

TARGETED BROWNFIELD ASSESSMENT

For

**Oklahoma Army National Guard
Former Wagoner Armory
Wagoner, Oklahoma**

ASTM E 1527-05
Phase I Environmental Site Assessment
All Appropriate Inquiry

Prepared by:



February 3, 2009

Prepared for:

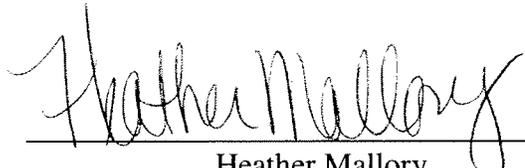
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I declare that to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of this part. I have specific qualifications based on education training, and experience to assess a property of the nature, history and setting of the subject property. I have developed and performed the all appropriate inquiry in conformance with the standards and practices set forth in 40 CFR Part 312.

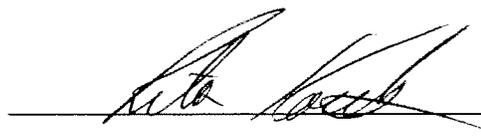
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Background and Disclaimer: The purpose of an environmental site assessment is to identify actual or potential “recognized environmental conditions” that may result in liability or land use restrictions. The ASTM Phase I Environmental Site Assessment E 1527 – 05 is the minimum standard for environmental due diligence in the commercial real estate industry and meets the standard for All Appropriate Inquiry under the Small Business Liability Relief and Brownfields Revitalization Act of 2002. A diligent effort in accordance with generally accepted good commercial and customary standards and practices was undertaken to identify the “recognized environmental conditions” that might affect the redevelopment project. However, the identification of old hazardous waste sites is an evolving process; therefore, the Oklahoma Department of Environmental Quality (DEQ) cannot state with absolute certainty that no other potential hazardous waste sites are located in the area. In no event shall the DEQ or its employees be liable for any damages, injury, loss, cost or expense whatsoever arising in connection with the use or reliance on the information contained in this report, except as otherwise provided by law.

Table of Contents

1.0	EXECUTIVE SUMMARY	6
2.0	INTRODUCTION	8
2.1	Purpose.....	8
2.2	Detailed Scope-of-Services.....	8
2.3	Significant Assumptions.....	8
2.4	Limitations and Exceptions.....	9
2.5	Special Terms and Conditions	9
3.0	SITE CHARACTERIZATION AND HISTORY.....	9
3.1	Location and Legal Description.....	9
3.2	Site and Vicinity Characterization	10
3.3	Description of Structures, Roads, and Other Improvements	11
3.4	Owner, Property Manager, and Occupant Information	11
3.5	Information Reported by User Regarding Environmental..... Lien or Specialized Knowledge or Experience	11
3.6	Commonly Known or Reasonably Ascertainable Information.....	11
3.7	Valuation Reduction for Environmental Issues	12
3.8	Current Use of the Property	12
3.9	Past Use of the Property.....	12
	3.9.1 Review of Aerial Photographs	12
	3.9.2 Fire Insurance Maps.....	13
3.10	Current and Past Uses of Adjoining Properties	15
3.11	Environmental (Physical) Setting	15
	3.11.1 Surface Water Characteristics.....	15
	3.11.2 Soil Characterization.....	15
	3.11.3 Subsurface Geological Characterization.....	16
	3.11.4 Groundwater Characteristics.....	16
	3.11.5 Air Characteristics	16
4.0	RECORDS REVIEW.....	17
4.1	Federal National Priorities List (NPL).....	17
4.2	Federal CERCLIS List.....	17
4.3	Federal RCRA CORRACTS List	17
4.4	Federal RCRA non-CORRACTS TSD List	18
4.5	Federal RCRA Generators List.....	18
4.6	Federal ERNS List	18
4.7	Federal Institutional Control/Engineering Control Registries	18
4.8	State-Equivalent NPL	18
4.9	State-Equivalent CERCLIS	19
4.10	State Landfill and/or Solid Waste Disposal Sites	19
4.11	State Leaking UST List.....	19
4.12	State Registered UST Sites	21
4.13	State Institutional Control/Engineering Control Registries	22

4.14	State Voluntary Cleanup Sites	22
4.15	State Brownfield Sites.....	22
4.16	Oil and Gas Records	22
5.0	SITE RECONNAISSANCE AND INTERVIEWS	22
5.1	Methodology and Limiting Conditions.....	22
5.2	General Site Conditions	23
5.3	External Observations	26
5.4	Internal Observations	26
5.5	Interviews.....	26
6.0	FINDINGS	27
7.0	OPINION AND RECOMMENDATIONS.....	29
8.0	DATA GAPS	30
9.0	CONCLUSIONS.....	30
10.0	ADDITIONAL SERVICES	30
11.0	DEVIATIONS	30
12.0	REFERENCES	31
13.0	APPENDICIES	33
	Appendix A Site Map and Legal Documents	
	Appendix B Aerial Photographs and Topographic Maps	
	Appendix C Review of Regulatory Records	
	Appendix D Site Photographs	
	Appendix E Site Visit Notes	
	Appendix F Sample Results	
	Appendix G Qualification(s) of Environmental Professionals	

1.0 Executive Summary

On June 19, 2008, Heather Mallory and Dustin Davidson of the DEQ performed site reconnaissance of the Wagoner Armory located at 511 E. Cherokee Wagoner, Oklahoma as part of a Targeted Brownfield Assessment (TBA). The subject property is in a section of Wagoner characterized by commercial businesses. The purpose of the TBA was to identify potential environmental concerns by reviewing historical data, regulatory information, and by performing a visual inspection of the site and surrounding area. The following is an executive summary of the environmental site assessment results:

- The former Wagoner Armory was built in 1936 by the Works Progress Administration. The land for the building was deeded by the Roman Catholic Church to the State of Oklahoma, on October 4, 1935, for benefit of the Oklahoma National Guard. The subject property is currently owned by the Department of Environmental Quality. After all remediation activities have taken place and a notice of remediation and easement has been filed in the Wagoner County, courthouse, the deed to the property will revert to the City of Wagoner.
- Historically, the subject property was used to house equipment needed for disaster response. Tools, heavy equipment, firearms, gas masks, chemical suits, and communication equipment were stored in the building. An indoor firing range was also onsite for target practice. The firing range is flooded with water and likely to have lead dust contamination. It is unknown if the firing range contains a sand trap. The building is contaminated with lead dust, lead-based paint, and asbestos and a portion of the outdoor soil is contaminated with lead. The Oklahoma Department of Environmental Quality Site Cleanup Assistance Program plans to cleanup the lead and asbestos contamination on the subject property and properly dispose of all associated waste.
- The property formerly contained a 1,000 gallon underground storage tank (UST) that was removed July 25, 1995. The vent pipe was left in place. Low levels of gasoline range organics were detected during the UST removal (2.22 mg/kg and 6.44 mg/kg) and diesel range organics were below detection limits.
- Adjoining properties consist of businesses, residences, and an American Legion meeting hall. Historical aerial photographs show residences and business surrounding the subject property.
- Sanborn Fire Insurance maps showed that the subject property was vacant land before the armory was built. Adjacent properties consisted of residential structures and a Roman Catholic Church. Sanborn maps revealed that a National Guard Armory occupied a small office space on Main Street near the intersection of Cherokee Street. This property is separate from the property being investigated in this Targeted Brownfield Assessment. Heather Mallory attempted to investigate the former National Guard Armory on Main Street at the local genealogical library and the local museum. Neither place had heard of an armory in Wagoner in 1917. The genealogical library did state that a cabinet shop named Kloehr Patterns Inc. currently occupies the building. Heather Mallory with the

DEQ drove by and confirmed that the building is still standing and that the current occupant is Kloehr Patterns Inc. During the interview on July 19, 2008 with Blaine Davis, former supply sergeant, Heather Mallory asked about the 1917 armory. Blaine Davis did not know about the old armory. Davis stated that before the 1970's, the National Guard in Wagoner used an outdoor firing range near Muskogee, Oklahoma. Davis stated that no weapons fire would have occurred at the armory on Main Street for that reason.

- No National Priority List (NPL), delisted NPL sites, active or archived Comprehensive Environmental Response, Compensation, and Liability Information Search (CERCLIS) site listings, Resource Conservation and Recovery Act (RCRA) non-corrective action sites (CORRACTS) treatment, storage, and disposal (TSD) listings, Emergency Response Notification System (ERNS) list, Institutional Controls/Engineering Controls, or State landfills and/or solid waste disposal sites were found on the subject property or within the ASTM recommended search radii. No RCRA generators, Voluntary Cleanup (VCP) sites, or Brownfield sites were found on the subject property. The subject property is on the DEQ Site Cleanup Assistance Program (SCAP) list for cleanup of lead and asbestos contamination. There were seven RCRA CORRACTS listed within one mile of the subject property.
- Three leaking underground storage tank (LUST) cases were reported in the Oklahoma Corporation Commission's (OCC) UST database within ½ mile of the subject property. No LUST cases were reported on the subject property.
- Twenty-five underground storage tank sites were found within a ½ mile radius of the subject property. The UST sites are located east, west, southwest, and northwest of the subject property. The USTs located to the east are downgradient of the subject property. The remainders of the UST sites are upgradient of the subject property. The closest USTs to the subject property are located within one or two blocks from the subject property and are listed as permanently out of use. It is unknown if those tanks have been removed. Of the twenty-five USTs, three sites have current and historic leaking underground storage tank cases. Only one LUST case is upgradient of the subject property and is located 6 blocks east of the subject property. This site has a historic LUST case on record and the UST has been removed. The subject property does not have any LUST cases on record. The UST at the subject property was removed on July 25, 1995 according to Oklahoma Corporation Commission (OCC) records. The tank did not appear to have any leaks upon removal. Soil samples showed minimal gasoline range organics and no diesel range organics present in the UST excavation.
- No oil and gas development was found in the OCC oil and gas records for the subject property and quarter, quarter, quarter sections directly above and upgradient of the site.
- Two pole mounted transformers, in good condition without any leaks, are located on the east side of the armory building. It is unknown if these transformers contain polychlorinated biphenyls (PCBs). Fluorescent lighting ballasts are located throughout

the building. The lighting ballasts are all in good condition. It is unknown if the lighting ballasts contain PCBs.

2.0 INTRODUCTION

The State of Oklahoma Department of Environmental Quality under a Brownfield Assistance Agreement (No. RP976412010) (Ref. 1) with the U.S. Environmental Protection Agency (EPA) conducted a Targeted Brownfield Assessment of a property located at 511 E. Cherokee Wagoner, Oklahoma.

2.1 Purpose

The purpose of this assessment is to look at the environmental conditions within the target area and provide this information to the City of Wagoner as well as meet the All Appropriate Inquiry requirement of the landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, better known as Superfund – Ref. 2), as provided in the Small Business Relief and Brownfield’s Revitalization Act of 2002 (Public Law 107-118, Subtitle B – Ref. 3). The purpose of a Phase I Environmental Site Assessment is to identify, to the extent feasible, recognized environmental conditions in connection with the target property through a systematic review of readily available information sources and a site reconnaissance.

DEQ is providing technical assistance to the project by evaluating the environmental condition of the property prior to the City acquiring the property. Funding for this assessment has been provided by the U.S. Environmental Protection Agency (EPA).

2.2 Detailed Scope-of-Services

DEQ examined the current use of the property and then identified the historical uses of the property to determine if recognized environmental conditions exist. DEQ examined historical documents, governmental databases, oil and gas records, aerial photographs, Sanborn Fire Insurance Maps, and conducted interviews and a site reconnaissance of the area. DEQ also hired a contractor to conduct asbestos, lead-based paint, and lead dust assessments. A good faith effort was made to identify possible environmental conditions that might affect the development of the property.

2.3 Significant Assumptions

History and knowledge of the subject property shows that the building was used as a National Guard Armory. Prior to armory construction in 1936, the property was vacant land owned by the neighboring Holy Cross Catholic Church. There has been no oil and gas exploration on the property according to Oklahoma Corporation Commission records.

Since the building was constructed in 1936, the building is likely to contain ACM. The U.S. began banning the use of asbestos in most building materials in the 1970s due to studies confirming the harmful health effects caused by exposure to airborne asbestos. Sampling of caulking around the window panes revealed that this material contains asbestos (see Appendix F).

2.4 Limitations and Exceptions

The purpose of an environmental site assessment is to identify actual or potential “recognized environmental conditions” that may result in liability, land use restrictions, or cause delays in revitalization. The ASTM Phase I Environmental Site Assessment E 1527 – 05 (Ref. 4) is the minimum standard for environmental due diligence in the commercial real estate industry and meets the standard for All Appropriate Inquiry under the Small Business Liability Relief and Brownfields Revitalization Act of 2002. A diligent effort in accordance with generally accepted good commercial and customary standards and practices was undertaken to identify the “recognized environmental conditions” that might affect the revitalization project. However, the identification of old hazardous waste sites is an evolving process; therefore, DEQ cannot state with absolute certainty that no other potential hazardous waste sites are located in the area. This assessment was conducted under constraints of time, cost, and scope and reflects a limited investigation and evaluation. It reflects the normal degree of care and skill that is ordinarily exercised by environmental professionals conducting business in this or similar localities. In no event shall the DEQ or its employees be liable for any damages, injury, loss, cost or expense whatsoever arising in connection with the use or reliance on the information contained in this report, except as otherwise provided by law.

The information in this report is based on a review of governmental records, interviews with knowledgeable representatives of the property, and observations of the environmental professional. The result of this assessment, as written in this report, is valid as of the date of report. The assessment does not include sampling of rock, soil, groundwater, surface water, or air. For qualifications of environmental professionals see Appendix G.

2.5 Special Terms and Conditions

This assessment report has been prepared for the City of Wagoner, Oklahoma by the DEQ using EPA funding. Information about this report will be provided to the EPA for its files. This report and the working file are public record and subject to the Oklahoma Open Records Act and the federal Freedom of Information Act.

3.0 SITE CHARACTERIZATION AND HISTORY

3.1 Location and Legal Description

The subject property is located in the northeast quadrant of North Jefferson Avenue and East Cherokee Street in Wagoner, Oklahoma. This property consists of approximately

1000 square feet of land and contains the former National Guard Armory building. A site map and topographical map depicting the property has been provided in Appendix A and Appendix B respectively.

The subject property is located in section 10, township 17N, and range 18E. The armory building's legal location is described as lot 8 and the east 65 feet of lot 7 in block 291, in the City of Wagoner, Wagoner County, Oklahoma.

Records at the Wagoner County Courthouse were searched to determine ownership and operational history of the subject property. It was determined that the property was previously owned by the Roman Catholic Church and deeded to the Oklahoma National Guard in 1935.

3.2 Site and Vicinity Characterization

The former Wagoner Armory was built in 1936 by the Works Progress Administration. According to Wagoner County land records, the land for the building was deeded by the Roman Catholic Church to the State of Oklahoma, on October 4, 1935, for benefit of the Oklahoma National Guard (see Appendix A). The subject property is a small tract of land less than an acre in size. Vehicle maintenance, fueling, small arms fire, and storage occurred onsite. The subject property is located at 511 E Cherokee in Wagoner, Oklahoma bound by Second Street on the north, Cherokee Street on the south, Jefferson Avenue on the east, and State Street on the west. The areas where the subject property and adjacent properties are located are best characterized by residential and commercial development. A site vicinity map of the subject property can be found in Appendix A.

Lead dust, lead-based paint, and asbestos were discovered on the subject property by DEQ contractor, Marshall Environmental Management. Sample results for the lead-based paint, lead dust, and asbestos inspections can be found in Appendix F.

Utilities that serve the subject property are Oklahoma Gas and Electric for natural gas and the City of Wagoner for water, sewer, and electric according to Blaine Davis, former supply sergeant at the Wagoner Armory, and Oklahoma Corporation Commission records (Ref.11). According to the Oklahoma Water Resources Board Water Information Mapping System, the subject property is served by the Wagoner County Rural Water District number 6.

A review of the topographical map indicated that the surface elevation of the site is approximately 590 feet above mean sea level. The topographical gradient is to the northeast, toward Fort Gibson Lake. Fort Gibson Lake is located approximately 1.5 miles northeast of the site. The topographical map can be found in Appendix B.

Underground features at the subject property include utility lines. The UST was removed on July 25, 1995. The UST vent pipe remains on the subject property. The former UST was a 1,000 gallon, asphalt coated or bare steel tank with steel piping that was installed in 1957. Soil testing after tank removal revealed 2.22 and 6.44 mg/kg of gasoline range

organics in the tank excavation pit. Before removal, the UST was last used on October 15, 1983. See Appendix C for information on UST removal.

3.3 Description of Structures, Roads, and Other Improvements

The subject property consists of approximately two city lots. The two city lots are used to house the former armory building, driveway, and sidewalk. The driveway is located on the east side of the building and is a paved area leading to the overhead doors that are attached to the building. The sidewalk is located on the south side of the building.

The adjacent property to the north consists of a shopping center and other commercial properties, automatic teller machine, and residential property. The commercial property consists of Family Eye Care, State Farm Insurance, a chiropractic clinic, appliance service, and an antique shop. The adjacent property to the south is residential. The property to the east is the American Legion building. The property to the west contains a wedding chapel, parking lot, and funeral home.

3.4 Owner, Property Manager, and Occupant Information

The Oklahoma Department of Environmental Quality currently owns the subject property. After all remediation activities have taken place and a notice of remediation and easement has been filed in the Wagoner County courthouse, the deed to the property will be transferred to the City of Wagoner.

3.5 Information Reported by User Regarding Environmental Lien or Specialized Knowledge or Experience

Before transfer of property to the DEQ, the Oklahoma Military Department (OMD) reported no environmental liens on the subject property. OMD did disclose that the military used the basement of the building as a firing range. OMD also mentioned that the building could contain asbestos and lead-based paint due to the age of the building. The Environmental Office of OMD performed a Limited Environmental Baseline Assessment (LEBA) of the Wagoner Armory (Ref. 12) and the OMD contractor, C.H. Guernsey & Company, sampled lead dust in the IFR and surrounding area (Ref. 17). A copy of the LEBA can be found in Appendix C and the Guernsey report can be found in Appendix F. The LEBA details the conditions found in the armory when it was in active use by the Oklahoma Army National Guard. The Guernsey report provides a brief narrative, a map of the IFR, and sample results.

3.6 Commonly Known or Reasonably Ascertainable Information

It is commonly known within the community that the building was used as a National Guard Armory by the Oklahoma Army National Guard. The building was used to house equipment for disaster response and the basement was used as a firing range. The LEBA identifies several chemicals formerly housed in the building. The armory formerly contained the following chemicals: primer, adhesive, air freshener, liquid wrench,

cleaning supplies, decontamination agent canisters, isopropyl alcohol, batteries, and grease for grease guns (Appendix C, Ref. 12). During the June 19, 2008 site visit by the DEQ, pine oil and pine soap were the only chemicals found in the building.

3.7 Valuation Reduction for Environmental Issues

Valuation of the property is outside the scope of this assessment. A professional appraiser should be consulted to place a value on the property.

3.8 Current Use of the Property

The armory building is currently vacant and has been for approximately two years.

3.9 Past Use of the Property

3.9.1 Review of Aerial Photographs

Historic aerial photographs were searched to view the changes to the property over time. The 1940 and 1952 aerial photographs were obtained from the Oklahoma Department of Libraries archives. All other aerial photographs were obtained from the DEQ digital database of archived and present-day aerial photographs. Aerial photographs from 1940, 1952, 1995, and 2003 were obtained. The digital photographs showed more detail, because they are higher resolution photography and can be digitally enlarged. All of these photographs are located in Appendix B. The following represents a summary of what was found at the subject property from each aerial photograph.

1940 Aerial Photograph

The 1940 aerial photograph shows the subject property to be in an area of downtown Wagoner, Oklahoma near the county courthouse. The photograph shows buildings on adjacent properties as well as a vacant property to the northeast of the armory property. Buildings on adjacent properties appear to be residences and businesses. No apparent environmental conditions were noted from the photograph.

1952 Aerial Photograph

The 1952 aerial photograph shows the subject property to be in an area of downtown Wagoner, Oklahoma near the county courthouse. There is no change on the subject property. The photograph shows buildings on all adjacent properties. Buildings on adjacent properties appear to be residential and commercial. Additional buildings have been built compared to the 1940 aerial photograph. No apparent environmental conditions were noted from the photograph.

1995 Aerial Photograph

It is difficult to determine the change between the 1952 and 1995 aerial photographs, due to the heavy tree growth in the area and poor resolution of the 1952 aerial photo. The 1995 aerial photograph shows residential and commercial structures on all adjacent properties. There is no change on the subject property. Construction and development appears to be occurring to the east and southeast of the armory building. No apparent environmental conditions were noted from the photograph.

2003 Aerial Photograph

The 2003 aerial photograph shows little change on the subject property. A new building has been built to the east of the armory building. New buildings and parking lots have been built in the areas that showed construction and development to the east and southeast of the armory building. All other adjoining properties appear to be the same as in 1995. No apparent environmental conditions were noted from the photograph.

3.9.2 Fire Insurance Maps

Sanborn Fire Insurance maps were viewed for Wagoner, Oklahoma and downloaded from the University of Oklahoma Libraries website (Ref. 5). Sanborn maps of the subject property and adjoining properties were found for 1900, 1901, 1905, 1910, and 1917. All of the Sanborn maps are located in Appendix C along with the two map legends used to decipher the maps. The following represents a summary of what was found at the subject property and adjoining properties from each Sanborn map. The 1894, 1896, and 1898 Sanborn maps do not show the area where the subject property resides and therefore were omitted from this report.

1900 Sanborn Map

Sheet 5 of the 1900 Sanborn shows the location where the subject property is located. The subject property is located in the northwest quadrant of Cherokee and Jefferson Streets. During this time, the subject property had a dwelling, a wood shed, and two stables on the property and some vacant land. The property to the west of the subject property contains a Roman Catholic Church. To the south is a vacant two-story brick building with a stone front, two dwellings, and two stables. The properties to the north and east are not shown on the 1900 Sanborn map.

1901 Sanborn Map

Sheet 5 of the 1901 Sanborn shows little change in the subject property and adjacent properties compared to the 1900 map. To the south of the subject

property, two wood outbuildings have been added behind the two existing dwellings show on the 1900 map. No changes have been made to the property to the west. The properties to the north and east are not shown on the 1901 Sanborn map.

1905 Sanborn Map

Sheet 5 of the 1905 Sanborn shows a concrete reinforced dwelling, outbuilding, and stable on the subject property. The smaller stable and the wood outbuilding shown on the 1901 Sanborn Map have been removed from the subject property. The remaining stable is being modified since 1901 and now has two solid walls and a framed wall in the front. The vacant land on the subject property has not changed from the 1901 Sanborn Map. The structures described above are most likely associated with the Roman Catholic Church to the west as the property was owned by the church at that time. No changes have been made to the property to the west when compared to the 1900 and 1901 Sanborn maps. To the south of the subject property is a Christian Church, a boarding house with a shed, vacant lots, a dwelling with a 1,000 gallon water tank, and two stables. The vacant building shown in the 1901 map has been removed and the Christian Church has been built to the west of the former vacant building. The properties to the north and east are not shown on the 1905 Sanborn map.

1910 Sanborn Map

Sheet 5 of the 1910 Sanborn shows that the buildings on the subject property have been removed and the property is now vacant. The property to the west of the subject property has not changed with the exception of a vacant dwelling being added to the north of the Roman Catholic Church. All structures to the south are the same with the exception of a dwelling that was built to the south of the Christian Church. The properties to the north and east are not shown on the 1910 Sanborn map.

1917 Sanborn Map

An additional Oklahoma Army National Guard Armory is shown on the map at W. Cherokee and N. Main. This is a different building than the subject property being investigated and is not associated with the subject property. The 1905 and 1910 Sanborn maps were consulted to examine this property over time. These maps revealed that the building was part of the former Wagoner Lumber Company (Appendix C).

