvd Haskell, OK	Invoices To Address	P.O. Box 33448 Oklahoma City, OK 73152-3448	Address	P.O. Box 1677 Oklahoma City, OK 73101
Site Contact	Duane Penns	Phone Number	405-522-4805	Phone Number	405-702-5115
Phone Number	918-482-3933	Fax Number	405-522-0051	Fax Number	
Mobile Number	918-482-3148	Mobile Number		Mobile Number	
email		E-mail Address	Cindy.Melton@decs.state.ok.us	E-mail Address	david.davidson@deq.state.ok.us

Lab Id.	Sample Date	Field Id.	Sample Location (Lobby, bedroom, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time		Volume Area	Unit	Analysis/ Parameters
							On	Off			
0028	3/29/2011	PLM-31	Yellow Straight Run Insulation	Room 2 - West	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-32	Yellow Straight Run Insulation	Room 2 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-33	Yellow Straight Run Insulation	Room 2 - North	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-34	Yellow Plumbing Straight Run	Room 9 - NW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-35	Insulation Seven Tape	Room 9 - NW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-36	Yellow Elbow Insulation	Room 9 - NW	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-37	Yellow Straight Run Insulation	Room 9 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-38	Tan 12" x 12" Floor Tile	Room 15 - West	Bulk	NA	On	NA	NA	NA	Asbestos PLM
0028	3/29/2011	PLM-39	Tan 12" x 12" Floor Tile	Room 15 - South	Bulk	NA	On	NA	NA	NA	Asbestos PLM

Collected By	Jacob Jones	Date	3/29/2011	Time	17:00	Re-Inaugrated By	
Received By		Date		Time		Re-Inaugrated By	
Turn-Around-Time		Condition Upon Receipt		Method of Shipment			
Standard	5-7 Business Days						
Rush	Next Day						
Immediate	Same Day						
Sample Notes							

Matrix	Micro Vacuum	Hold Piece	Spore Trap	Swab	Type-Lite
Air					
Aqueous					
Bulk					
Sediment					
Soil					
Solid					
Page	4	4	4	4	4

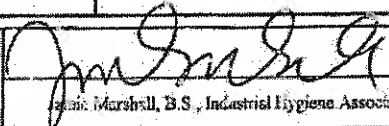
## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100  
Oklahoma City, OK 73159  
Phone: (405) 616-0401 Fax: (405) 681-6753  
marshenv@swbell.net

PROJECT LOCATION		INVOICE TO		REPORT TO	
Project Identification	0028-032911-PLM	Client	State of Oklahoma Department of Central Services Construction & Properties Division	Client	State of Oklahoma Department of Environmental Quality Land Protection Division
Project	Haskell Armory Asbestos Inspection	Attention	Cindy Melton	Attention	Dustin Davidson
Project Address	1600 Northwest Haskell Blvd. Haskell, OK 74436	Address	P.O. Box 53448 Oklahoma City, OK 73102	Address	P.O. Box 1677 Oklahoma City, OK 73102
Contact	Duane Points	Phone	405-5622-4805	Phone	405-702-5115
Phone	918-482-3933	Fax	405-522-0051	Fax	
Cell	918-724-1753	Other		Other	
email		email	cindy_melton@cdcs.state.ok.us	email	dustin.davidson@deq.ok.gov

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED		
			COLOR	CONDITION			
0028-032911-PLM-01	March 29, 2011	Room 23 - North	White w/ Black Spack	Good		2% Cellulose	
		12" x 12" Floor Tile	Miscellaneous			98% Vinyl Aggregate	
0028-032911-PLM-02	March 29, 2011	Room 23 - North	Black	Good	5% Chrysotile	1% Cellulose	
		Floor Tile Mastie	Miscellaneous			94% Tar	
0028-032911-PLM-03	March 29, 2011	Room 23 - South	White w/ Black Spack	Good		2% Cellulose	
		12" x 12" Floor Tile	Miscellaneous			98% Vinyl Aggregate	
0028-032911-PLM-04	March 29, 2011	Room 23 - South	Black	Good	5% Chrysotile	1% Cellulose	
		Floor Tile Mastie	Miscellaneous			94% Tar	
0028-032911-PLM-05	March 29, 2011	Room 23 - West	White w/ Black Spack	Good		2% Cellulose	
		12" x 12" Floor Tile	Miscellaneous			98% Vinyl Aggregate	

Jamie Marshall	 Jamie Marshall, B.S., Industrial Hygiene Associate	April 7, 2011
ANALYST NAME (PRINT)	ANALYST SIGNATURE	DATE ANALYZED

Polarized Light Microscopy: Asbestos Analysis Test Method: 30 CFR Chapter I, Part 763, Subpart F, Appendix A. "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/4-82-020 1982.	Lab Accreditation: AIHA PAT 107 102334
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## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100  
Oklahoma City, OK 73159  
Phone: (405) 616-0401 Fax: (405) 681-6753  
[marshenv@swbell.net](mailto:marshenv@swbell.net)

PROJECT LOCATION		INVOICE TO		REPORT TO	
Project Identification	0028-032911-PLM	Client	State of Oklahoma Department of Central Services Construction & Properties Division	Client	State of Oklahoma Department of Environmental Quality Land Protection Division
Project	Haskell Armory Asbestos Inspection	Attention	Cindy Melton	Attention	Dustin Davidson
Project Address	1600 Northwest Haskell Blvd. Haskell, OK 74436	Address	P.O. Box 53448 Oklahoma City, OK 73102	Address	P.O. Box 1677 Oklahoma City, OK 73102
Contact	Duane Points	Phone	405-5622-4905	Phone	405-702-3115
Phone	918-482-3953	Fax	405-522-0151	Fax	
Cell	918-724-1753	Other		Other	
email		email	<a href="mailto:cindy_melton@ocps.state.ok.us">cindy_melton@ocps.state.ok.us</a>	email	<a href="mailto:dustin.davidson@ded.ok.gov">dustin.davidson@ded.ok.gov</a>

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		5% ASBESTOS DETECTED	
0028-032911-PLM-06	March 29, 2011	Room 23 - West	COLOR	Black	5% Chrysotile	95% Tar
		Floor Tile Mastic	CONDITION	Good		
			TYPE	Miscellaneous		
			NOTE			
0028-032911-PLM-07	March 29, 2011	Room 1 - South	COLOR	White w/ Tan Speck		1% Cellulose
		12" x 12" Floor Tile	CONDITION	Good		99% Vinyl Aggregate
			TYPE	Miscellaneous		
			NOTE			
0028-032911-PLM-08	March 29, 2011	Room 1 - South	COLOR	Black	5% Chrysotile	95% Tar
		Floor Tile Mastic	CONDITION	Good		
			TYPE	Miscellaneous		
			NOTE			
0028-032911-PLM-09	March 29, 2011	Room 1 - North	COLOR	White w/ Tan Speck		1% Cellulose
		12" x 12" Floor Tile	CONDITION	Good		99% Vinyl Aggregate
			TYPE	Miscellaneous		
			NOTE			
0028-032911-PLM-10	March 29, 2011	Room 1 - North	COLOR	Black	5% Chrysotile	95% Tar
		Floor Tile Mastic	CONDITION	Good		
			TYPE	Miscellaneous		
			NOTE			

Janie Marshall	 Janie Marshall, B.S., Industrial Hygiene Associate	April 7, 2011
ANALYST NAME (PRINT)	ANALYST SIGNATURE	DATE ANALYZED

Polarized Light Microscopy Asbestos Analysis Test Method, 49 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-029 1982.	Lab Accreditation: AIIA PAT ID# 162334
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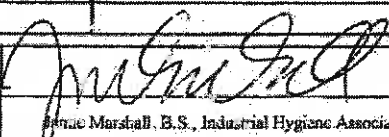
## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100  
Oklahoma City, OK 73159  
Phone: (405) 615-0401 Fax: (405) 681-6753  
marshenv@swbell.net

PROJECT LOCATION		INVOICE TO		REPORT TO	
Project Identification	0028-032911-PLM	Client	State of Oklahoma Department of Central Services Construction & Properties Division	Client	State of Oklahoma Department of Environmental Quality Land Protection Division
Project	Haskell Army Asbestos Inspection	Attention	Cindy Melton	Attention	Dustin Davidson
Project Address	1600 Northwest Haskell Blvd. Haskell, OK 74436	Address	P.O. Box 53448 Oklahoma City, OK 73102	Address	P.O. Box 1677 Oklahoma City, OK 75102
Contact	Duane Poins	Phone	405-5622-4805	Phone	405-762-5115
Phone	918-482-3933	Fax	405-522-6951	Fax	
Cell	918-724-1733	Other		Other	
email		email	cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED	
0028-032911-PLM-11	March 29, 2011	Room 1 - East	COLOR	White w/ Test Speck		1% Cellulose
		12" x 12" Floor Tile	CONDITION	Good		99% Vinyl Aggregate
			TYPE	Miscellaneous		
			NOTE			
0028-032911-PLM-12	March 29, 2011	Room 1 - East	COLOR	Black	5% Chrysotile	95% Tar
		Floor Tile Mastic	CONDITION	Good		
			TYPE	Miscellaneous		
			NOTE			
0028-032911-PLM-13	March 29, 2011	Room 1 - Northwest	COLOR	Beige		100% Cellulose
		Bedding Tape	CONDITION	Good		
			TYPE	Miscellaneous		
			NOTE			
0028-032911-PLM-14	March 29, 2011	Room 1 - Northwest	COLOR	White		99% Calcareous Material
		Bedding Mud	CONDITION	Good		1% Cellulose
			TYPE	Graining		
			NOTE			
0028-032911-PLM-15	March 29, 2011	Room 1 - Northwest	COLOR	White		98% Calcareous Material
		Drywall	CONDITION	Good		2% Cellulose
			TYPE	Miscellaneous		
			NOTE			

Janie Marshall	 Janie Marshall, B.S., Industrial Hygiene Associate	April 7, 2011
ANALYST NAME (PRINT)	ANALYST SIGNATURE	DATE ANALYZED

Polarized Light Microscopy Asbestos Analysis Test Method 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM); US EPA 600/M4-82-020 1982.	Lab Accreditation: ACRS PAT ID# 102334
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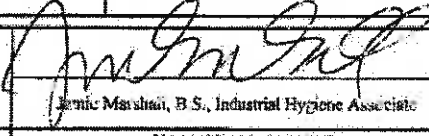
## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100  
Oklahoma City, OK 73159  
Phone: (405) 616-0401 Fax: (405) 681-6753  
marshenv@swbell.net

PROJECT LOCATION		INVOICE TO		REPORT TO	
Project Identification	0028-032911-PLM	Client	State of Oklahoma Department of Central Services Construction & Properties Division	Client	State of Oklahoma Department of Environmental Quality Land Protection Division
Project	Haskell Armory Asbestos Inspection	Attention	Cindy Melton P.O. Box 53448 Oklahoma City, OK 73102	Attention	Dustin Davidson P.O. Box 1677 Oklahoma City, OK 73102
Project Address	1600 Northwest Haskell Blvd. Haskell, OK 74436	Address	P.O. Box 53448 Oklahoma City, OK 73102	Address	P.O. Box 1677 Oklahoma City, OK 73102
Contact	Duane Poats	Phone	405-5622-4805	Phone	405-702-5115
Phone	918-482-1933	Fax	405-522-0651	Fax	
Cell	918-724-1753	Other		Other	
email		email	cindy_melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED		
			COLOR	CONDITION			
0028-032911-PLM-16	March 29, 2011	Room 15 - Southwest	Beige	Good	100%	Cellulose	
		Bedding Tape					
0028-032911-PLM-17	March 29, 2011	Room 15 - Southwest	White	Good	99%	Calcareous Material	
		Bedding Mud		Surfacing	1%	Cellulose	
0028-032911-PLM-18	March 29, 2011	Room 15 - Southwest	White	Good	98%	Calcareous Material	
		Drywall		Miscellaneous	2%	Cellulose	
0028-032911-PLM-19	March 29, 2011	Room 9 - Northwest	Beige	Good	100%	Cellulose	
		Bedding Tape		Miscellaneous			
0028-032911-PLM-20	March 29, 2011	Room 9 - Northwest	White	Good	99%	Calcareous Material	
		Bedding Mud		Surfacing	1%	Cellulose	

Janice Marshall		April 7, 2011
ANALYST NAME (PRINT)	ANALYST SIGNATURE	DATE ANALYZED

Polarized Light Microscopy Asbestos Analysis Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/4-92-020, 1982.	Lab Accreditation: ABMA Pat ID# 162334
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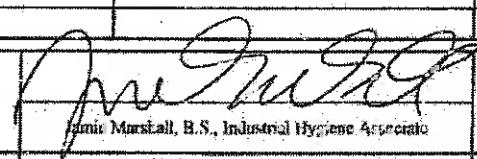
## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100  
Oklahoma City, OK 73159  
Phone: (405) 616-0401 Fax: (405) 681-6753  
marshenv@swbcil.net

PROJECT LOCATION		INVOICE TO		REPORT TO	
Project Identification	0076-032911-PLM	Client	State of Oklahoma Department of Central Services Construction & Properties Division	Client	State of Oklahoma Department of Environmental Quality Land Protection Division
Project	Haskell Armory Asbestos Inspection	Attention	Cindy Melton	Attention	Dustin Davidson
Project Address	1600 Northwest Haskell Blvd. Haskell, OK 74436	Address	P.O. Box 53448 Oklahoma City, OK 73102	Address	P.O. Box 1677 Oklahoma City, OK 73102
Contact	Duane Pabins	Phone	405-5622-4805	Phone	405-762-5115
Phone	918-482-3933	Fax	405-522-0651	Fax	
Cell	918-724-1753	Other		Other	
email		email	cindy_melton@dcs.state.ok.us	email	dustin.davidson@des.ok.gov

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED		
0028-032911-PLM-21	March 29, 2011	Room 9 - Northwest	COLOR	White		98% Calcareous Material	
		Drywall	CONDITION	Good		2% Cellulose	
			TYPE	Miscellaneous			
			NOTE				
0028-032911-PLM-22	March 29, 2011	Room 15 - East	COLOR	White w/ Gold Speck		2% Cellulose	
		12" x 12" Floor Tile	CONDITION	Good		98% Vinyl Aggregate	
			TYPE	Miscellaneous			
			NOTE				
0028-032911-PLM-23	March 29, 2011	Room 15 - East	COLOR	Black	5% Chrysotile	1% Cellulose	
		Floor Tile Mastie	CONDITION	Good		94% Tar	
			TYPE	Miscellaneous			
			NOTE				
0028-032911-PLM-24	March 29, 2011	Room 15 - West	COLOR	White w/ Gold Speck		2% Cellulose	
		12" x 12" Floor Tile	CONDITION	Good		98% Vinyl Aggregate	
			TYPE	Miscellaneous			
			NOTE				
0028-032911-PLM-25	March 29, 2011	Room 15 - West	COLOR	Black	5% Chrysotile	1% Cellulose	
		Floor Tile Mastie	CONDITION	Good		94% Tar	
			TYPE	Miscellaneous			
			NOTE				

Jamie Marshall ANALYST NAME (PRINT)	 Jamie Marshall, B.S., Industrial Hygiene Associate ANALYST SIGNATURE	April 7, 2011 DATE ANALYZED
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Polarized Light Microscopy Asbestos Analysis Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT ID# 102334
---	---

## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100  
Oklahoma City, OK 73159  
Phone: (405) 616-0401 Fax: (405) 681-6753  
marshenv@swbell.net

PROJECT LOCATION		INVOICE TO		REPORT TO	
Project Identification	0028-032911-PLM	Client	State of Oklahoma Department of Central Services Construction & Properties Division	Client	State of Oklahoma Department of Environmental Quality Land Protection Division
Project	Haskell Armory Asbestos Inspection	Attention	Cindy Melton	Attention	Dustin Davidson
Project Address	1600 Northwest Haskell Blvd. Haskell, OK 74436	Address	P.O. Box 53458 Oklahoma City, OK 73102	Address	P.O. Box 1877 Oklahoma City, OK 73102
Contact	Duane Points	Phone	405-5622-4895	Phone	405-702-5115
Phone	918-482-3933	Fax	405-522-0051	Fax	
Cell	918-734-1753	Other		Other	
email		email	cindy.melton@dcs.state.ok.us	email	dustin.davidson@deq.ok.gov

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED	
			COLOR	CONDITION		
0028-032911-PLM-26	March 29, 2011	Room 15 - Center	White w/ Gold Speck	Good	2% Cellulose	
		12" x 12" Floor Tile	Miscellaneous		98% Vinyl Aggregate	
0028-032911-PLM-27	March 29, 2011	Room 15 - Center	Black	Good	5% Chrysotile	2% Cellulose
		Floor Tile Mastic	Miscellaneous		93% Tar	
0028-032911-PLM-28	March 29, 2011	Room 17 - Center	White	Good	65% Calcareous Material	
		Ceiling Tile	Miscellaneous		15% Cellulose	
					10% Fibrous Glass	
					10% Perlite	
0028-032911-PLM-29	March 29, 2011	Room 23 - North	White	Good	65% Calcareous Material	
		Ceiling Tile	Miscellaneous		15% Cellulose	
					10% Fibrous Glass	
					10% Perlite	
0028-032911-PLM-30	March 29, 2011	Room 16 - South	White	Good	65% Calcareous Material	
		Ceiling Tile	Miscellaneous		15% Cellulose	
					10% Fibrous Glass	
					10% Perlite	

Jenie Marshall  ANALYST NAME (PRINT)	 Jenie Marshall, B.S., Industrial Hygiene Associate ANALYST SIGNATURE	April 7, 2011  DATE ANALYZED
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Polarized Light Microscopy Asbestos Analysis Test Method  
 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 69/1/4-12-020 1982.