The subject property is shown as vacant land on sheet 12 of the 1917 Sanborn map. The property to the west has not changed. The property to the south, shown on sheet 8, has several changes compared to the 1910 Sanborn map. Changes include removal of the water tank near a dwelling, removal of the shed and stable to the south of the boarding house, two sheds have been built near the dwelling near the remaining stable, and remodeling of the boarding house, Christian

Church, and dwelling to the south of the Christian Church. The property to the north (sheet 12) contains three dwellings and three garages. The property to the east (sheet 12) contains vacant land, two dwellings, a garage, a stable, and an outbuilding.

3.10 Current and Past Uses of Adjoining Properties

As discussed above, Sanborn maps were consulted to determine past uses of adjoining properties. The properties to the north and east of the subject property were residential in nature. The property to the south of the subject property formerly contained a Christian Church, boarding house, vacant lots, and unnamed buildings. The property to the west of the subject property formerly contained a Roman Catholic Church.

During the site visit on June 19, 2008, adjoining properties were observed to contain the following. To the north of the subject property is an alleyway and residential area. The property to the south has a strip mall with a family eye care clinic, State Farm insurance, chiropractic clinic, appliance service, and antique shop. The property to the east has an American Legion building. To the west of the subject property is a wedding chapel, parking lot, and funeral home (in the building of the former Catholic Church).

3.11 Environmental (Physical) Setting

DEQ reviewed several sources to obtain information on the physical setting of the subject property and its surrounding areas. These sources include: The United States Department of Agriculture Wagoner County Soil Survey, Oklahoma Geological Survey Hydrologic Atlas, and the Federal Emergency Management Association. Review of the physical setting of the area is to evaluate the sensitivity of the hydrogeology to potential contamination from sources either on or near the site.

3.11.1 Surface Water Characteristics

The subject property is located in Wagoner, Oklahoma, which is in Wagoner County. The climate in Wagoner, Oklahoma is humid and receives above average rainfall, about 42 inches per year. The temperature usually ranges from 32°F to 100°F during the winter and summer respectively (Ref. 6). Primary surface water bodies in Wagoner County include the Arkansas River, Verdigris River, Grand Neosho River, and Fort Gibson Reservoir. The Arkansas River forms part of the southern boundary of the county. The Verdigris River is east of Wagoner, Oklahoma. The Grand Neosho River and Fort Gibson Reservoir are located to the east of Wagoner, Oklahoma.

No surface water bodies are on the subject property or the adjoining properties. According to the Federal Emergency Association, the subject property and adjoining properties are in an area determined to be outside the 500-year floodplain (Ref. 7). A map of this information is located in Appendix C. No wastewater discharge permits were located within 1 mile of the subject property.

3.11.2 Soil Characterization

The subject property is located within the Dennis-Taloka-Okemah soil association. It is characterized by deep, nearly level to gently sloping, moderately well drained and somewhat poorly drained soils on uplands. The soil type on the subject properties is the Okemah silt loam. This soil type is nearly level and located on uplands. The soil profile is silty in the top 23 inches and silty-clay from 23 to 34 inches. This soil is suitable for crops and tends to erode (Ref. 6).

3.11.3 Subsurface Geological Characterization

Subsurface geology near the subject property primarily consists of the McAlester and Hartshorne Formations. The McAlester and Hartshorne Formations are comprised of shale, sandstone, and coal. The formations yield water of poor quality (Ref. 8).

3.11.4 Ground Water Characteristics

The groundwater near Wagoner, Oklahoma typically has poor to fair chemical quality. This area is underlain by shale, siltstone, and sandstone and some terrace deposits. The water tends to contain high concentrations of total dissolved solids, chloride, and sulfate. Water can be highly mineralized if contained within coal beds. Groundwater wells near Wagoner, Oklahoma produce from 5 to 22 gallons per minute (gpm) (Ref. 8).

3.11.5 Air Characteristics

No air emissions were noticed at the subject property or the adjoining properties. Blain Davis, former supply sergeant, had no knowledge of any air emissions on the subject property (Ref. 13). During the site visit, a musty odor was noticed inside the building, there was a pine oil odor in the latrines, and a cooking grease odor was noticed in the storage area near the kitchen. No odors were noticed outside of the subject property during the site visit. There is a potential for lead dust and asbestos emissions from the subject property.

The following facility was located within 1 mile of the subject property and was listed on the DEQ Air Quality air emissions inventory on the DEQ Dataviewer (Ref. 14). The Wagoner Facility (Facility ID 2288) located on 400 S.E. 15th Street, is located approximately one mile north of the subject property. According to a memo written by Herb Neumann from the DEQ Regional Office at Tulsa, the facility is operated by UNARCO and manufactures shopping carts (Ref. 19). According to the company's website, UNARCO has manufactured shopping carts in Wagoner, Oklahoma since 1937(Ref. 20). For more information on facility operations and emissions, see the DEQ Air Emission Memo in Appendix C. The facility emits nitrogen oxides, carbon monoxide, sulfur dioxide, volatile organic

compounds, and (PM₁₀) particulate matter fraction with a 50% cutoff aerodynamic equivalent diameter of $\leq 10 \mu\text{m}$ (Ref. 19).

4.0 RECORDS REVIEW

A regulatory database search was conducted by the DEQ. This search included, at a minimum, those records and distances from the site dictated as appropriate in the ASTM standard. The DEQ performed a review of available federal and state databases to assess whether the subject property or proximate properties were listed as having environmental concerns, which could have an adverse impact on the subject property. The following provides a summary of the databases reviewed.

4.1 Federal National Priorities List (NPL)

The EPA database was searched for NPL sites near the subject property within the ASTM's recommended search radius of one mile. The subject property is not a listed NPL site. There are no NPL sites reported within a one-mile radius of the subject property.

There is also an EPA database for Delisted NPL sites, which ASTM requires to be reported within ½ mile of the subject property. No delisted NPL sites are within the ½ mile search radius.

4.2 Federal CERCLIS List

The EPA database for Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Information Service (CERCLIS) was searched for active and archived CERCLIS sites on and near the subject property. The ASTM's recommended search radius of the subject property for both active and archived CERCLIS sites is ½ mile. No active or inactive CERCLIS sites were found within ½ mile of the subject property (Ref. 9).

4.3 Federal RCRA CORRACTs List

The EPA database for Resource Conservation and Recovery Act (RCRA) facilities subject to corrective action were searched within the ASTM's required minimum distance of one mile of the subject property. Seven RCRA CORRACT facilities are within the one-mile radius of the subject property. A list of the facilities is as follows. A map of the facilities is shown in Appendix C. No specific information was given regarding the type of corrective action at the sites (Ref. 10).

Handler Name	Address	City
Amtek Prestolite Motors	305 S. McQuarrie	Wagoner
Prestolite Electric Incorporated	300 S.E. 15th St.	Wagoner
Stacy's Motor Company	705 W. Cherokee	Wagoner
Tracy's Body Shop	407 W. Cherokee	Wagoner
Union Pacific Rail Road	302 S. Main St.	Wagoner
City of Wagoner	300 S.E. 3rd St.	Wagoner
Wagoner Transmission	310 S.E. 2nd St.	Wagoner

4.4 Federal RCRA non-CORRACTS TSD List

The EPA database for RCRA facilities not subject to corrective action was searched within the ASTM's required minimum distance of ½ mile of the subject property. No RCRA non-CORRACT Treatment, Storage and Disposal (TSD) sites are within the ½ mile radius of the subject property (Ref. 10).

4.5 Federal RCRA Generators List

DEQ RCRA Notifiers database was searched for RCRA generators within the ASTM's required minimum search distance of the subject property (Ref. 15). The minimum distance is the property and adjoining properties. The subject property did not have any RCRA notifiers or generators and none are known on adjacent properties. The list of RCRA notifiers for Wagoner, Oklahoma is in located in Appendix C.

4.6 Federal ERNS List

Emergency Response Notification system (ERNS) maintained by the National Response Center was searched for any hazardous substance releases or spills within the subject property. ASTM requires a minimum search distance of property only when identifying ERNS cases. No ERNS sites were reported within the property or the adjoining properties. The ERNS data is included in Appendix C.

4.7 Federal Institutional Control/Engineering Control Registries

There are no known Institutional Controls/Engineering Controls on the subject property according to the owner and representatives of the subject property. Federal Institutional Control Registries are still under development.

4.8 State-Equivalent NPL

DEQ does not have a State-equivalent NPL database. Oklahoma does not have a State Superfund law to establish a State-equivalent NPL database.

4.9 State-Equivalent CERCLIS

DEQ does not have a State-equivalent CERCLIS database.

4.10 State Landfill and / or Solid Waste Disposal Sites

DEQ regulates landfills and solid waste disposal sites across the State of Oklahoma. State landfills and solid waste disposal facilities were searched in the DEQ database within the ASTM required minimum distance ½ mile from the subject property. No permitted landfills or solid waste disposal facilities are located within the search distance of the subject property (see Radius Map in Appendix C). No landfills, dumping, or disturbed soil were noticed on the subject property during the DEQ site visit on June 19, 2008.

4.11 State Leaking UST List

The Oklahoma Corporation Commission UST Notification Database was searched to locate any known LUST sites located within the ASTM's minimum search distance of a ½ mile of the subject property. Twenty-five LUST sites were found within the ½ mile radius. The following sites are listed and described below.

FacilityID	Name	Address	# Tanks	# ASTs	LUST	Tank Status
7301714	CIRCLE K STORE #2677	902 E. CHEROKEE	2			Permanently Out of Use
7302694	STACYS MOTOR CO	705 W CHEROKEE	1			Permanently Out of Use
7302850	GEORGE JONES	401 E CHEROKEE	8			Permanently Out of Use
7303205	ALL STOP #2	701 W CHEROKEE ST	3			Currently in Use
7304470	EAST STOP FOOD	1303 S MCQUARRIE AVE	3			Currently in Use
7305335	KERR MCGEE SERVICE STATION	1105 W CHEROKEE	3			Permanently Out of Use
7305798	CO B (-) 120 ENGR	511 E CHEROKEE	1			Permanently Out of Use
7306359	S & S SERVICE STATION	313 N BLAKE	2			Permanently Out of Use
7306793	KWIKWAY OF WAGONER INC	701 E CHEROKEE	5		X	Permanently Out of Use
7308534	WAGONER LIQUOR	607 E CHEROKEE	2			Permanently Out of Use
7308567	MAVERICK MINI MART #10	404 CHEROKEE	6		X	Permanently Out of Use
7308724	WAGONER PUBLIC SCHOOLS	710 N BEARDSLEY	2			Currently in Use
7309861	FORMER BOB'S FISH N FOWL REST	1211 S MCQUARRIE	1			Permanently Out of Use
7310844	MAINTENANCE LOT	132 N MAIN	1			Permanently Out of Use
7311051	KUM & GO #991	2221 W HWY 51	3			Currently in Use
7311715	GREEN COUNTRY GROCERY	1110 S MCQUARRIE	4		X	Permanently Out of Use
7311791	WILLIAMS STATION	110 S STATE	5			Currently in Use
7311905	MCQUERRIE SHOPPING CENTER	1023-1029 S MCQUERRIE	1			Permanently Out of Use
7311973	WAGONER CENTRAL OFFICE	812 E CHEROKEE	2			Permanently Out of Use
7312448	ROCKY POINT TRADING POST INC	68315 S 320 RD	2	1		Currently In Use
7312996	LAKE REGION ELECTRIC COOPERATIVE	203 W CHEROKEE	1			Permanently Out of Use
7320752	BILCO PETROLEUM INC	204 SE 3RD STREET		6		Temporarily Out of Use
7320760	PLANT 21 WAGONER	9TH & DEWEY		1		Currently In Use
7321236	MALLETT FUNERAL HOME	423 E CHEROKEE	1			Permanently Out of Use
9921233	FORMER SERVICE STATION	1010 S MCQUARRIE	1			Permanently Out of Use

- Kwikway of Wagoner, located at 701 E Cherokee, is located one block east of the subject property. The site has a historical LUST case and an active LUST case. More information on the LUST case can be found in Appendix C. The LUST case Facility ID number is 7306793. The direction of groundwater flow is to the southeast, according to the topographic map. Therefore, it is unlikely that this spill has affected the subject property.
- Maverick Mini Mart #10, located at 404 Cherokee, is located approximately six blocks west of the subject property. The site has a historical release at the site. A UST was removed and soil was excavated from the pit. The following table shows contaminant levels left in place and the associated Oklahoma Corporation Commission cleanup levels. The LUST case Facility ID number is 7308567. It is unlikely that the spill affected the subject property due to the proximity of the release and direction of groundwater flow according to the topographic map.

Contaminant	Southwest Wall (ppm)	Southeast Wall (ppm)	OCC Cleanup Level (ppm)
Benzene	0.173	BDL ²	5
Toluene	0.411	BDL	400
Ethylbenzene	0.115	BDL	150
Xylenes	0.227	BDL	1,000
TPH ¹	53.2	0.629	500

¹ TPH – Total Petroleum Hydrocarbons

² BDL – Below Detectable Limits

Contaminant	Bottom of Pit (ppm)	OCC Cleanup Level (ppm)
Benzene	0.003	0.05
Toluene	0.001	10
Ethylbenzene	0.001	7
Xylenes	0.008	100
TPH	ND ³	10

³ND – Non Detect

- Green Country Grocery, located at 1110 S. McQuarrie, is located 0.8 miles to the southeast of the subject property. Elevated benzene levels in the soil and groundwater were discovered on February 12, 1999 during a UST removal. The highest level of benzene found in the soil was 2.5 ppm and in the groundwater was 5 ppm. Upon further investigation, it was determined that the source of the benzene was two 3,000 gallon USTs. Both of these tanks were removed in April of 2000. Research did not reveal sample results for contaminant concentrations left in place. The LUST case Facility ID Number is 7311715. It is unlikely that the spill affected the subject property due to the proximity of the release and direction of groundwater flow according to the topographic map.

4.12 State Registered UST Sites

The Oklahoma Corporation Commission UST Notification Database was searched to locate registered USTs located within the ASTM's minimum search distance of the subject property and its adjoining properties. The subject property formerly contained a 1,000 gallon gasoline UST on the property. The UST was removed July 25, 1995 from the subject property. No leaks were reported to the OCC for the UST. Following the tank removal the soil was sampled from the side and the center of the tank pit. Gasoline range organics were found in the soil at 2.22 mg/kg and 6.44 mg/kg respectively. Soil samples showed no diesel range organics present in the UST excavation. For a list of registered UST sites, see Section 4.11. For a map of UST sites near the subject property, see Appendix C.

4.13 State Institutional Control/Engineering Control Registries

The State Institutional Control/Engineering Control Registry is currently under development by the DEQ. There are no known Institutional Control/Engineering Controls in effect for this property.

4.14 State Voluntary Cleanup Sites

DEQ Voluntary Cleanup Program (VCP) database was searched for VCP sites within the required ASTM search distance of ½ mile of the former Wagoner Armory property. No VCP sites are located on or within ½ mile of the subject property (see Radius Map in Appendix C).

4.15 State Brownfield Sites

DEQ Brownfield database was searched for Brownfield sites within the required ASTM search distance of ½ mile of the former Wagoner Armory property (Ref. 16). No Brownfield sites were found within ½ mile of the former Wagoner Armory property.

4.16 Oil and Gas Records

DEQ determined that the subject property is located in the SW ¼ SE ¼ SW ¼ of Section 10 – T17N – R18E. DEQ performed a search of oil and gas records from the Oklahoma Corporation Commission's oil and gas records database and looked at Wagoner county land records at the Wagoner County Courthouse. The subject property is in an area where there is very little history of oil and gas development. Oil and gas records were searched to record the known history of well development on this site. A search area consisted of the property as described from the legal location above and the quarter, quarter, quarter sections directly above and upgradient of the site. No well records were found in the quarter, quarter, quarter sections directly above and upgradient of the site. County land records show a record of an affidavit of non-development in 1947 and a non-development notice issued by the OCC in 1973 (see Appendix A).

5.0 SITE RECONNAISSANCE AND INTERVIEWS

5.1 Methodology and Limiting Conditions

A site reconnaissance of the property located on the northwest corner of Jefferson Street and East Cherokee Street was performed on July 19, 2008. Heather Mallory and Dustin Davidson of the DEQ met the former supply Sergeant, Blaine Davis at the property. Mr. Davis served as the supply Sergeant at the Wagoner Armory for 38 years. Mr. Davis introduced Heather Mallory and Dustin Davidson to the site and answered questions to the best of his knowledge. Mr. Davis led Mallory and Davidson inside the building and gave his knowledge regarding the former use of the building and property and past activities that occurred onsite. All areas of the building were observed noting any

environmental conditions that might need additional investigation. The outside area of the property was examined thoroughly for observations that might need additional investigation. Soil samples were taken outside the vent fan and a water sample was taken from the indoor firing range/flooded basement.

5.2 General Site conditions

The former Wagoner Armory Property is composed of a rock building of approximately 28,000 square feet. The building is currently vacant. The property surrounding the building consists of an overgrown alleyway to the north; a paved vehicle ramp leading into the motor pool, a small gravel parking area, and grass to the east; grass and sidewalks to the south, and grass to the west. The property is in town and surrounded by paved streets. The following are general site conditions that were evaluated on the property and adjacent properties.

Aboveground Storage Tanks (ASTs)

The subject property does not have any ASTs. No ASTs were found on the adjacent properties during the site reconnaissance.

Landfills and/or Dumping

No landfills, dumping, or disturbed soil was found on the property. There is an empty dumpster onsite. This is accessible from the road and therefore could be a source of future dumping.

Impoundments

No impoundments were observed at the subject property.

Monitoring Wells

No monitoring wells are present on the property. According to the Oklahoma Water Resources Board well search, performed on December 4, 2008, there are three monitoring wells at the Kwickway filling station. These wells were installed on December 26, 2006 and May 17, 2007 for groundwater monitoring. These three wells are located downgradient of the subject property. See Appendix C for a map of OWRB wells found within 1 mile of the subject property. The map also shows another well to the south of the subject property, this is a geotechnical boring.

Disturbed and Stained Soils

No stained soils were observed at the subject property; however minimal soil disturbance was noted. Soil samples were taken by DEQ personnel outside of the IFR vent fan, below the sump pipe, and along the ditch leading from the sump pipe to the sidewalk. Inside the small ditch that runs from the indoor firing range (IFR) drain pipe to the front

of the property, distressed vegetation is present. This was only observed in the very bottom of the small ditch where water would flow periodically from the IFR and from rain events. Soil samples taken from the ditch revealed lead concentrations of 472 mg/kg at the top of the ditch, 71 mg/kg in the middle of the ditch, and 100 mg/kg at the end of the ditch. The sample point at the top of the ditch was located just below the outfall of the IFR sump pipe. The end of the ditch was deemed to be located where the ditch met the sidewalk. For a detailed sketch of the sample point locations see Appendix F.

Seeps

No seeps of any kind were observed at the subject property. However, a discharge pipe was observed leading from the IFR, along the west side of the building, and onto the grass. According to Blaine Davis, former supply sergeant at the armory, the pipe is attached to the sump pump in the basement. Davis claimed that no water will flow out of the pipe unless the sump pump is operating. Davis believed that all of the water flow from the IFR comes from the water level rising above the vent fan opening and flowing down the west side of the building, over the grass, and onto the street. No water was observed coming from the pipe during the site visit. During the site visit, the water level in the IFR was approximately 5 feet high and the vent fan opening was determined to be about 7 feet above the floor of the IFR. For pictures of the sump pipe see the site photographs in Appendix D and the Limited Environmental Baseline Assessment in Appendix C. See the Guernsey Report in Appendix F for photographs taken inside the indoor firing range in 2005.

Chemical Spills

Evidence of possible chemical spills on the subject property is as follows. Rust stains in room 13 and an oily residue were observed in Room 25 near the doorway (see map in Appendix A).

Farm Waste

No farm waste was observed at the subject property.

Known Pesticide Misapplication

No known pesticide misapplications were detected during the site visit or during the supportive research.

Discharges and Runoff from Adjacent Property Affecting the Site

According to Blaine Davis, rainwater runs off of the adjacent parking lot that is located to the west of the subject property. This rainwater runs into the IFR and down the west side of the building out into the street. The IFR eventually fills up with water and overflows out of the IFR vent fan window. DEQ observed that the IFR vent fan is about 10 feet downgradient of the parking lot; therefore Davis' claims seem valid. DEQ staff asked

Davis if groundwater infiltration was ever a problem in the IFR. Davis said that after being pumped out, the IFR would stay mostly dry until a rain event. Davis did say that minimal water seepage would occur if the ground was saturated from large rain events. DEQ observed pooled water and evidence of water seepage through cracks in the concrete floor throughout the building, this supports the possibility that shallow groundwater might be seeping into the building.

Petroleum Products and Oil and Natural Gas Exploration

No petroleum products or oil and natural gas exploration was observed during the site visit.

Asbestos

The building has limited asbestos containing materials. All asbestos containing floor tile and mastic has been removed from the building. No information was available on the removal of the floor tile. Marshall Environmental Management conducted an asbestos survey on July 19, 2008 and found asbestos only in the caulking around the windows of the building.

Lead

The building contains lead-based paint and lead dust. Marshall Environmental Management conducted lead-based paint and lead dust surveys on July 19, 2008 and found lead dust and lead-based paint throughout the building. Lead dust was found in every room except for the ammo section room. The indoor firing range was not sampled for lead dust and lead-based paint due to inaccessibility issues associated with flooding. Lead-based paint was found on doors, door frames, handrails, windows, window bars, wall trim, walls, overhead door frames, and downspouts in various places inside and outside of the building. DEQ sampled the water in the IFR and found no lead. DEQ also sampled soil outside of the firing range vent fan, below the sump pipe, and in the ditch below the sump pipe. Refer to "Disturbed and Stained Soils" section above for information about DEQ soil sampling. For more information on lead-based paint and DEQ sample results, see Appendix F.

Transformers/PCB Equipment

There were two transformers observed on the east of the subject property near Jefferson Street. One located near the corner of Cherokee and Jefferson streets and the other is located near the alleyway of the subject property. Both transformers are in good condition and have no damage. According to Blaine Davis (Ref. 13), the transformers are owned by the City of Wagoner. No Polychlorinated biphenyl (PCB) contamination or other PCB-containing equipment was found at the site.

Fluorescent lighting ballasts were found throughout the entire building. It is unknown if the ballasts contain PCBs. None of the ballasts appeared to have leaks.

5.3 External Observations

The external observations showed no recognized environmental conditions. The area is composed of a concrete driveway and overgrown alley with grass vegetation covering the rest of the site. North of the building there is an alleyway that is heavily vegetated with brush and poison ivy, oak, and sumac. Directly behind the alley is a residential area. The east side of the building consists of grass vegetation, a concrete driveway, and a vent pipe from the former UST. The UST was removed July 25, 1995 as shown in Appendix C. The south side of the building is vegetated with grass and has a concrete side walk. The west side of the building has a strip of grass running between the building and an adjacent parking lot. The IFR vent fan and drain pipe are located on the west side of the building. The drain pipe was observed by DEQ staff to run through the vent fan opening, along the west side of the building, and discharge approximately 40 feet to the south of the vent fan. Blaine Davis said that the drain pipe was connected to the sump pump inside of the IFR. Photographs of the external view of the site can be found in Appendix D.

5.4 Internal Observations

The building is currently vacant and was last used by the Oklahoma Army National Guard to support the military mission. The building was constructed from native rock in 1936 by the Works Progress Administration. Before construction of the armory building the land was owned by the former Catholic Church and was vacant land. During the site visit on June 19, 2008, small pools of standing water were observed in rooms throughout the building. Blaine Davis, former supply Sergeant at the armory, said that Wagoner receives so much rain that the ground stays saturated (Ref. 13). The saturated ground leads to water seeping through the floors and possibly the basement of the building. Approximately five feet of water was observed in the basement/indoor firing range during the site visit. A greasy substance was spilled in room 25; this is most likely cooking oil for the nearby kitchen according to Blaine Davis. Pools of rusty water were noted in room 13. Davis said that the rusty water was from rusty metal shelving that formerly resided in the room. Black mastic was observed in rooms 15 and 16, however these were found to not contain asbestos by Marshall Environmental Management. No recognized environmental concerns were found inside the building. Photographs of the internal view of the site can be found in Appendix D.

5.5 Interviews

Blaine Davis served as supply sergeant at the Wagoner Armory for 38 years before retiring. Since his retirement, he has been involved with the armory building and therefore is a good point of contact for knowledge of the building. Davis said that the Oklahoma Army National Guard (OKARNG) vacated the property approximately two years ago. Davis said that the OKARNG formerly used this building for all equipment needed to rebuild a town following a natural disaster. Davis stated that the building housed construction equipment, tools, gas masks, chemical suits, communication equipment, firearms, and a limited amount of chemicals. The chemicals used in the armory consisted of household cleaning agents, paint, and military decontamination

canisters. Davis stated that the main purpose of the armory was to store tools needed for disaster response. Davis said that heavy earth moving equipment and motor oil were stored in an off-site vehicle storage yard that was leased from Wagoner High School. This vehicle storage yard was formerly located on Second Street and is not considered part of the subject property. Legal documents show that the lease between the adjutant general of Oklahoma and Wagoner City Schools ended on June 30, 1970. According to Blaine Davis, the school removed the fencing from the vehicle compound when the National Guard vacated the armory property approximately two years ago. According to Blaine Davis, the pooled water throughout the building is due to the highly saturated ground in Wagoner, Oklahoma. Davis claims that Wagoner receives a large amount of rainfall each year. Davis stated that the IFR stays flooded year-round due to run off from the adjacent parking lot flowing into the IFR vent fan opening and seepage from the saturated soil. Davis stated that the Army National Guard had to turn on the sump pump to drain the IFR before each use. Davis said that a PVC pipe runs from the sump pump, along the ceiling, out the vent fan opening, along the west side of the building, and out onto the grass where it flows through a small ditch and out onto the street. The IFR was flooded and therefore inaccessible during the site visit. However, the water level was observed and estimated to be about 5 feet high. The pipe running out of the vent fan opening was observed during the site visit. Blaine Davis stated that the underground storage tank had been removed, but the vent pipe was left in place (Ref. 13). For more information on the site visit, see the notes and numbered floor plan map and description of each room in Appendix E.

6.0 FINDINGS

Summarized below are the major findings from this Targeted Brownfield Assessment and DEQ's recommendations. The major findings of the highest environmental concern are presented first.

- The former Wagoner Armory was built in 1936 by the Works Progress Administration. The land for the building was deeded by the Roman Catholic Church to the State of Oklahoma, on October 4, 1935, for benefit of the Oklahoma National Guard. The subject property is currently owned by the Department of Environmental Quality. After all remediation activities have taken place and a notice of remediation and easement has been filed in the Wagoner County, courthouse, the deed to the property will revert to the City of Wagoner.
- Historically, the subject property was used to house equipment needed for disaster response. Tools, heavy equipment, firearms, gas masks, chemical suits, and communication equipment were stored in the building. An indoor firing range was also onsite for target practice. The firing range is flooded with water and likely to have lead dust contamination. It is unknown if the firing range contains a sand trap. The building is contaminated with lead dust, lead-based paint, and asbestos and a portion of the outdoor soil is contaminated with lead. The Oklahoma Department of Environmental Quality Site Cleanup Assistance Program plans to cleanup the lead and asbestos contamination on the subject property and properly dispose of all associated waste. The

lead and asbestos contamination in the building and the lead contamination in the soil constitute a recognized environmental condition (REC).

- The Oklahoma Department of Environmental Quality Site Cleanup Assistance Program plans to cleanup the lead and asbestos contamination on the subject property and properly dispose of all associated waste.
- The property formerly contained a 1,000 gallon underground storage tank (UST) that was removed July 25, 1995. The vent pipe was left in place. Low levels of gasoline range organics were detected during the UST removal (2.22 mg/kg and 6.44 mg/kg) and diesel range organics were below detection limits. The former UST and associated contamination constitutes a historically recognized environmental condition (HREC).
- Adjoining properties consist of businesses, residences, and an American Legion meeting hall. Historical aerial photographs show residences and business surrounding the subject property.
- Sanborn Fire Insurance maps showed that the subject property was vacant land before the armory was built. Adjacent properties consisted of residential structures and a Roman Catholic Church. Sanborn maps revealed that a National Guard Armory occupied a small office space on Main Street near the intersection of Cherokee Street. This property is separate from the property being investigated in this Targeted Brownfield Assessment. Heather Mallory attempted to investigate the former National Guard Armory on Main Street at the local genealogical library and the local museum. Neither place had heard of an armory in Wagoner in 1917. The genealogical library did state that a cabinet shop named Kloehr Patterns Inc. currently occupies the building. Heather Mallory with the DEQ drove by and confirmed that the building is still standing and that the current occupant is Kloehr Patterns Inc. During the interview on July 19, 2008 with Blaine Davis, former supply sergeant, Heather Mallory asked about the 1917 armory. Blaine Davis did not know about the old armory. Davis stated that before the 1970's, the National Guard in Wagoner used an outdoor firing range near Muskogee, Oklahoma. Davis stated that no weapons fire would have occurred at the armory on Main Street for that reason.
- No National Priority List (NPL), delisted NPL sites, active or archived Comprehensive Environmental Response, Compensation, and Liability Information Search (CERCLIS) site listings, Resource Conservation and Recovery Act (RCRA) non-corrective action sites (CORRACTS) treatment, storage, and disposal (TSD) listings, Emergency Response Notification System (ERNS) list, Institutional Controls/Engineering Controls, or State landfills and/or solid waste disposal sites were found on the subject property or within the ASTM recommended search radii. No RCRA generators, Voluntary Cleanup (VCP) sites, or Brownfield sites were found on the subject property. The subject property is on the DEQ Site Cleanup Assistance Program (SCAP) list for cleanup of lead and asbestos contamination. There were seven RCRA CORRACTS listed within one mile of the subject property.

- Twenty-five underground storage tank sites were found within a ½ mile radius of the subject property. The UST sites are located east, west, southwest, and northwest of the subject property. The USTs located to the east are downgradient of the subject property. The remainders of the UST sites are upgradient of the subject property. The closest USTs to the subject property are located within one or two blocks from the subject property and are listed as permanently out of use. It is unknown if those tanks have been removed. Of the twenty-five USTs, three sites have current and historic leaking underground storage tank cases. Only one LUST case is upgradient of the subject property and is located 6 blocks east of the subject property. This site has a historic LUST case on record and the UST has been removed. The subject property does not have any LUST cases on record. The UST at the subject property was removed on July 25, 1995 according to Oklahoma Corporation Commission (OCC) records. The tank did not appear to have any leaks upon removal. Soil samples showed minimal gasoline range organics and no diesel range organics present in the UST excavation.
- No oil and gas development was found in the OCC oil and gas records for the subject property and quarter, quarter, quarter sections directly above and upgradient of the site.
- Two pole mounted transformers, in good condition without any leaks, are located on the east side of the armory building. It is unknown if these transformers contain PCBs. Fluorescent lighting ballasts are located throughout the building. The lighting ballasts are all in good condition. It is unknown if the lighting ballasts contain PCBs.

7.0 OPINION AND RECOMMENDATIONS

Due to the past use of the property and contamination found on the subject property, the environmental professionals working on this site believe that cleanup of lead and asbestos is warranted. Additional sampling of the outside soil may be warranted if further delineation of the soil contamination is needed. Several findings mentioned in Section 6.0 of this Phase I TBA report support this opinion.

DEQ feels there is a low potential of impact from the LUST cases due to the distance they are located from the site. None of these LUST cases were found on the adjoining properties either. The only LUST case that is upgradient of the subject property is located 6 blocks west of the subject property. This LUST case should not affect the subject property due its proximity. It is not believed that nearby UST sites pose a threat, because they are listed as permanently out of use and have no associated LUST cases. DEQ feels there is a low potential of impact to the site from the LUST and UST sites.

No archived CERCLIS site listings, RCRA generators, VCP sites, and Brownfield sites were found within the ASTM recommended search radii, indicating a low potential of impact to the subject property. Seven RCRA CORRACT sites were found within one mile of the subject property. One air emission facility was found within the recommended search radii. This

facility is located approximately one mile north of the subject property. DEQ feels that there is a low potential impact to the subject property from the air emissions at that facility.

8.0 DATA GAPS

No tribal information was obtained for this assessment. No tax records, city directories, or zoning records were reviewed for this report. However, this did not affect the ability of the DEQ to make a recommendation on the subject property. During the site visit, the basement was flooded and could not be inspected. This was a limiting condition with regard to the inspection of the property.

9.0 CONCLUSIONS

DEQ has performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E 1527-05 of the former Wagoner armory located at 511 E. Cherokee Wagoner, Oklahoma. Any exceptions to, or deletions from, this practice are described in Section [10.0] of this *report*. This assessment has revealed no evidence of *recognized conditions* in connection with the *property* except for the following: former UST on the property, lead contaminated soil, and lead dust, lead-based paint, and asbestos contamination throughout the building.

The information provided in this assessment is to assist the City of Wagoner in its revitalization planning as well as meet the All Appropriate Inquiry requirement of the landowner liability protections under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, better known as Superfund – Ref. 2), as provided in the Small Business Relief and Brownfields Revitalization Act of 2002 (Public Law 107-118, Subtitle B – Ref. 3).

10.0 ADDITIONAL SERVICES

Additional services provided in this Phase I Targeted Brownfield Assessment include soil, surface water (in indoor firing range), asbestos, lead-based paint, and lead dust sampling by DEQ and its contractors.

11.0 DEVIATIONS

The following deviations from ASTM Practice E 1527-05 occur in this Phase I Targeted Brownfield Assessment. Asbestos and lead paint were sampled and the corresponding results were included in this report. Normally, sampling is not included in a Phase I Environmental Assessment, but it was in this case. No tax records, city directories, or zoning records were reviewed for this report.

12.0 REFERENCES

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13.0 APENDICIES

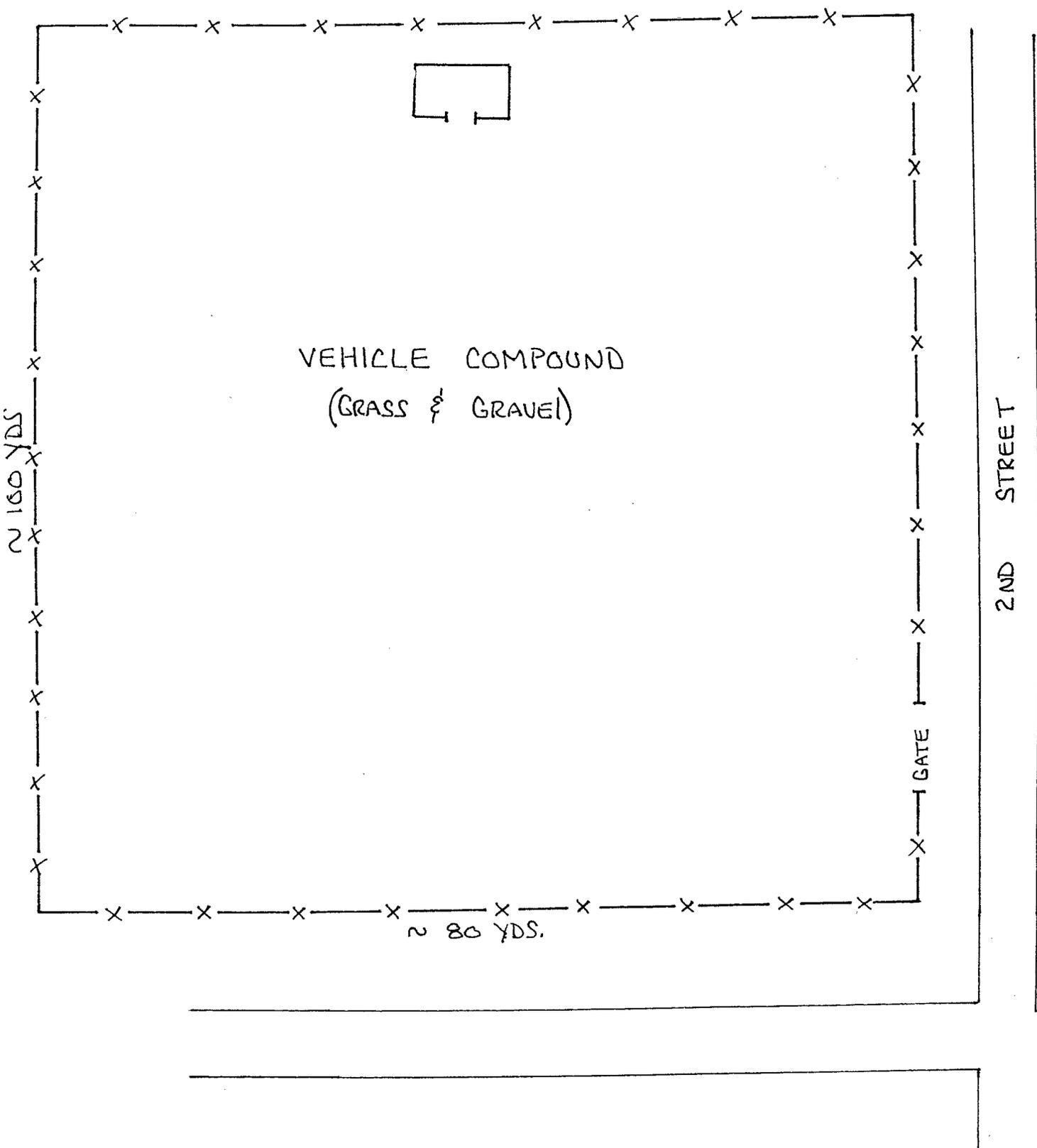
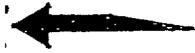
- Appendix A Site Map and Legal Documents
- Appendix B Aerial Photographs and Topographic Maps
- Appendix C Review of Regulatory Records
- Appendix D Site Photographs
- Appendix E Site Visit Notes
- Appendix F Sample Results
- Appendix G Qualification(s) of Environmental Professionals

Appendix A – Site Map and Legal Documents

Floor Plan Maps

WAGONER VEHICLE COMPOUND

6 BLOCKS EAST OF ARMORY



VEHICLE COMPOUND
(GRASS & GRAVEL)

~ 160 YDS.

~ 80 YDS.

2ND STREET

GATE

Legal Documents

record February 15, 1944 and recorded in book 233 of Mortgages, at page 162, in the office of the County Clerk of Wagoner County, Oklahoma; the property hereby discharged and released from said mortgage lien being situate in Wagoner County, Oklahoma, and described as follows, to-wit:

South 24.3 feet of Lot 3 and the North 25.7 feet of Lot 4 in Block 387 in the City of Wagoner, Oklahoma.

Dated this 19th day of Sept., 1947.

W. W. Van Noy

ACKNOWLEDGMENT

STATE OF OKLAHOMA, WAGONER COUNTY, SS

Before me, the undersigned Notary Public in and for said County and State, on this 19th day of September, 1947, personally appeared W. W. Van Noy to me known to be the identical person who executed the within and foregoing instrument, and acknowledged to me that----executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

Witness my hand and official seal the day and year above written.

F. H. Boatright
Notary Public

My commission expires Dec. 8, 1949
(seal)

No. 5634

Compared

Filed for record in this Office of the County Clerk and Recorded Sep 22, 1947 at 2:45 P.M. Book No. 250 page 67. Edith Casaver, County Clerk (seal)

STATE OF OKLAHOMA
COUNTY OF WAGONER, SS

Fort Gibson Project

AFFIDAVIT OF NON-DEVELOPMENT

Arch Lancaster and Fletcher L. Young, each of lawful age being first duly sworn severally depose and say:

Each of said affiants states that he has resided in Wagoner County, Oklahoma continuously for the past 40 years, and 40 years, respectively.

Each of said affiants further states that he is well and personally acquainted and familiar with all of the following described lands situate in Wagoner County, Oklahoma, to-wit:

Indian Meridian
Township 16 North, Range 19 East
Sections Three (3), Four (4), Five (5), Six (6), Ten (10), Fifteen (15) and Sixteen (16)

Indian Meridian
Township 17 North, Range 18 East
Sections Two (2), Three (3), Ten (10) Eleven (11), Twelve (12), Thirteen (13), Fourteen (14), Fifteen (15), Twenty-three (23), Twenty-four (24), Twenty-five (25) and Thirty-six (36).

Indian Meridian
Township 17 North, Range 19 East
Sections Five (5), Six (6), Eight (8), Nineteen (19), Twenty (20), Twenty-one (21), Twenty-seven (27), Twenty-eight (28), Twenty-nine (29), Thirty (30), Thirty-one (31), Thirty-two (32), Thirty-three (33),

Indian Meridian
Township 18 North, Range 18 East
Sections Two (2), Three (3), Four (4), Eight (8), Nine (9), Ten (10), Eleven (11), Twelve (12), Thirteen (13), Fourteen (14), Fifteen (15), Sixteen (16), Twenty-one (21), Twenty-two (22), Twenty-three (23), Twenty-four (24), Twenty-five (25), Twenty-six (26), Twenty-seven (27), Thirty-four (34), Thirty-five (35), and Thirty-six (36)

Indian Meridian
Township 18 North, Range 19 East
Sections Two (2), Three (3), Four (4), Five (5), Six (6), Seven (7), Eight (8), Nine (9), Ten (10) Eleven (11), Fifteen (15), Sixteen (16), Seventeen (17), Eighteen (18), Twenty (20) Twenty-four (24), Twenty-six (26), Twenty-seven (27), Twenty-eight (28), Twenty-nine (29), Thirty (30), Thirty-four (34), Thirty-five (35) and Thirty-six (36).

and each knows of his own personal knowledge that there is not now being produced from said lands, or any part thereof, any oil, gas or other minerals, and each further knows that there has not been any production of oil, gas or other minerals on said lands, or any part thereof, at any time within the preceding One year.

Each of said affiants further states there is not now, and had not been for the past one year, any prospecting or drilling for oil, gas or other minerals upon any of said lands, or any part thereof.

Further affiants sayeth not.
Dated this 16 day of Sept., 1947.

Arch Lancaster
Fletcher L. Young

Compared

No. 7445

Filed Oct 15, 1935 at 4:00 P.M.
George Cochran County Clerk
By Zoe C. Hill Deputy (seal)

DEED GENERAL WARRANTY

KNOW ALL MEN BY THESE PRESENTS: That (Right Rev) Francis C.Kelly (D.D.) Bishop of the Roman Catholic Vicariate Apostolic of Oklahoma, as trustee, Party of the first part, in consideration of the sum of one dollar, and other good and valuable considerations, in hand paid, the receipt of which is hereby acknowledged, does hereby grant, bargain, sell and convey unto the State of Oklahoma, as trustee for the Oklahoma National Guard, party of the second part, the following described real property and premises, to-wit:

Lot 8 and the East 65 feet of Lot 7 in Block 291, in the City of Wagoner, Wagoner County, Oklahoma.

together with all the improvements thereon and the appurtenances thereunto belonging, and warrant the title to the same.

To have and to hold said premises unto the said party of the second part, its successors and assigns, for the use and benefit of the Oklahoma National Guard for ever, free, clear and discharged of and from all former grants, charges, taxes, judgments, mortgages and other liens and encumbrances of whatsoever nature.

Signed and delivered this 4th day of October, 1935.

Bishop of Oklahoma City & Tulsa, successor: Francis C.Kelly Bishop of the Roman Catholic Vicariate Apostolic of Oklahoma.
to (Rt. Rev) Theophile Meerschaert,

State of Oklahoma
Oklahoma County, SS:

Before me, a Notary Public in and for said County and State, on this 4th day of October, 1935, personally appeared (Right Rev) Francis C.Kelly (D.D.) Bishop of the Roman Catholic Vicariate Apostolic of Oklahoma, as trustee, to me well known to be the identical person who executed the within and foregoing instrument, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

Witness my hand and official seal the day and year last above written.

My commission expires Apr. 6, 1939

Sr. Mary Agnes Nash
Notary Public.

(seal)

Accepted by the undersigned, Charles F. Barrett, the Adjutant General of the State of Oklahoma, pursuant to Chapter 25, House Bill No. 226, of the Session Laws of the State of Oklahoma, for 1931.

This 9th day of October, 1935.

(seal)

Charles F.Barrett
Charles F.Barrett, Adjutant General
State of Oklahoma.

I, E.W.Marland, Governor of the State of Oklahoma, do hereby approve the above and foregoing acceptance, this 9th day of October, 1935.

E.W.Marland, Governor State of Oklahoma.

(seal)

No. 7451

Filed Oct 17, 1935 at 3:10 P.M.
George Cochran County Clerk
By Zoe C.Hill Deputy (seal)

ALIAS SATISFACTION OF MORTGAGE

KNOW ALL MEN BY THESE PRESENTS, That in consideration of full payment of the debt secured by a mortgage made by S.M.Parker and Ribbie Parker, his wife of One Hundred Fourteen and 66/100 dollars to The Pioneer Mortgage Company, of Topeka, Kansas, dated the 21st day of August, A.D. 1926, which is recorded in Book 194 of Mortgages, page 92, of the records of Wagoner County, Oklahoma, on the following described real estate;

SE 1/4 of NW 1/4 of Section 14, Township 16 North, Range 17 East

Satisfaction of such mortgage is hereby acknowledged by the undersigned, and the same is hereby released.

Dated this 3rd day of October, 1935.

Attest: J.E. Roseborough Secretary (seal)

THE PIONEER MORTGAGE COMPANY,
By Arch M. Catlin President.

State of Kansas, County of Shawnee, SS:

Be It Remembered, that on this 3rd day of October, 1935, before me, the undersigned, a Notary Public in and for the county and state aforesaid, personally appeared Arch M. Catlin to me known to be the identical person who subscribed the name of the maker thereof to the foregoing instrument as its President, and acknowledged to me that he executed the same as his free and voluntary act and deed, and as the free and voluntary act and deed of such corporation, for the uses and purposes therein set forth.

In ~~Witness~~ Testimony Whereof, I have hereunto set my hand and affixed my official seal, the day and year last above written.

My commission expires November 27th, 1935 (seal)

Lorraine Wingert Notary Public.

Witness (G. B. Budek) Charles F. Barrett, Adjutant General of Oklahoma City & Tulsa

Indexed.

BOOK 415 PAGE 464

952

STATE OF OKLAHOMA)
COUNTY OF WAGONER)
Filed for Record in the Office of the
COUNTY CLERK AND RECORDER

CERTIFICATE

OKLAHOMA CORPORATION COMMISSION
OIL AND GAS CONSERVATION DIVISION.

CERTIFICATE OF NON DEVELOPMENT.

FEB 26 1973

AT 1:15 pm O'CLOCK
JACK C. JONES, County Clerk
By Carl Ruyon Deputy

Upon Written Application of:

Name of Applicant Wagoner County Abstract Company Receipt No. 57593

For Firm or Company 219 East Cherokee Wagoner, Oklahoma

Dated February 22 19 73

The Corporation Commission of Oklahoma pursuant to the provisions of Section 1, Chapter 9, Title 17, Oklahoma Session Laws, 1951, issues this Certificate with reference to the Oil and Gas Lease described as follows, to-wit:

The E/2 of Section 9, all of Section 10, W/2 of Section 11, NW/4 of Section 14, all of Section 15, and the SE/4 of Section 16, Township 17 North, Range 18 East, Wagoner County, Oklahoma

Hereby certifies that the records of the Corporation Commission disclose that no Notice of Intention to Drill an Oil or Gas Well on said lands has been filed with the Commission; or in the event a Notice of Intention to Drill has been filed, there has been filed a Notice to Plug and a Plugging Record; and that no production from said lands has been reported to this Commission as required by Rules and Regulations in the past six months.