Lab Accreditation:  
 AIHA PAT ID# 192334




## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100  
Oklahoma City, OK 73159  
Phone: (405) 616-0401 Fax: (405) 681-6753  
marshenv@swbell.net

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Project Address	1600 Northwest Haskell Blvd, Haskell, OK 74436	Address	P.O. Box 53448 Oklahoma City, OK 73102	Address	P.O. Box 1677 Oklahoma City, OK 73102
Contact	Duane Pivins	Phone	405-5622-4865	Phone	405-702-5115
Phone	918-482-3933	Fax	405-522-0851	Fax	
Cell	918-724-1753	Other		Other	
email		email	cindy_melton@dcos.state.ok.us	email	dustin.davidson@deq.ok.gov

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED
0028-032911-PLM-31	March 29, 2011	Room 2 - West	COLOR	Yellow	100% Fibrous Glass
		Straight Run Insulation	CONDITION	Good	
			TYPE	Thermal System Insulation	
			NOTE		
0028-032911-PLM-32	March 29, 2011	Room 2 - South	COLOR	Yellow	100% Fibrous Glass
		Straight Run Insulation	CONDITION	Good	
			TYPE	Thermal System Insulation	
			NOTE		
0028-032911-PLM-33	March 29, 2011	Room 2 North	COLOR	Yellow	100% Fibrous Glass
		Straight Run Insulation	CONDITION	Good	
			TYPE	Thermal System Insulation	
			NOTE		
0028-032911-PLM-34	March 29, 2011	Room 9 - Northwest	COLOR	Yellow	100% Fibrous Glass
		Flashing Straight Run	CONDITION	Good	
			TYPE	Thermal System Insulation	
			NOTE		
0028-032911-PLM-35	March 29, 2011	Room 9 - Northwest	COLOR	Beige	100% Fibrous Glass
		Insulation Seam Tape	CONDITION	Good	
			TYPE	Miscellaneous	
			NOTE		

Jamie Marshall ANALYST NAME (PRINT)	 Jamie Marshall, B.S., Industrial Hygiene Associate ANALYST SIGNATURE	April 7, 2011 DATE ANALYZED
--	--	--------------------------------

Polarized Light Microscopy Asbestos Analysis Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/4-82-029 1982.	Lab Accreditation: ATIA PAT ID# 152234
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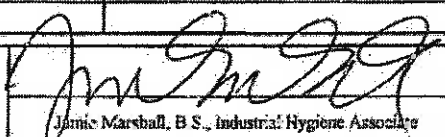
## Bulk Asbestos Analysis

### Marshall Environmental Management, Inc.

1601 Southwest 890th Street, Suite A-100  
Oklahoma City, OK 73159  
Phone: (405) 616-0401 Fax: (405) 681-6753  
[marshenv@swbell.net](mailto:marshenv@swbell.net)

PROJECT LOCATION		INVOICE TO		REPORT TO	
Project Identification	0028-032911-PLM	Client	State of Oklahoma Department of Central Services Construction & Properties Division	Client	State of Oklahoma Department of Environmental Quality Land Protection Division
Project	Haskell Armory Asbestos Inspection	Attention	Cindy Meiton	Attention	Dustin Davidson
Project Address	1600 Northwest Haskell Blvd. Haskell, OK 74436	Address	P.O. Box 53448 Oklahoma City, OK 73102	Address	P.O. Box 1677 Oklahoma City, OK 73102
Contact	Duane Poinis	Phone	405-5622-4805	Phone	405-702-5115
Phone	918-481-3933	Fax	405-522-0051	Fax	
Cell	918-724-1753	Other		Other	
email		email	<a href="mailto:cindy_meiton@dcs.state.ok.us">cindy_meiton@dcs.state.ok.us</a>	email	<a href="mailto:dustin.davidson@den.ok.gov">dustin.davidson@den.ok.gov</a>

LAB LOG NUMBER	DATE OF SAMPLING	SAMPLE DESCRIPTION/LOCATION	SAMPLE COMPOSITION		NO ASBESTOS DETECTED	
			COLOR	CONDITION		
0028-032911-PLM-36	March 29, 2011	Room 6 - Northwest	Yellow	Good		100% Fibrous Glass
		Elbow Insulation		Thermal System Insulation		
0028-032911-PLM-37	March 29, 2011	Room 9 - South	Yellow	Good		100% Fibrous Glass
		Sealight Ruc Insulation		Thermal System Insulation		

Jamie Marshall ANALYST NAME (PRINT)	 Jamie Marshall, B.S., Industrial Hygiene Associate ANALYST SIGNATURE	April 7, 2011 DATE ANALYZED
--	--	--------------------------------

Polarized Light Microscopy Asbestos Analyze Test Method: 40 CFR Chapter I, Part 763, Subpart F, Appendix A, "Interim Method for determination of Asbestos in Bulk Insulation Samples" using Polarized Light Microscopy (PLM), US EPA 600/M4-82-020 1982.	Lab Accreditation: AIHA PAT IGH 102334
--	---

FEE: \$500.00

**Oklahoma Department of Labor**



**Charles Marshall**

has filed in the office of the Commissioner of Labor of the State of Oklahoma  
an application for a limited Asbestos Contractor's license for

**AHERA MANAGEMENT PLANNER**

Now, therefore, The Commissioner of Labor of the State of Oklahoma, by virtue of  
the power vested in him by law hereby issues to the  
applicant license No. **OK-MP130246**.

*Lloyd L. Fields*

LLOYD L. FIELDS  
Commissioner of Labor

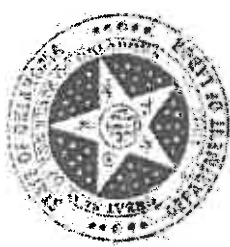
July 14, 2010

*Chair of Issuance*

**EXPIRES: June 30, 2011**

Oklahoma Department of Labor

FEE: \$25.00



Jacob Jones

has filed in the office of the Commissioner of Labor of the State of Oklahoma an application for a Limited Asbestos Contractor's license for

AHERA INSPECTOR

Now, therefore, The Commissioner of Labor of the State of Oklahoma, by virtue of the power vested in him by law hereby issues to the applicant license No. OK159891.

*Lloyd L. Fields*

LLOYD L. FIELDS  
Commissioner of Labor

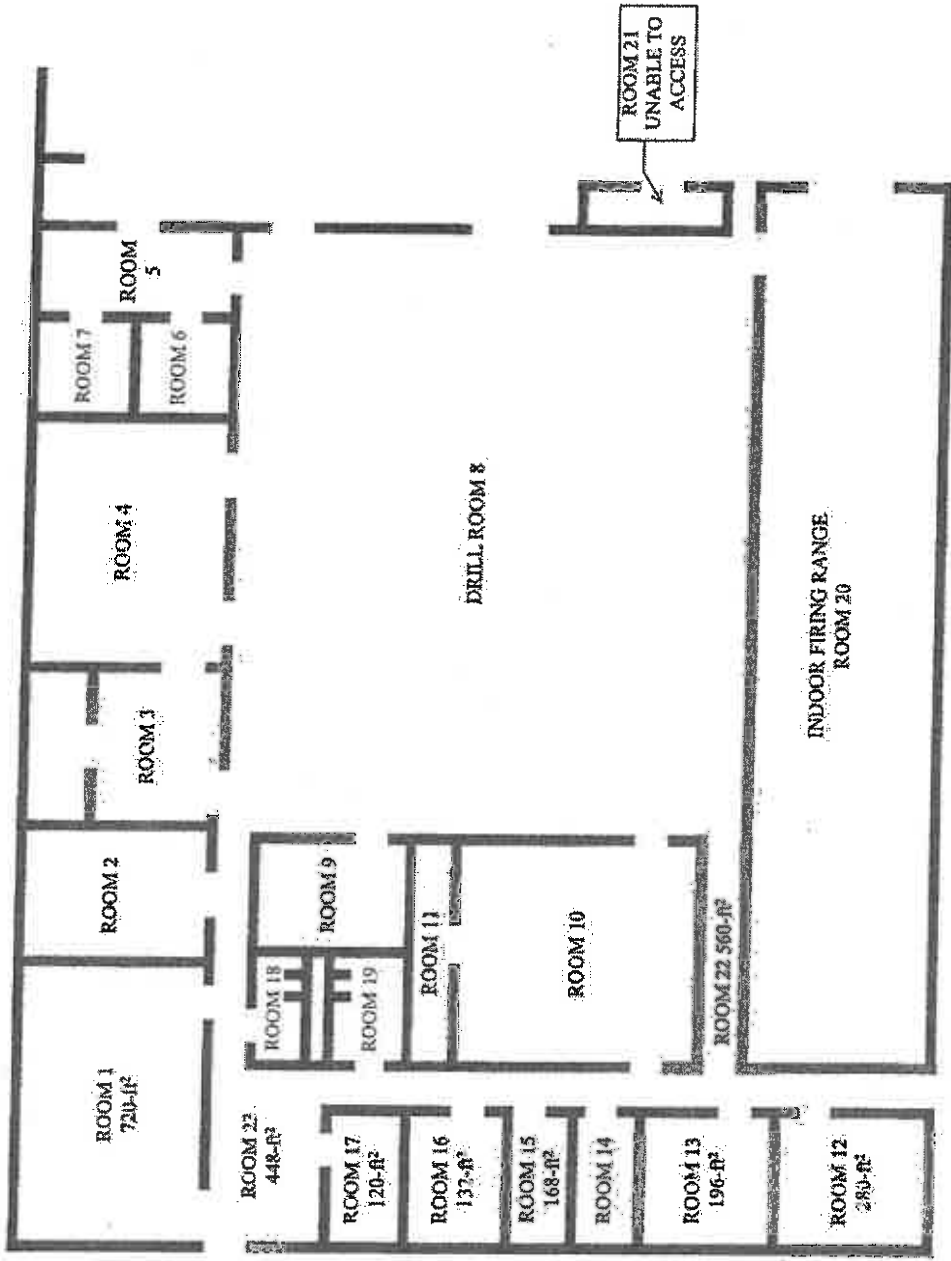
June 09, 2010

Date of Issuance

EXPIRES: June 02, 2011

# HASKELL ARMORY

ASBESTOS  
CONTAINING  
MATERIALS



Asbestos Containing  
Floor-Tile Mastic

## **ATTACHMENT 3**

### **Health & Safety Aspects to Consider**

[Type text]

## 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."

[Type text]

## 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.**

[Type text]



## 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.

[Type text]

## 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, 5<sup>th</sup> Edition**

Occupational Safety and Health Administration, Department of Labor Section III

[Type text]

## ATTACHMENT 4

### DEQ Approved Lead-Based Paint Encapsulants List Sealant and Encapsulant Specifications

[Type text]

## 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
Inst-x Products Corporation	INSL-CAP™
SAFE Encasement Systems	SE-120 Protective Skin
Specification Chemicals, Inc.	NU-WAL® #2500 Coating

# KELLY-MOORE PAINTS INDUSTRIAL COATINGS HIGH PERFORMANCE SYSTEMS

## KM-669 Acrylic Sealer

THIS PRODUCT MAY NOT BE AVAILABLE IN SOME AREAS DUE TO VOC REGULATIONS

Contact your Kelly-Moore representative for more information

### Product Description

A one component, solvent borne, high gloss, clear acrylic sealer designed for use on concrete, masonry, and brick. Dustproofs concrete by penetrating surface pores leaving a tough, durable film.

### Performance Features

- Non-Yellowing
- Excellent Adhesion to Concrete
- Good Water & Salt Chemical Resistance
- Good Abrasion Resistance
- Can be Sprayed, Padded or Rolled

### Product Specifications

Resin Type	Acrylic
Color Range	Clear
Finish	High Gloss
Drying Time	8 hours to recoat
Practical Coverage	250-450 Sq. Ft. / Gallon
Recommended Dry Film Thickness	1.2 - 2.2 mils per coat
Solids By Volume	35%
Sizes	Five gallon pails
V.O.C.	550 Grams per liter
Clean Up	KM-S-74 or KM-SA-50

### Surface Preparation

**WARNING!** If you scrape, sand or remove old paint from any surface, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Carefully clean up with a wet mop or HEPA vacuum. Before you start, find out how to protect yourself and your family by contacting the U.S. EPA/Lead Information Hotline at 1-800-424-LEAD (5323) or log on to [www.epa.gov/lead](http://www.epa.gov/lead).

### Surface Preparation:

Remove all dirt, grease, oil, soil, chemical contaminants, and other matter. Allow surface to dry.

### Application Procedure:

When mixing, use an EXPLOSION PROOF SLOW SPEED DRILL WITH A JIFFY MIXER. Apply a uniform wet film, do not puddle material. Do not cover more area than can be worked in 10 minutes due to fast dry time. When spraying, use a low pressure machine. Two coats may be necessary depending on porosity or type of service.

For safety and product curing, proper ventilation is necessary throughout application and cure.

Dry Times: 8 hours

See Precautions and Limited Warranty next page.

## KM-669 (cont.)

### Precautions

KM-669 is Flammable. KM-669 contains flammable solvents. Keep away from all sources of ignition during mixing, application, and cure. In confined areas, provide adequate forced air ventilation. The use of goggles, fresh air masks or NIOSH approved respirators, protective skin cream and protective clothing is a recommended standard practice when spraying coatings.

### Proper Disposal

For proper disposal of excess material, please contact your local city or county waste management agency.

**Limited Warranty:** The statements made on this bulletin, product labels or by any of our agents concerning this material are given for information only. They are believed to be true and accurate and are intended to provide a guide to approved construction practices and materials. As workmanship, weather, construction equipment, quality of other materials and other variables affecting results are all beyond our control, Kelly-Moore Paint Company, Inc., does not make nor does it authorize any agent or representative to make any warranty of MERCHANTABILITY OR FITNESS for any purpose or any other warranty, guarantee or representation, expressed or implied, concerning this material except that it conforms to Kelly-Moore's quality control standards. Any liability whatsoever of Kelly-Moore Paint Company, Inc. to the buyer or user of this product is limited to the purchaser's cost of the product itself.

**SEE MATERIAL SAFETY DATA SHEETS FOR FULL SAFETY PRECAUTIONS.**

**KM-669 IS FOR PROFESSIONAL USE ONLY**

**KM-669 IS FOR INDUSTRIAL USE ONLY**

**KEEP AWAY FROM CHILDREN**

**KELLY-MOORE PAINT COMPANY INC. • 987 COMMERCIAL ST. • SAN CARLOS, CA 94070**  
**Technical Assistance 1-888-448-PAINT [www.kellymoore.com](http://www.kellymoore.com)**

# MATERIAL SAFETY DATA SHEET

## For Coatings, Resins & Related Materials

### Section I

Manufactured For: Kelly-Moore Paints  
Address: 987 Commercial Street  
San Carlos, CA 94070

Prep Date: 07/28/06

Emergencies Involving Spills, Leaks,  
Fires, Exposure, Or Accident Contact  
Chemtrec: 1-800-424-9300

Product Class: Acrylic Lacquer Sealer  
Trade Name: KM-669 CLEAR  
H.M.I.S. Codes: H F R P  
2\* 3 0 -

Information Phone: 1-858-677-2468

### Section II - HAZARDOUS INGREDIENTS

Ingredient	C.A.S.#	Weight Percent	Occup. Exposure Limits		Vapor Pressure	
			OSHA PEL	ACGIH TLV	mm Hg	& Temp. F
Acrylic Resins	Mixture	30-40	Not Established		Not Determined	
*Xylenes	1330-20-7	40-50	100 ppm	100 ppm	5.1	68
*Ethyl Benzene	100-41-4	15-20	100 ppm	100 ppm	7.1	68

\*Indicates toxic chemical(s) subject to reporting requirements of Section 313 of Title III and of 40 CFR 372.

### Section III - PHYSICAL DATA

Boiling Range (Deg. F): 240\*  
Evaporation Rate: Slower than Ether  
Percent Volatile By Volume: 70 ± 3%

Vapor Density: Heavier than air

Weight Per Gallon (lbs.): 7.75 ± .25

### Section IV - FIRE & EXPLOSION HAZARD DATA

Flash Point (Deg. F): 80\*

Lower Explosive Limit: 1.0

Extinguishing Media: Foam, alcohol foam, CO2, dry chemical, water spray

OSHA Flammability Classification: Flammable Liquid IC

Special Firefighting Procedures: Wear a NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Use water to keep fire exposed containers cool. Water may be ineffective as an extinguishing agent.

Unusual Fire & Explosion Hazards: Vapors are heavier than air and may travel along the ground or be moved by ventilation to ignition sources at locations distant from material handling point. Pressure may build up in containers and create an explosion hazard.

KM-669 CLEAR

=====**Section V - HEALTH HAZARD DATA**=====

**THIS PRODUCT IS FLAMMABLE**

**Effects Of Overexposure:**

**Eyes:** Irritation, burning, tearing and redness.

**Skin:** Moderate irritation or defatting of skin upon prolonged or repeated contact.

**Ingestion:** Abdominal pain, nausea, vomiting and diarrhea.

**Inhalation:** Excessive exposure to vapors can cause headache, dizziness, uncoordination, nausea and loss of consciousness.

**Emergency & First Aid Procedures:**

**Eyes:** Flush with water for 15 minutes.

**Skin:** Remove contaminated clothing, wash skin with soap and water.

**Ingestion:** Do not induce vomiting. Get medical attention immediately.

**Inhalation:** Move to fresh air, aid breathing if necessary.

In all cases, consult a physician for best treatment.

Chemical listed as carcinogen or potential carcinogen:

NTP: No      IARC: No      OSHA: No

=====**Section VI - REACTIVITY DATA**=====

**Stability:** Product Stable

**Conditions to Avoid:** All sources of ignition

**Incompatibility (Materials to Avoid):** Oxidizing agents, strong acids & bases

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, nitrogen oxides and organic compounds.

**Hazardous Polymerization:** Will Not Occur

=====**Section VII - SPILL OR LEAK PROCEDURES**=====

**Steps To Be Taken In Case Material Is Released Or Spilled:** Dike spill area. Absorb spill with inert absorbent material. Place in sealed metal containers for proper disposal.

**Waste Disposal Method:** Dispose of in accordance with local, state and federal regulations.

=====**Section VIII - SPECIAL PROTECTION INFORMATION**=====

**Respiratory Protection:** Use a NIOSH/MSHA jointly approved respirator

**Ventilation:** Use mechanical ventilation

**Protective Gloves:** Neoprene or rubber

**Eye Protection:** Chemical splash goggles

**Other Protective Equipment:** Protective clothing, barrier cream, eye bath, safety shower

=====**Section IX - SPECIAL PRECAUTIONS**=====

**Precautions To Be Taken In Handling & Storing:** Store in dry area. Keep away from open flames and high temperatures.

**Other Precautions:** Minimize contact. Avoid breathing vapors. Practice good industrial hygiene and safe working practices.

**State and Local Regulations**

California Proposition 65

This product contains the following substances known to the State of California to cause cancer, birth defects or other reproductive hazards: Benzene, Toluene.





The Chemical Company

PRODUCT DATA

3 03 01 00: **Water-based Acrylic Bonding and Modifying Admixture for Concrete**

# ACRYL 60®

Water-based acrylic bonding and modifying admixture

### Description

Acryl 60® is an acrylic-polymer emulsion mixed with Portland cement mortars, plasters, stucco, and concrete mixes to enhance their physical properties, adhesion to substrates, and durability.

### Packaging

- 1 quart (0.9 L) bottles
- 1 gallon (3.8 L) bottles
- 5 gallon (18.9 L) pails
- 30 gallon (113.5 L) drums
- 55 gallon (208 L) drums

### Color

Milky white

### Shelf Life

1 year when properly stored

### Storage

Transport and store in unopened containers between 40 and 100° F (4 and 38° C). Protect from freezing.

### Features

- Acrylic polymer
- Excellent chemical and UV resistance
- Improved freeze/thaw stability of Portland cement-based materials
- Stable

### Benefits

- Significantly improves adhesion, cohesion, tensile, compressive, and flexural strengths of concrete masonry
- Promotes long-lasting repairs
- Suitable for polymer applications
- Will not re-emulsify when exposed to water

### Where to Use

#### APPLICATION

- Cement-based mixes to improve their adhesion and durability
- As gauging liquid for Thoro® waterproofing and repair products, such as ThoroScal® and ThoroSeal®
- Walkways
- Ramps and structural beams

#### LOCATION

- Interior or exterior
- Above or below grade

#### SUBSTRATE

- Columns

### How to Apply

#### Surface Preparation

1. The methods required for preparation will vary depending on the end product to be applied and the site and substrate conditions.
2. In all cases the surface must be clean and sound. Remove all loose and disintegrated material. Remove any and all traces of oil, grease, dirt, dust, efflorescence, biological, mold or mildew, and release or curing agents.
3. Vacuum, sweep, or blow out the areas to be patched with clean, oil-free air.

#### CONCRETE/CMU/MASONRY SURFACES

Predampen the area to be patched or coated with potable water to a saturated surface-dry (SSD) condition. Do not leave standing water on surface. Proper surface preparation and cleanliness are extremely important.

#### OTHER SURFACES

For other surface preparation guidelines, refer to the specific Thoro® product data guide for information. **Warning**

1. The normal ratio of Acryl 60® to clean potable water is 1 part Acryl 60® to 3 parts water (1:3). Where increased physical and chemical resistance are required, increase the Acryl 60® content in the mixing liquid to a 1 to 2 or 1 to 1 Acryl 60® to water ratio (see chart above).

2. Always mechanically mix. Do not even mix or mix at a high speed.



### Technical Data

#### Composition

Acryl 60® is an acrylic-polymer emulsion.

#### Typical Properties

PROPERTY	VALUE
Density, lbs/gal (kg/L) Lab Method	8.65 (1.04)
Solids content, by volume, % Lab Method	28
Maximum water dilution, Parts Acryl 60® to H <sub>2</sub> O, Lab Method	1:3

#### Test Data

The following properties are for sand/cement mortar samples:

PROPERTY	With Water	With 1 to 1 Acryl 60® and Water	TEST METHOD
Compressive strength, psi (MPa) 28 days	3,800 (26.2)	4,500 (31)	ASTM C 109
Tensile strength, psi (MPa) 28 days	225 (1.5)	350 (2.4)	ASTM C 190
Flexural strength, psi (MPa) 28 days	1,000 (6.9)	1,200 (12.4)	ASTM C 348
Freeze/thaw durability	11 at 98 cycles	102 at 300 cycles	Method A

Test results are averages obtained under laboratory conditions at 70° F (21° C) and 50% rh. Respective variations can be expected.

#### Mixing Ratios

APPLICATION	RATIO
For scrub coats applied before patching or overlays	Use straight Acryl 60®
To improve the adhesion properties of pointing mortars and to reduce cracking in cement plaster	Use 1 part Acryl 60® to 3 parts water
For large overlays or topping	Use 2 parts Acryl 60® to 1 part water
For bonding cement plaster no thicker than 1/4 - 3/8" (6 - 10 mm)	Use 1 part Acryl 60® to 3 parts water

NOTE: The above ratios are for normal conditions. Where bonding is more critical, increase the Acryl 60® content of the mixing liquid. A TEST PATCH IS ALWAYS RECOMMENDED.