With the following exceptions: None

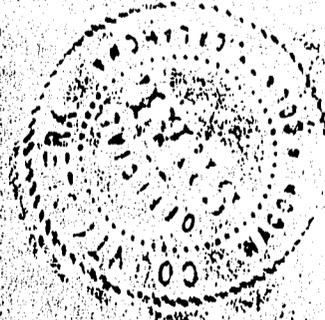
Signed this 23rd day of February 19 73

FOR CORPORATION COMMISSION OF OKLAHOMA

BY

Charles L. Edrill
CHAIRMAN

ATTEST
Carl Ruyon
SECRETARY



Appendix B – Aerial Photographs and Topographic Maps

Aerial Photographs

1995 Aerial Photo



0 0.025 0.05 0.1 0.15 0.2 Miles



2003 Aerial Photo

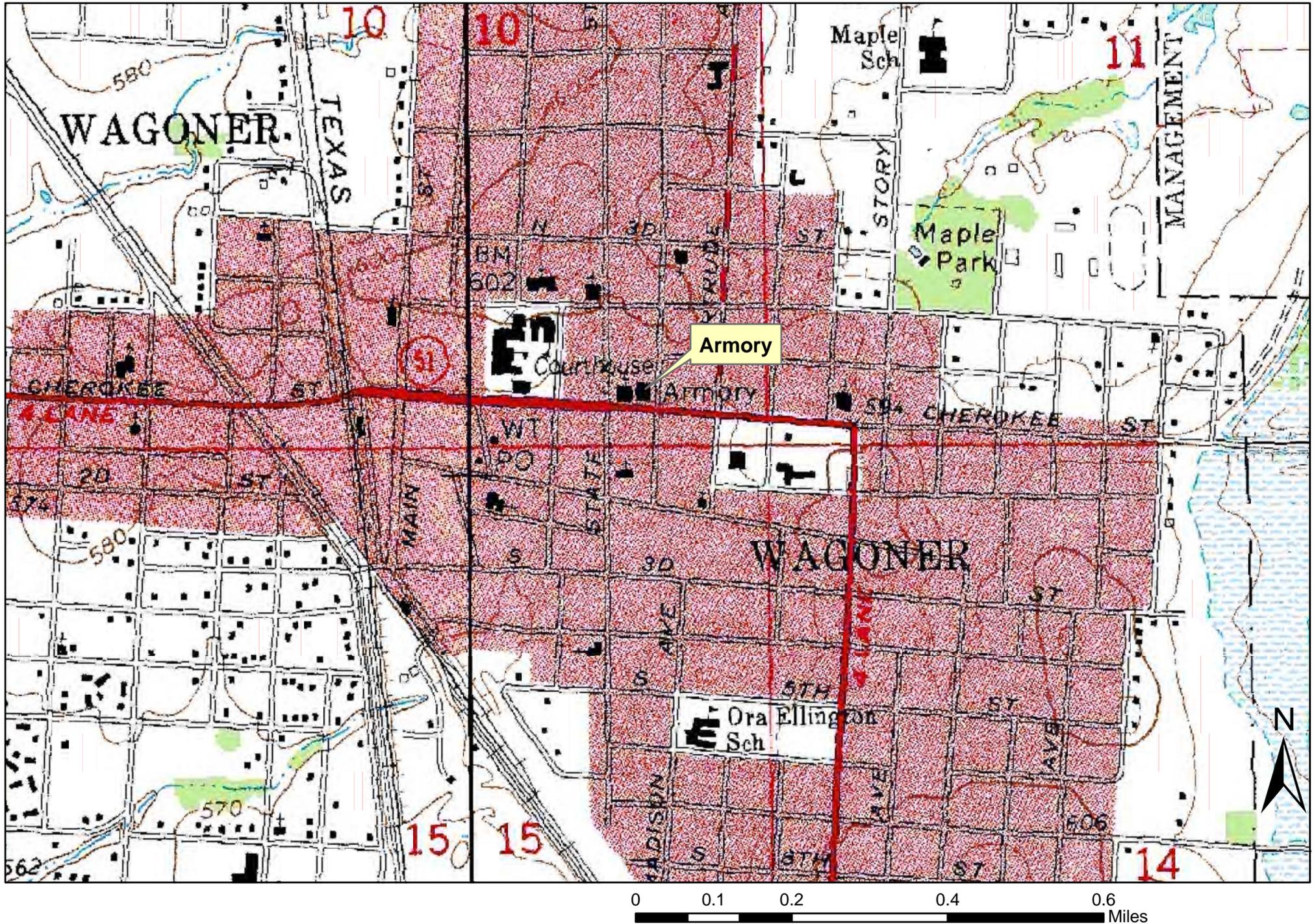


0 0.025 0.05 0.1 0.15 0.2 Miles



Topographic Maps

Topographic Map of Wagoner, OK



Appendix C – Review of Regulatory Records

DEQ Air Emission Memo

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

MEMORANDUM

December 19, 2007

TO: Phillip Fielder, P. E., Permits and Engineering Group Manager

THROUGH: Richard Kienlen, P.E., Engr. Mgr. II, New Source Permits Section

THROUGH: Peer Review, David Pollard, ROAT

FROM: Herb Neumann, DEQ Regional Office at Tulsa (ROAT)

SUBJECT: Evaluation of Permit Application No. **94-224-O (M-3)**
UNARCO Industries Inc.
Wagoner Metal Shopping Cart Fabrication Plant
400 SE 15th Street, Wagoner, Wagoner County (35.943°N, 95.373°W)
Driving directions: Approximately one mile south (first traffic light) and one
mile east from intersection of US 69 & OK 51.

INTRODUCTION

This facility currently operates under Permit No. 94-224-O (M-2), issued December 31, 2003. Certain processes have been discontinued, new cleaning equipment has been installed, certain Hazardous Air Pollutants (HAP) have been delisted by EPA, and OAC 252:100-41 has been revoked. The facility wishes to have an updated operating permit that will reflect these changes, as well as allowing some flexibility that adherence to Subchapter 41 conditions had not allowed.

PROCESS DESCRIPTION

The facility manufactures new shopping carts, as commonly used in grocery and department stores. They also refurbish carts, with total throughput of approximately 800,000 carts per year. Finished carts are assembled from metal subassemblies, using steel tubing and wire, and are fitted with plastic wheels and baskets. The manufacture of plastic wheels and baskets was performed by Colson Plastics, which was contiguous to UNARCO. Colson does not occupy that space anymore and plastic parts are brought in from outside sources.

The mild steel parts of the subassemblies (SAs) are sheared to size, bent to shape, and welded to form each SA. The SAs are powder coated just before they are assembled. Once the initial coating process has been completed, each SA is conveyed through a lacquer/water solution dip tank for an additional shine and increased corrosion protection. All SAs go to an area where they are assembled to form the completed shopping cart. The carts are then packaged and stored for shipment.

SAs to be powder coated are carried through the entire coating process on an integral conveying system. There are two complete powder coating lines. Unit #1 is the line used for refurbishing carts and Unit #2 is the line for new cart manufacture. The only difference between the lines is the cleaning process. Carts processed through Unit #1 have their SAs cleaned in one of two fluidized beds. These Seghers Keppel units remove organic-based material such as paint, powder coat, and plastic by a combination of thermal and mechanical cleaning. A bed of quartz sand is fluidized by a flow of high volume, low pressure air, and maintained at a temperature of 800-900°F. A small amount of natural gas is mixed with the air. Metal parts are submerged in the fluidized bed, organic compounds are gasified and rise to the top of the bed, where they are combusted by a continuous pilot flame. The zone immediately above the bed may be thought of as an afterburner. Combustion products are drawn through the zone by an exhaust fan and pass through a cyclone, where clean sand is removed from the stream and is recycled into the process.

The remaining stream is transported to a fabric filter system outside of the building. There is a cyclone for each unit, but the final collection system is common to both. Carts processed through Unit #2 are conveyed through a totally enclosed seven stage caustic cleaning machine, and then through an oven where they are heated and dried.

Clean parts are then powder coated. Each part has a primer powder applied, is oven heated, and then has a final topcoat powder applied, followed by oven curing. Powder coated SAs are then conveyed to the lacquer dipping process. The SAs to be lacquer coated are first cleaned in the Bio soak system, and then dipped in one of three identical 2,200-gallon tanks, each of which contains 1,700 gallons of lacquer and 500 gallons of water. The part is allowed to drip dry over a reclaiming vessel and is then put in a drying oven. The reclaiming vessel allows the recovery of lacquer for filtering and reuse. No topcoats are applied by spraying. After lacquer coating, each SA is conveyed through the powder coating lacquer cure oven. The cure oven completes the process and the SA is stored for assembly. The cleaning lines associated with the powder coating operation employ zinc phosphate, producing a sludge that is dried by new infrared sludge dryers. The dried material is shipped offsite for proper disposal.

Annual manufacture of 550,000 new carts and refurbishment of 250,000 carts assumes continuous operation, or 8,760 hours per year.

EQUIPMENT

Facility operations are housed in one building that is 1,126 feet by 780 feet by 30 feet high.

The facility contains two boilers, a 300 HP unit rated at 10.04 MMBTUH and a 200 HP unit rated at 6.7 MMBTUH. The 300 HP is oversized for the task, especially considering the recent evolution of the processes employed. The 200 HP is utilized only rarely. There are several ovens or dryers and two stage-burners, as identified in the following table.

Item	Heat input (MMBTUH)
Stage 1 burner	3.5
Stage 4 burner	2
Flocoat drying oven #1	1.9
Flocoat drying oven #2	2.75
Dry off oven unit #2	2.75
Prime cure oven unit #2*	2.75
Topcoat oven unit #2	1.5
Powdercoat gel oven	3.6
Powdercoat cure oven	2.75
Total of nine items	23.5

* Idle, but included in the analysis.

The two new fluidized beds are rated at 1.49 MMBTUH each. All combustion units are fired by natural gas. As noted above, there are two powder coating lines, including lacquer dip for each line. The facility also has a new infrared sludge dryer. The facility used to have a decorative chrome plating line, but this operation has been phased out. There are also 20 MIG welding machines.

All combustion sources exhaust at 10' above the roof, or 40' above grade. All stacks are 16" in diameter, except for the boilers, whose stack diameter is 19".

EMISSIONS

Fuel-burning units using natural gas and the lacquer topcoat operations produce the majority of the facility emissions. The following emission analysis is based on a production of 800,000 carts per year. Cutting, shaping, parts washing, and powder-coating operations produce no significant air emissions.

Combustion sources have a combined heat input rating of 40.2 MMBTUH and are evaluated using emission factors from Tables 1.4-1 and -2 of AP-42 (7/98). The following table assumes continuous operation (8,760 hours per year).

Pollutant	Factor Lbs/MMCF	Emissions	
		Lb/hr	TPY
NO _x	100	3.95	17.3
CO	84	3.31	14.5
PM ₁₀	7.6	0.30	1.31
SO ₂	0.6	0.02	0.10
VOC	5.5	0.22	0.95

The new fluidized beds have emission factors provided by the manufacturer, based on testing performed for various types of inputs to the system. Manufacturer's data used a batch size consisting of 3,030 lbs of steel and 12,890 lbs of sand, with variable coatings on the steel, including either 30.4 lbs of plastic, 85.4 lbs of cured paint, or 52.0 lbs of powder coating. Each

batch requires 10-12 minutes to run. All factors are stated as being less than a specific amount. No factor was provided for SO₂, so the AP-42 factor used in the preceding table was applied to the heat input of 5.5 MMBTUH each. Using these factors as a worst-case situation gives rise to the following table. Note that the manufacturer’s factors relate to the exhaust from the cyclones. The subsequent baghouse provides another level of control (95%) not considered in the table.

Pollutant	Factor	Emissions (TPY)	
		Each unit	Combined
NO _x	< 1.66 lb/hr	7.3	14.5
CO	< 2.38 lb/hr	10.4	20.8
PM ₁₀	< 1.00 lb/hr	4.38	8.76
SO ₂	0.6 lb/MMCF	0.03	0.06
VOC	< 0.43 lb/hr	1.88	3.77

The facility uses only the MIG option of gas metal arc welding (GMAW) of mild steel wire on mild steel parts. MIG is an arc welding process which joins metals by heating them with an arc. The arc is between a continuously fed filler metal (consumable) electrode and the work piece. Externally supplied gas or gas mixtures provide shielding. Analysis of emissions assumes conservatively high values for all variables. The facility suggests the use of 20 tons of wire per year. Inflating this figure to 100 tons per year and using the highest available emissions factor for any type named under the GMAW heading in Table 12.19-1 of AP-42 (1/95) yields

$$100 \text{ tons/year} \times 2,000 \text{ lb/ton} \times 24.1 \text{ lb PM}_{10}/1,000 \text{ lbs} = 4,820 \text{ lb/yr (2.41 TPY)}.$$

This amount is negligible and welding will not be addressed further.

The lacquer topcoat is applied by dipping and is then oven dried. Previous permits for this facility have set usage limits for specific products, based on requirements of OAC 252:100-41. Since that subchapter has been revoked, the facility now wishes to be allowed to use any lacquer product, provided that it contain no more than 1% by weight of any individual HAP. The facility also notes that a typical cart requires 0.065 gallons of lacquer per cart, so production of 800,000 carts annually would require consumption of 52,000 gallons of lacquer. A representative lacquer (Aqua Dip) proposed by the facility has VOC content of 0.86 lbs/gallon (ppg). Using mass balance to calculate emissions and assuming that all VOC is emitted yields 22.4 TPY of VOC emissions. For permit purposes, VOC is taken to be twice the proposed level, or 45 TPY. Using the same representative lacquer with a density of 8.44 ppg, restricting HAP content to 1% by weight would yield emissions of 2.19 TPY of any HAP.

FACILITY-WIDE EMISSIONS (TPY)

Source	NO _x	CO	PM ₁₀	SO ₂	VOC
Combustion sources	17.3	14.5	1.31	0.10	0.95
Fluidized beds	14.5	20.8	8.76	0.06	3.77
Welding			2.41		
Lacquer topcoat					45
Totals	31.8	35.3	12.5	0.16	49.7

FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]
Final total emissions are less than the threshold of 250 TPY of any single regulated pollutant and the facility is not one of the listed stationary sources with a threshold of 100 TPY.

NSPS, 40 CFR Part 60 [Not Applicable]
There are many subparts that affect surface coating, but none applies to the process at this facility.

Subpart Dc (Small Industrial-Commercial-Institutional Steam Generating Units) affects steam-generating units constructed after June 9, 1989, and with capacity between 10 and 100 MMBTUH. The 300-HP boiler is rated at more than 10 MMBTUH, but was constructed and installed before June 9, 1989. The 200-HP boiler is rated at less than 10 MMBTUH

Subpart Kb (VOL Storage Vessels) regulates volatile organic liquid storage tanks larger than 75 m³ capacity and built after July 23, 1984. There are three tanks storing organic materials at this facility. Gasoline and diesel tanks of 300-gallon capacity are too small to be affected facilities, but the 30,000-gallon propane tank is large enough and new enough to fall under Subpart Kb. Because it is a pressure vessel operating at pressures above 204.9 kPa with no emissions to the atmosphere, it is specifically exempted under 40 CFR 110b(d)(2).

NESHAP, 40 CFR Part 61 [Not Applicable]
There are no emissions of any of the pollutants subject to 40 CFR 61: arsenic, asbestos, benzene, beryllium, coke oven emissions, mercury, radionuclides, or vinyl chloride.

NESHAP, 40 CFR Part 63 [Not Applicable]
Subpart Mmmm (Miscellaneous Metal Parts and Products)
The facility is not an affected source under this subpart because it is not major for HAP as that is defined in 40 CFR 63.2 and the MACT does not affect area sources.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]
This facility does not process or store more than the threshold quantity of any regulated substance. More information on this federal program is available on the web page: www.epa.gov/ceppo

Stratospheric Ozone Protection, 40 CFR Part 82 [Applicable]
This facility does not produce, consume, recycle, import, or export any controlled substances or controlled products as defined in this part, nor does this facility perform service on motor (fleet) vehicles which involves ozone-depleting substances. Therefore, as currently operated, this facility is not subject to these requirements. To the extent that the facility has air-conditioning units that apply, the permit requires compliance with Part 82.

OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable]
Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference) [Not Applicable]

This subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations listed in OAC 252:100, Appendix Q. These requirements are addressed in the “Federal Regulations” section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]

Subchapter 3 enumerates the primary and secondary ambient air quality standards and the significant deterioration increments. At this time, all of Oklahoma is in “attainment” of these standards.

OAC 252:100-5 (Registration, Emissions Inventory and Annual Operating Fees) [Applicable]

Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Emission inventories were submitted and fees paid for previous years as required.

OAC 252:100-7 (Permits for Minor Facilities) [Applicable]

Subchapter 7 sets forth the permit application fees and the basic substantive requirements of permits for minor facilities. Since criteria pollutant emissions are less than 100 TPY for each pollutant, and emissions of Hazardous Air Pollutants (HAP) will not exceed 10 TPY for any individual HAP or 25 TPY for any aggregate of HAP, the facility is defined as a minor source. As such, BACT is not required.

OAC 252:100-9 (Excess Emissions Reporting Requirements) [Applicable]

In the event of any release that results in excess emissions, the owner or operator of such facility shall notify the Air Quality Division as soon as the owner or operator of the facility has knowledge of such emissions, but no later than 4:30 p.m. the next working day. Within ten (10) working days after the immediate notice is given, the owner or operator shall submit a written report describing the extent of the excess emissions and response actions taken by the facility. In addition, if the owner or operator wishes to be considered for the exemption established in 252:100-9-3.3, a Demonstration of Cause must be submitted within 30 calendar days after the occurrence has ended.

OAC 252:100-13 (Open Burning) [Applicable]

Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter (PM)) [Applicable]

Section 19-4 regulates emissions of PM from new and existing fuel-burning equipment, with emission limits based on maximum design heat input rating. Fuel-burning equipment is defined in OAC 252:100-19 as any internal combustion engine or gas turbine, or other combustion device used to convert the combustion of fuel into usable energy. Thus, the boilers, dryers, cure ovens, and stage burners are subject to the requirements of this subchapter. Appendix C specifies a PM emission limitation of 0.60 lbs/MMBTU for all equipment at this facility with a heat input rating of 10 Million BTU per hour (MMBTUH) or less. All units except the 300-hp boiler have heat input less than 10 MMBTUH. The boiler is only marginally more than 10

MMBTUH, and has a limit very close to 0.60 lbs/MMBTU. Table 1.4-2 of AP-42 (7/98) lists natural gas total PM emissions to be 7.6 lbs/million scf or about 0.0076 lbs/MMBTU, which is in compliance.

Section 19-12 limits particulate emissions from new and existing directly fired fuel-burning units and emission points in an industrial process based on process weight rate, as specified in Appendix G. The fluidized bed emissions are treated in this category, because most emissions arise from the process, rather than from combustion, and the afterburner is essentially a VOC control device. Worst-case assumptions for this process involve removing plastic from steel and using the highest possible batch time, resulting in the lowest possible limit from Appendix G. Thus, the facility will have a process weight rate of

$$(3,030 \text{ lbs of steel} + 30.4 \text{ lbs of plastic}) \times 5 \text{ batches per hour} \div 2,000 \text{ lbs/ton} = 7.65 \text{ TPH},$$

for which the particulate emission limitation is 16 lbs/hr. Emission data from the manufacturer states that PM emissions are less than 1 lb/hr for the process. This emission rate is in compliance with the limitation.

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
No discharge of greater than 20% opacity is allowed except for short-term occurrences that consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. Based on experience with this facility, the potential for violating the standards is negligible.

OAC 252:100-29 (Fugitive Dust) [Applicable]
No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. Under normal operating conditions, this facility will not cause a problem in this area; therefore it is not necessary to require specific precautions to be taken.

OAC 252:100-31 (Sulfur Compounds) [Applicable]
Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lbs/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of approximately 1,030 Btu/scf, this limit corresponds to fuel sulfur content of approximately 1,240 ppmv. The permit requires the use of gaseous fuel with sulfur content less than 1,240 ppmv to ensure compliance with Subchapter 31.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]
This subchapter limits new gas-fired fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.20 lbs of NO_x per MMBTU, three-hour average. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]
This subchapter affects gray iron cupolas, blast furnaces, basic oxygen furnaces, petroleum catalytic cracking units, and petroleum catalytic reforming units. There are no affected sources.

OAC 252:100-37 (Volatile Organic Compounds) [Part 7 Applicable]
Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. At 300 gallons each, the gasoline and diesel tanks are too small to be affected by Part 3. The 30,000-gallon propane tank is a pressure vessel.

Part 5 limits the VOC content of coatings used in coating lines and operations. Powder coatings have extremely low VOC content. A typical lacquer used by the facility in the dip coating process will have VOC content in the range of 3 lbs/gal, well below any of the standards set in Part 5.

Part 7 requires fuel-burning equipment to be operated and maintained so as to minimize VOC emissions. Temperature and available air must be sufficient to provide essentially complete combustion. The boilers, dryers, ovens, and minor combustion equipment items are designed to provide essentially complete combustion of organic materials.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable]
This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained, unless a modification is approved by the Director. Since no AOC has been designated there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable]
This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

COMPLIANCE

Inspection

On November 6, 2007, DEQ Regional Office at Tulsa permit writer Herb Neumann, accompanied by Terry Crawford, Facility Environmental Director, and Randy Beeson of Enercon, Unarco's consultant, performed an initial compliance inspection. The facility was found to be as described in the application. The facility maintains records as required by the permit, and there was discussion as to possible changes or simplifications in the recordkeeping.

Tier Classification And Public Review

This application has been classified as **Tier I** based on the request for a modified operating permit for a minor source. The applicant has submitted an affidavit that they own the property on which the facility is located. Information on all permit actions is available for public review in the Air Quality section of the DEQ web page: www.deq.state.ok.us

Fee Paid

Operating permit modification fee of \$200.

SUMMARY

This facility was constructed as described in the application. There are no active Air Quality compliance or enforcement issues that would affect the issuance of this permit. Issuance of the operating permit is recommended.

**PERMIT TO OPERATE
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS**

**UNARCO Industries Inc.
Metal Shopping Cart Fabrication**

Permit Number 94-224-O (M-3)

The permittee is authorized to operate in conformity with the specification submitted to Air Quality on August 15, 2007. The Evaluation Memorandum, dated December 19, 2007, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Continuing operation under this permit constitutes acceptance of, and consent to, the conditions contained herein.

1. Points of emissions and emission limitations for each point.

a) Combustion equipment

Item	Heat input (MMBTUH)
300 HP boiler	10.04
200 HP boiler	6.7
Stage 1 burner	3.5
Stage 4 burner	2
Flocoat drying oven #1	1.9
Flocoat drying oven #2	2.75

Item	Heat input (MMBTUH)
Dry off oven unit #2	2.75
Prime cure oven unit #2	2.75
Topcoat oven unit #2	1.5
Powdercoat gel oven	3.6
Powdercoat cure oven	2.75

Authorized emissions from all combustion sources are shown in the following table.

Pollutant	Emissions (TPY)
NO _x	17.3
CO	14.5
PM ₁₀	1.31
SO ₂	0.10
VOC	0.95

b) Two fluid clean fluidized beds, with afterburners rated at 1.49 MMBTUH each. Emissions are authorized for the combined units as follow.

Pollutant	Emissions (TPY)
NO _x	14.5
CO	20.8
PM ₁₀	8.76
SO ₂	0.06
VOC	3.77

c) Two powder coating lines, including lacquer dip for each line. VOC emissions are authorized at 45 TPY. Particulate emissions are negligible, since this is a dip operation.

- d) Infrared sludge dryer. Emissions are negligible.
 - e) 20 MIG welding machines. Emissions are negligible.
2. Compliance with the limits of Specific Condition (SC) #1 shall be demonstrated as follows, using the numbering system of SC #1.
- a) Consumption of no more than 379,000 MMBTU of commercial grade natural gas during any rolling 12-month period. This figure is a facility-wide total and includes consumption at the fluid beds identified in 1b.
 - b) Processing of no more than 800,000 carts in any rolling 12-month period.
 - c) Calculation of VOC emissions in any rolling 12-month period, based on gallons used and VOC content, assuming that all VOC is emitted.
 - d) There is no limitation imposed on the infrared dryer. Replacement of this unit by another type of dryer may require permit action.
 - e) See SC #3 following.
3. Control equipment shall be maintained in proper working condition according to manufacturers' specifications to control the emissions from the welding operation. Control equipment currently in place includes the three electrostatic precipitators (ESP). The ESPs shall be operated according to manufacturers' specifications and shall be certified for proper functioning by the manufacturer or its agent at least once annually. Failures or exceedances indicated by the alarm system shall be logged and corrected. The ESPs shall not be replaced except by control devices having efficiency greater than or equal to 98%.
4. All records necessary to demonstrate compliance with permit conditions shall be maintained on-site or at a readily accessible location and shall be available during normal business hours. Records shall be retained for at least five years after their date of creation. Such records may include, but are not necessarily limited to the following.
- a) MSD sheets for all raw materials used
 - b) consumption of natural gas (12-month rolling total)
 - c) consumption of lacquer (monthly and 12-month rolling total)
 - d) number of carts produced, identified by new or refurbished (monthly and 12-month rolling)
 - e) ESP excursion reports (daily) and annual certification inspections (as performed)
5. This permit supersedes all other Air Quality permits for this facility, which are now null and void.

**MINOR SOURCE PERMIT TO OPERATE / CONSTRUCT
AIR POLLUTION CONTROL FACILITY
STANDARD CONDITIONS
(September 1, 2005)**

- A. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ) in accordance with and under the authority of the Oklahoma Clean Air Act. The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. This specifically includes compliance with the rules of the other Divisions of DEQ: Land Protection Division and Water Quality Division.
- B. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-7-15(g)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-7-15(f)]
- C. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 60 days following the first day of operation. [OAC 252:100-7-18(a)]
- D. Unless specified otherwise, the term of an operating permit shall be unlimited.
- E. Notification to the Air Quality Division of DEQ of the sale or transfer of ownership of this facility is required and shall be made in writing by the transferor within 10 days after such date. A new permit is not required. [OAC 252:100-7-2(f)]
- F. The following limitations apply to the facility unless covered in the Specific Conditions:
1. No person shall cause or permit the discharge of emissions such that National Ambient Air Quality Standards (NAAQS) are exceeded on land outside the permitted facility. [OAC 252:100-3]
 2. All facilities that emit air contaminants are required to file an emission inventory and pay annual operating fees based on the inventory. Instructions and forms are available on the Air Quality section of the DEQ web page. www.deq.state.ok.us [OAC 252:100-5]
 3. All excess emissions shall be reported to the Director of the Air Quality Division as soon as practical during normal office hours and no later than the next working day following the malfunction or release. Within ten (10) business days further notice shall be tendered in writing containing specific details of the incident. [OAC 252:100-9]
 4. Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning subchapter. [OAC 252:100-13]
 5. No particulate emissions from new fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lbs/MMBTU. [OAC 252:100-19]
 6. No discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. [OAC 252:100-25]
 7. No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent

- properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]
8. No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lbs/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]
 9. Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with an organic material vapor-recovery system. [OAC 252:100-37-15(b)]
 10. All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]
- G. Any owner or operator subject to provisions of NSPS shall provide written notification as follows: [40 CFR 60.7 (a)]
1. A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
 2. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
 3. A notification of the actual date of initial start-up of an affected facility postmarked within 15 days after such date.
 4. If a continuous emission monitoring system is included in the construction, a notification of the date upon which the test demonstrating the system performance will commence, along with a pretest plan, postmarked no less than 30 days prior to such a date.
- H. Any owner or operator subject to provisions of NSPS shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility or any malfunction of the air pollution control equipment. [40 CFR 60.7 (b)]
- I. Any owner or operator subject to the provisions of NSPS shall maintain a file of all measurements and other information required by this subpart recorded in a permanent file suitable for inspection. This file shall be retained for at least five years following the date of such measurements, maintenance, and records. [40 CFR 60.7 (d)]
- J. Any owner or operator subject to the provisions of NSPS shall conduct performance test(s) and furnish to AQD a written report of the results of such test(s). Test(s) shall be conducted within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial start-up. [40 CFR 60.8]



PERMIT

AIR QUALITY DIVISION
STATE OF OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
707 NORTH ROBINSON, SUITE 4100
P.O. BOX 1677
OKLAHOMA CITY, OKLAHOMA 73101-1677

Permit No. 94-224-O (M-3)

UNARCO Industries, Inc,

having complied with the requirements of the law, is hereby granted permission to operate
all the sources within the boundaries of their fence at the Wagoner Facility, 400 SE 15th
Street, Wagoner, Wagoner County, Oklahoma,

subject to standard conditions dated September 1, 2005, and specific conditions, both
attached.

Phillip Fielder

Permits and Engineering Group Manager

Date

December 26, 2007

Mr. Terry Crawford
Environmental Director
UNARCO Industries Inc.,
400 SE 15th Street
Wagoner, OK 74467

Subject: Permit No. **94-224-O (M-3)**

Dear Mr. Crawford:

Enclosed is the permit authorizing operation of the referenced facility. Please note that this permit is issued subject to standard and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections. The requirement in minor source permits to maintain records of operations two years after the date of recording has recently been changed to five years. This change has been made to streamline overlapping recordkeeping requirements. This change does not apply retroactively to records that were not previously required to be kept for five years.

Also note that you are required to annually submit an emission inventory for this facility. An emission inventory must be completed on approved AQD forms and submitted (hardcopy or electronically) by April 1st of every year. Any questions concerning the form or submittal process should be referred to the Emission Inventory Staff at 405-702-4100.

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact the permit writer at (918) 293-1600. Air Quality personnel are located in the Regional Office at Tulsa, 3105 E. Skelly Drive, Suite 200, Tulsa, OK, 74105.

Sincerely,

Herb Neumann
AIR QUALITY DIVISION

Limited Environmental Baseline Assessment

LIMITED ENVIRONMENTAL BASELINE ASSESSMENT



**OKLAHOMA ARMY NATIONAL GUARD
WAGONER ARMORY
511 E. CHEROKEE
WAGONER, OK**

13 DECEMBER 2005

**PERFORMED BY
OKLAHOMA MILITARY DEPARTMENT ENVIRONMENTAL OFFICE (OKDE-ENV)
FOR
THE OKLAHOMA MILITARY DEPARTMENT**

LIMITED ENVIRONMENTAL BASELINE ASSESSMENT

for

**WAGONER ARMORY
511 E. CHEROKEE
WAGONER, OK**

13 DECEMBER 2005

**CONDUCTED BY
THE OKLAHOMA MILITARY DEPARTMENT ENVIRONMENTAL OFFICE (OKDE-ENV)**

**CONDUCTED FOR
THE OKLAHOMA MILITARY DEPARTMENT**

TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
SITE DESCRIPTION	6
SITE RECONNAISSANCE	6
LIMITATIONS	7
CONCLUSIONS.....	7
RECOMMENDATIONS	8
APPENDICES	10
APPENDIX A	11
<i>ASSESSMENT PURPOSE and SCOPE/LIMITATIONS</i>	11
APPENDIX B	13
<i>METHODOLOGY</i>	13
APPENDIX C	15
<i>RECONNAISSANCE PHOTOGRAPHS</i>	15
APPENDIX D.....	19
<i>FACILITY MAP</i>	19

EXECUTIVE SUMMARY

A representative of the Oklahoma Military Department Environmental Office (OKDE-ENV) conducted a Limited Environmental Baseline Assessment for the Oklahoma Army National Guard (OKARNG) Wagoner Armory facility. The evaluation was conducted on behalf of the Oklahoma Military Department (OMD) and the OKARNG. The OKARNG is a component of the United States Army and fulfills the military mission of national security. The purpose of this assessment is to identify and record recognized environmental conditions at the subject property.

The following issues were noted (these are minor and only of minor concern):

- Containers of Petroleum, Oil, and Lubricant (POLs) on Drill Hall Floor.
- Fluorescent bulbs throughout facility.
- Cans of primers and adhesives throughout facility.
- Various Cleaning Supplies throughout facility.
- Flammable Materials in Flam Cabinet.
- Compressed Gas Cylinders on Drill Hall Floor.
- DS-2 Canisters in Commo Room.
- One can of Isopropyl Alcohol in Comm Room.
- Boxes of Batteries in Commo Room.
- Mold Growth in several places throughout the facility, potentially harmful.
- PVC Pipe coming out of Indoor Firing Range on West side of facility.

Recognized environmental conditions associated with the property and identified during this Limited Environmental Baseline Assessment revealed the following minor issues which have limited environmental risk:

- POLs, fluorescent bulbs, adhesives, primers, DS-2, batteries, and cleaning supplies at the facility present a potential for improper disposal and could result in undesirable consequences if released into the environment. They may also require special consideration for disposal.

- Based solely on the age of the facility, flooring tiles, pipe coatings, and roofing materials present a potential for presence of asbestos containing materials (ACM).
- A potential for the presence of harmful mold growth.
- A potential for Lead contamination of soil.
- A potential that the facility may be eligible for the National Register of Historic Places (NRHP).

Based on findings of this evaluation, it is unlikely that activities or events during the Oklahoma Army National Guard's use of the property have resulted in significant environmental impact. Based on an evaluation of environmental conditions documented in this report, there is a very low probability that any of the conditions would have significant adverse impact on the subject property, restrict its use, or negatively affect the health and well being of property users or the general population.

SITE DESCRIPTION

The subject property is located at 511 E. Cherokee in Wagoner, Oklahoma. The City of Wagoner is located in Wagoner County. The subject property is a parcel of property managed and maintained by the Oklahoma Military Department (on behalf of State of Oklahoma) to support the military mission of the OKARNG. The subject property served as Armory. The Wagoner Armory operated as a center of operations for a military component of the OKARNG. It served as a training site for the component and stored those materials required by the component.

SITE RECONNAISSANCE

Matthew Simpson (OKDE-ENV) performed a site reconnaissance visit on 7 December 2005 to visually assess the subject property and record the current environmental condition of the facility and grounds.

The OKARNG Unit utilizing this facility had not totally vacated this location at the time on this assessment. Most, if not all, of their equipment was still in the facility.

The following recognized environmental conditions were identified during the assessment:

- Containers of Petroleum, Oil, and Lubricant (POLs) on Drill Hall Floor (Appendix C, Photos #1, 6, 8).
- Fluorescent bulbs throughout facility (Appendix C, Photo #2).
- Cans of primers and adhesives throughout facility (Appendix C, Photos #3, 6).
- Various Cleaning Supplies throughout facility (Appendix C, Photo #5).
- Flammable Materials in Flam Cabinet (Appendix C, Photo #6).
- Compressed Gas Cylinders on Drill Hall Floor (Appendix C, Photo #7).
- DS-2 Canisters in Commo Room (Appendix C, Photo #9).
- One can of Isopropyl Alcohol in Commo Room (Appendix C, Photo #10).
- Boxes of Batteries in Commo Room (Appendix C, Photo #11).

- Mold Growth in several places throughout the facility, potentially harmful (Appendix C, Photo #12).
- PVC Pipe coming out of Indoor Firing Range on West side of facility (Appendix C, Photo #13, 14).

NOTE: Before this assessment can be completed, a follow up to this initial assessment should be conducted after the OKARNG unit has fully vacated the facility and before any transfer of the property.

LIMITATIONS

The following locations at the Wagoner Facility were not accessible for evaluation:

- The Indoor Firing Range beneath the stage.
- An Office and Equipment room south of the stage.
- The Mess Storage and Supply rooms in the Drill Hall.
- A Storage room off of main hallway.

NOTE: These rooms need to be accessed and examined before this assessment can be completed and any before transfer of the property.

CONCLUSIONS

A representative of the Oklahoma Military Department Environmental Office (OKDE-ENV) conducted a Limited Environmental Baseline Assessment at the Wagoner facility. The evaluation was conducted on behalf of the Oklahoma Military Department (OMD) and the Oklahoma Army National Guard (OKARNG) to identify and record recognized environmental conditions at the subject property.

Recognized environmental conditions associated with the property and identified during this Limited Environmental Baseline Assessment revealed the following minor issues which have limited environmental risk:

- POLs, fluorescent bulbs, adhesives, primers, DS-2, batteries, and cleaning supplies at the facility present a potential for improper disposal and could result in undesirable consequences if released into the environment. They may also require special consideration for disposal.
- Based solely on the age of the facility, flooring tiles, pipe coatings, and roofing materials present a potential for presence of asbestos containing materials (ACMs).
- A presence of mold growth, potentially harmful.
- A potential for Lead contamination of soil.
- A potential that the facility may be eligible for the National Register of Historic Places (NRHP).

Based on findings of this evaluation, it is unlikely that activities or events during the Oklahoma Army National Guard's use of the property have resulted in a significant environmental impact. Based on an evaluation of environmental conditions documented in this report, there is a very low probability that any of the conditions would have a significant adverse impact on the subject property, restrict its use, or pose any threat to the health and well being of either property users or the general population.

RECOMMENDATIONS

It is the recommendation of this assessment that the POLs, fluorescent bulbs, adhesives, primers, DS-2, batteries, and cleaning supplies at the facility should be removed and/or properly disposed of by the unit to last utilize the facility. The facility should also be inspected for asbestos containing materials (ACM), harmful mold growth, and Lead contamination. An additional assessment must be conducted after the current

OKARNG component has vacated the property and all areas of the facility have been accessed.

APPENDICES

APPENDIX A: ASSESSMENT PURPOSE and SCOPE/LIMITATIONS

APPENDIX B: METHODOLOGY

APPENDIX C: RECONNAISSANCE PHOTOGRAPHS

APPENDIX D: FACILITY MAPS

APPENDIX A

ASSESSMENT PURPOSE and SCOPE/LIMITATIONS

PURPOSE

It is in the best interest of the OMD and the OKARNG to evaluate the current condition of the property, document any recognized environmental conditions, and prepare a record of the assessment.

This Limited Environmental Baseline Assessment was conducted to gather contemporary environmental data and preserve it in a manner consistent with customary professional practice. It is not intended to fulfill requirements of any recognized guidance document. No recommendations may be reached based solely upon the content of this Limited Environmental Baseline Assessment.

SCOPE and LIMITATIONS

This assessment is exclusively limited to investigation and evaluation of the subject property based on visual observation of the property and appurtenances. Recognized environmental conditions identified on the subject property or on those abutting properties were documented in written form and photographed (whenever possible) for record (included as Appendix C, Reconnaissance Photographs).

The assessment did not include any of the following commonly used elements:

- Knowledgeable person interviews.
- Historical Document Evaluation (inspection records, aerial photographs, topographic maps, etc.).
- Media sample collection and laboratory analyses.
- Any other unidentified/unnamed reference sources.

Those areas not readily accessible to the assessor (building roofs, drainage devices, and etcetera) were not evaluated unless otherwise stated. No conclusions may be reached concerning their condition.

APPENDIX B
METHODOLOGY

METHODOLOGY

The investigation process was conducted as follows:

- A pedestrian survey of the property perimeter (as judged feasible).
- A pedestrian survey of the property. Using a perimeter fence as reference, the assessor traversed the property repeatedly on 20 (twenty) foot intervals by walking in a straight line parallel to the reference fencing (as allowed by obstacles).
- Visual examination of the exterior and interior of all buildings, sheds, (as accessible), and storage areas.

Recognized environmental conditions identified at the subject property were photographed for record (whenever possible).

APPENDIX C

RECONNAISSANCE PHOTOGRAPHS



Photograph #1
Container labeled MOGAS
7 December 2005: View to N



Photograph #2
Fluorescent Bulbs
7 December 2005: View to S



Photograph #3
Primer, Adhesive, and Air Freshener
7 December 2005: View to S



Photograph #4
Aerosol Cans
7 December 2005: View to W



Photograph #5
Various Cleaning Supplies
7 December 2005: View to N



Photograph #6
Flammable Material in Flam Cabinet
7 December 2005: View to N



Photograph #7
Compressed Gas Cylinders
7 December 2005: View to NE



Photograph #8
Grease Gun
7 December 2005: View to N



Photograph #9
DS-s Decontamination Agent Canister
7 December 2005: View to N



Photograph #10
Isopropyl Alcohol Can
7 December 2005: View to N



Photograph # 11
Batteries
7 December 2005: View to S



Photograph #12
Mold Growth
7 December 2005: View to N



Photograph #13
PVC Pipe Coming Out of IFR Vent
7 December 2005: View to E



Photograph #14
PVC Pipe Coming Out of IFR Vent
7 December 2005: View to SE



Photograph #15
Equipment on Drill Floor
7 December 2005: View to N



Photograph #16
Equipment on Drill Floor
7 December 2005: View to N



Photograph #17
Equipment on Drill Floor
7 December 2005: View to NE



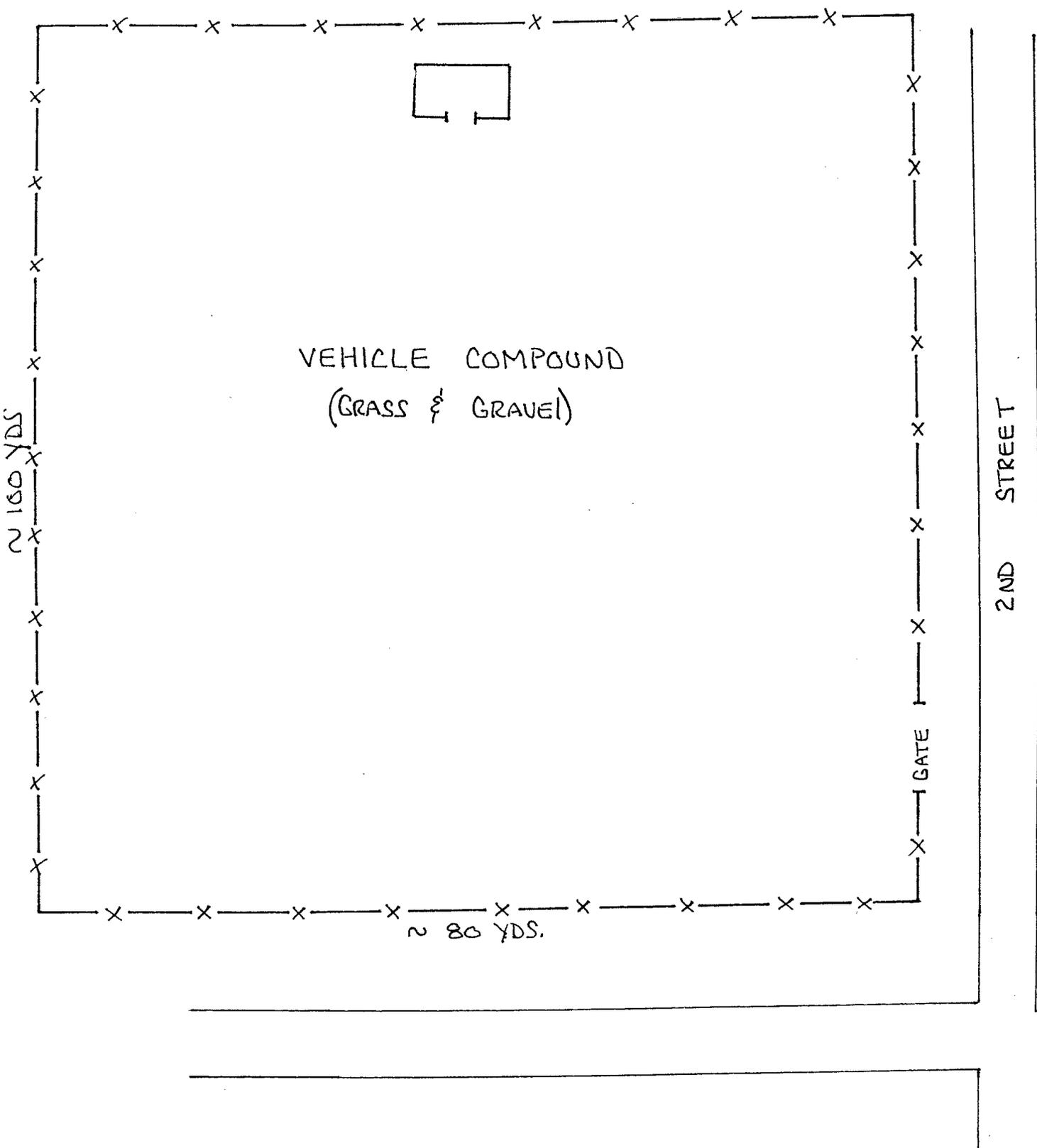
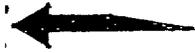
Photograph #18
Equipment on Drill Floor
7 December 2005: View to W

APPENDIX D

FACILITY MAP

WAGONER VEHICLE COMPOUND

6 BLOCKS EAST OF ARMORY



VEHICLE COMPOUND
(GRASS & GRAVEL)

~ 160 YDS.

~ 80 YDS.

2ND STREET

GATE

Sanborn Map Legends

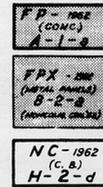
SANBORN MAP LEGEND

CODING OF NON-RESIDENTIAL FIRE-RESISTIVE STRUCTURAL UNITS FOR FIREPROOF AND NON-COMBUSTIBLE BUILDINGS

GLOSSARY

FRAMING		FLOORS		ROOF	
CODE	STRUCTURAL UNIT	CODE	STRUCTURAL UNIT	CODE	STRUCTURAL UNIT
A.	Reinforced Concrete Frame.	1.	Reinforced Concrete, Reinforced Concrete with Masonry Units. Pre-cast Concrete or Gypsum Slabs or Planks.	a.	Reinforced Concrete, Reinforced Concrete with Masonry Units. Reinforced Gypsum Concrete. Pre-cast Concrete or Gypsum Slabs or Planks.
B.	Reinforced Concrete Joists, Columns, Beams, Trusses, Arches, Masonry Piers.	2.	Concrete on Metal Lath, Incombustible Form Boards, Paper-backed Wire Fabric, Steel Deck, or Cellular, Ribbed or Corrugated Steel Units.	b.	Concrete or Gypsum on Metal Lath, Incombustible Form Boards, Paper-backed Wire Fabric, Steel Deck, or Cellular, Ribbed or Corrugated Steel Units.
C.	Protected Steel Frame.	3.	Open Steel Deck or Grating.	c.	Incombustible Composition Boards with or without Insulation, Masonry or Metal Tiles.
D.	Individually Protected Steel Joists, Columns, Beams, Trusses, Arches.			d.	Steel Deck, Corrugated Metal or Asbestos Protected Metal with or without Insulation.
E.	Indirectly Protected Steel Frame.				
F.	Indirectly Protected Steel Joists, Columns, Beams, Trusses, Arches.				
G.	Unprotected Steel Frame.				
H.	Unprotected Steel Joists, Columns, Beams, Trusses, Arches.				
O.	Masonry Bearing Walls only.				

The coding to left, for framing, floor and roof structural units is used in describing the construction of fire-resistive buildings. In addition, reports for fire-resistive buildings will show the date built, wall construction other than brick, and ceilings.



A fireproof building built in 1962 with concrete walls and reinforced concrete frame, floors and roof.

A fireproof building built in 1962 with metal panel walls, reinforced concrete columns and beams, concrete floors on metal lath and gypsum slab roof, non-combustible ceilings.

A noncombustible building built in 1962 with concrete block walls; unprotected steel columns, beams and joists; concrete floors on metal lath and steel deck roof.

A - B LINES An arbitrary boundary between adjoining sheets.

A. Private garage.

ABV. Above.

A.D.E. Equipped with fire detecting device which automatically signals central fire department.

AIR COND. Air conditioning system employing ducts through floors.

APRON WALL. A masonry wall extending 3' or less above foundation.

ASSOC. RISK Risk not underwritten by the Fire Insurance Company.

BASEMENT. A story having its floor below ground & its ceiling at least 4' above ground level.

Cook County, Ill. A floor of a building next below the first floor. Shown by the symbol B following story height. Sub-basements or sub-cellars. (Stories below the 1st basement), are shown by the symbol SB following basement symbol.

CHIMNEY'S (Applicable to maps in Rocky Mountain & Pacific Coast States).