For detailed application instructions for Thor® products, see specific product data sheets.

#### Application

##### SAND/CEMENT MORTAR

1. Thoroughly mix all cement and sand first. The sand must be clean, free of clay, and dry.
2. Measure up mixing liquid from a 1 to 3 or 1 to 2 Acryl 60®:water ratio depending upon requirements.
3. Slowly add the mixing liquid to the cement/sand mixture and mix with a slow-speed mixer for 1 - 2 minutes to avoid entrapping air. After prepping, cleaning, and pre-dampening the surface, brush apply a scrub coat (not diluted) of the Acryl 60®-modified cement/sand. Scrub vigorously into the surface to displace any air pockets.

4. Place the mix into the scrub-coated repair area while the scrub coat is still wet or tacky. Place the mix and avoid over-troweling. The trowel should be cleaned frequently, kept wet, and used with minimal pressure.

5. Maximum time for placement should not exceed 20 minutes. Higher air and surface temperatures will decrease working and placement time.

##### Curing

1. When rapid drying is expected due to high temperature, rapid air movement, or wind, it is recommended that the surface be covered with wet burlap to retain moisture.
2. For normal use, allow a 24-hour curing period.
3. For heavy wheeled traffic, allow a 4-day curing period.

##### Clean Up

Clean all tools and equipment immediately with water. Cured material may be removed by mechanical means only.

### For Best Performance

- Do not use Acryl 60® modified mixes when the ambient air or surface temperature is below 40° F (4° C) or when the temperature is expected to fall below 40° F (4° C) within 24 hours. High relative humidity, excessive moisture, and low temperatures will retard the curing of Acryl 60® modified mixes.
- Do not use with air-entrained cement mixes or with air-entraining admixtures.
- Do not overmix or aerate mixes.
- Use with proper ventilation.
- Do not use Acryl 60® as a surface-applied external bonding agent or as a primer.
- Do not expose cement-based mixes modified with Acryl 60® to water immersion service for a minimum of 24 hours at 73° F (23° C).
- Not recommended for exposure to soft water or immersion where contact with water-treatment chemicals is present without a protective top coat.
- Caution should be used when a highly solvent material is being used over a base system that contains Acryl 60®.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

### Health and Safety

ACRYL 60®

#### Caution

Acryl 60® contains no hazardous ingredients as defined by 29 CFR 1910.1200 WSMIS.

#### Risks

May cause skin, eye or respiratory irritation. Ingestion may cause irritation.

#### Precautions

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

### First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

### Proposition 65

This product contains material listed by the state of California as known as to cause cancer, birth defects, or other reproductive harm.

### VOC Content

1 g/L or 0.01 lbs/gal less water and exempt solvents.

For medical emergencies only,  
call ChemTroc (1-800-225-9300).





The Chemical Company

PRODUCT DATA



# CONSTRUCTION GROUT

General construction, mineral-aggregate  
nonshrink grout

### Description

Construction Grout is a noncatalyzed, multi-purpose construction grout containing mineral aggregate.

### Yield

One 50 lb (22.7 kg) bag of Construction Grout mixed with 1.15 gallons (4.35 L) of water (flowable mix) provides approximately 0.45 ft<sup>3</sup> (0.013 m<sup>3</sup>) of mixed grout.

### Packaging

50 lb (22.7 kg) multi-wall paper bags

### Color

Concrete gray when cured

### Shelf Life

1 year when properly stored

### Storage

Store in unopened bags under clean, dry conditions.

### Features

- Concrete gray color (after curing)
- No organic accelerators, including chlorides or other salts
- Can be extended with clean, well-graded coarse aggregate
- Hardens free of bleeding when properly placed

### Benefits

- Blends in with surrounding concrete
- Will not corrode reinforcing steel
- Fills voids without additional shrinkage
- Provides high effective bearing area for proper support and load transfer

### Where to Use

#### APPLICATION

- Normal loads for columns and baseplates
- Bedding grout for precast panels
- Repairing of cavities resulting from ineffective concrete consolidation
- Caulking concrete pipe
- Backfilling, underpinning foundations, and pressure grouting of slabs needing alignment
- General construction applications
- Damp pack applications

#### LOCATION

- Interior or exterior

### How to Apply

#### Application

For aggregate extension guidelines refer to Appendix M3-10: Guide to Cementitious Grouting.

#### Mixing

By using the minimum amount of water to provide the desired workability, maximum strength will be achieved. Whenever possible, mix the grout with a mechanical mixer. Either a mortar mixer or an electric drill with a paddle device is acceptable. Put the measured amount of water into the mixer, add grout, then mix till a uniform consistency is attained. Do not use water in an amount or a temperature that will cause bleeding or segregation.

### Curing

Cure all exposed grout shoulders by wet curing for 24 hours and by applying a recommended curing compound compliant with ASTM C 309 or preferably ASTM C 1315.

### For Best Performance

- Contact your local representative for a pre-job conference to plan the installation.
- Construction Grout is designed for the 50 to 90° F (10 to 32° C) application temperature range. Consult your BASF representative when applying outside this range. Use cold and hot weather concreting practices (ACI 305 and ACI 308) when grouting within 10° F (6° C) of these minimum and maximum temperature ranges.
- To ensure optimum performance of Construction Grout, place at a plastic or flowable consistency and at ambient temperatures of 50° F (10° C) and above.
- For best results, allow a minimum of 1" (25 mm) vertical clearance under baseplates when placing Construction Grout.
- Do not use Construction Grout where it will come in contact with steel designed for stresses above 80,000 psi (552 MPa). Use Masterflow® 816, Masterflow® 1205, or Masterflow® 1341 post-tensioning cable grouts.



**Technical Data**

**Composition**

Construction GROUT is a noncatalyzed hydraulic cement based grout containing mineral aggregate.

**Compliances**

- CRD C-621 and ASTM C 1107, Grade C, at flowable or plastic consistency
- City of Los Angeles Research Report Number RR 23137.

**Typical Properties**

Mixed GROUT Data\* (Flowable Mix)

PROPERTY	WILEX
Approximate Water, gal (L)	1.15 (4.35)
Initial set, hrs, at 70° F (21° C)	6
Final set, hrs, at 70° F (21° C)	8

\*At a constant percent of water, consistency will vary with temperature. Field set times occur in approximately 8 hours at a flowable consistency and 70° F (21° C).

**Test Data**

PROPERTY	RESULTS	TEST METHODS
Flow, %, 5 drops	126 - 145	ASTM C 230
Volume change, %, flowable consistency, after 28 days	0.08	ASTM C 1090
Compressive strength, psi (MPa)		ASTM C 942, according to ASTM C 1107

	Flowable <sup>1</sup>	Plastic <sup>2</sup>	Stiff <sup>3</sup> (damp pack)
1 day	1,500 (10)		
3 days	5,000 (34.5)	6,000 (41.4)	8,000 (55.2)
7 days	6,000 (41.3)	7,000 (48.3)	9,500 (65.5)
28 days	7,000 (48.0)	8,500 (58.8)	10,000 (68.0)

<sup>1</sup> 140% flow on flow table, ASTM C 230, 5 drops in 3 seconds  
<sup>2</sup> 100% flow on flow table, ASTM C 230, 5 drops in 3 seconds  
<sup>3</sup> 40% flow on flow table, ASTM C 230, 5 drops in 3 seconds  
 Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

- Do not add plasticizers, accelerators, retarders, or other additives unless advised in writing by BASF Technical Services.
- The surface to be grouted should be clean, strong, and roughened to CSP 5 - 9 according to ICRI Guideline 03732 to permit proper bond. For freshly placed concrete, consider using Liquid Surface Etchant (see Form No. 1020198).
- Do not place Construction GROUT in lifts greater than 6" (152 mm) unless the product is extended with aggregate to dissipate hydration heat.
- Where precision alignment and severe service, such as heavy loading, rolling, or impact resistance are required, use metallic-reinforced, noncatalyzed Embeco® 885 grout. If the amount of impact resistance needed is not great enough to require metallic reinforcement, use natural aggregates, Masterflow® 928.
- The water requirement may vary with mixing efficiency, temperature, and other variables.
- The concrete surfaces should be saturated (ponded) with clean water for 24 hours before grouting. Remove water immediately before application.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current versions.

- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the job site.

**Health and Safety  
CONSTRUCTION GROUT  
WARNING**

Construction GROUT contains silica, crystalline quartz, portland cement, limestone, calcium oxide, gypsum, silica, anhydrous.

**Risks**

Product is alkaline on contact with water and may cause injury to skin or eyes. Ingestion or inhalation of dust may cause irritation. Contains small amount of free respirable quartz which has been listed as a suspected human carcinogen by NTP and IARC. Repeated or prolonged overexposure to free respirable quartz may cause silicosis or other serious and delayed lung injury.

**Precautions**

Avoid contact with skin, eyes and clothing. Prevent inhalation of dust. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

**First Aid**

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

**Waste Disposal Methods**

This product when discarded or disposed of is not listed as a hazardous waste in federal regulations. Dispose of in a landfill in accordance with local regulations. For additional information on personal protective equipment, first aid, and emergency procedures refer to the product Material Safety Data Sheet (MSDS) on this job site or contact the company at the address or phone numbers given below.

**Proposition 65**

This product contains material listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

**VOC Content**

0 g/L or 0 lbs/gal less water and exempt solvents.

For medical emergencies only, call ChemTrec (1-800-424-8300).

BASF Construction Chemicals, LLC - Building Systems

889 Valley Park Drive  
Shakopee, MN, 55379

www.BuildingSystems.BASF.com

Customer Service 800-433-9517  
Technical Service 600-243-6739



Warning: Products are not to be used for purposes not intended by the manufacturer. For professional use only. Not for sale to or use by the general public.

Form No. 10-04-0000

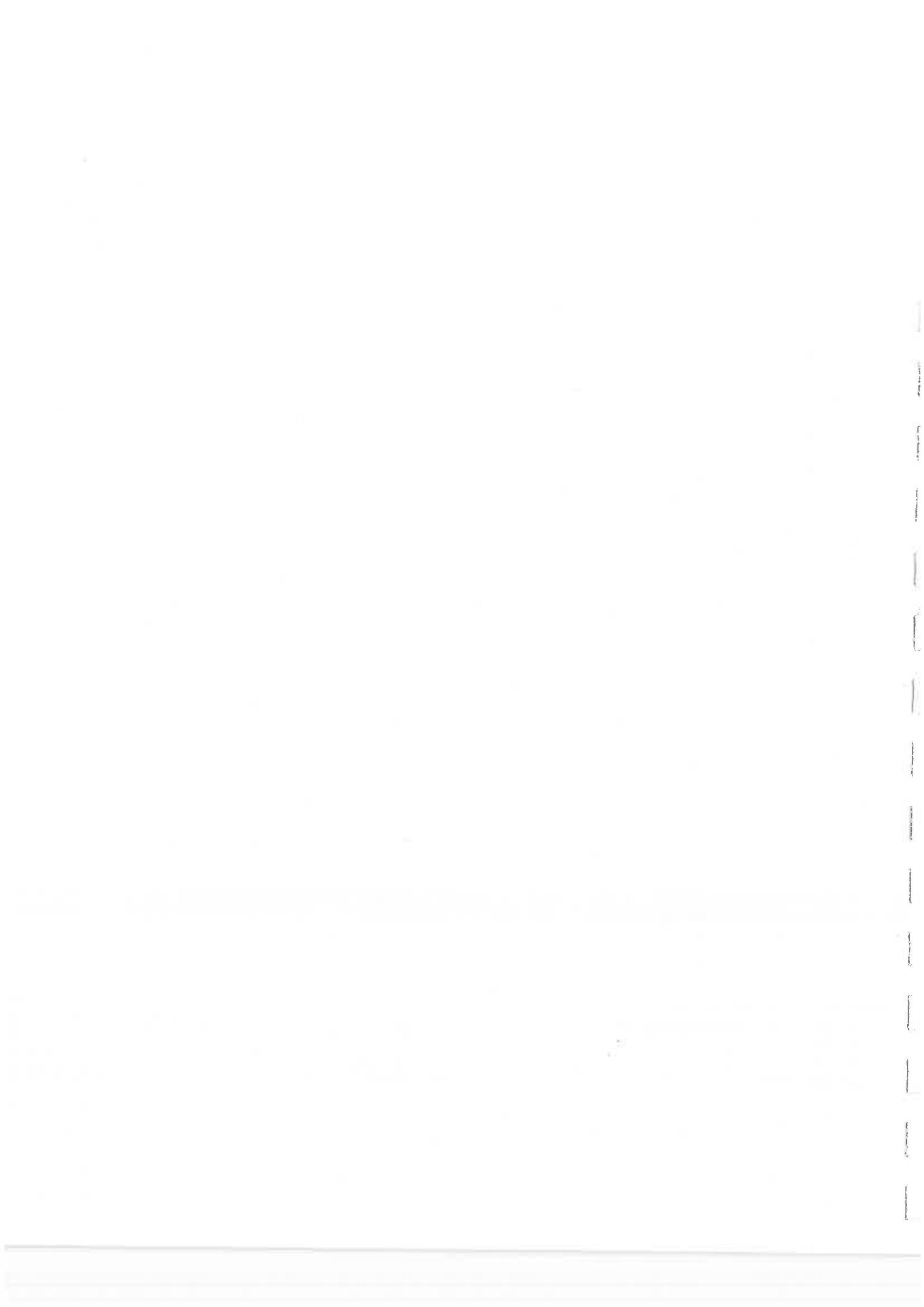
Please read product labels and SDS prior to use.

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Made in U.S.A.

## ATTACHMENT 5

### Lead-Based Paint Inspection and Settled Dust Sampling Report For Haskell Armory

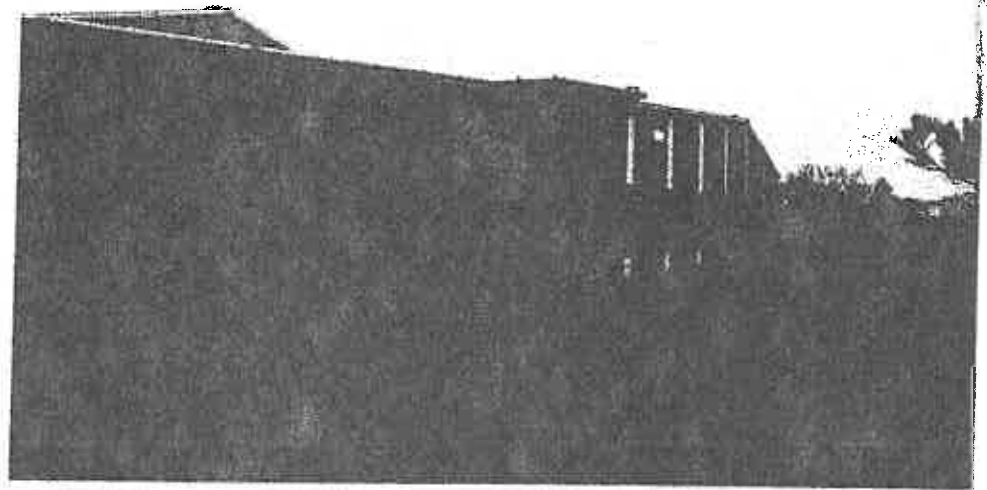
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# *HASKELL ARMORY*

*DCS Contract Number: ID11070-5*



*Lead-Based Paint Inspection &  
Settled-Dust Sampling*

**Prepared For:**

*Oklahoma Department of Environmental Quality*

*Land Protection Division*

*707 North Robinson*

*Oklahoma City, Oklahoma 73102*

**Prepared By:**

*Marshall Environmental Management, Inc.*

*1601 Southwest 89<sup>th</sup> Street, Suite A-100*

*Oklahoma City, Oklahoma 73159*

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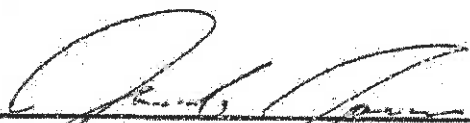
**CERTIFICATION**

This is to certify that, Marshall Environmental Management, Inc. was contracted by the State of Oklahoma, Department of Central Services to conduct a Lead-Based Paint Inspection in addition to collecting samples of settled dust within the Haskell Armory located at 1600 Northwest Haskell Boulevard in Haskell, Oklahoma for the State of Oklahoma Department of Environmental Quality, Land Protection Division. All services performed on March 29, 2011 were conducted by a Certified, Oklahoma Department of Environmental Quality, Lead-Based Paint Inspector/Risk Assessor Jacob Jones, representative of Marshall Environmental Management, Inc., under the direction of Dr. Charles L. Marshall Certified Industrial Hygienist and President of Marshall Environmental Management, Inc. The analytical results associated with this Lead-Based Paint Inspection and settled dust sampling are believed to accurately, reflect the concentrations of lead in paint and settled dust that were present at the time this Inspection was accomplished.

**OWNER INFORMATION**

City of Haskell

**CERTIFIED LEAD-BASED PAINT INSPECTOR/RISK ASSESSOR**



Jacob Jones, B.S., Industrial Hygiene Associate  
ODEQ Certification Number: OKRASR13457

4-26-11

Report Date

**CERTIFIED LEAD-BASED PAINT FIRM**

Marshall Environmental Management, Inc.  
1601 Southwest 89<sup>th</sup> Street, Suite A-100  
Oklahoma City, Oklahoma 73159  
ODEQ Certification Number: OKFIRM11160

**X-RAY FLUORESCENCE ANALYZER**

Analyzer Make: Niton XLp Spectrum Analyzer  
Analyzer Model: #XLp 300A  
Analyzer Serial Number: 12585  
Source Date: November 11, 2006

# HASKELL ARMORY

## LEAD-BASED PAINT INSPECTION & SETTLED DUST SAMPLING

### EXECUTIVE SUMMARY

On March 29, 2011, Marshall Environmental Management, Inc. (MEM) performed a Lead-Based Paint (LBP) Inspection in addition to collecting samples of settled dust within the Haskell Armory located at 1600 Northwest Haskell Boulevard in Haskell, Oklahoma. This Inspection and sampling event were accomplished as part of the Oklahoma Department of Environmental Quality (ODEQ), Land Protection Division (LPD) Site Cleanup Assistance Program and Armory Cleanup Program with the purpose of establishing the presence of LBP and lead-laden dust so, if necessary, a strategy may be prepared for remediation and/or abatement activities.

The analytical data resulting from the surfaces that were sampled identified LBP in the yellow paint utilized to create the emblem on the Drill Room floor. Furthermore, lead-laden dust was discovered on various surfaces within the Armory specified in the following Table and in the attached Floor Plan Diagram. The remainder of this Report is comprised of the Sampling Methodology, Scope of Service, Analytical Findings, the Disclaimer and Standard of Care, information regarding LBP and the obligation to disclose the results of this LBP Inspection.

### SAMPLING METHODOLOGY

This LBP Inspection and Settled Dust Sampling Event were conducted in accordance with the United States Department of Housing and Urban Development (HUD) guidelines, "Guidelines for the Evaluation of Lead-Based Paint Hazards in Housing," in addition to the requirements set forth by the Environmental Protection Agency (EPA), "Requirements for Lead-based Paint Activities in Target Housing and Child-occupied Facilities," 40 Code of Federal Regulations (CFR) Part 745.

### SCOPE OF SERVICE

#### LEAD-BASED PAINT

All painted surfaces within the Armory were representatively sampled and analyzed for lead content excluding non-fixed and factory painted items utilizing an X-Ray Fluorescence (XRF), direct reading, data logging instrument. The street facing side of the Armory was labeled as Side A and going in a clockwise direction, the remaining sides were categorized as Side B, Side C and Side D respectively. The corresponding analytical data, to include the start and stop times and calibration checks, and the floor plan diagram that illustrates room equivalents and positive LBP sampling locations are provided with the Appendix to this Report.

**LEAD-LADEN DUST**

Settled dust collected from randomly selected floor surfaces throughout the Armory were sampled and analyzed for lead content. The settled dust is collected by placing a template of a known dimension firmly against the selected surface; next, the area within the template is wiped in a particular pattern utilizing a specified wipe; each wipe is then placed in an approved container for transportation purposes. The laboratory data resulting from the analysis of the surface samples coincides with the sampling locations indicated on the floor plan diagram attached with the Appendix to this Report.