CG. Brick, stone, concrete brick & concrete chimneys.

C.B.C. Concrete block chimney.

C.C. Non-standard concrete chimney.

H.C. Iron chimney.

P.C. Patent chimney.

S.P. Stove pipe.

S.P.V. Stove pipe with patent ventilator.

RESIDENTIAL OCCUPANCY SYMBOLS

D. Single family unit or as qualified by a numeral.

E - APTS. A multi-family residential building corresponding with local Rating Bureau definition in family units per floor, story height, & separation of entrance.

ROOM'G. A residential building normally occupied by a single family but with 10 or more rooms rented for lodging purpose.

EXCEPTIONS. 6 rooms in Arizona, California, Nevada, Utah & Montana; 5 rooms in Oregon & Washington; 4 rooms in Idaho & Hawaii.

FIRE RESISTIVE CONSTRUCTION SYMBOLS

F.P. Approved masonry walls, floors & roof, interior supports of approved masonry, concrete, and/or protected steel.

F.P. F.P. qualifications except interior or sub-standard walls.

N.C. Fire resistive with unprotected structural steel units.

HOLLOW WALL. A bonded masonry wall having a continuous air space within.

I.E. Independent Electric Plant.

NON-TRAVELABLE Not travelable due to condition of terrain.

LEADED WALL. A masonry bearing wall with extended ledges to support floors.

LOFT Tenanted by industrial occupancies.

M.S. & P. Concrete or plaster applied to metal lath on wood studs.

GL. Windows overhanging on records but not open on ground.

NON-OPEN Streets appearing on records but not open on ground.

PLAST'D. Masonry reinforcing columns in walls.

SKYTS. Skylights.

SL. Slate attached to wood siding.

SM. HO. Smoke House.

STABLE Shown by crossing diagonal lines on diagram.

SUSP'D. Suspended ceilings below floor and/or roof beams.

TR. Transformer.

WD. Wood.

LAND USE CODES APPLICABLE TO CHANGES DETERMINED AFTER 1938

R	RESIDENTIAL	M	MANUFACTURING
RT	RESIDENTIAL - TRANSIENT	P	PUBLIC OR INSTITUTIONAL
C	COMMERCIAL	U	UTILITY
M	MANUFACTURING	T	TRANSPORTATION

NUMERICAL PREFIXES INDICATE THE NUMBER OF ESTABLISHMENTS IN EACH CATEGORY

MASONRY CONSTRUCTION

Important interior and all exterior masonry walls of all non-residential buildings are shown with weighted (—) lines.

Masonry walls of residential buildings are shown with a standard line and the construction is noted on all buildings diagrammed after July, 1963.

WALLS		PARTITIONS		OPENINGS	
	8" Brick		Mixed Construction of Concrete Blocks, Brick Faced		(Interior) Wall with No Openings
	12" Concrete		Tile from Foundation to Top Ceiling only		(Interior) Wall with Double Standard Fire Doors 1st Floor
	18" & 20" Stone		Concrete 1st Floor only		(Interior) Wall with Standard Fire Door Basement
	12" & 8" Hollow Tile Wall Thicknesses Placed Relative to Respective Floors		Hollow Cylindrical or Concrete Block 1st Floor only		(Interior) Wall with Substandard Fire Doors 1st & 3rd Floors
	Cinder, Concrete or Cement Brick		Brick 2nd Floor only		(Interior) Wall with Metal & Wired Glass Fire Doors all Floors
	Hollow Cylindrical or Concrete Blocks, Pilastered		Tile Interior Wall Basement to Roof		(Interior) Wall with Substandard Fire Doors 1st, 2nd & 3rd Floors & Unprotected Opening 4th Floor
			Cement Brick End Wall		(Interior) Wall with Small Unprotected Opening only
			Tile Interior Wall Basement to Roof		(Interior) Wall with Unprotected Openings all Floors
			Cement Brick End Wall		
					(Exterior) Wall with No Openings
					1st Floor
					1st & 2nd Floors
					3rd Floor
					1st & 4th Fl. with Metal Shutter 1st, 10th & 22nd only
					Glass Block
					Wired Glass in Metal Sash 2nd & 3rd Fl.

NON-MASONRY CONSTRUCTION

Non-masonry walls are shown with fine (—) lines. (Wall construction other than wood and stucco on wood frame is noted)

	Wood & Stucco & Cement Plaster, Etc. on Wood Frame		Wood Sash & Glass		Iron Building with Wood Roof, (Location of Extensive Wood Areas Specifically noted)		Apron Walls with Wood Sash and Glass		Asphalt and/or Asbestos Protected Metal on Steel Frame
	Brick Veneered on Wood Frame (Other Types of Veneered on Wood Frame Specifically Noted)		Metal Sash & Glass		Asbestos Clad on Wood Frame, (Noted in Non-Residential Structures only)		Stucco, Cement Plaster, Etc. on Steel Frame		Asphalt and/or Asbestos Protected Metal on Wood Frame
	Mixed Masonry & Non-Masonry (Type of Masonry Specifically Noted)		Metal Clad on Wood Frame		Mixed Wall - 9' of CB With Metal Sash Above		Gunite on Steel Frame		Glass Panels
	Wood, Brick Lined, Br. Filled or Brick Nogged		Iron Building		Metal Panels				

FIRE PROTECTION

	Fire Department Connection		Single Hydrant
	Automatic Sprinklers throughout contiguous sections of single risk		Double Hydrant
	Automatic Sprinklers all floors of building		Triple Hydrant
	Automatic Sprinklers in part of building only (Note under Symbol indicates protected portion of building)		Quadruple Hydrant of the High Pressure Service
	Not Sprinklered		Water Pipes of the High Pressure Service as Shown on Key Map
	Automatic Chemical Sprinklers		Public Water Service
	Chemical Sprinklers in part of building only (Note under Symbol indicates protected portion of building)		Private Water Service
	Vertical Pipe or Stand Pipe		
	Automatic Fire Alarm		
	Water Tank		
	Outside Vertical Pipe on fire escape		
	Fire Alarm Box Noted "HPS" on High Pressure Fire Service		

VERTICAL OPENINGS

	Skylight lighting top story only
	Skylight lighting 3 stories
	Skylight with Wired Glass in Metal Sash
	Open Elevator
	Frame Enclosed Elevator
	Frame Enclosed Elevator with Traps

	Frame Enclosed Elevator with Self Closing Traps		2 Stories & Basement 1st Floor Occupied by Store 2 Residential Units above 1st Auto in Basement Drive or Passageway Wood Shingle Roof
	Concrete Block Enclosed Elevator with Traps		Iron Chimney
	Tile Enclosed Elevator with Self Closing Traps		Iron Chimney (with Spark Arrestor)
	Brick Enclosed Elevator with Wired Glass Door		Vertical Steam Boiler
	Open Hoist		Horizontal Steam Boiler
	Hoist with Traps		Width of Street between Block Lines, not Curb Lines
	Open Hoist Basement to 1st		Ground Elevations
	Stairs		House numbers nearest to Buildings are Official or Actually up on Buildings. Old House Numbers are Farthest from Buildings
		MISCELLANEOUS	
	Number of Stories Height in Feet Composition Roof Covering		Parapet 6" above Roof Frame Cornice
	Parapet 12" above Roof		Parapet 24" above Roof Occupied by Warehouse Metal, Slate, Tile or Asbestos Single Roof Covering
	Parapet 48" above Roof		

24

Reference to Adjoining Page 5 Block Number

+ Fire Department as shown on Key Map



Sanborn Map Abbreviations

"Linking technology with tradition"®



Abbreviation

Meaning

A	Automobile (usually designates the location of a garage)
A in B	Automobile located in basement
A S	Automatic sprinkler
Abv	Above
ACS	Automatic chemical sprinkler
AFA	Automatic fire alarm
Agr	Agricultural
Appts	Apparatus
Apts	Apartments
Asb Cl	Asbestos clad
Att'd	Attended
Aud'it'm	Auditorium
Auto Ho	Automobile house, or garage
B	Basement, boiler or occasionally brick
B&S	Boots and shoes
BPOE	Benevolent & Protective Order of Elks
B Sm	Blacksmith
B'ld'g	Building
B'lr.	Boiler
B'st	Basement
Bak'y	Bakery
Balc	Balcony
Bap	Baptist
Bbl	Barrel
Bbls	Barrels
BE	Brick enclosed elevator
Bill'ds	Billiards
Bl Sm	Blacksmith
Blk Sm	Blacksmith
Bst	Basement
C B	Cement brick or concrete block construction
C Br	Concrete brick or cement block construction
Cap'cy	Capacity
Carp'tr	Carpenter
CBET	Concrete enclosed elevator with traps
Chem	Chemical
Chinaw	Chinaware or porcelain
Chine	Chinese
Cl	Clad
Clo	Clothing
Co	Company
Comp	Composition construction (i.e. stucco) or compressor
Conc	Concrete
Conf'y	Confectionary (candy store)
Confec'y	Confectionary (candy store)
Constr'n	Construction
Corp'n	Corporation
D	Dwelling
DH	Double (fire) hydrant
DG	Dry goods
Drs	Doctor's office
Dwg	Dwelling
E	Open elevator
E Fl	Each Floor
El	Electric
Elec	Electrician
Eng	Engine
Ent	Entertainment
Episc'l	Episcopal
ESC	Elevator with self-closing traps
ET	Elevator with traps
Exch	Telephone exchange
Expr	Express (as used to designate a delivery service)
F	Flat (as used to designate a delivery service)
FA	Fire alarm
FE	Fire escape
F Pump	Fire pump
Fill'g Sta	Filling station, or gas station
Fl	Floor
Fr Attic	Frame constructed attic
Frat	Fraternity
Fur	Furnishings
Furn'g	Furnishings
Furne	Furniture
GAR	Grand Army of the Republic
GT	Gasoline tank
Gal	Gallery
Gall	Gallery
Gall'y	Gallery
Gen'l	General (as used to designate a general store)
Gents	Gentlemen's
Greas'g	Greasing
Gro	Grocery or groceries

Abbreviation

Meaning

HPFS	High pressure fire service
H'dw	Hardware
Hack	Hackney or delivery service
Hardw	Hardware
Ho	Hotel or house (as used to designate a warehouse)
Htr	Heater
Hyd	Hydrant
ICRR	Illinois Central Railroad
Imp	Implements
Ins	Insurance
Insts	Instruments
Ir Cl	Iron clad
K of C	Knights of Columbus
Lab	Laboratory
Lodg'g	Lodging
Luth	Lutheran
Luth'n	Lutheran
ME	Methodist Episcopal
Mach'y	Machinery
Mak'r	Maker
Manf'y	Manufacture or factory
Mdse	Merchandise
Mfy	Manufacture or factory
Mill'y	Millinery
Mkg	Making
Mo	Motor
NS	Not sprinklered
OU	Open under
Off	Office
PO	Post office
Paint'g	Painting
Pat Med	Patent medicines
Plumb'g	Plumbing
Print'g	Printing
QH	Quadruple (fire) hydrant
RC	Roman Catholic
R'f	Roof
R'm	Room
Rep	Repair
Rep'g	Repairing
Repos'ry	Repository
Restr't	Restaurant
RF	Roof
Rm	Room
S	Store
SA	Spark arrestor
S Vac	Store portion of building is vacant
Sal	Saloon
Sky'ts	Skylights
Sm	Smith, as in gunsmith or blacksmith
Sm Ho	Smokehouse
Sp'k'rs	Sprinklers
St'ge	Storage
St'y	Story
Sta	Station
Stat'y	Stationery
TH	Triple (fire) hydrant
Tel	Telephone
Tenem'ts	Tenements
TESC	Tile enclosed elevator with self-closing traps
Tinw	Tinware
Trimm'g	Trimming
U	Upright
Up	Upright
VP	Vertical pipe
Vac	Vacant
Ven'd	Veneered
Ven'r'd	Veneered
W	Ware, as in warehouse or wareroom
WC	Water closet or toilet
WG	Wire glass skylights
W Ho	Warehouse
WPA	Works Progress Administration
W'ks	Works
Whol	Wholesale
Wkg	Working
Woodwkg	Woodworking

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Sanborn Map Legend

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TILE 1st BRICK 1st PYROBAR 1st	Fire proof construction (OR FIRE RESISTIVE CONST'N)	C.B. & BR. CONST'N ∞	Mixed construction of C.B. and brick with one wall of solid brick.	MANSARD ROOF DOTS REPRESENT OPENINGS, STEMS INDICATE STORIES, COUNTING FROM LEFT TO RIGHT, LOOKING TOWARD BUILDING	Window opening in first story.
ADOBE	Adobe building	C.B. & BR. CONST'N (BR. FACED)	Mixed construction of C.B. and brick with one wall faced with 4" brick.		Window openings in second and third stories.
HEIGHT OF BUILDING IN FEET FROM GROUND TO ROOF LINE 57	Stone building	C.B. & BR. CONST'N	Mixed construction of C.B. and brick throughout.		Window openings in second, fourth stories.
(C.BR.)	Concrete, lime, cinder or cement brick				Windows with wired glass.
(C.B.)	Hollow concrete or cement block const'n			Windows with iron or tin clad shutters.	
(CONC.)	Concrete or reinforced concrete const'n			Window openings tenth to twenty-second stories	
(TILE)	Tile building				
NUMBER OF STORIES 4	Brick building with frame cornice	6" W.P.I.P.E.	Water pipes and size in inches.		
TWO STORIES AND BSMT COMPOSITION ROOF 2B ●	Brick building with stone front	6" W.P.I.P.E. (PRIVATE)	Water pipes of private supply		
SHINGLE ROOF X	Brick building with frame side (DIVIDED BY FRAME PARTITION)	2 D 0	House numbers shown nearest to buildings are official or actually up on buildings.		
(VEN'D)	Brick veneered building	16 S	Old house numbers shown furthest from buildings.		
BRICK 1st	Brick and frame building				
FRAME, BRICK LINED	Frame building, brick lined				
F = FLAT S = STORE	Frame building, metal clad				
D = DWELLING	Frame building				
A in B = AUTO. IN BSMT	Iron building				
LOFT	Tenant building occupied by various manufacturing or occupancies				
(ASB.CL.)	Frame building covered with asbestos				
NON COMBUSTIBLE ROOF COVERING OF METAL, SLATE, TILE OR ASBESTOS SHINGLES O	Brick building with brick or metal cornice				
SKYLIGHT LIGHTING TOP STORY ONLY	Fire wall 6 inches above roof				
SKYLIGHT LIGHTING THREE STORIES	Fire wall 12 inches above roof				
W.G. WIRED GLASS SKYLIGHT	Fire wall 18 inches above roof				
	Fire wall 36 inches above roof				
	Fire wall 48 inches above roof				
	Figures 8,12,16 indicate thickness of wall in inches				
	Wall without opening and size in inches				
	Wall with openings on floors as designated				
	Opening with single iron or tin clad door				
	Opening with double iron or tin clad doors				
	Opening with standard fire doors				
	Openings with wired glass doors				
	WATER TANK				
	Drive or passage way				
	Stable				
	Auto. (House or private garage)				
	Solid brick with interior walls of C.B. or C.B. and brick mixed				

FP-1962 (conc.) A-1-a	A fire-resistive building built in 1962 with concrete walls and reinforced concrete frame, floors and roof.
FPX-1962 (METAL PANELS) E-2-b NONCOMB CEILG	A fire-resistive building built in 1962 with metal panel walls, indirectly protected steel frame, concrete floors and roof on metal lath, noncombustible ceilings.
NC-1962 (C.B.) H-2-d	A noncombustible building built in 1962 with concrete block walls; unprotected steel columns and beams; concrete floors on metal lath and steel deck roof.

24	Reference to adjoining page.
+	Fire engine house, as shown on key map.
●	Fire pump.
(36)	Under page number refers to corresponding page of previous edition.

E	Open elevator.
FE	Frame enclosed elevator.
ET	Frame enclosed elevator with traps.
ESC	Frame enclosed elevator with self closing traps.
CBET	Concrete block enclosed elevator with traps.
TESC	Tile enclosed elevator with self closing traps.
BE	Brick enclosed elevator with wired glass door.

5	Block number.
○	V.P. Vertical pipe or stand pipe.
AFA	Automatic fire alarm.
IEP	Independent electric plant.
AS	Automatic sprinklers.
ACS	Automtc. chemical sprinklers.
AS	Automatic sprinklers in part of building only. (NOTE UNDER SYMBOL INDICATES PROTECTED PORTION OF BUILDING)
1st ONLY	
NS	Not sprinklered.
FA	Fire alarm box.
●	Single hydrant.
D.H.	Double hydrant.
T.H.	Triple hydrant.
Q.H.	Quadruple hydrant of the "High Pressure Fire Service."
FA	Fire alarm box of the "High Pressure Fire Service"
====	Water pipes of the "High Pressure Fire Service"
+ + 12 + +	Water pipes and hydrants of the "High Pressure Fire Service" as shown on key map.

IR. CH.	Iron chimney
○	Iron chimney (WITH SPARK ARRESTOR)
IR. CH.S.A.	Brck. chmny.
○	Ground elevation
U.P.B.	Vertical steam boiler
G.T.	Gasoline tank
(O.U.)	Open under
○	Siamese fire dept. connection
○	Single fire dept. connection.

CODING OF STRUCTURAL UNITS FOR FIREPROOF AND NON-COMBUSTIBLE BUILDINGS

FRAMING	
CODE	STRUCTURAL UNIT
A.	Reinforced Concrete Frame.
B.	Reinforced Concrete Joists, Columns, Beams, Trusses, Arches, Masonry Piers.
C.	Protected Steel Frame.
D.	Individually Protected Steel Joists, Columns, Beams, Trusses, Arches.
E.	Indirectly Protected Steel Frame.
F.	Indirectly Protected Steel Joists, Columns, Beams, Trusses, Arches.
G.	Unprotected Steel Frame.
H.	Unprotected Steel Joists, Columns, Beams, Trusses, Arches.
O.	Masonry Bearing Walls.

FLOORS	
CODE	STRUCTURAL UNIT
1.	Reinforced Concrete.
2.	Reinforced Concrete with Masonry Units. Pre-cast Concrete or Gypsum Slabs or Planks.
3.	Concrete on Metal Lath, Incombustible Form Boards, Paper-backed Wire Fabric, Steel Deck, and Cellular, Ribbed or Corrugated Steel Units.
3.	Open Steel Deck or Grating.

ROOF	
CODE	STRUCTURAL UNIT
a.	Reinforced Concrete. Reinforced Concrete with Masonry Units. Reinforced Gypsum Concrete. Pre-cast Concrete or Gypsum Slabs or Planks.
b.	Concrete or Gypsum on Metal Lath, Incombustible Form Boards, Paper-backed Wire Fabric, Steel Deck, and Cellular, Ribbed or Corrugated Steel Units.
c.	Incombustible Composition Boards with or without Insulation. Masonry or Metal Tiles.
d.	Steel Deck, Corrugated Metal or Asbestos Protected Metal with or without Insulation.

LAND USE CODE APPLICABLE TO CHANGES DIAGRAMMED AFTER 5/69

R	RESIDENTIAL	M	MANUFACTURING
RT	RESIDENTIAL-TRANSIENT	P	PUBLIC OR INSTITUTIONAL
C	COMMERCIAL	U	UTILITY
W	WAREHOUSE	T	TRANSPORTATION

The coding for framing, floor and roof structural units as shown above is used in describing the construction of fire-resistive buildings. In addition, reports for fire-resistive buildings will show the date built and wall construction when other than brick.

FP buildings have masonry floors and roof; concrete and/or directly or indirectly protected steel framing; and clay brick, stone or poured concrete walls.

FPX buildings are FP buildings with inferior walls such as concrete block, cement brick, metal or glass panels, etc.

NC buildings have unprotected steel framing and fire-resistive but non-masonry floors and roof.