**ANALYTICAL FINDINGS****LEAD-BASED PAINT**

According to HUD/EPA "Lead-Based Paint" is characterized as paint that contains concentrations of lead greater than or equal to 1-milligram per square centimeter ( $\geq 1\text{-mg/cm}^2$ ). As such, LBP was identified in the yellow paint used to make the emblem on the Drill Room floor.

**LEAD-LADEN DUST**

In accordance with HUD/EPA, settled dust containing concentrations of lead equal to or greater than 40-micrograms per square foot ( $40\text{-}\mu\text{g/ft}^2$ ) represent lead contamination; this action level applies to all surfaces within the Armory excluding the Indoor Firing Range (IFR). According to the Departments of the Army National Guard (ARNG) and the Air Force National Guard (ANG) Bureau guidelines, "Guidelines and Procedures for Rehabilitation and Conversion of Indoor Firing Ranges", lead concentrations within an IFR equal to or greater than  $200\text{-}\mu\text{g/ft}^2$  represent lead contamination. Therefore, the table below reflects the concentrations of lead in settled dust that were established throughout the Armory, the "Bolded" data represents lead concentrations, which exceeded the respective clearance levels.

**TABLE 1: SURFACE WIPE ANALYSIS**

SAMPLE ID	LOCATION	CONCENTRATION	CLEARANCE LEVEL
0036-01	ROOM 1	<21.3	40- $\mu\text{g/ft}^2$
0036-02	ROOM 2	<b>285</b>	40- $\mu\text{g/ft}^2$
0036-03	ROOM 3	22.7	40- $\mu\text{g/ft}^2$
0036-04	ROOM 4	37.9	40- $\mu\text{g/ft}^2$
0036-05	ROOM 5	<21.3	40- $\mu\text{g/ft}^2$
0036-06	ROOM 6	<21.3	40- $\mu\text{g/ft}^2$
0036-07	ROOM 7	<21.3	40- $\mu\text{g/ft}^2$
0036-08	ROOM 8	76.1	40- $\mu\text{g/ft}^2$
0036-09	ROOM 8 WEST	<16.0	40- $\mu\text{g/ft}^2$
0036-10	ROOM 8 CENTER	<16.00	40- $\mu\text{g/ft}^2$
0036-11	ROOM 8 EAST	<b>89.2</b>	40- $\mu\text{g/ft}^2$
0036-12	ROOM 9	<b>58.3</b>	40- $\mu\text{g/ft}^2$
0036-13	ROOM 10	<21.3	40- $\mu\text{g/ft}^2$
0036-14	ROOM 11	<21.3	40- $\mu\text{g/ft}^2$

SAMPLE ID	LOCATION	CONCENTRATION	CLEARANCE LEVEL
0036-15	ROOM 12	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-16	ROOM 13	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-17	ROOM 14	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-18	ROOM 15	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-19	ROOM 16	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-20	ROOM 17	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-21	ROOM 18	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-22	ROOM 19	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-23	ROOM 20 EAST	413	200- $\mu\text{g}/\text{ft}^2$
0036-24	ROOM 20 CENTER	726	200- $\mu\text{g}/\text{ft}^2$
0036-25	ROOM 20 WEST	6,880	200- $\mu\text{g}/\text{ft}^2$
0036-26	ROOM 22	<21.3	40- $\mu\text{g}/\text{ft}^2$
0036-27	ROOM 23	141	40- $\mu\text{g}/\text{ft}^2$

### ***HISTORICAL OVERVIEW OF LEAD-BASED PAINT ACTIVITIES***

Historical records were not provided for review nor was there evidence or information that would suggest that a prior LBP Inspection or Risk Assessment occurred within the Haskell Armory.

### ***DISCLAIMER AND STANDARD OF CARE***

The Haskell Armory is a one-story structure comprised of a brick façade and a flat roof that was constructed on a concrete slab circa 1983. Although the paint on various surfaces does not contain lead in concentrations that exceed the federal standard, a hazard could be presented if painted surfaces are disturbed. Occupational Safety and Health Administration (OSHA) regulations covering worker safety and health may apply when painted surfaces, lead-based paint or not, are disturbed. For any renovation that may disturb more than 2-square feet (2-ft<sup>2</sup>) of painted surface in a facility built before 1978 the EPA pre-renovation rule requires that the contractor provide a copy of the booklet "Protect Your Family From Lead in Your Home" or "Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools." Furthermore, if renovation of any kind takes place the contractor should provide a copy of "Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools." This Report was generated utilizing HUD/EPA protocols referenced in the Certification portion of this Report. The analytical results associated with this LBP Inspection are only applicable on the date(s) indicated and future activities may alter the results. At the time these services were completed, no deviations from the Scope of Service took place.

### ***DISCLOSURE STATEMENT AND OWNERS LEGAL OBLIGATION***

Under Federal law (24 CFR Part 35 and 40 CFR Part 745), this LBP Inspection Report must be disclosed and made available to prospective tenants before becoming obligated under a lease or sales contract where LBP is present. If an Inspection finds that LBP is not present in certain multifamily dwelling units, which are to be leased, the dwelling unit(s) is exempt from disclosure requirements. However, under federal law even if no LBP is identified the owner is still required to fulfill certain legal responsibilities when the property is sold not leased. Property owners and

sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that information is provided in order to protect children from LBP hazards.

Information regarding the legal obligation to disclose results associated with LBP inspections and/or risk assessments to tenants and/or purchasers can be obtained from the National Lead Information Center Clearinghouse (1-800-424-LEAD). This information is specified in 24 CFR Part 35 and 40 CFR Part 745 (published in the *Federal Register*, Volume 61, Number 45, April 6, 1996, beginning on p. 9064).

### ***LEAD-BASED PAINT INFORMATION***

You may contact the National Lead Information Center Clearinghouse (1-800-424-LEAD) to obtain HUD/EPA brochures, question and answer booklets, regulations, mentioned in this Report, and other information regarding LBP disclosure.

***APPENDIX***

***XRF ANALYTICAL DATA***

***(CALIBRATION CHECKS & START & STOP TIMES)***

***SURFACE WIPES CHAIN OF CUSTODY & ANALYTICAL DATA***

***FLOOR PLAN DIAGRAMS***

***SURFACE WIPES***

***LIB SURFACES***

***CERTIFICATIONS***

***DIGITAL PHOTOGRAPHS***



Index	Time	Type	Units	Component	Substrate	Sub	Color	Results	Depth Index	Action Level	Pbk
2	2011-03-29 14:14	PAINT	mg/cm <sup>2</sup>					Positive	1.05	1.00	< LOD : 0.60
3	2011-03-29 14:14	PAINT	mg/cm <sup>2</sup>					Positive	1.09	1.00	< LOD : 0.60
4	2011-03-29 14:15	PAINT	mg/cm <sup>2</sup>					Positive	1.04	1.00	< LOD : 0.55
5	2011-03-29 14:16	PAINT	mg/cm <sup>2</sup>	WINDOW BOX		CALIBRATE	WHITE	Negative	1.00	1.00	< LOD : 2.77
6	2011-03-29 14:19	PAINT	mg/cm <sup>2</sup>	WINDOW BOX	WOOD	CALIBRATE	WHITE	Negative	1.00	1.00	< LOD : 2.14
7	2011-03-29 14:20	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	A	WHITE	Negative	1.00	1.00	< LOD : 1.29
8	2011-03-29 14:20	PAINT	mg/cm <sup>2</sup>	DOOR	METAL	B	WHITE	Negative	1.00	1.00	< LOD : 3.11
9	2011-03-29 14:21	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.64
10	2011-03-29 14:21	PAINT	mg/cm <sup>2</sup>	DOOR 2	METAL	C	ORANGE	Negative	2.50	1.00	< LOD : 3.60
11	2011-03-29 14:21	PAINT	mg/cm <sup>2</sup>	DOOR 2	METAL	C	ORANGE	Negative	1.09	1.00	< LOD : 3.60
12	2011-03-29 14:21	PAINT	mg/cm <sup>2</sup>	DOOR 2	METAL	C	ORANGE	Negative	1.63	1.00	< LOD : 3.26
13	2011-03-29 14:21	PAINT	mg/cm <sup>2</sup>	DOOR 2	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.39
14	2011-03-29 14:22	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 2	METAL	C	ORANGE	Negative	2.25	1.00	< LOD : 3.22
15	2011-03-29 14:22	PAINT	mg/cm <sup>2</sup>	OVERHEAD DOOR 1	METAL	C	ORANGE	Negative	1.65	1.00	< LOD : 3.59
16	2011-03-29 14:23	PAINT	mg/cm <sup>2</sup>	OVERHEAD DOOR FRAME	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.47
17	2011-03-29 14:23	PAINT	mg/cm <sup>2</sup>	OVERHEAD DOOR FRAME	METAL	C	WHITE	Negative	1.00	1.00	< LOD : 3.90
18	2011-03-29 14:23	PAINT	mg/cm <sup>2</sup>	DOOR 3	METAL	C	WHITE	Negative	1.00	1.00	< LOD : 3.60
19	2011-03-29 14:24	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 2	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 2.97
20	2011-03-29 14:24	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 3	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.75
21	2011-03-29 14:24	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 4	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.19
22	2011-03-29 14:25	PAINT	mg/cm <sup>2</sup>	DOOR 4	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.97
23	2011-03-29 14:25	PAINT	mg/cm <sup>2</sup>	OVERHEAD DOOR 2	METAL	C	ORANGE	Negative	2.98	1.00	< LOD : 3.48
24	2011-03-29 14:26	PAINT	mg/cm <sup>2</sup>	OVERHEAD DOOR FRAME 2	METAL	C	ORANGE	Negative	1.00	1.00	< LOD : 3.28
25	2011-03-29 14:29	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	C	WHITE	Negative	1.19	1.00	< LOD : 2.63
26	2011-03-29 14:30	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 1 A	WHITE	Negative	1.00	1.00	< LOD : 2.34
27	2011-03-29 14:30	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 1 B	WHITE	Negative	1.00	1.00	< LOD : 1.92
28	2011-03-29 14:30	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 1 B	RED	Negative	1.00	1.00	< LOD : 1.67
29	2011-03-29 14:31	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 1 B	YELLOW	Negative	1.91	1.00	< LOD : 1.99
30	2011-03-29 14:31	PAINT	mg/cm <sup>2</sup>	WINDOW FRAME	DRYWALL	RM 1 B	BLACK	Negative	1.45	1.00	< LOD : 3.76
31	2011-03-29 14:32	PAINT	mg/cm <sup>2</sup>	WALL	WOOD	RM 1 B	WHITE	Negative	1.00	1.00	< LOD : 1.89
32	2011-03-29 14:32	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 1 C	WHITE	Negative	1.81	1.00	< LOD : 1.91
33	2011-03-29 14:32	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 1 D	WHITE	Negative	1.00	1.00	< LOD : 2.30
34	2011-03-29 14:33	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 1 D	WHITE	Negative	1.00	1.00	< LOD : 2.08
35	2011-03-29 14:33	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 2 A	WHITE	Blank	1.00	1.00	< LOD : 2.32
36	2011-03-29 14:34	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 2 D	WHITE	Negative	1.00	1.00	< LOD : 2.73
37	2011-03-29 14:34	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 2 C	WHITE	Negative	1.00	1.00	< LOD : 1.95
38	2011-03-29 14:34	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	DRYWALL	RM 2 D	WHITE	Negative	1.00	1.00	< LOD : 3.68
39	2011-03-29 14:36	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 1	METAL	RM 2 D	RED	Negative	1.90	1.00	< LOD : 3.19
40	2011-03-29 14:36	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 2	METAL	RM 1 D	RED	Negative	2.78	1.00	< LOD : 3.30
41	2011-03-29 14:37	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 1 D	WHITE	Negative	1.91	1.00	< LOD : 2.80

ID#	Time	Type	Units	Component	Substrate	Site	Color	Results	Depth Index	Action Level	ppb
42	2011-03-29 14:38	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 3 B	WHITE	Negative	1.00	1.00	< LOD : 1.91
43	2011-03-29 14:38	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 3 C	WHITE	Negative	0.35	1.00	< LOD : 2.41
44	2011-03-29 14:38	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 3 D	WHITE	Negative	2.05	1.00	< LOD : 1.92
45	2011-03-29 14:39	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 3 D	RED	Negative	1.00	1.00	< LOD : 3.90
46	2011-03-29 14:39	PAINT	mg/cm <sup>2</sup>	WALL	METAL	RM 4 A	BEIGE	Negative	1.00	1.00	< LOD : 2.24
47	2011-03-29 14:40	PAINT	mg/cm <sup>2</sup>	BEAM	METAL	RM 4 B	BEIGE	Negative	1.00	1.00	< LOD : 3.93
48	2011-03-29 14:41	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 4 C	BEIGE	Negative	1.00	1.00	< LOD : 1.88
49	2011-03-29 14:41	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 4 B	BEIGE	Negative	1.00	1.00	< LOD : 1.99
50	2011-03-29 14:42	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 4 D	BEIGE	Negative	1.00	1.00	< LOD : 2.23
51	2011-03-29 14:42	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 1	METAL	RM 4 D	TAN	Negative	1.00	1.00	< LOD : 3.37
52	2011-03-29 14:42	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 2	METAL	RM 4 D	TAN	Negative	1.00	1.00	< LOD : 3.73
53	2011-03-29 14:47	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 5	RED	Negative	1.00	1.00	< LOD : 3.43
54	2011-03-29 14:48	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 6	RED	Negative	1.05	1.00	< LOD : 3.38
55	2011-03-29 14:48	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 7	RED	Negative	1.00	1.00	< LOD : 3.65
56	2011-03-29 14:40	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 8 A	WHITE	Negative	1.00	1.00	< LOD : 1.81
57	2011-03-29 14:50	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 8 A	BEIGE	Negative	1.00	1.00	< LOD : 2.00
58	2011-03-29 14:50	PAINT	mg/cm <sup>2</sup>	COLUMN	METAL	RM 8 A	BEIGE	Negative	1.00	1.00	< LOD : 1.85
59	2011-03-29 14:51	PAINT	mg/cm <sup>2</sup>	COLUMN	METAL	RM 8 A	WHITE	Negative	1.00	1.00	< LOD : 1.88
60	2011-03-29 14:51	PAINT	mg/cm <sup>2</sup>	COLUMN	METAL	RM 8 B	BEIGE	Negative	1.00	1.00	< LOD : 2.35
61	2011-03-29 14:51	PAINT	mg/cm <sup>2</sup>	COLUMN	METAL	RM 8 B	WHITE	Negative	1.00	1.00	< LOD : 2.11
62	2011-03-29 14:51	PAINT	mg/cm <sup>2</sup>	BEAM	METAL	RM 8 B	WHITE	Negative	1.00	1.00	< LOD : 3.93
63	2011-03-29 14:51	PAINT	mg/cm <sup>2</sup>	BEAM	METAL	RM 8 B	BEIGE	Negative	1.00	1.00	< LOD : 4.16
64	2011-03-29 14:52	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 8 C	BEIGE	Negative	1.13	1.00	< LOD : 2.40
65	2011-03-29 14:52	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 8 C	WHITE	Negative	1.00	1.00	< LOD : 2.24
66	2011-03-29 14:52	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 8 C	WHITE	Negative	1.41	1.00	< LOD : 2.13
67	2011-03-29 14:53	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 8 D	BEIGE	Negative	1.00	1.00	< LOD : 2.52
68	2011-03-29 14:53	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 8 D	BEIGE	Negative	1.00	1.00	< LOD : 3.30
69	2011-03-29 14:54	PAINT	mg/cm <sup>2</sup>	BEAM	METAL	RM 8 D	BEIGE	Negative	1.00	1.00	< LOD : 4.14
70	2011-03-29 14:54	PAINT	mg/cm <sup>2</sup>	BEAM	METAL	RM 8 D	WHITE	Negative	1.00	1.00	< LOD : 3.40
71	2011-03-29 14:55	PAINT	mg/cm <sup>2</sup>	DOOR 1	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 3.82
72	2011-03-29 14:55	PAINT	mg/cm <sup>2</sup>	DOOR 1	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 3.30
73	2011-03-29 14:56	PAINT	mg/cm <sup>2</sup>	OVERHEAD DOOR	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 3.73
74	2011-03-29 14:57	PAINT	mg/cm <sup>2</sup>	ROLLER	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 3.13
75	2011-03-29 14:57	PAINT	mg/cm <sup>2</sup>	DOOR 2	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 4.03
76	2011-03-29 14:58	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 2	METAL	RM 8 C	BEIGE	Negative	1.00	1.00	< LOD : 2.68
77	2011-03-29 14:58	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 2	METAL	RM 8 C	RED	Negative	1.00	1.00	< LOD : 3.27
78	2011-03-29 14:59	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 2	METAL	RM 8 A	RED	Negative	1.00	1.00	< LOD : 1.91
79	2011-03-29 15:00	PAINT	mg/cm <sup>2</sup>	DOOR FRAME 1	METAL	RM 9 A	WHITE	Negative	1.00	1.00	< LOD : 1.91
80	2011-03-29 15:01	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 9 B	WHITE	Negative	3.03	1.00	< LOD : 2.47
81	2011-03-29 15:01	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 9 C	WHITE	Negative	1.00	1.00	< LOD : 2.26
82	2011-03-29 15:01	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 9 D	WHITE	Negative	1.00	1.00	< LOD : 2.36

ID#	Date	Type	Units	Component	Substrate	Side	Color	Results	Depth Index	Velocity Level	Phk
83	2011-03-29 15:02	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 9 C	RED	Negative	1.00	1.00	< LOD : 3.61
84	2011-03-29 15:02	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 9 C	RED	Negative	1.72	1.00	< LOD : 3.38
85	2011-03-29 15:03	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 10 A	WHITE	Negative	1.69	1.00	< LOD : 1.20
86	2011-03-29 15:03	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 10 B	WHITE	Negative	1.00	1.00	< LOD : 1.50
87	2011-03-29 15:04	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 10 C	WHITE	Negative	1.61	1.00	< LOD : 2.19
88	2011-03-29 15:04	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 10 D	WHITE	Negative	1.81	1.00	< LOD : 2.14
89	2011-03-29 15:05	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 11 A	WHITE	Negative	1.00	1.00	< LOD : 1.46
90	2011-03-29 15:06	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 11 B	WHITE	Negative	1.00	1.00	< LOD : 1.44
91	2011-03-29 15:06	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 11 C	WHITE	Negative	1.00	1.00	< LOD : 1.38
92	2011-03-29 15:06	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 11 D	WHITE	Negative	1.00	1.00	< LOD : 1.50
93	2011-03-29 15:06	PAINT	mg/cm <sup>2</sup>	CEILING	CONCRETE	RM 11 D	WHITE	Negative	1.25	1.00	< LOD : 2.67
94	2011-03-29 15:07	PAINT	mg/cm <sup>2</sup>	DOOR	METAL	RM 11	GREY	Negative	1.54	1.00	< LOD : 3.61
95	2011-03-29 15:07	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 11	GREY	Negative	1.18	1.00	< LOD : 3.78
96	2011-03-29 15:08	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 12 A	WHITE	Negative	1.00	1.00	< LOD : 3.78
97	2011-03-29 15:10	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 12 B	WHITE	Negative	1.00	1.00	< LOD : 1.87
98	2011-03-29 15:10	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 12 C	WHITE	Negative	1.00	1.00	< LOD : 2.35
99	2011-03-29 15:11	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 12 D	WHITE	Negative	1.00	1.00	< LOD : 2.12
100	2011-03-29 15:11	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	DRYWALL	RM 12	RED	Negative	1.00	1.00	< LOD : 2.26
101	2011-03-29 15:12	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 13	RED	Negative	1.00	1.00	< LOD : 3.35
102	2011-03-29 15:12	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 13 A	WHITE	Negative	1.00	1.00	< LOD : 3.18
103	2011-03-29 15:13	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 13 B	WHITE	Negative	1.09	1.00	< LOD : 2.41
104	2011-03-29 15:13	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 13 C	WHITE	Negative	1.00	1.00	< LOD : 3.35
105	2011-03-29 15:13	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 13 C	WHITE	Negative	1.00	1.00	< LOD : 2.49
106	2011-03-29 15:13	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 13 C	BEIGE	Negative	1.25	1.00	< LOD : 2.41
107	2011-03-29 15:14	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 13 D	WHITE	Negative	6.58	1.00	< LOD : 2.41
108	2011-03-29 15:14	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 14 A	WHITE	Negative	1.00	1.00	< LOD : 2.44
109	2011-03-29 15:14	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 14 B	WHITE	Negative	1.00	1.00	< LOD : 2.47
110	2011-03-29 15:14	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 14 C	WHITE	Negative	1.00	1.00	< LOD : 2.47
111	2011-03-29 15:14	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 14 C	WHITE	Negative	1.00	1.00	< LOD : 2.44
112	2011-03-29 15:15	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 14 D	RED	Negative	1.00	1.00	< LOD : 2.47
113	2011-03-29 15:16	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 14	RED	Negative	1.00	1.00	< LOD : 2.44
114	2011-03-29 15:16	PAINT	mg/cm <sup>2</sup>	WALL	METAL	RM 15	RED	Negative	1.00	1.00	< LOD : 2.28
115	2011-03-29 15:16	PAINT	mg/cm <sup>2</sup>	WALL	METAL	RM 15	RED	Negative	1.00	1.00	< LOD : 3.30
116	2011-03-29 15:16	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 15 A	WHITE	Negative	1.11	1.00	< LOD : 3.34
117	2011-03-29 15:16	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 15 B	WHITE	Negative	1.00	1.00	< LOD : 2.29
118	2011-03-29 15:16	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 15 C	WHITE	Negative	1.00	1.00	< LOD : 2.29
119	2011-03-29 15:16	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 15 D	WHITE	Negative	1.00	1.00	< LOD : 2.39
120	2011-03-29 15:17	PAINT	mg/cm <sup>2</sup>	WINDOW FRAME	WOOD	RM 15 A	WHITE	Negative	1.00	1.00	< LOD : 2.33
121	2011-03-29 15:18	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 16 A	RED	Negative	1.00	1.00	< LOD : 3.16
122	2011-03-29 15:19	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 16 A	WHITE	Negative	1.17	1.00	< LOD : 3.69
123	2011-03-29 15:19	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 16 B	WHITE	Negative	1.00	1.00	< LOD : 3.03
124	2011-03-29 15:19	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 16 B	WHITE	Negative	1.00	1.00	< LOD : 2.35
125	2011-03-29 15:19	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 16 C	WHITE	Negative	1.00	1.00	< LOD : 2.03
126	2011-03-29 15:19	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 16 D	WHITE	Negative	1.00	1.00	< LOD : 2.39