NUMERICAL PREFIX INDICATES THE NUMBER OF ESTABLISHMENTS IN EACH CATEGORY

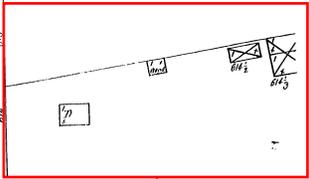
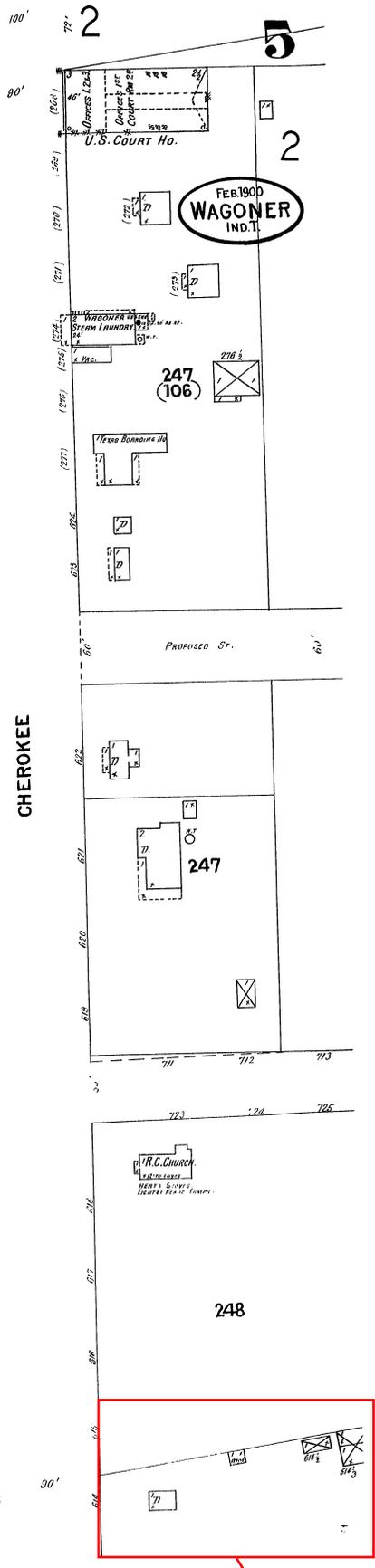
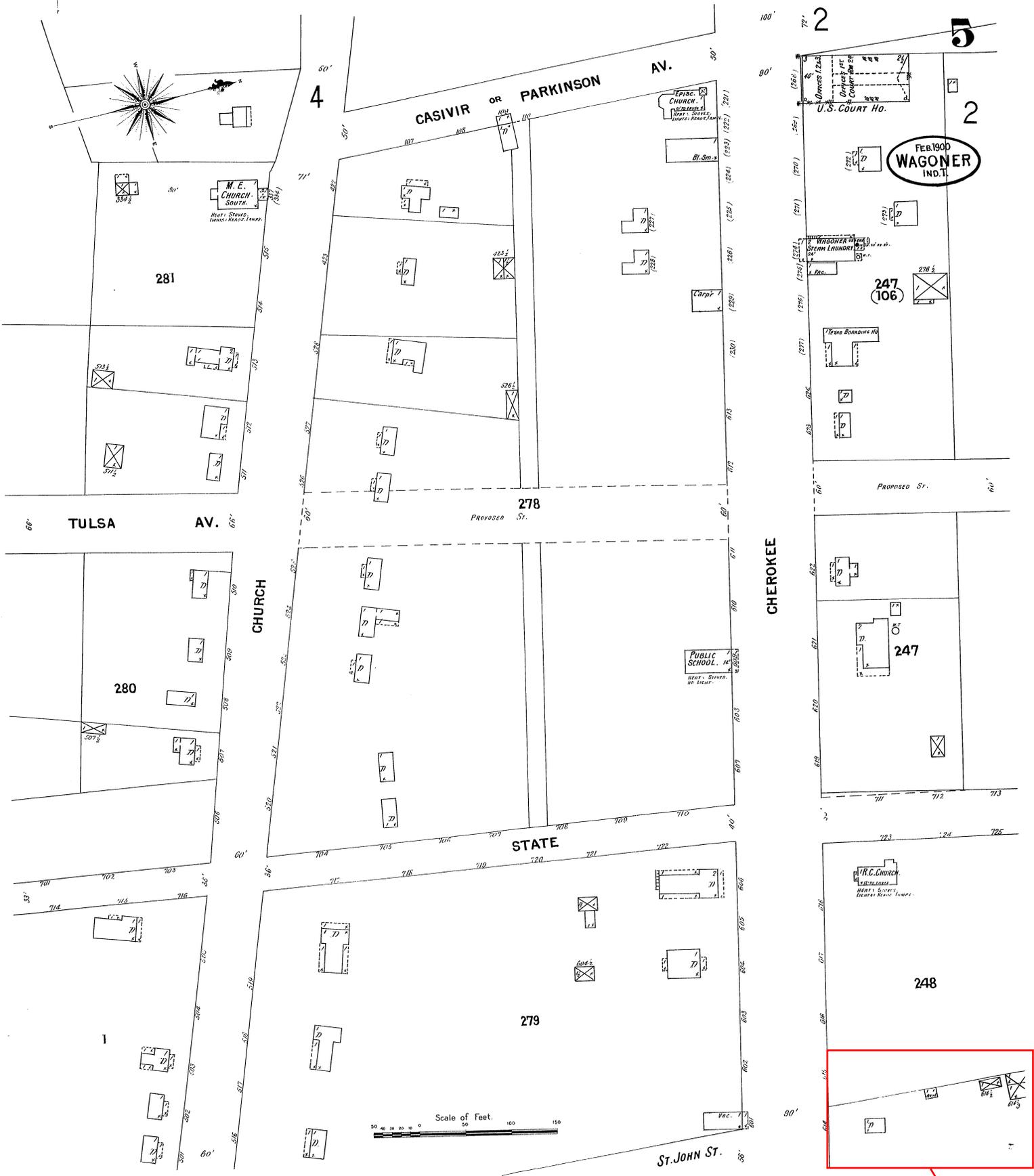
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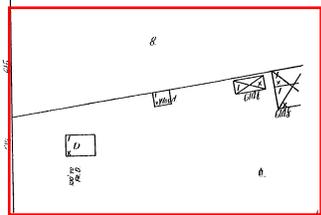
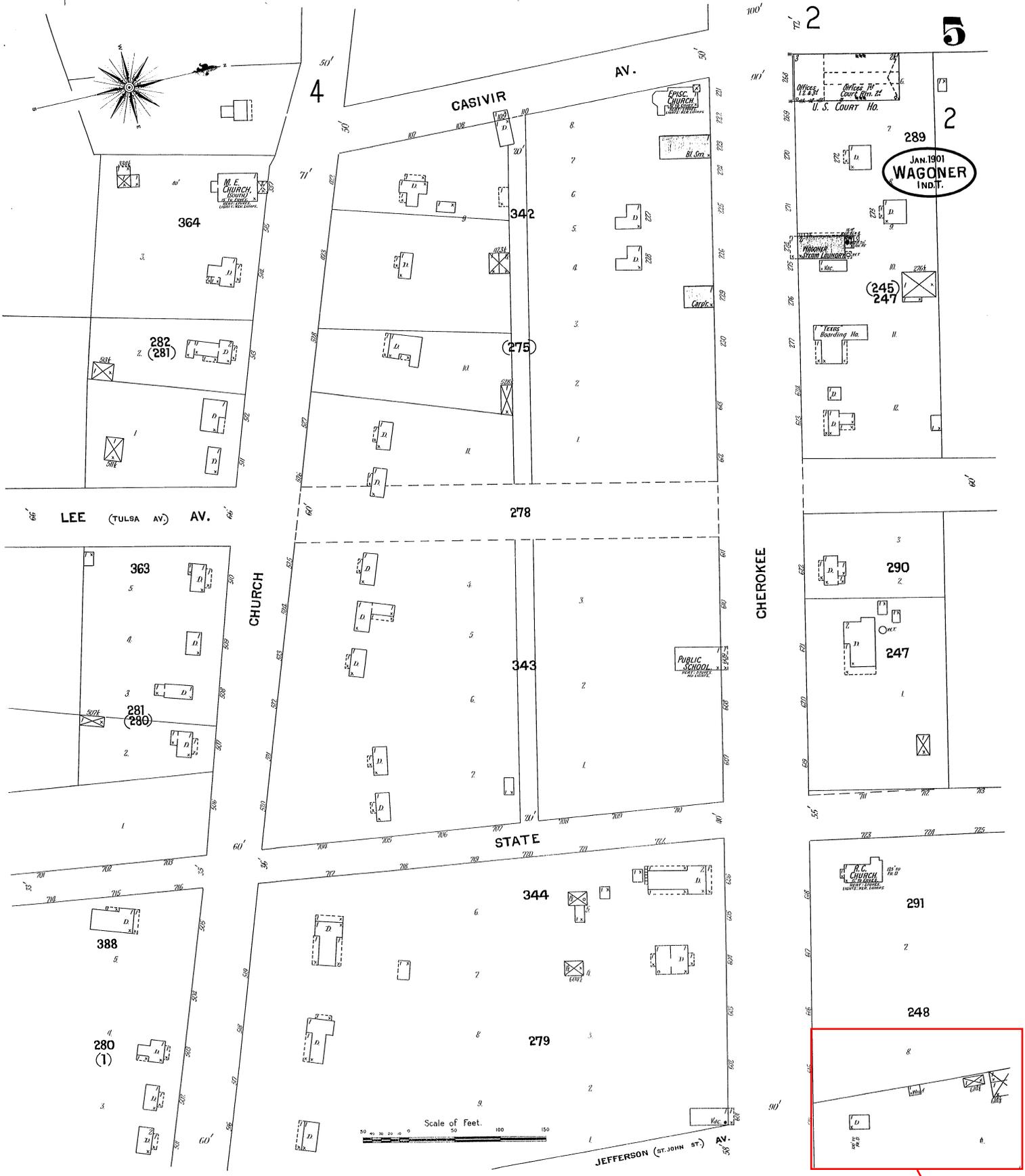
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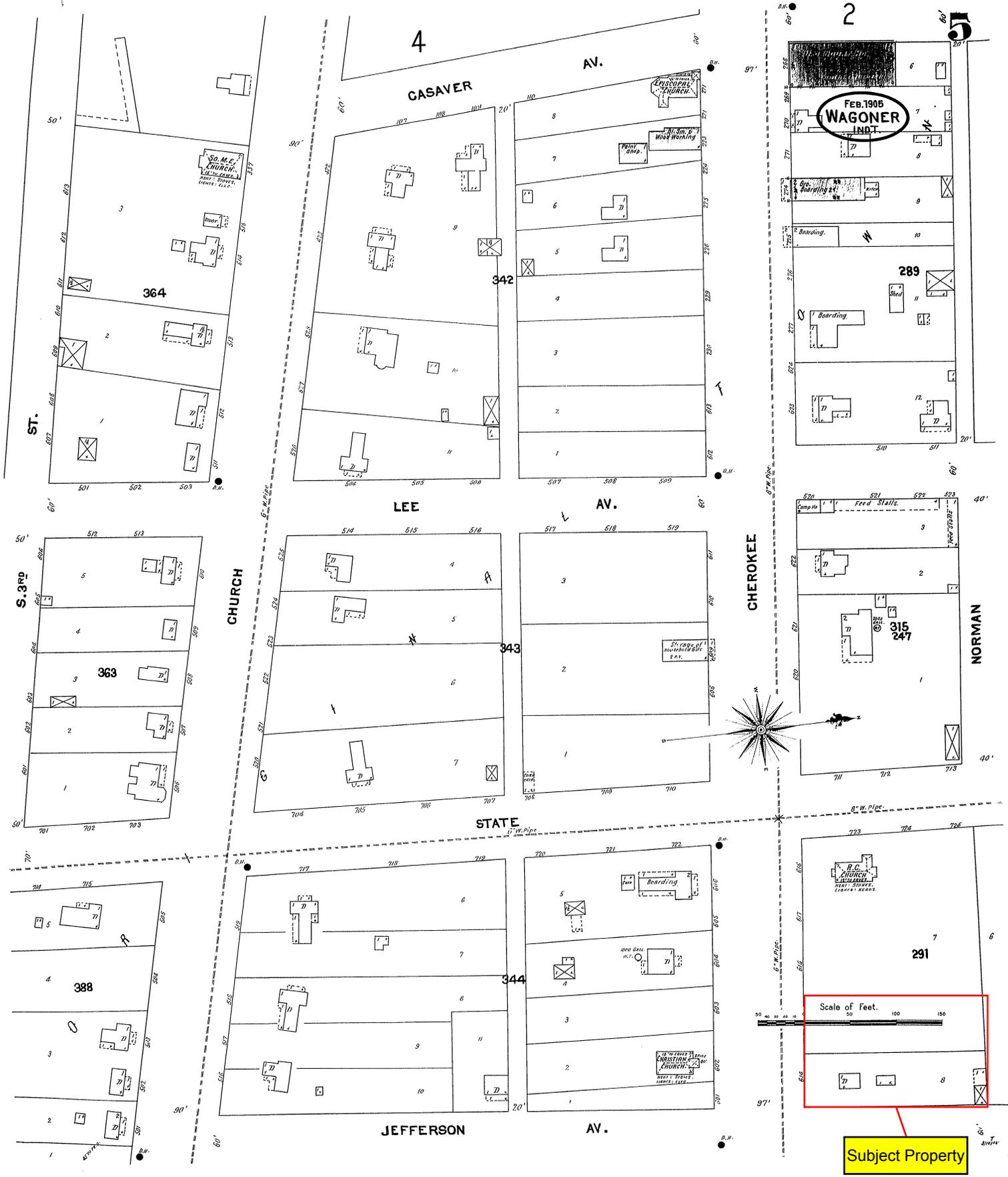
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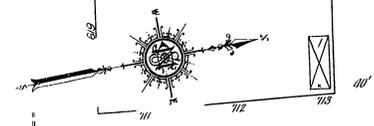
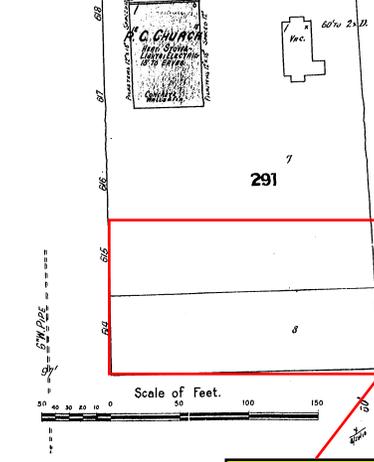
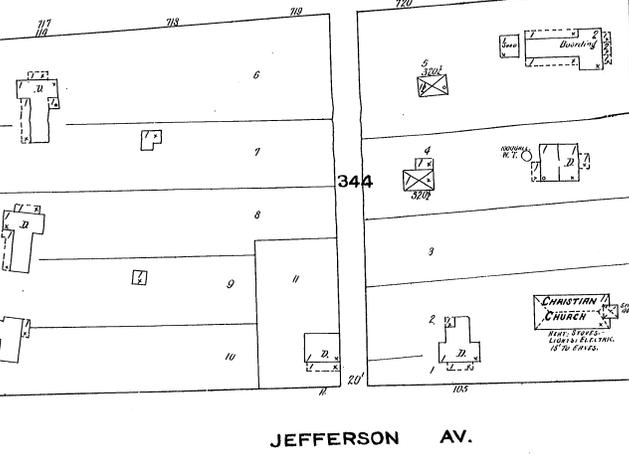
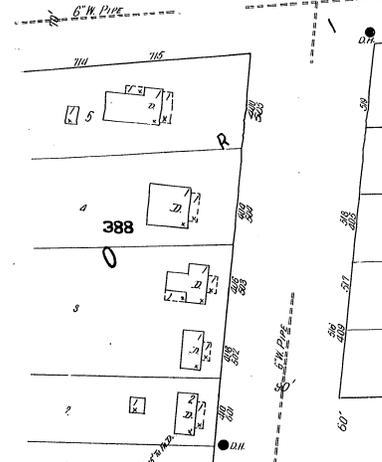
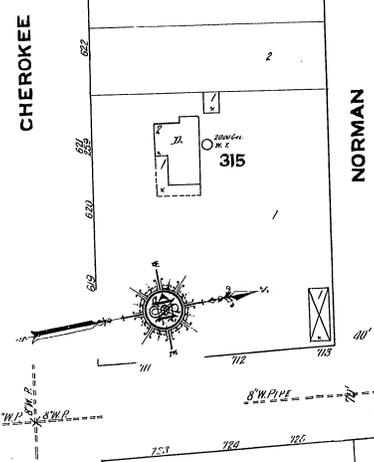
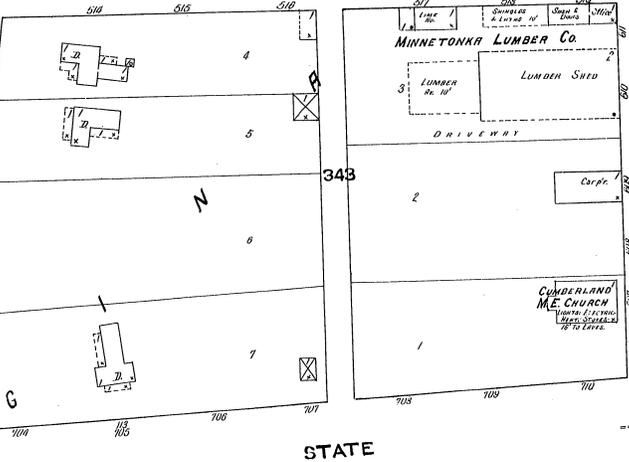
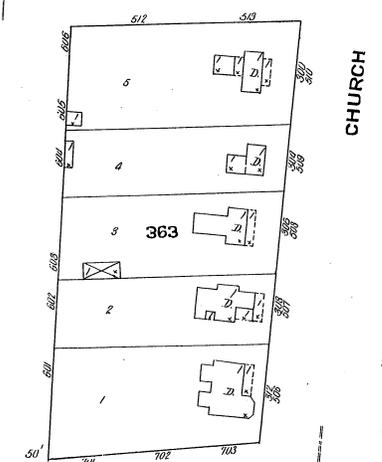
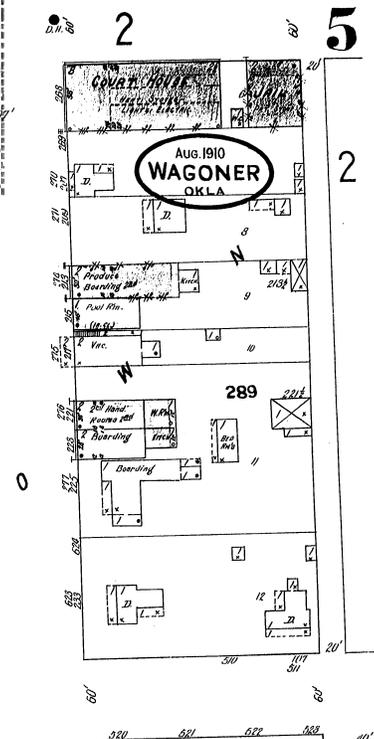
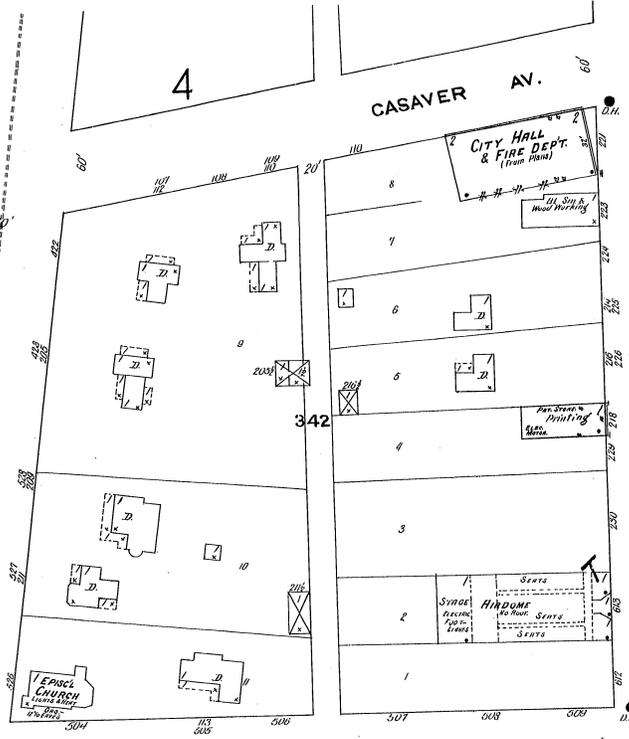
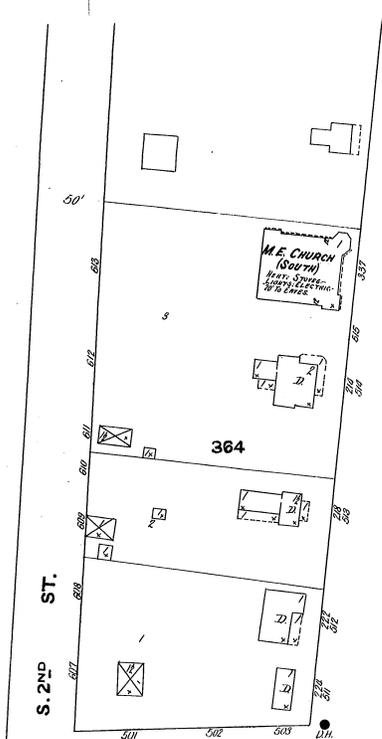


Subject Property



Subject Property





Subject Property

12
46

OKLA . . 518

FEB. 1917
WAGONER
OKLA.

12

ADDL SHEET
SEPT. 11 1932

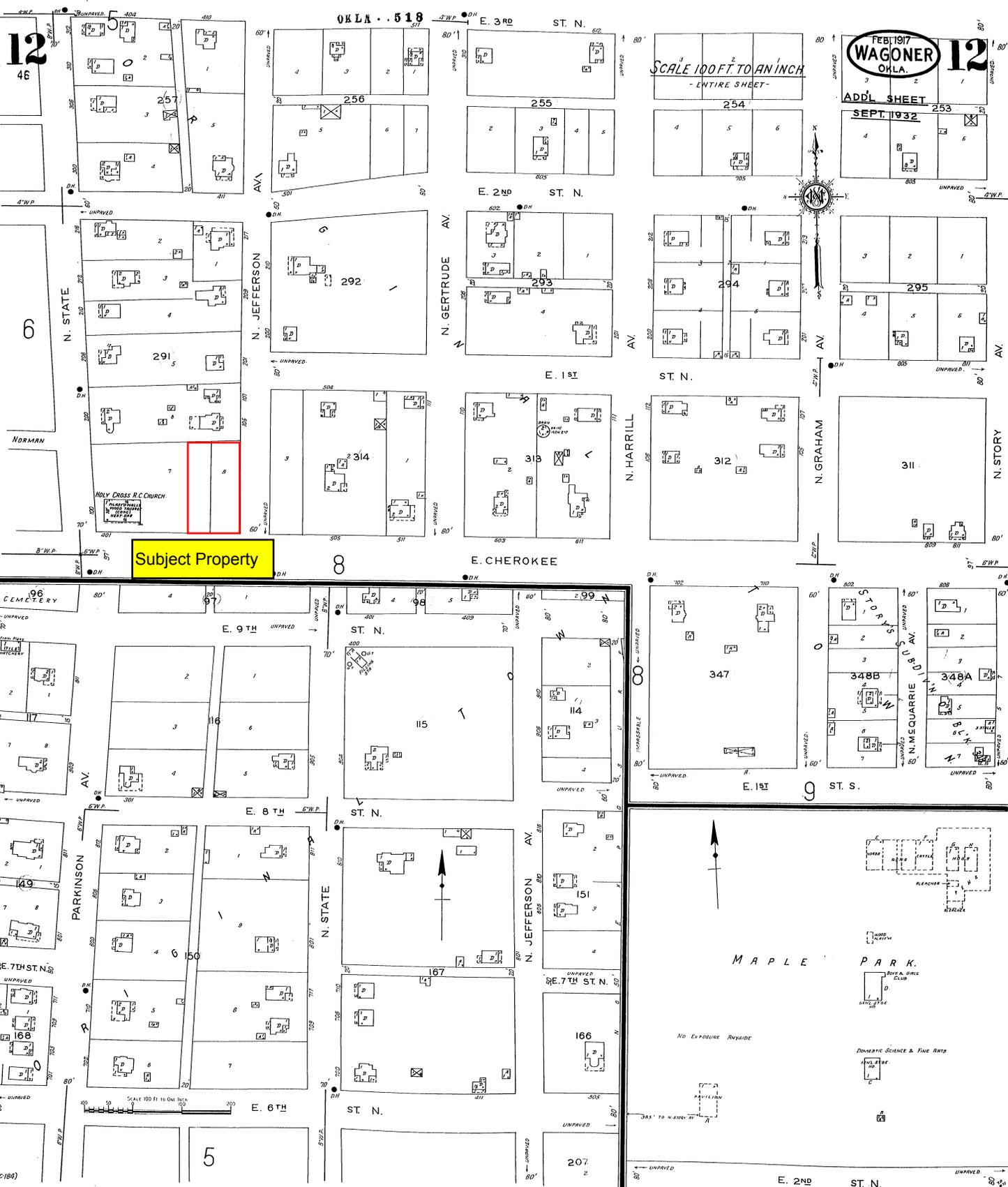
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- ENTIRE SHEET -

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Subject Property

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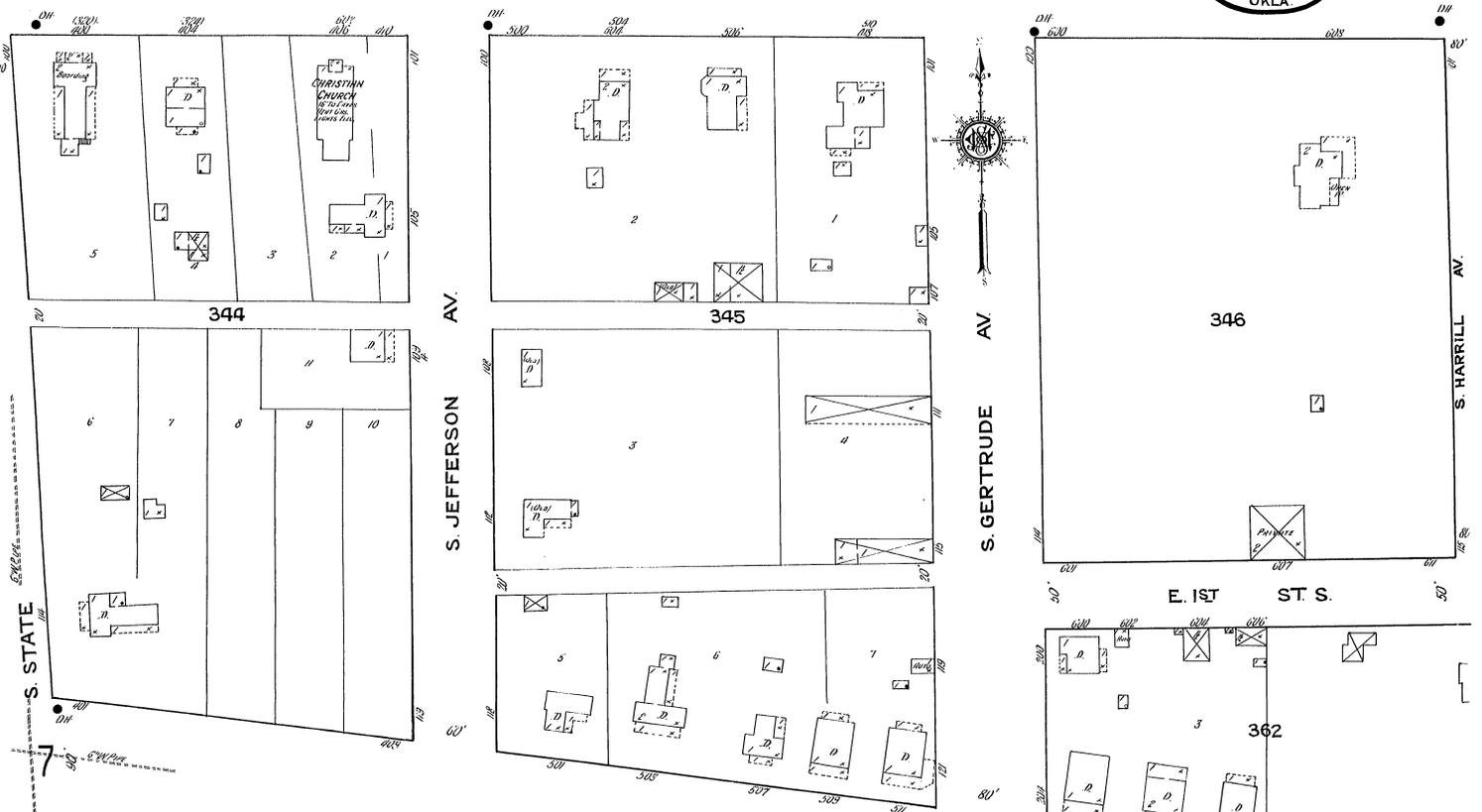
N. STORY