ID#	Date	Time	Type	Units	Component	Substrate	Site	Color	Results	Depth Index	Action Level	Pin#
124	2011-03-29	15:20	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 19 B	RED	Negative	1.50	1.00	< LOD: 1.60
125	2011-03-29	15:21	PAINT	mg/cm <sup>2</sup>	WINDOW FRAME	WOOD	RM 16	WHITE	Negative	1.00	1.00	< LOD: 2.64
126	2011-03-29	15:21	PAINT	mg/cm <sup>2</sup>	WINDOW FRAME	WOOD	RM 17 A	WHITE	Negative	1.00	1.00	< LOD: 2.63
127	2011-03-29	15:22	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 17 A	WHITS	Negative	1.06	1.00	< LOD: 1.94
128	2011-03-29	15:22	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 17 B	WHITE	Negative	1.00	1.00	< LOD: 2.21
129	2011-03-29	15:22	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 17 C	WHITE	Negative	1.07	1.00	< LOD: 2.02
130	2011-03-29	15:22	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 17 D	WHITE	Negative	1.03	1.00	< LOD: 2.02
131	2011-03-29	15:22	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 17 D	WHITE	Negative	1.85	1.00	< LOD: 1.89
132	2011-03-29	15:23	PAINT	mg/cm <sup>2</sup>	WALL	METAL	RM 17 B	EED	Negative	1.00	1.00	< LOD: 3.13
133	2011-03-29	15:24	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	DRYWALL	RM 22 A	WHITE	Negative	1.00	1.00	< LOD: 2.42
134	2011-03-29	15:24	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 22 C	WHITE	Negative	1.00	1.00	< LOD: 2.09
135	2011-03-29	15:24	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 22 B	WHITE	Negative	5.96	1.00	< LOD: 2.41
136	2011-03-29	15:24	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 22 D	WHITE	Negative	1.30	1.00	< LOD: 1.98
137	2011-03-29	15:25	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 23 A	WHITE	Negative	1.44	1.00	< LOD: 1.60
138	2011-03-29	15:26	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 23 B	WHITE	Negative	1.00	1.00	< LOD: 2.15
139	2011-03-29	15:26	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 23 C	WHITE	Negative	1.64	1.00	< LOD: 1.53
140	2011-03-29	15:26	PAINT	mg/cm <sup>2</sup>	WALL	DRYWALL	RM 23 D	WHITE	Negative	1.00	1.00	< LOD: 2.36
141	2011-03-29	15:28	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 20 A	YELLOW	Negative	1.00	1.00	< LOD: 2.01
142	2011-03-29	15:29	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 20 B	YELLOW	Negative	1.00	1.00	< LOD: 2.13
143	2011-03-29	15:29	PAINT	mg/cm <sup>2</sup>	DOOR	METAL	RM 20 B	BEIGE	Negative	1.00	1.00	< LOD: 3.39
144	2011-03-29	15:30	PAINT	mg/cm <sup>2</sup>	DOOR FRAME	METAL	RM 20 B	RED	Negative	1.00	1.00	< LOD: 4.01
145	2011-03-29	15:31	PAINT	mg/cm <sup>2</sup>	OVERHEAD DOOR	METAL	RM 20 B	BEIGE	Negative	1.04	1.00	< LOD: 3.47
146	2011-03-29	15:32	PAINT	mg/cm <sup>2</sup>	ROLLER	METAL	RM 20 C	BEIGE	Negative	1.00	1.00	< LOD: 3.82
147	2011-03-29	15:32	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 20 C	YELLOW	Negative	1.07	1.00	< LOD: 1.97
148	2011-03-29	15:32	PAINT	mg/cm <sup>2</sup>	WALL	CONCRETE	RM 20 D	YELLOW	Negative	1.00	1.00	< LOD: 2.10
155	2011-03-29	16:38	PAINT	mg/cm <sup>2</sup>	FLOOR EMBLEM	CONCRETE	RM 8	RED	Negative	1.00	1.00	< LOD: 1.35
154	2011-03-29	16:38	PAINT	mg/cm <sup>2</sup>	FLOOR EMBLEM	CONCRETE	RM 8	YELLOW	Positive	1.93	1.00	< LOD: 4.65
155	2011-03-29	16:39	PAINT	mg/cm <sup>2</sup>	FLOOR EMBLEM	CONCRETE	RM 8	BLACK	Negative	1.57	1.00	< LOD: 1.35
156	2011-03-29	16:39	PAINT	mg/cm <sup>2</sup>	FLOOR EMBLEM (DUP)	CONCRETE	RM 8	RED	Negative	1.74	1.00	< LOD: 1.35
157	2011-03-29	16:39	PAINT	mg/cm <sup>2</sup>	FLOOR EMBLEM (DUP)	CONCRETE	RM 8	YELLOW	Positive	2.23	1.00	< LOD: 11.55
158	2011-03-29	16:40	PAINT	mg/cm <sup>2</sup>		CALIBRATE			Positive	1.07	1.00	0.70 ± 0.30
159	2011-03-29	16:41	PAINT	mg/cm <sup>2</sup>		CALIBRATE			Positive	1.08	1.00	0.90 ± 0.30
160	2011-03-29	16:41	PAINT	mg/cm <sup>2</sup>		CALIBRATE			Positive	1.10	1.00	0.80 ± 0.40



**Marshall Environmental Management, Inc.**  
**Chain Of Custody**

193465

PROJECT INFORMATION		INVOICE TO		REPORT TO	
Project Id.	0036-LBP-032911	Client/Company	Marshall Environmental Management Inc.	Client/Company	
Project Name		Attention:		Attention	
Project Address		Title		Title	
Site Contact		Invoice To Address		Address	
Phone Number		Phone Number		Phone Number	
Mobile Number		Fax Number		Fax Number	
email		Mobile Number		Mobile Number	
		E-mail Address		E-mail Address	

Lab Id.	Sample Date	Field Id.	Sample Location (Lobby, Bedroom, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time		Volume/ Area	Unit	Analysts/ Parameters
							On	Off			
0036	3/29/2011	8-2	Room 8 - East	East	Dust	Wipe	NA	NA	1-ft <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	9	Room 9	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	10	Room 10	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	11	Room 11	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	12	Room 12	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	13	Room 13	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	14	Room 14	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	15	Room 15	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	16	Room 16	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	17	Room 17	NA	Dust	Wipe	NA	NA	108-in <sup>2</sup>	mg/Kg	Total Pb

Collected By	Jacob Jacobs	Date	3/29/2011	Time	16:00	Relinquished By	Jacob Jacobs	Date	3/30/2011	Time	10:50	Matrix	MP	ST	SW	TL	Media	2	of	3
Received By	SB [Signature]	Date	3/30/11	Time	10:50	Relinquished By	[Signature]	Date		Time		Matrix	MP	ST	SW	TL	Media			
Turn-Around Time:	Standard	5-7 Business Days	Rush	Next Day	Immediate	Same Day	Condition Upon Receipt					Matrix	Micro-Vacuum	Mold Plate	Spare Trap	Swab	Tape-Lin			
Sample Notes																				
Method of Shipment																				

**Marshall Environmental Management, Inc.**  
Chain Of Custody

193465

PROJECT INFORMATION		INVOICE TO		REPORT TO	
Project Id.	0036-LBP-032911	Client/Company	Marshall Environmental Management Inc.	Client/Company	
Project Name		Attention Title		Attention Title	
Project Address		Invoice To Address		Address	
Site Contact		Phone Number		Phone Number	
Phone Number		Fax Number		Fax Number	
Mobile Number		Mobile Number		Mobile Number	
email		E-mail Address		E-mail Address	

Lab Id.	Sample Date	Field Id.	Sample Location (lobby, bio-room, etc.)	Specific Sample Area	Sample Matrix	Sample Media	Sample Time		Volume/Area	Unit	Analysis/Parameters
							On	Off			
0036	3/29/2011	18	Room - 18	NA	Dust	Wipe	On	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	19	Room - 19	NA	Dust	Wipe	On	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	20-E	Room 20 - East	East	Dust	Wipe	On	NA	1-ft <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	20-C	Room 20 - Center	Center	Dust	Wipe	On	NA	1-ft <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	20-W	Room 20 - West	West	Dust	Wipe	On	NA	1-ft <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	22	Room 22	NA	Dust	Wipe	On	NA	108-in <sup>2</sup>	mg/Kg	Total Pb
0036	3/29/2011	23	Room 23	NA	Dust	Wipe	On	NA	108-in <sup>2</sup>	mg/Kg	Total Pb

Collected By	Jacob Jones	Date	3/29/2011	Time	16:50
Received By	<i>Slyptwics</i>	Date	3/30/11	Time	10:50
Relinquished By	<i>Jacob Jones</i>	Date		Time	
Relinquished By	<i>Jacob Jones</i>	Date		Time	
Condition Upon Receipt		Method of Shipment			
Turn-Around Time		Sample Notes			
Standard	5-7 Business Days				
Rush	Next Day				
Immediate	Same Day				

Matrix	Media
Air	SV
Aqueous	MP
Bulk	ST
Sludge	SW
Soil	IL
Solid	

Matrix	Media
Air	SV
Aqueous	MP
Bulk	ST
Sludge	SW
Soil	IL
Solid	

Matrix	Media
Air	SV
Aqueous	MP
Bulk	ST
Sludge	SW
Soil	IL
Solid	



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

## Environmental Chemistry Analysis Report

QuanTEM Set ID: 193465  
 Date Received: 03/30/11  
 Received By: Sherrie Lefiwicki  
 Date Sampled:  
 Time Sampled:  
 Analyst: BM  
 Date of Report: 4/5/2011

Client: Marshall Environmental Management, Inc.  
 1601 SW 89th Street, Ste. A-100  
 Oklahoma City, OK 73159  
 Acct. No.: A331  
 Project: N/A  
 Location: N/A  
 Project No.: 0036-LBP-032911

JHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	1	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
002	2	Wipe	Lead	285	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
003	3	Wipe	Lead	22.7	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
004	4	Wipe	Lead	37.9	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
005	5	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
006	6	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
007	7	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
008	8	Wipe	Lead	74.1	21.3	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
009	8-W	Wipe	Lead	<16.0	16	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
010	8-C	Wipe	Lead	<16.0	16	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / NIOSH 9100
011	8-E	Wipe	Lead	89.2	16	ug/sq. Ft.	04/04/11 14:00	EPA600/R-93/200 / 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: 193465  
 Date Received: 03/30/11  
 Received By: Sherris Leftwich  
 Date Sampled:  
 Time Sampled:  
 Analyst: BM  
 Date of Report: 4/5/2011

Client: Marshall Environmental Management, Inc.  
 1601 SW 89th Street, Ste. A-100  
 Oklahoma City, OK 73159

Acct. No.: A331  
 Project: N/A  
 Location: N/A  
 Project No.: 0036-LBP-032911

IHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
012	9	Wipe	Lead	58.3	21.3	ug/sq. Ft.	04/05/11 15:00	EPA600/R-93/200 / NIOSH 9100
013	10	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
014	11	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
015	12	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
016	13	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
017	14	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
018	15	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
019	16	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
020	17	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
021	18	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
022	19	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / 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.

Reference 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: 193465  
 Date Received: 03/30/11  
 Received By: Sherric Leftwich  
 Date Sampled:  
 Time Sampled:  
 Analyst: BM  
 Date of Report: 4/5/2011

Client: Marshall Environmental Management, Inc.  
 1601 SW 89th Street, Ste. A-100  
 Oklahoma City, OK 73159

Acct. No.: A331  
 Project: N/A  
 Location: N/A  
 Project No.: 0036-LBP-032911

IHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
023	20-E	Wipe	Lead	413	16	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
024	20-C	Wipe	Lead	726	16	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
025	20-W	Wipe	Lead	6,880	16	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
026	22	Wipe	Lead	<21.3	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / NIOSH 9100
027	23	Wipe	Lead	141	21.3	ug/sq. Ft.	04/05/11 16:00	EPA600/R-93/200 / 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.  
 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.

## Supplemental Report QAQC Results

QA ID: 8587  
Test: Lead

Date: 4/4/2011  
Matrix: Wipe

Lab Number: 193465  
Approved By: Benton Miller  
Date Approved: 4/4/2011

**Notes:**

**Blank Data:**

Type of Blank	Blank Value
FCB	0
ICB	0
Matrix Blank	0

**Standards Data:**

Standard	Low Limit	Obtained	High Limit
CCV	4.5	4.8	5.5
FCV	4.5	4.8	5.5
ICV	0.8	1.1	1.2
RLVS	0.256	0.297	0.384

**Duplicate Data:**

**Recovery Data:**

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RFD
MS-W1	0.000	5.503	5.040	91.6	5.002	90.9	0.8
MS-W2	0.000	5.449	4.480	82.2	5.002	91.8	11.0

## Supplemental Report QAQC Results

QA ID: 8591  
Test: Lead

Date: 4/5/2011  
Matrix: Wipe

Lab Number: 193465  
Approved By: Benton Miller  
Date Approved: 4/5/2011

**Notes:**

**Blank Data:**

Type of Blank	Blank Value
ICB	0
FCB	0
Matrix Blank	0

**Standards Data:**

Standard	Low Limit	Obtained	High Limit
FCV	4.5	4.9	5.5
CCV	4.5	4.9	5.5
ICV	0.8	1.1	1.2
RLVS	0.256	0.278	0.384

**Duplicate Data:**

**Recovery Data:**

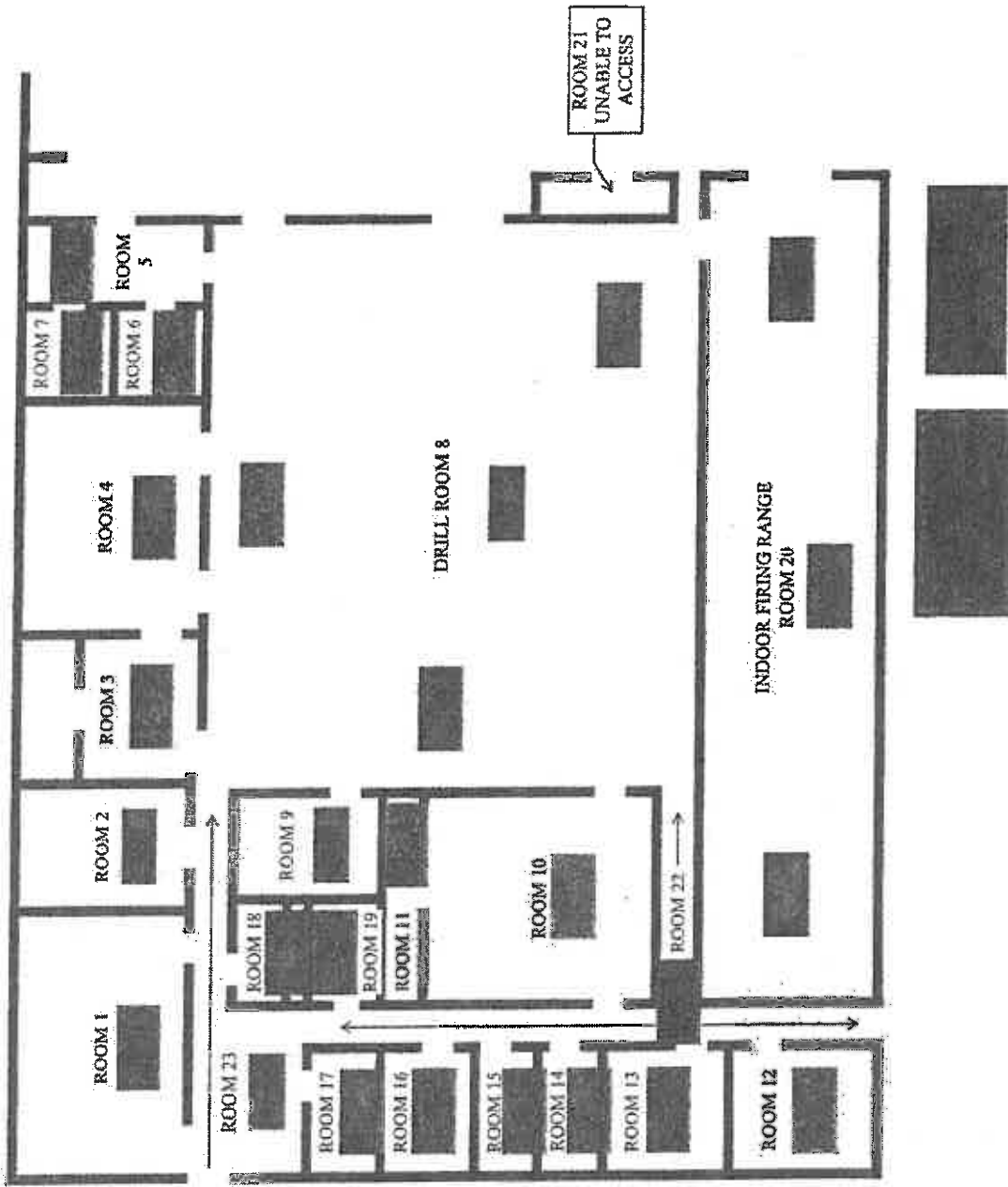
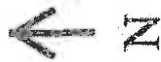
Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W2	0.009	5.481	5.004	91.3			
MS-W1	0.000	5.416	4.975	91.9	5.269	97.3	5.7

Authorized Signature: \_\_\_\_\_

Benton Miller, Analyst

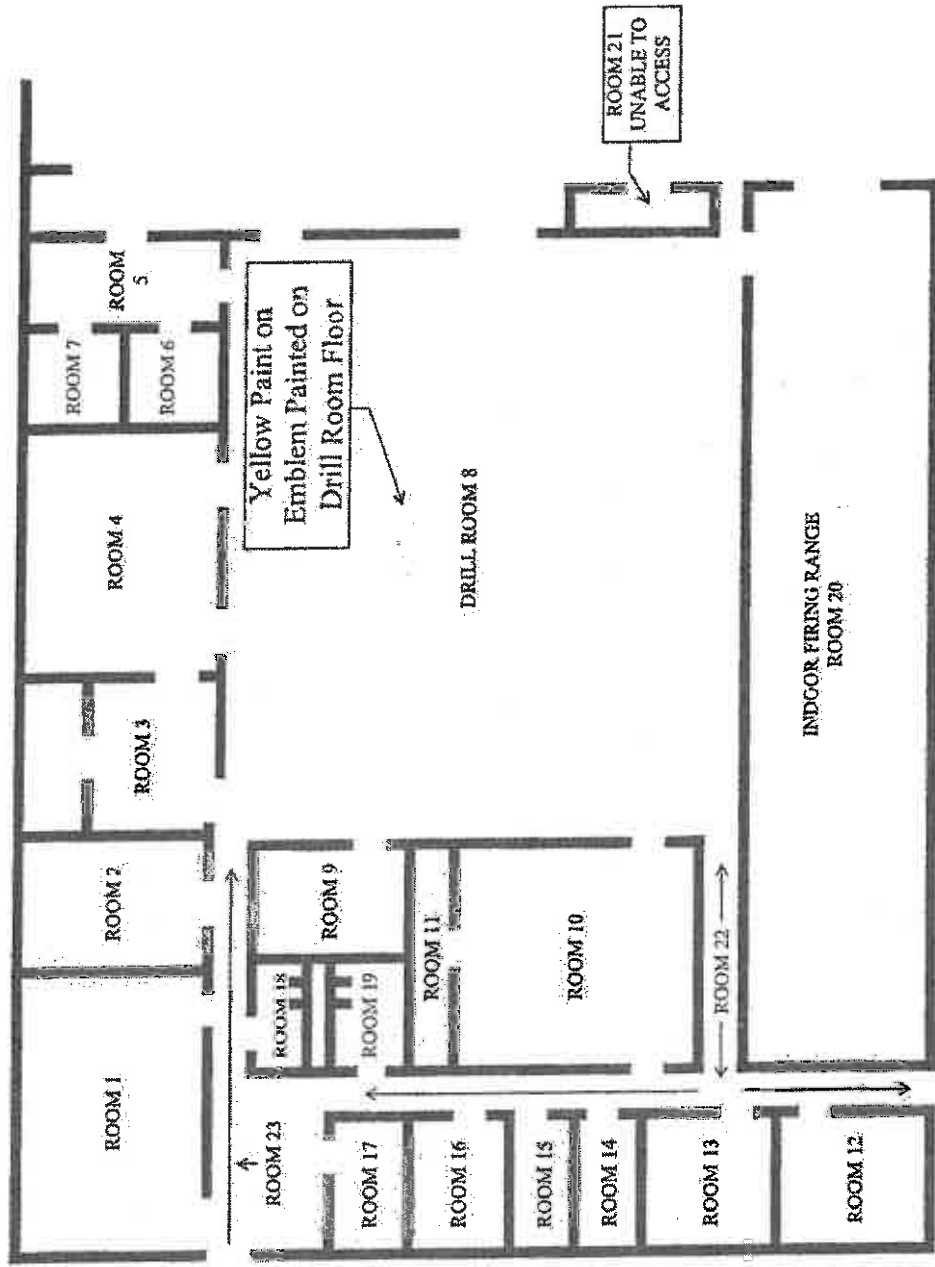
# HASKELL ARMORY

LEAD  
CONCENTRATIONS  
IN SURFACE DUST



# HASKELL ARMORY

LEAD-BASED  
PAINTED  
SURFACES



# Department of Environmental Quality

This is to certify that

## MARSHALL ENVIRONMENTAL MANAGEMENT FIRM

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

Certification #: OKFIRM11160


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 certificate that

**JACOB JONES**

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

**INSPECTOR/RISK ASSESSOR**

Certification #: OKRASR13457

This certificate is valid from the dates 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



ALUMINUM  
ELECTRICITY  
CABLES  
AND  
CABLES

## **ATTACHMENT 6**

### **Guidelines for Rehabilitation and Conversion of Indoor Firing Ranges**

**Facilities Engineering**

**Guidelines and Procedures for Rehabilitation and  
Conversion of Indoor Firing Ranges**

**By Order of the Secretaries of the Army and the Air Force:**

**H STEVEN BLUM**  
Lieutenant General, USA  
Chief, National Guard Bureau

**Official:**

**GEORGE R. BROCK**  
Chief, Plans and Policy Division

**History.** This printing publishes a revision of NG Pam (AR) 385-16/ANGPAM 91-101.

**Summary.** This pamphlet prescribes policy for rehabilitation and conversion of National Guard Indoor Firing Ranges (IFR).

**Applicability.** This guidance applies to all persons responsible for the operation of National Guard IFRs. As no regulation/guidance can foresee all situations that might arise, the following is written in a broad scope and is intended to be interpreted so as to ensure compliance with all applicable Federal and State laws and regulations.

**Proponent and exception authority.** The proponent of this regulation is Chief, NGB-SU-III. The proponent has the authority to approve exceptions to this regulation that are consistent with controlling law and regulation.

**Suggested Improvements.** Users of this pamphlet are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to NGB-5G-III, 1411 Jefferson Davis Highway, Arlington, VA 22202-3231.

**Distribution.** A.

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\* This publication supersedes NP Pam (AR) 385-16/ANGPAM 91-101, dated 31 January 1994.

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**Glossary**

**1-1. Purpose**

This pamphlet establishes the policy and procedures for rehabilitation and conversion, of National Guard IFRs.

**1-2. References**

Required and related publications and referenced and prescribed forms are listed in Appendix A.

**1-3. Explanation of abbreviations and terms**

Abbreviations and special terms used in this publication are listed in the glossary.

**1-4. Policy and Procedures**

Indoor firing ranges can be safely rehabilitated or converted for other uses, such as a storage area, classrooms or office space, provided the following -

a. Prior to conversion active ranges must be thoroughly decontaminated and cleaned to acceptable levels. *All ranges converted prior to the publication date of this pamphlet, must be inspected and evaluated to determine lead contamination.* This will be accomplished by a certified National Guard Industrial Hygienist (IH) or a person certified to perform inspections, evaluations, and determinations of IFRs IAW with OSHA standards, other nationally accepted standards, and accepted IH practices for maintenance, cleaning, conversion, ventilation, and air sampling of IFRs.

b. The level of cleanliness is to be determined by sampling. The Occupational Safety and Health Administration's (OSHA) Technical Manual, 5th Edition, provides guidance on the methods and techniques needed to collect wipe samples (Appendix B).

(1) Wipe samples must be collected and analyzed prior to and after cleaning.

(2) Post-cleaning surface wipe sample results must be less than 200 micrograms per square foot ( $\mu\text{g}/\text{ft}^2$ ) (40 micrograms in the case of child exposure). The sampling strategy, which is the amount and location of wipe samples to be collected, is provided in Appendix C.

c. Equipment/items previously stored in the range must be decontaminated and cleaned to acceptable levels as determined by a person certified to perform inspections, evaluations, and determinations of IFRs IAW with OSHA standards, other nationally accepted standards, and accepted IH practices for maintenance, cleaning, conversion, ventilation, and air sampling of IFRs.

(1) Samples must be collected from equipment/items stored in the range. Sample selection is critical, because the number of items stored, length of storage, and level of contamination differs from range to range. The amount and location of the samples should be representative of the areas where lead dust is most likely to accumulate. The more samples collected, the better the statistical comparison of the results.

(2) Samples must be collected from the smooth surfaces of the equipment/items, as much as possible. Results of samples collected from a rough surface will be inaccurate due to the minimal surface contact of the media. Further, the likelihood of tearing the media filter is greater on rough surfaces.

(3) Samples should also be collected on items stored the longest period of time, and which have not been disturbed. Items stored closest to the bullet trap and firing line are likely to have higher concentrations of lead dust.

**1-5. Goal**

To ensure that every IFR is free of lead dust which means to test less than 200 micrograms and to reduce the number of unsafe National Guard IFRs.

**1-6. Deviation**

Deviations from this guidance will require a written exception to policy from your Regional Industrial Hygiene Office. Questions and/or comments regarding this subject should be directed to your Regional Industrial Hygiene Office or Chief, National Guard Bureau, Office of the Joint Surgeon, ATTN: NGB-SG-JH, 1411 Jefferson Davis Highway, Arlington, VA 22202-3231.

**Chapter 2****Health and Medical Aspects****2-1. Health Effects**

29 Code of Federal Regulations (CFR) 1910.1025, Appendix A, identifies lead as a highly toxic metal. Elemental lead is indigestible, 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.

#### 2-2. Medical Surveillance for Occupational Exposure to Lead (Pb)

a. Per 29 CFR 1910.1025 (j)(1)(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 2-1 lists medical surveillance criteria for employees "who are or may be exposed above the action level for 30 days/year."

#### 2-3. Air Monitoring

Worker breathing zone air samples must be collected to ensure that personnel are not overexposed to airborne lead during the cleanup phase. Daily air samples will be collected from all personnel involved in the cleanup operation. These exposure levels will be used to evaluate work practices and medical surveillance requirements.

#### 2-4. Wipe Sampling Protocol and Media

A template measuring 10 centimeters by 10 centimeters square, approximately 4 inches square, should be used to accurately measure and mark the area before collecting wipe samples. Samples should be staggered to different areas of the range. A grid system should be utilized. Samples should not be collected all on one section of a wall, or end of the building. OSHA Technical Manual provides the necessary guidance on the technique needed to collect wipe samples (Appendix B). Only distilled or deionized water will be used to saturate dry sample media. At least one field blank must be submitted with every 10 samples. The field blank must be from the same lot, and labeled as a blank.

#### 2-5. 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 will 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 will 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 will 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 will 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.**

### Chapter 3 Education, Maintenance, Cleaning and Conversion

#### 3-1. Worker Education

a. 29 CFR 1910.1025, Appendix B, 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 will be repeated annually for personnel in range cleanup operations.

b. The commander/supervisor will ensure that each soldier or Army National Guard (ARNG) 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 will not be permitted in contaminated areas.
- (7) Soldiers and ARNG 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 soldiers and ARNG 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.

#### 3-2. Range Cleaning Instructions

a. Written procedures, such as a scope of work, or standing operating procedure that complies with all Federal, State and local regulations must be established prior to decontamination operations.

b. The range ventilation system will be in operation during range cleaning to ensure that a negative pressure environment is maintained. In the absence of mechanical ventilation system, all doors and windows will be sealed to eliminate fugitive emissions.

c. A High Efficiency Particulate Air (HEPA) filtered vacuum system, which is designed to collect loose surface lead dust particles, is the preferred method of cleanup. If a HEPA filtered vacuum is not available, the range can be cleaned using a wet method.

d. Prohibited methods include:

(1) Wet cleaning using high-pressure systems, since this method may embed the lead into the substratum and generate large quantities of hazardous waste.

(2) Dry sweeping is not permitted.

e. All surface areas of the range must be cleaned. In addition, areas outside of the IFR where lead can be tracked must be cleaned.

f. The preferred progression of cleaning is from top to bottom and from behind the steel bullet trap to the firing line.

(1) Clean the steel bullet trap, areas in front of and behind the bullet trap, and the steel bullet trap plate(s), after removing the sand (if applicable).

(2) Clean the ceiling, floors, lights, baffles, retrieval system, heating system(s), and ventilation duct(s).

(3) Vacuum and remove acoustical material. *Painting over this material is not recommended.*

(4) Clean the floor the last, starting at the bullet trap and ending behind the firing line.

g. When using a HEPA filtered vacuum, vacuum all surface areas until no dust or residue is visible.

h. Any general purpose cleaning solutions can be used for the wet method. However, Spic and Span<sup>TM</sup> has been found to be an effective cleaning solution by other Army organizations. Mix new solutions of cleaning solution frequently. Wet wiping will require dual containers of water, one container for wetting the applicator (mops, rags, sponge, etc.) and the other container for rinsing the applicator after the dust has been wiped from the surfaces. After wet wiping all surfaces, permit the area to dry.

i. *Properly dispose of all hazardous waste. Do not place lead contaminated waste into the sewer system or onto the ground.*

(1) When placed in containers, wastewater should be left to evaporate.

(2) Mop-heads, sponges and rags will be discarded as hazardous waste following cleanup.

j. A thorough visual inspection to detect dust should be made following cleanup and prior to collecting post surface wipe samples.

k. Wood floors should receive a coat of deck enamel or urethane; concrete floors should be sealed with deck enamel.

l. As a variety of conditions exist in ranges, unique situation may arise and specific written guidance from your Regional Industrial Hygiene Office may be required.

m. Any cleaning activities must be under the supervision by a trained and competent personnel IAW with OSHA and other nationally accepted standards and the work shall be according to current industry engineering standards under the control of the State Construction and Facilities Management Officer. Cleaning must recognize that there likely will be "background" lead presence in the readiness center totally independent of the existence of an indoor range and that the method of cleaning is less important than achieving the goal of less than 200 micrograms (40 micrograms in the case of child exposure).

### 3-3. Cleaning Stored Contaminated Equipment

a. Equipment contaminated (sample result is higher than 200 ug/ft<sup>2</sup>) with lead dust must be decontaminated before it is removed from the range.

b. Equipment located near the bullet trap and firing line should be cleaned first and then removed. The cleaning method depends on the size of the equipment and the material it is comprised of, i.e. metal, wood, concrete, porous, non-porous, smooth or rough finish etc. However, either HEPA vacuum or the wet wipe method will be used. Refer to paragraph 3-2 for additional guidance.

c. Every attempt should be made to clean and reclaim items since disposing of equipment as hazardous waste is costly and wasteful. Only as a last resort will the item be discarded as hazardous waste. Porous items, such as office partitions and carpet that were present during firing should be considered grossly contaminated and be discarded unless analysis proves otherwise. Consult your State Environmental Office for the proper hazardous waste disposal methods.

### 3-4. Contaminated Sand and Lead Waste

Consult your State Environmental Office for specific disposal guidance to ensure compliance with local laws and regulations.

### 3-5. Range Rehabilitation

This chapter applies to all IFRs that have been identified as candidates for rehabilitation. It provides further guidance for cleaning and/or sampling that might be required prior to the start of rehabilitation.

a. The portion(s) of the range to under go rehabilitation must be sampled to determine the level of lead contamination. Wipe samples will be taken per the established sampling protocol. See Appendix B.

b. All personnel involved in range rehabilitation will wear a NIOSH approved respirator (P-100) and proper personal protective equipment as prescribed in paragraph 2-5 above.

c. Prior to the start of rehabilitation, the environmental office must be notified to determine the disposition of any debris containing hazardous materials (lead).

d. Supervision shall be by a person who is certified to perform inspections, evaluations, and determinations of IFRs IAW with OSHA standards, other nationally accepted standards, and accepted IH practices for maintenance, cleaning, conversion, ventilation, and air sampling of IFRs. All work shall be according to current industry engineering standards under the control of the State Construction and Facilities Management Officer.

### 3-6. Conversion of Indoor Firing Ranges

Prior to the start of decontamination, employers must ensure that all procedures to be used comply with Federal, State, and local regulations. To ensure that all lead contamination is eradicated, the following procedure is established.

a. The State shall follow the project approval process as delineated in NGR 420-10 (or NGR 415-5 if the use of the military construction appropriation is required).

b. All ranges slated for conversion will be inspected and evaluated by the NGB Regional Industrial Hygiene Office.



- c. All equipment stored in the range, if applicable, prior to the start of decontamination must be sampled, decontaminated, re-sampled and removed or turned in as lead contaminated material.
- d. All acoustical tiles and/or sound proofing material (if applicable) must be removed and turned in as lead contaminated material through the environmental office.
- e. The bullet trap, target retrieval system and firing line stations must be removed and turned in as lead containing material through the environmental office.
- f. Light fixtures and ventilation system grills must be removed and decontaminated.
- g. Ventilation system ducts need to be decontaminated or removed and replaced.
- h. The exhaust fans and/or the complete ventilation air-handling unit (if applicable) must be decontaminated or removed to include roof fans.
- i. Cover all openings of any component previously decontaminated prior to start of interior decontamination of the firing range.
- j. Prior to start of washing, the interior of the range should be vacuumed with a HEPA filtered vacuum. The range should be washed using a cleaning solution of hot water and Spic and Span in five gallons of hot water. A progression of cleaning from top to bottom, and from back to front should be used. All surface areas of the range must be cleaned. Mix new solutions of water frequently. Washing will require dual containers of water, one container for wetting the applicators (mops, rags, sponges, etc.), and the other container for rinsing the applicators. Waste water placed into containers can be left to evaporate. *Properly dispose of all hazardous waste and do not place any lead contaminated waste into the sewer system or onto the ground.* Mop heads, sponges and rags will be discarded as hazardous waste following decontamination of the range. After completion of decontamination, and prior to taking clearance samples, the ventilation system must be run for a period of 36 hours. Wipe clearance samples will be taken from ceiling, walls and floors. The range will be considered clean if no clearance sample is greater than 200 ug/ft<sup>2</sup>, if any sample is above 200 ug/ft<sup>2</sup>, the range is not considered clean, the range will need to be re-washed until clearance samples are below 200 ug/ft<sup>2</sup>.
- k. The regional industrial hygienist will do quality assurance sampling as needed.
- l. After obtaining clearance, the walls of the range will be coated with a sealant (Not Paint), which is smooth, wood floors will receive a coat of deck enamel or urethane, concrete floors will be sealed with deck enamel. After sealing, floors will be tiled or covered with linoleum.
- m. As a variety of conditions exist in ranges, unique situations may arise and specific written guidance from the Regional Industrial Hygiene Office may be required.
- n. All personnel involved in the decontamination/conversion of IFRs as a minimum will be provided with the following personal protective equipment.
  - (1). Full Face air purifying respirator with HEPA cartridges. The requirements outline in 29 CFR 1910.134, must be met prior to placing workers in respiratory protection.
  - (2). Individuals will be provided personal protective equipment as required per paragraph 2-5, this pamphlet.
- o. Any conversion must be supervised by a person certified to perform inspections, evaluations, and determinations of IFRs IAW with OSHA standards, other nationally accepted standards, and accepted IH practices for maintenance, cleaning, conversion, ventilation, and air sampling of IFRs. All work shall be according to current industry engineering standards under the control of the State Construction and Facilities Management Officer. Cleaning must recognize that there likely will be "background" lead presence in the readiness center, totally independent of the existence of an indoor range and that the method of cleaning is less important than achieving the goal of less than 200 micrograms (40 micrograms in the case of child exposure).
- p. After conversion, lead testing shall continue on an annual basis to verify that no lead migration from the substrate is occurring.

**Appendix A  
References**

**Section I  
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, 5<sup>th</sup> Edition**  
Occupational Safety and Health Administration, Department of Labor

**Section III  
Prescribed Forms**

There are no entries in this section

**Section IV  
Referenced Forms**

There are no entries in this section.

**Appendix B  
Protocol for Collecting Wipe Samples**

- B-1. If multiple samples are to be collected at the work site, prepare a rough sketch of the area(s) or room(s), which are to be wipe sampled.
- B-2. A new set of clean, impervious gloves should be used for each sample to avoid contamination of the media by previous samples and to prevent contact with the substance.
- B-3. Wipe Samples
  - a. If using Ghost Wipes™, tear open the individually sealed package. Remove the moistened wipe. Unfold the wipe.
  - b. If using a dry media such as MCE or Whatman™ filter, moisten the filter with distilled or deionized water prior to sampling.
- B-4. Place a 10 centimeter by 10 centimeter template on the area to be wiped.
- B-5. Apply uniform firm pressure while wiping the area inside the template.
- B-6. To ensure that all portions of the partitioned area are wiped, start at the outside edge and progress toward the center making concentric squares decreasing in size.
- B-7. After collecting a sample, fold the filter or wipe inward and place into a container and number it. Note the number at the sample location on the sketch.
- B-8. At least one blank filter treated in the same fashion but without wiping, should be submitted to the laboratory.

**Appendix C  
Sampling Strategy for Collection of Wipe Samples**

- C-1. Prior to cleaning the ranges, three samples must be collected and analyzed for total lead dust on each surface, i.e., floor, ceiling, bullet trap, and wall to include the plenum wall, if applicable. In addition, a total of three samples should be collected from areas which have been least disturbed by airflow. Established walkways should be avoided.
- C-2. Samples should be collected from different areas of the range. A grid system should be utilized. Each range surface areas should be divided evenly into 3 by 3 sections. Samples should not be collected from only one section of a wall or end of the building.

**Glossary****Section I  
Abbreviations**

**ARNG**  
Army National Guard

**CFR**  
Code of Federal Regulations

**HEPA**  
High Efficiency Particulate Air

**IFR**  
Indoor Firing Range

**NIOSH**  
National Institute for Occupational Safety and Health

**OSHA**  
Occupational Safety and Health Administration

**ug/m<sup>3</sup>**  
Micrograms per square foot

**Section II  
Terms**

**Air monitoring**  
The sampling for and measuring of pollutants in the atmosphere.

**Breathing zone**  
The imaginary globe of two feet radius surrounding the head.

**General area**  
Collection of and later analysis of airborne contaminants in a given work environment. As the sampling pump and collection media are not attached to a worker, the concentrations found represent average concentrations in that area but may not be representative of the actual exposure of the worker.

**HEPA**  
Refers to high efficiency particulate air filter systems capable of capturing up to 99.97 percent of particles 0.3 microns in size or larger.

**Lead-Contaminated Range**  
It is assumed that all IFRs, which have been fired in, are lead-contaminated.

**Respirator**  
A device designed to provide the wearer with respiratory protection against inhalation of airborne contaminants.

**Wipe Sample**  
The terms wipe, swipe, or smear samples are used synonymously to describe the techniques utilized for assessing lead surface contamination.

3 November 2006

NCP 420-15

**Section III  
Special Abbreviations and Terms**

This section contains no entries

## **FINAL ABATEMENT REPORTS**

# CLOSE OUT DOCUMENTS

For

DCS Project No. 11365

## HASKELL ARMORY

### LEAD AND ASBESTOS REMOVAL

**RECEIVED**  
JAN 17 2012  
LAND PROTECTION DIVISION  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
*JM*



HASKELL ARMORY exterior from the West

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1. Photos with Narrative captions
2. Chain of Custody Form – Wall Board
3. Analytical Results – Wall Board
4. Building Diagram
5. Waste Manifest
6. Sampling Analysis – By DEQ

**RECEIVED**  
JAN 17 2012  
LAND PROTECTION DIVISION  
DEPARTMENT OF ENVIRONMENTAL QUALITY



# HASKELL ARMORY



Floor tile and Mastic removed, N/S hallway



Floor tile and Mastic removed, Room 12

# HASKELL ARMORY



Floor tile and Mastic removed, Hallway leading to drill floor



Floor tile and mastic removed, Room 13

# HASKELL ARMORY



Floor tile and Mastic removed, Room 15



Floor tile and Mastic removed, Room 1

# HASKELL ARMORY



Floor tile and Mastic removed, Main Entry and hallway



Mastic removed, Room 4

# HASKELL ARMORY

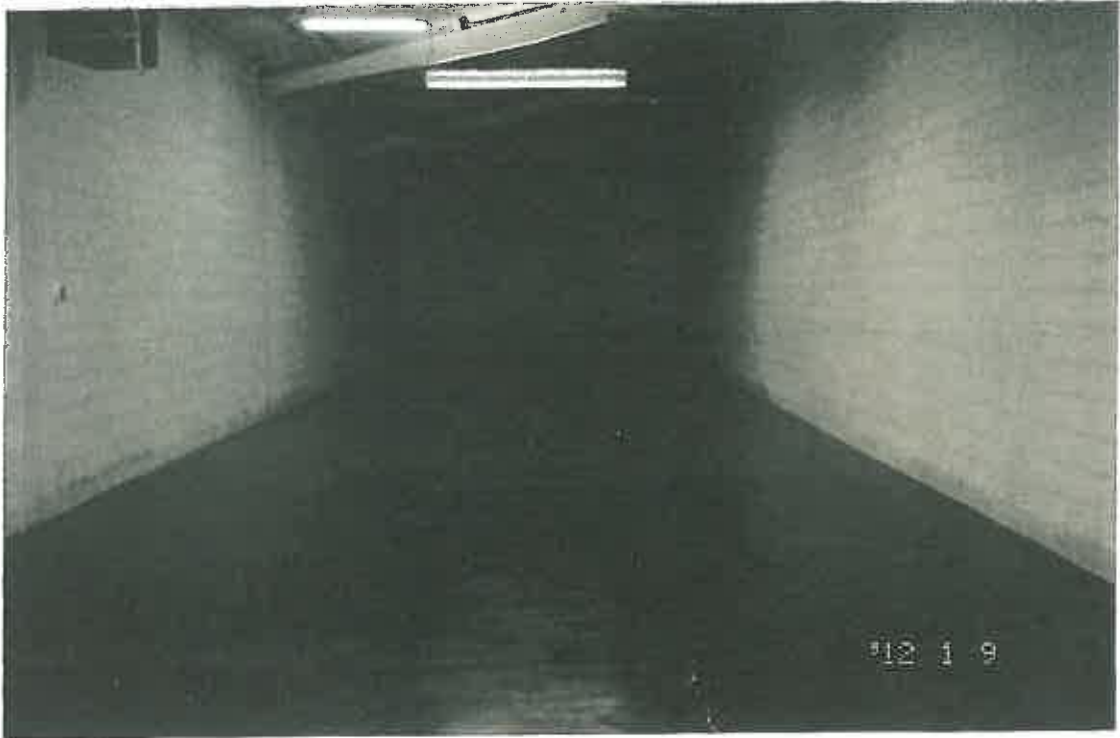


Drill floor, Mopped and HEPA-vacuumed



Drill floor emblem, sealed with clear acrylic

# HASKELL ARMORY



IFR, cleaned and sealed (view to the West)

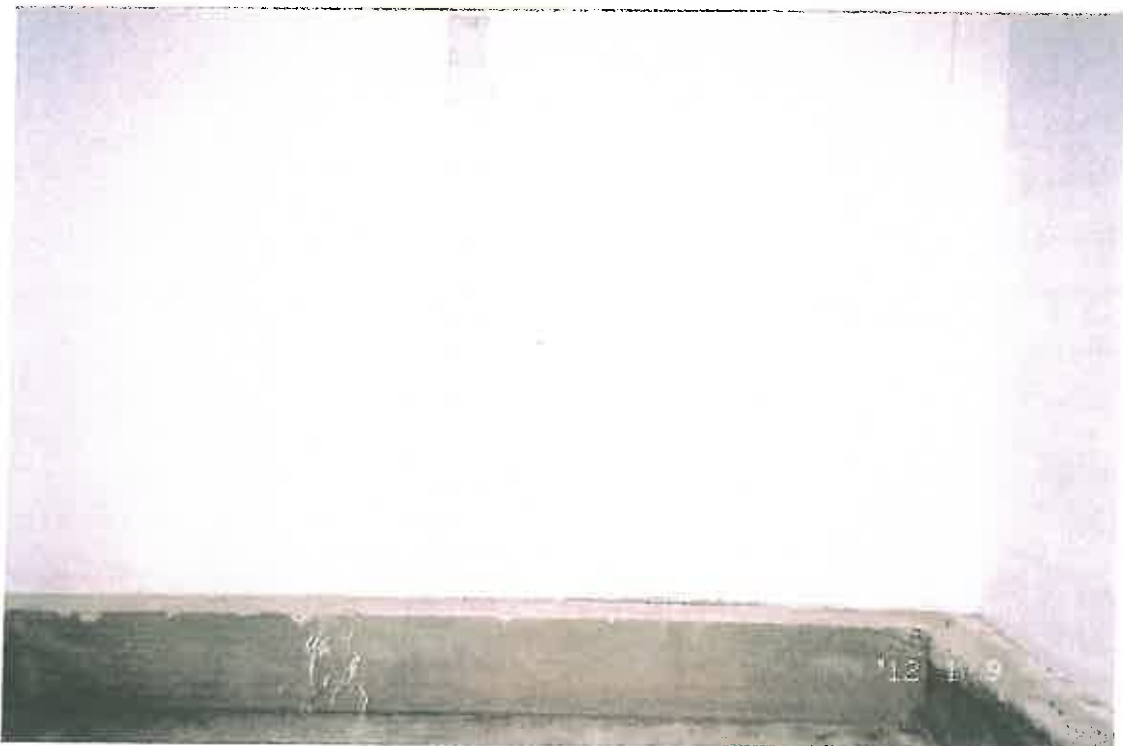


IFR, cleaned and sealed (view to the East)

# HASKELL ARMORY



IFR, Bullet trap, cleaned and sealed



IFR, West end, walls partially grouted and sealed

# HASKELL ARMORY



IFR, West end, walls partially grouted and sealed



HASKEL ARMORY exterior from the Southwest



CHAIN OF CUSTODY

Package Shipped From: Abatement Systems Date: 9/27/11

Address: P.O. Box 773 Broken Arrow, OK

Phone #: 251 2504 Fax #: 251 3952 Contact: Jon Summers

Condition of package Upon Receipt: good

Number of Samples Received: 1 Person Sampling: Joe Stevenson

Project I.D.: HASKell Armory Sample Type: Wall Board

NUMBER	RECEIVING SAMPLE	DESCRIPTION	AAL LOG NUMBER
1		Wall Board	
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments: Need analyzed for TCLP-Lead.

Relinquished by: Sum Date: 9/27/11 Time: 1246 Received by: [Signature]

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_



## Outreach Laboratory

311 North Aspen  
Broken Arrow, OK 74012  
(918) 251-2515  
FAX (918) 251-0008



LABORATORY  
ACCREDITATION  
BUREAU  
ACCREDITED



Certificate # L 2284 Testing



### Case Narrative

Lab No: 20110973

This report contains the analytical results for the 1 sample(s) received under chain of custody by Outreach Laboratory on 09/27/11 14:44:48. These samples are associated with your Haskell Armory project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted below:

The test results in this report meet all NELAC requirements unless noted below:

This report shall not be reproduced, except in full, without the written approval of Outreach Laboratory.

All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client.

### Observations / Nonconformances



# Outreach Laboratory

311 North Aspen  
Broken Arrow, OK 74012  
(918) 251-2515  
FAX (918) 251-0008

Client:	Abatement Systems, Inc.
Client Project:	Haskell Armory
Lab Number:	20110973
Date Reported:	10/12/11
Date Received:	9/27/11
Page Number:	2 of 2

## Analytical Report

Method	Result	DL	Units	Qual. Prep Date	Analysis Date	Analyst
Lab ID:	20110973-01					
Client ID:	Wall Board					
Date Sampled:	09/27/11					
Matrix:	Solid					
<b>Metals Analyses</b>						
TCLP-Lead	EPA 1311/6010B*	BDL	0.100 mg/l	09/30/11	10/10/11	RE

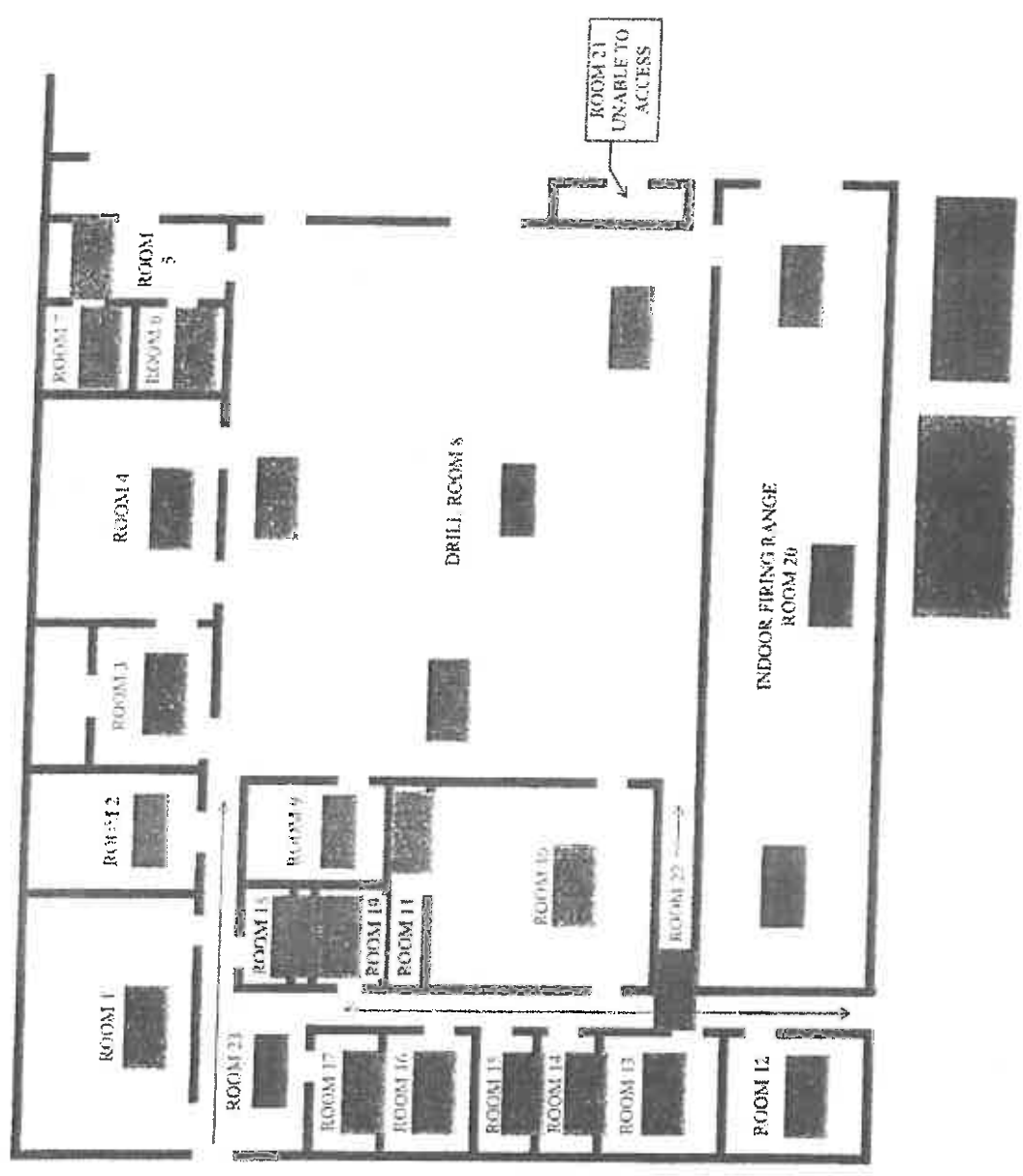
## QC Report

Parameter	Blank	LCS		LCSD		MS		MSD		Date
		%REC	%REC	%REC	RPD	%REC	%REC	RPD		
TCLP-Lead	0	101.0				103.0	102.0	0.4		10/10/11

Lab Approval: \_\_\_\_\_

# HASKELL ARMORY

## LEAD CONCENTRATIONS IN SURFACE DUST



<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>OKCSQ111111</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>800-229-5252</b>	4. Manifest Tracking Number <b>001480237 FLE</b>	
5. Generator's Name and Mailing Address <b>STATE OF OKLAHOMA DEPARTMENT CENTRAL 8TH RUBEL AVE PAWBUSSHA, OK 74068</b>			Generator's Site Address (if different than mailing address)			
6. Transporter 1 Company Name <b>WES&amp;T, LLC</b>			U.S. EPA ID Number <b>OKD981914401</b>			
7. Transporter 2 Company Name			U.S. EPA ID Number			
8. Designated Facility Name and Site Address <b>WASTE EXPRESS INC. 6300 STADIUM DRIVE KANSAS CITY, MO 64129</b>			U.S. EPA ID Number <b>MOD981123391</b>			
Facility's Phone: <b>816-924-5884</b>						
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		No.	Type			
<b>X</b>	<b>UN2811, Waste Toxic solids, organic, n.o.s. (LEAD), 6.1, II</b>	<b>1</b>	<b>DM</b>	<b>190</b>	<b>P</b>	<b>D008</b>
14. Special Handling Instructions and Additional Information <b>L1.) App #: AES-57179; ERG # 154 1E559A1</b>						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Officer's Printed/Typed Name <b>Jon M Summer</b>		Signature <i>Jon M Summer</i>		Month <b>10</b>	Day <b>10</b>	Year <b>11</b>
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name <b>Rich Saxton</b>		Signature <i>Rich Saxton</i>		Month <b>10</b>	Day <b>10</b>	Year <b>11</b>
Transporter 2 Printed/Typed Name		Signature		Month	Day	Year
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number _____						
Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator) _____ Month _____ Day _____ Year _____						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1. <b>1111</b>	2.	3.	4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a						
Printed/Typed Name <b>Kolm Crook</b>		Signature <i>Kolm Crook</i>		Month <b>10</b>	Day <b>11</b>	Year <b>11</b>

GENERATOR  
TRANSPORTER INTL  
DESIGNATED FACILITY

## CONFIRMATION SAMPLING

## CONFIRMATION SAMPLING RESULTS

On October 4, 2011, Department of Environmental Quality (DEQ) personnel sampled the Haskell Armory for lead dust to confirm room floors were below the Housing and Urban Development (HUD) standard of 40 micrograms per square foot ( $\mu\text{g}/\text{ft}^2$ ) for child occupied facilities and to confirm walls and floor of the indoor firing range (IFR) were below 200  $\mu\text{g}/\text{ft}^2$ . Below is a summary of the results. Sample results are attached (**Attachment 1**).

- The room floors of the building were all below 40  $\mu\text{g}/\text{ft}^2$ .
- Two samples in the IFR came back above 200  $\mu\text{g}/\text{ft}^2$ .
  - DEQ determined that one area needed to be cleaned again (Sample location 23).
  - DEQ determined that the walls on both sides of the sand trap had imbedded lead bullet fragments throughout the concrete. These areas were sealed with concrete construction grout (Sample location 33).

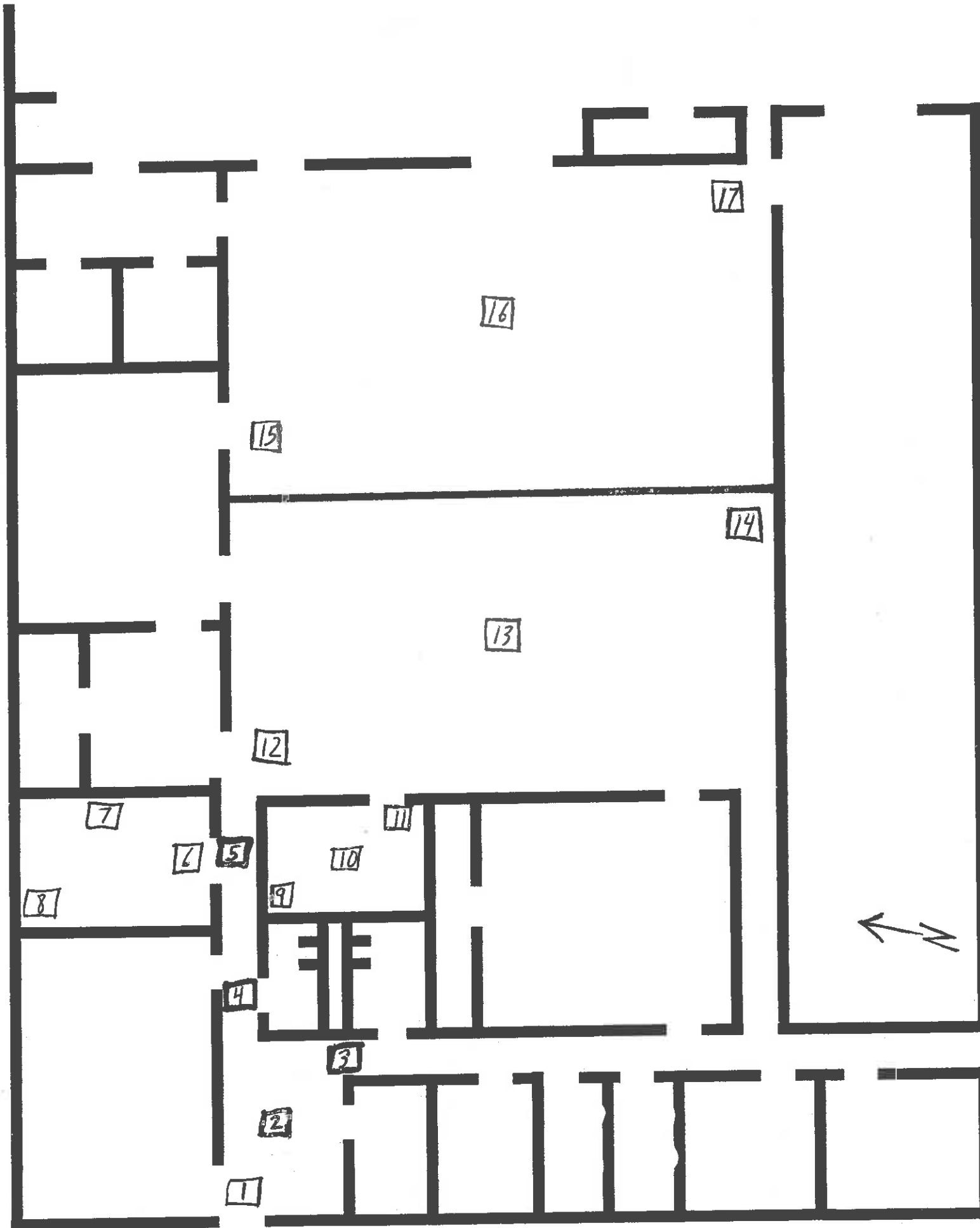
On October 30, 2011, DEQ sampled where the previous samples had failed. Both samples came back below 200  $\mu\text{g}/\text{ft}^2$ . Sample results are attached (**Attachment 2**).

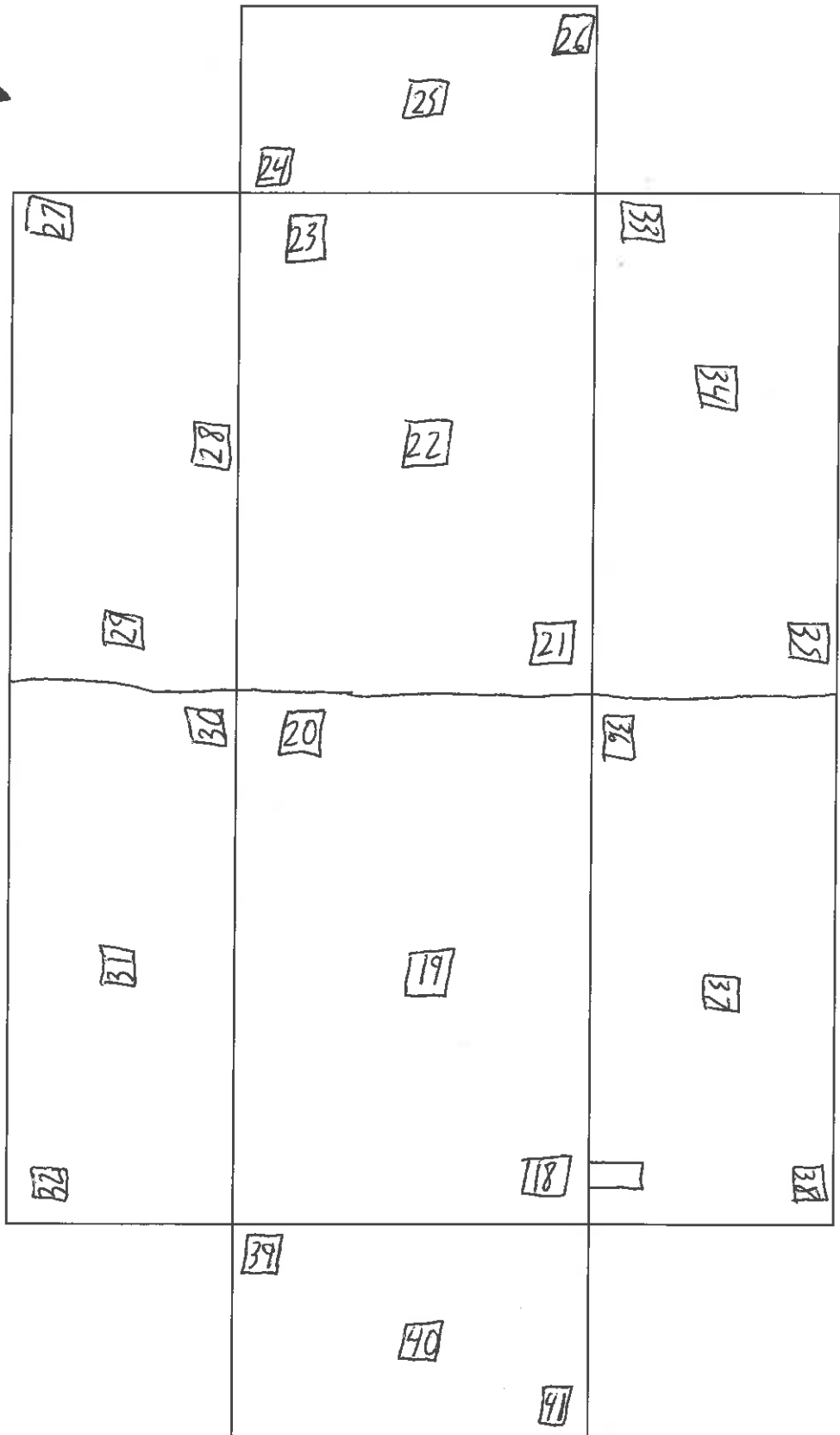
DEQ contractors then encapsulated walls and ceiling of the IFR with lead-based paint encapsulant and encapsulated floor of the IFR with clear acrylic sealant to ensure that all surfaces are below the HUD child occupied facility standard for lead.

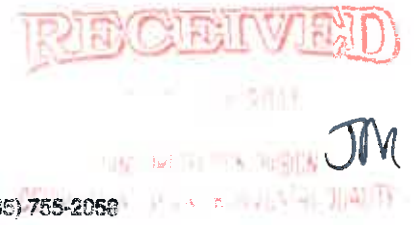
**ATTACHMENT 1**

**OCTOBER 4, 2011 SAMPLE RESULTS**









2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2050

# Environmental Chemistry Analysis Report

**Quantem Set ID:** 200443  
**Date Received:** 10/05/11  
**Received By:** Sherrie Leftwich  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:**  
**Date of Report:** 10/6/2011

**Client:** State of Oklahoma  
DEQ Land Protection  
Attn: Dustin Davidson  
707 N. Robinson  
Oklahoma City, OK 73102  
**Acct. No.:** B486  
**Project:** Haskell Armory  
**Location:** Haskell Armory  
**Project No.:** N/A

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	1	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
002	2	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
003	3	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
004	4	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
005	5	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
006	6	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
007	7	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
008	8	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
009	9	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
010	10	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
011	11	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
012	12	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
013	13	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
014	14	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
015	15	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
016	16	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
017	17	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)

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 7420 (1) = EPA 600/R-93/200 Preparation Modified. EPA 7420 Analysis Modified

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



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

## Environmental Chemistry Analysis Report

**QuanTEM Set ID:** 200443  
**Date Received:** 10/05/11  
**Received By:** Sherrie Leftwich  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:**  
**Date of Report:** 10/6/2011

**Client:** State of Oklahoma  
 DEQ Land Protection  
 Attn: Dustin Davidson  
 707 N. Robinson  
 Oklahoma City, OK 73102  
**Acct. No.:** B486  
**Project:** Haskell Armory  
**Location:** Haskell Armory  
**Project No.:** N/A

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
018	18	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
019	19	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
020	20	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
021	21	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
022	22	Wipe	Lead	27.4	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
023	23	Wipe	Lead	415	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
024	24	Wipe	Lead	52.5	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
025	25	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
026	26	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
027	27	Wipe	Lead	21.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
028	28	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
029	29	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
030	30	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
031	31	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
032	32	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
033	33	Wipe	Lead	3,700	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
034	34	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)

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

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EPA Method 7420 (1) = EPA 600/R-93/200 Preparation Modified. EPA 7420 Analysis Modified

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



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

## Environmental Chemistry Analysis Report

**Quantem Set ID:** 200443  
**Date Received:** 10/05/11  
**Received By:** Sherrie Leftwich  
**Date Sampled:**  
**Time Sampled:**  
**Analyst:**  
**Date of Report:** 10/6/2011

**Client:** State of Oklahoma  
 DEQ Land Protection  
 Attn: Dustin Davidson  
 707 N. Robinson  
 Oklahoma City, OK 73102  
**Acct. No.:** B486  
**Project:** Haskell Armory  
**Location:** Haskell Armory  
**Project No.:** N/A

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
035	35	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
036	36	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
037	37	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
038	38	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
039	39	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
040	40	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)
041	41	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/06/11 13:00	W EPA 7420 (1)

Authorized Signature: Rebecca Sparks  
 Rebecca Sparks, Analyst

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 7420 (1) = EPA 600/R-93/200 Preparation Modified. EPA 7420 Analysis Modified

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

## Supplemental Report QAQC Results

QA ID: 9261  
Test: Lead

Date: 10/6/2011  
Matrix: Wipe

Lab Number: 200443  
Approved By: Rebecca Sparks  
Date Approved: 10/6/2011

**Notes:**

**Blank Data:**

Type of Blank	Blank Value
FCB	0
ICB	0
Matrix Blank	0

**Standards Data:**

Standard	Low Limit	Obtained	High Limit
CCV	4.5	5	5.5
FCV	4.5	5	5.5
ICV	0.8	1.1	1.2
RLVS	0.256	0.337	0.384

**Duplicate Data:**

**Recovery Data:**

Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MS-W3	0.000	5.384	5.275	98.0	5.338	99.1	1.2
MS-W2	0.000	5.481	5.603	102.2	5.084	92.8	9.7
MS-W2	0.000	5.460	5.380	98.5	5.084	93.1	5.7
MS-W1	0.000	5.470	5.286	96.6	5.200	95.1	1.6
MS-W1	0.000	5.481	5.244	95.7	5.200	94.9	0.8

Authorized Signature: \_\_\_\_\_

*Rebecca Sparks*

Rebecca Sparks, Analyst



# Lead Chain-of-Custody

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 822-1660 (405) 755-7272 Fax: (405) 755-2058  
 www.quantem.com

This Box for Lab Use Only  
 Lab No. 200443  
 Accept  Reject

Company Name: DEQ Project Name: Haskell Army  
 Project Location: Haskell Army Acct.#: \_\_\_\_\_ Project Number: \_\_\_\_\_

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis	Units Requested	Sample Matrix Codes	TURNAROUND TIME	CONTACT INFORMATION
1		1ft		Pb	mg / kg	A - Soil	Same Day	Name: <u>Dustin Davidson</u>
2		"			mg / l	B - Paint Chips	<input checked="" type="checkbox"/> 24 Hour	Phone: <u>405-317-4292</u>
3		"			ug / sq ft	C - Surface / Dust Wipes	<input type="checkbox"/> 3-Day	Report Results VIA (CHOOSE ONE):
4		"			ug / cu ft	D - Bulk Miscellaneous	<input type="checkbox"/> 5-day	<input type="checkbox"/> FAX: _____
5		"			mg / sq ft	E - Air Cassette		Quantem Website
6		"			mg / cu ft	F - Other (SPECIFY)		<input checked="" type="checkbox"/> E-Mail: <u>dustin.davidson@deq.ok.gov</u>
7		"						
8		"						
9		"						
10		"						
11		"						
12		"						
13		"						
14		"						
15		"						

Received By: Dustin Davidson Date: 10/5/11 10:30  
 Via: Signature Inspected By: Dustin Davidson  
 Sampled By: Dustin Davidson

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'



# Lead Chain-of-Custody

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

This Box for Lab Use Only

Lab No. 200443  
Accept  Reject

Company Name: DEG

Acct. #:

Project Name: Haskell Army

Project Number:

Project Location: Haskell Army

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis	Units Requested	Sample Matrix Codes
16		170		Pb	mg / sq. ft.	A - Soil
17					mg / cu. ft.	B - Paint Chips
18					mg / sq. ft.	C - Surfaces / Dust Wipes
19					mg / l	D - Bulk Miscellaneous
20					mg / kg	E - Air Cassette
21					Wt %	F - Other (SPECIFY)
22					PPM	
23						
24						
25						
26						
27						
28						
29						
30						

LEGAL DOCUMENT  
Please Print Legibly

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: Dustin Davidson

Phone: 405-317-4292

Report Results VIA (CHOOSE ONE):

FAX:

Quantem Website:

E-Mail: dustin.davidson@deg.ok.gov

Prepared By: Dustin Davidson Date: 10/5/14 10:30

Checked By: Dustin Davidson Date: 10/5/14 10:30

Sampled By: Dustin Davidson

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





# Lead Chain-of-Custody

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
 (800) 822-1850 (405) 755-7272 Fax: (405) 755-2058  
 www.quantem.com

THIS BOX IS LAB USE ONLY

Lab No. 200443

Accept  Reject

Company Name: DEQ

Acct. #:

Project Name: Haskell Army

Project Location: Haskell Army

Project Number:

Sample Number	Sample Description	Volume of Area	Sample Matrix
31		1ft	
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			

Analysis	PPM	WT %	mg / kg	mg / l	ug / sq. ft.	ug / cu. m.	mg / cm <sup>3</sup>
Pb							

Sample Matrix Codes
A - Soil
B - Paint Chips
C - Surface / Dust Wipes
D - Bulk Miscellaneous
E - Air Cassette
F - Other (SPECIFY)

LEGAL DOCUMENT  
Please Print Legibly

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

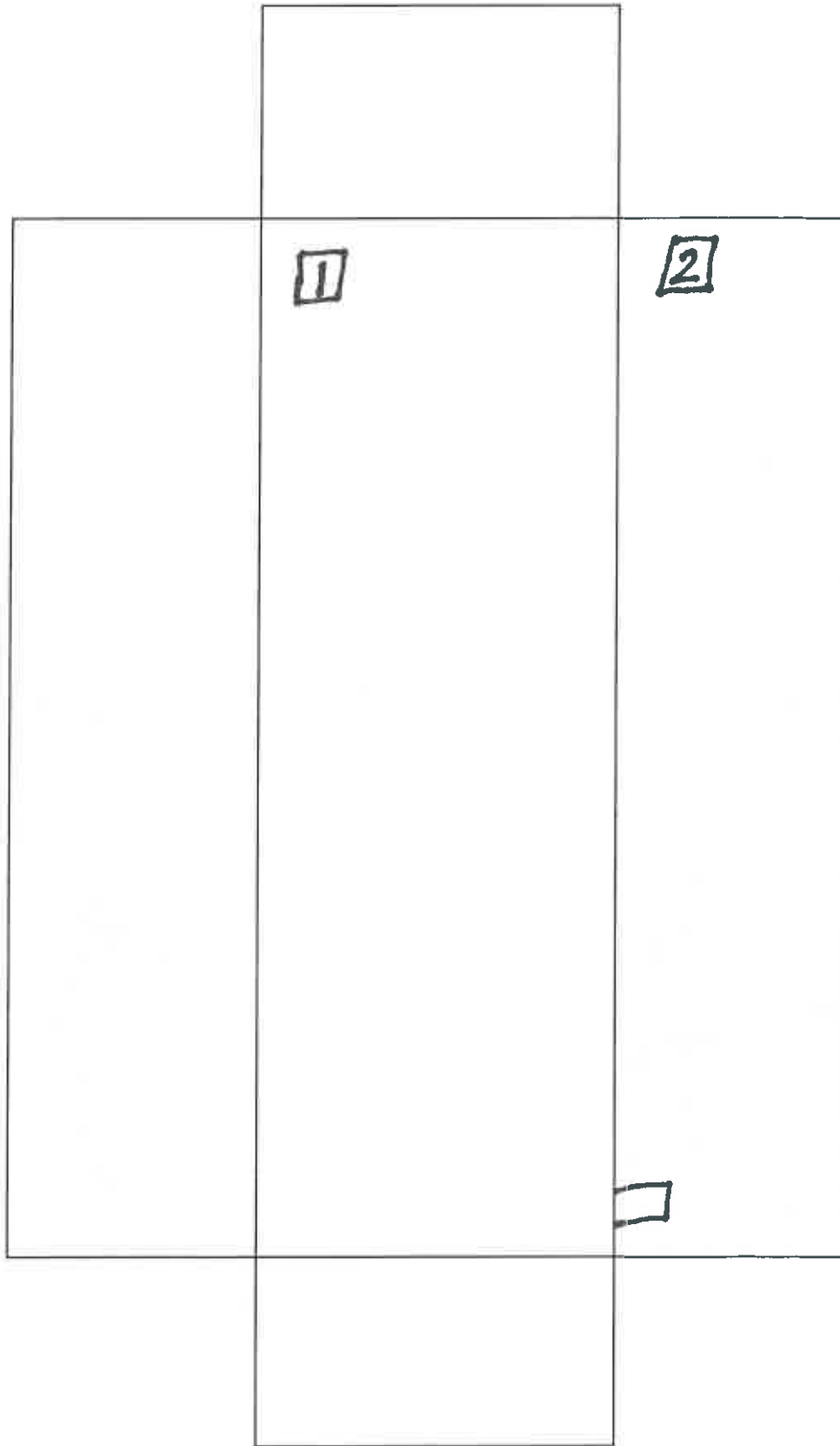
CONTACT INFORMATION
Name: <u>Dustin Davidson</u>
Phone: <u>405-317-9297</u>
Report Results VIA (CHOOSE ONE):
FAX:
Quantem Website
E-Mail: <input checked="" type="checkbox"/> <u>dustin.davidson@deg.ok.gov</u>

Requested By: <u>Dustin Davidson</u>	Received By: <u>Shawn Wil</u>	Sampled By:
Date/Time: <u>10/11/11 10:30</u>	Date/Time: <u>10/11/11 10:40</u>	Date/Time:

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'

**ATTACHMENT 2**

**OCTOBER 30, 2011 SAMPLE RESULTS**





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

## Environmental Chemistry Analysis Report

Quantem Set ID: 201286  
Date Received: 10/31/11  
Received By: Barbara Holder  
Date Sampled:  
Time Sampled:  
Analyst: BM  
Date of Report: 10/31/2011

Client: State of Oklahoma  
Dept. of Environmental Quality  
707 N. Robinson  
Oklahoma City, OK 73102  
Acct. No.: A795  
Project: Haskell Armory  
Location: Haskell Armory  
Project No.: N/A

AIHA ID: 101352

Quantem ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	1	Wipe	Lead	57.5	16	ug/sq. Ft.	10/31/11 14:00	W EPA 7420 (1)
002	2	Wipe	Lead	<16.0	16	ug/sq. Ft.	10/31/11 14:00	W EPA 7420 (1)

Authorized Signature: \_\_\_\_\_

Benton Miller, Analyst

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

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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 7420 (1) = EPA 600/R-93/200 Preparation Modified. EPA 7420 Analysis Modified

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) 822-1660 (405) 755-7272 Fax: (405) 755-2058  
 www.quantem.com

Title 50c for Lab Use Only  
 Lab No. 201286  
 Requester

Company Name: DEA Acct.#:  
 Project Location: Haskell Army Project Name: Haskell Army  
 Project Number:

Sample Number	Sample Description	Volume of Area	Sample Matrix	Analysis		Units Requested						Sample Matrix Codes
				Pb	PPM	mg/kg	mg/l	ug/sq ft	ug/cu ft	ug/g	mg/cm	
<u>1</u>		<u>1ft<sup>2</sup></u>		<u>X</u>		<u>X</u>						<u>A - Soil</u>
<u>2</u>		<u>1ft<sup>2</sup></u>		<u>X</u>		<u>X</u>						<u>B - Paint Chips</u>
												<u>C - Surface / Dust Wipes</u>
												<u>D - Bulk Miscellaneous</u>
												<u>E - Air Cassette</u>
												<u>F - Other (SPECIFY)</u>

LEGAL DOCUMENT  
 Please Print Legibly

TURNAROUND TIME

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

CONTACT INFORMATION

Name: Dustin Davidson

Phone:

Report Results Via (CHOOSE ONE):

FAX:

Client E-Mail: dustin.davidson@deg.ok.gov

Client Web Site:

Requested By: Frank Dush Date/Time: 10/31/11 11:33 Via: VIA

Received By: [Signature] Date/Time: 11/31/11 0:31-11 Via: VIA

Sampled By: Dustin Davidson

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'