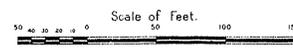
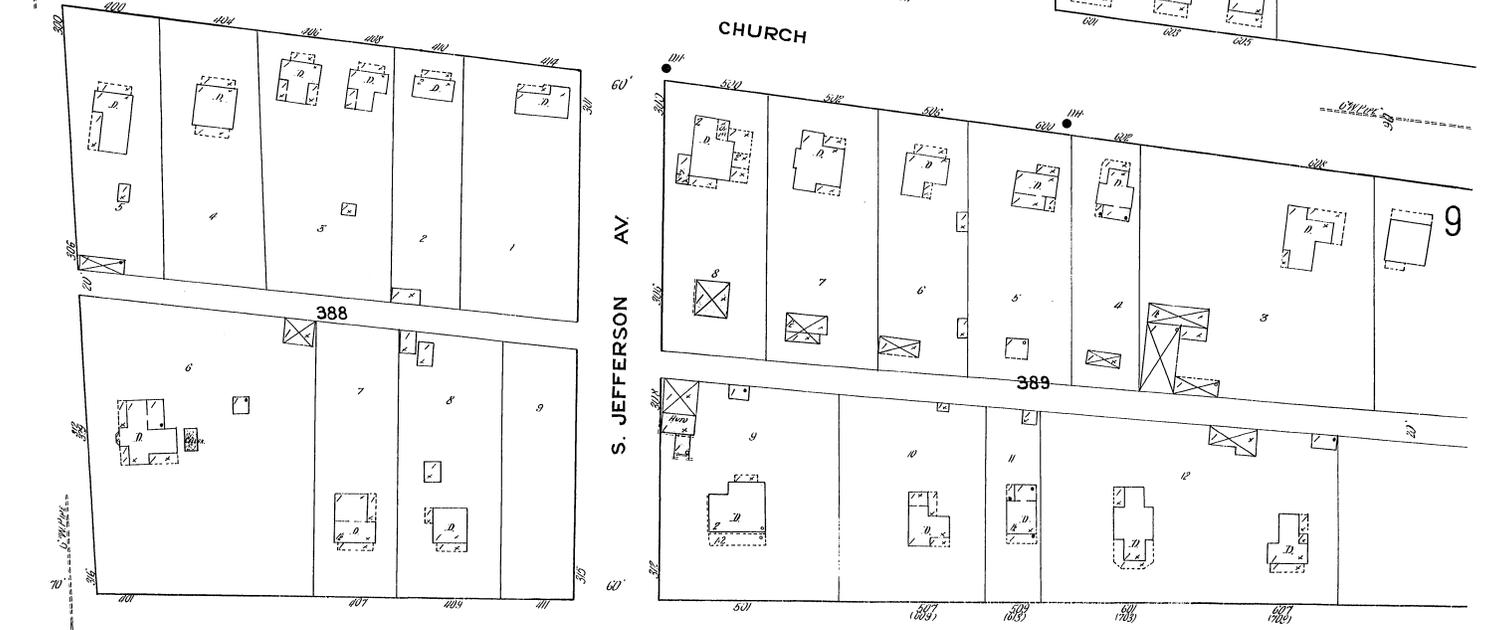
(C-184)

FEB. 1917
WAGONER
OKLA.

E. CHEROKEE

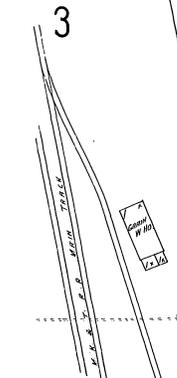
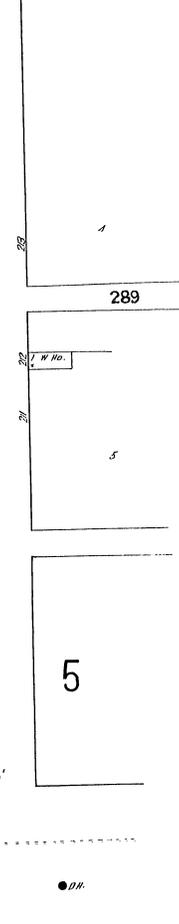
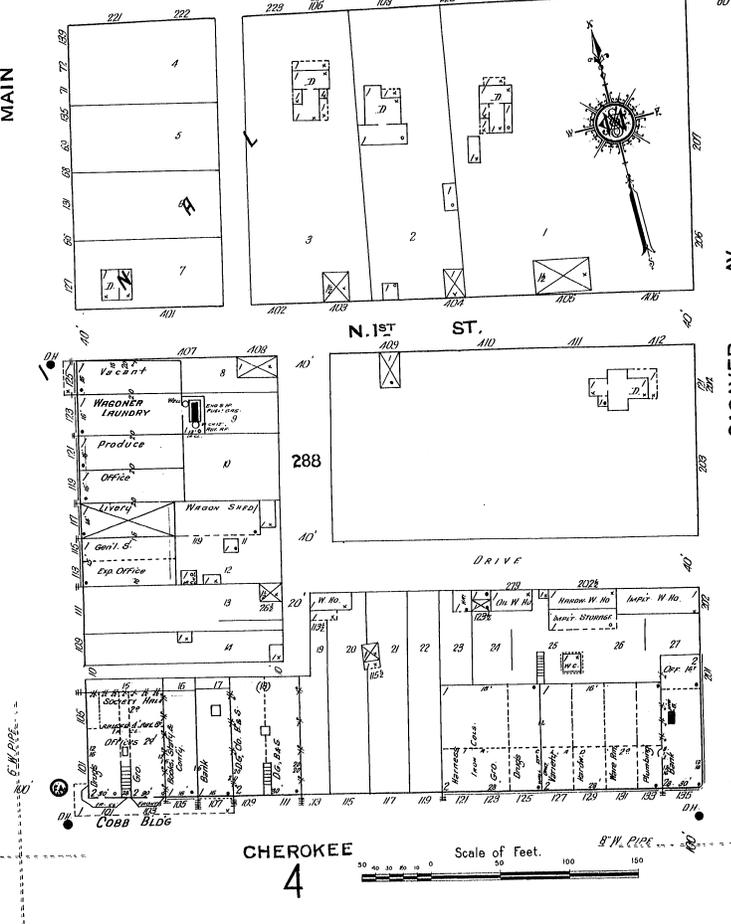
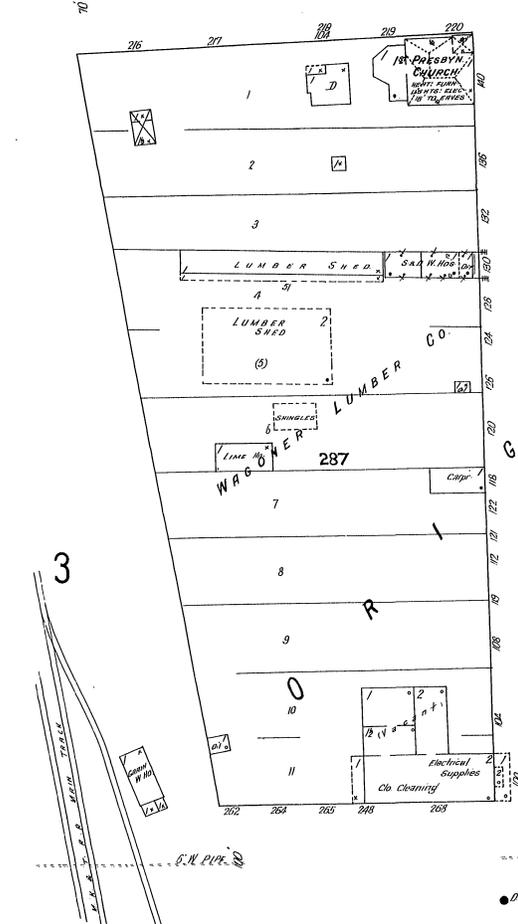
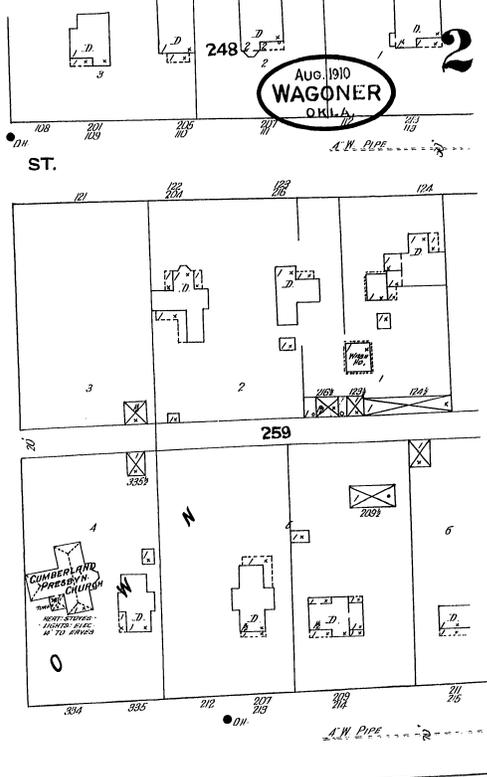
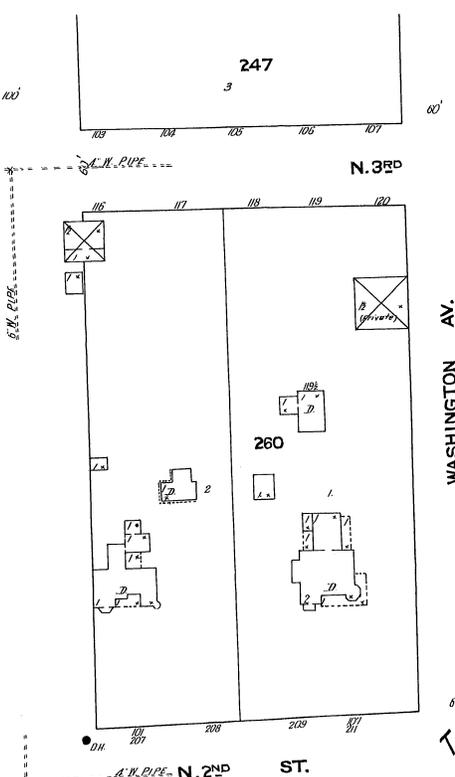
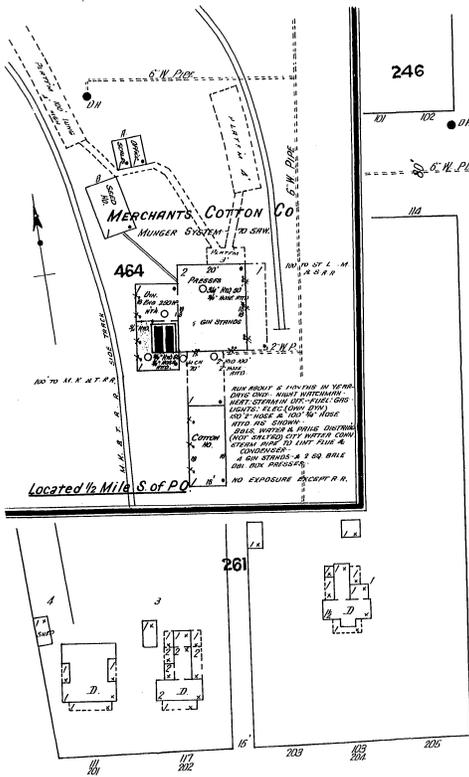


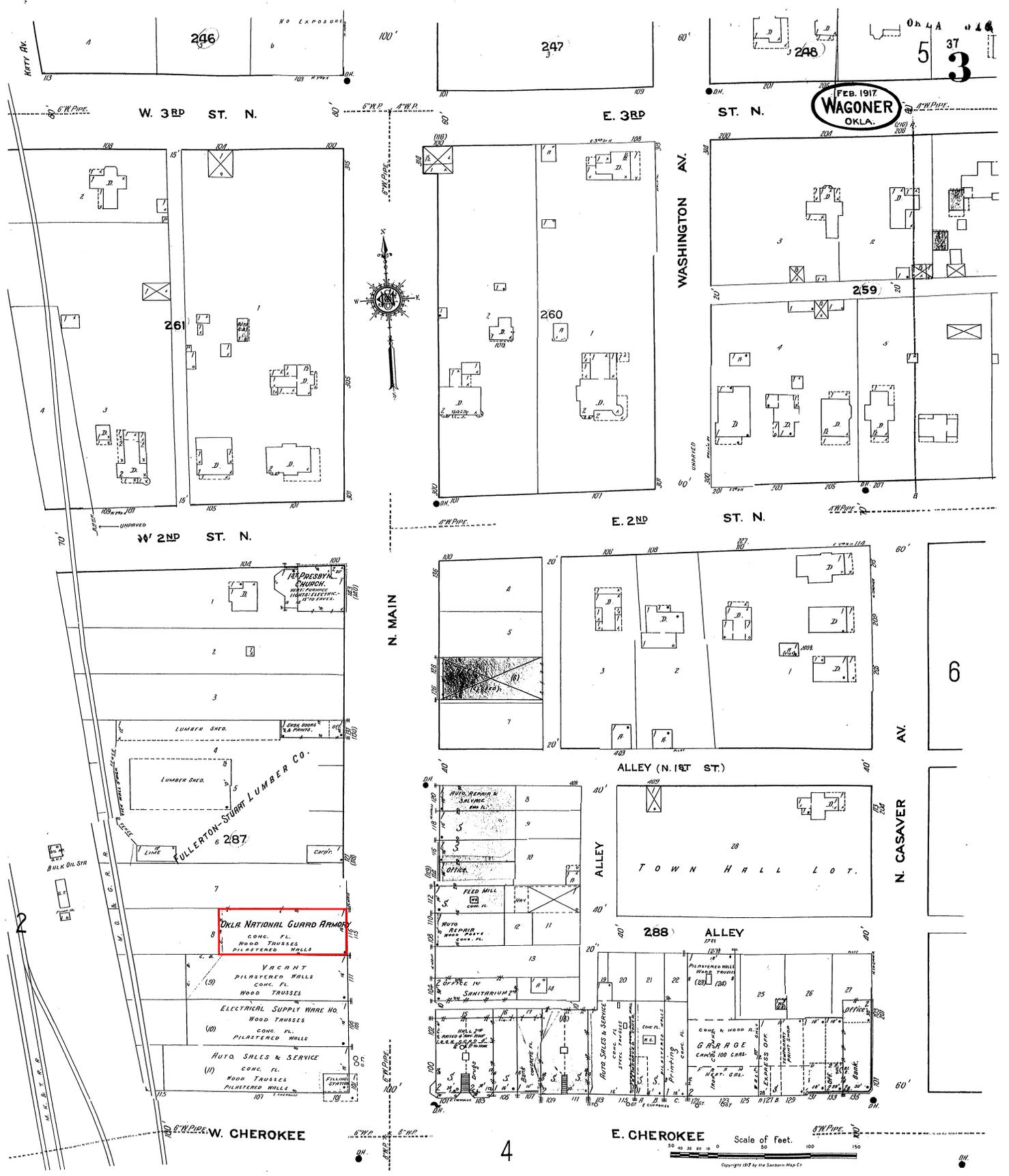
CHURCH



Copyright 1917, by the Wagoner Map Co.

Sanborn Maps: Older Armory (Not Subject Property)





FEB. 1917
WAGONER
 OKLA.

OKLA. NATIONAL GUARD ARMORY
 CONC. FL.
 WOOD TRUSSES
 PILASTERED WALLS

ALLEY (N. 1ST ST.)

288 ALLEY

E. CHEROKEE

Scale of Feet.
 0 25 50 100 150

RCRA CORRACTS

RCRA Notifiers

RCRA NOTIFIERS LISTING
 Source: USEPA RCRAInfo Database

State of: **OKLAHOMA**

EPA-ID	FACILITY NAME	LOCATION ADDRESS	CITY	ZIP	COUNTY/ PARISH	S T		O O		RECEIVED DATE
						E E	A	OPER	W P	
						N N	N	T SDF	N R	
OKD124574724	FORMER WAL-MART STORE # 374	1140 SEVEN OAKS CENTER	COWETA	74429	WAGONER	7			P	09/24/07
	Contact: JOHN PRINGLE	Mailing Adrs: 702 SW 8TH STREET, BENTONVILLE, AR 72716								Phone: 9184866511
OK0000989319	RFM LTD CHOSKA MILL	RT 1 BOX 79A HWY 104S	COWETA	74429	WAGONER	7			P	12/19/94
	Contact: DAN PILKINGTON	Mailing Adrs: 4031-B DELMON LN, SPRINGDALE, AR 72762								Phone: 4797568299
OKR000019216	RUNNING HORSE INC	38557 E 153RD ST SOUTH	COWETA	74429	WAGONER		Y		P P	12/08/03
	Contact: KAREN G MCINTIRE	Mailing Adrs: 38557 E 153RD ST SOUTH, COWETA, OK 74429								Phone: 9184830307
OKD981593817	SUNSHINE CLEANERS	129 N BROADWAY	COWETA	74429	WAGONER	3			P	10/30/86
	Contact: FRANK DOBBINS	Mailing Adrs: 129 N BROADWAY, COWETA, OK 74429								Phone: 9184863663
OKR000023150	WAL-MART SUPERCENTER # 374	11207 S HIGHWAY 51	COWETA	74429	WAGONER	3			P P	09/24/07
	Contact: PAM WILMOTT	Mailing Adrs: 702 SW 8TH ST, BENTONVILLE, AR 72716								Phone: 4792042324
OKD089761290	GREENWAY ENVIRONMENTAL INC	HWY 64 6 MI NORTH OF HAS	HASKELL	74436	WAGONER	7	Y		M	10/11/97
	Contact: DENNIS FILES	Mailing Adrs: PO BOX 249, HASKELL, OK 74436								Phone: 9184825271
OKD987095817	US CHEM CORP	6.5M N ON HWY 64	HASKELL	74436	WAGONER	8	Y		P	10/05/92
	Contact: KYLE KELLY	Mailing Adrs: PO BOX 77B RT 2, HASKELL, OK 74436								Phone: 9184823565
OK9960099829	US ARMY COE CHOTEAU LOCK & DAM	HWY 51 4M NW OF OKAY HWY	OKAY	74446	WAGONER	3			F	04/06/92
	Contact: JAMES HARRIS	Mailing Adrs: RT 1 BOX 74, PORTER, OK 74454								Phone: 9185817356
OK0000228098	AMETEK PRESTOLITE MOTORS	1211 W CHEROKEE	WAGONER	74467	WAGONER	3			M	02/19/02
	Contact: DON BREED	Mailing Adrs: 1211 W CHEROKEE, WAGONER, OK 74467								Phone: 9184855572
OKR000021279	AMETEK PRESTOLITE MOTORS	305 S MCQUARRIE AVE	WAGONER	74467	WAGONER	3			P P	09/25/06
	Contact: OSCAR SANCHEZ	Mailing Adrs: 305 S MCQUARRIE AVE, WAGONER, OK 74467								Phone: 9184855572 103
OK0000553438	CALVERY PLASTICS	HWY 16 S	WAGONER	74467	WAGONER				P	03/13/00
	Contact: KENNETH HANS	Mailing Adrs: PO BOX 514, WAGONER, OK 74467								Phone: 9184856204
OKD072428642	CELLXION LIGHTWEIGHT DIVISION	300 SE 15TH SUITE A	WAGONER	74467	WAGONER	7			P	04/28/04
	Contact: DAVID FRANCIS	Mailing Adrs: PO BOX 1007, WAGONER, OK 74467								Phone: 9184855151
OKR000020552	ELASTOMER SPECIALTIES POLYMER	2210 S HWY 69	WAGONER	74467	WAGONER	7			P P	05/04/06
	Contact: GARY CUPP	Mailing Adrs: 2210 S HWY 69, WAGONER, OK 74467								Phone: 9184852835
OKR000001610	KEVIN GROVER GMC INC	1440 S DEWEY	WAGONER	74467	WAGONER	2			P P	03/24/06
	Contact: KEVIN GROVER	Mailing Adrs: 1440 S DEWEY, WAGONER, OK 74467								Phone: 9184852188
OKR000002568	LABARGE PIPE AND STEEL CO	1300 N LABARGE AVE	WAGONER	74477	WAGONER	2			P	12/12/06
	Contact: PAT CONDRY	Mailing Adrs: PO BOX 355, WAGONER, OK 74477								Phone: 9184859582
OKR000004531	OPEN MOLDED PLASTICS INC	902 S ADAMS	WAGONER	74467	WAGONER	3			P	02/08/07
	Contact: CURT HANCOCK	Mailing Adrs: PO BOX 362, WAGONER, OK 74477								Phone: 9184852435
OKD115092868	POLYMER FABRICATION INC.	402 SW 15TH ST	WAGONER	74467	WAGONER	2			P	07/31/86
	Contact: DOUG BATES	Mailing Adrs: P.O. BOX 186, WAGONER, OK 74477								Phone: 9184859585

RCRA NOTIFIERS LISTING
 Source: USEPA RCRAInfo Database

State of: **OKLAHOMA**

EPA-ID	FACILITY NAME	LOCATION ADDRESS	CITY	ZIP	COUNTY/ PARISH	S T		O O		RECEIVED DATE
						E E	A	OPER	W P	
						N N	N	T SDF	N R	
OKD033153743	STACYS MOTOR COMPANY Contact: EVERT STACY	705 W. CHEROKEE Mailing Adrs: 705 W. CHEROKEE, WAGONER, OK 74467	WAGONER	74467	WAGONER	7			P	11/06/86 Phone: 9184852188
OKR000014803	SUSTAINABLE SOLUTIONS INC Contact: MIKE GHERE	300 SE 15TH STREET STE B Mailing Adrs: 300 SE 15TH STREET STE B, WAGONER, OK 74467	WAGONER	74467	WAGONER	3			P P	03/10/04 Phone: 9184851755
OK0000957324	TRACYS BODY SHOP Contact: JIM SIZEMORE	407 W CHEROKEE Mailing Adrs: 407 W CHEROKEE, WAGONER, OK 74467	WAGONER	74467	WAGONER	3			P	12/02/94 Phone: 9184853595
OKD981908395	UNARCO INDUSTRIES, INC. Contact: TERRY D CRAWFORD	400 S E 15TH STREET Mailing Adrs: 400 S E 15TH STREET, WAGONER, OK 74467	WAGONER	74467	WAGONER	1	1		P P	03/27/06 Phone: 9184859531 412
OKD987087723	UNION PACIFIC RR Contact: JERRY COVEY	302 S MAIN ST Mailing Adrs: 1416 DODGE ST RM 930, OMAHA, NE 68179	WAGONER	74467	WAGONER	3			P	01/30/92 Phone: 4022714037
OKD987094943	WAGONER CITY OF Contact: DON CANTRELL	300 SE 3RD Mailing Adrs: PO BOX 406, WAGONER, OK 74477	WAGONER	74467	WAGONER	3			M	03/13/00 Phone: 9184853282
OKD981588296	WAGONER FORD LINE MERC Contact: CURTIS KELLER	1510 W 51 HWY Mailing Adrs: P.O. BOX 891, WAGONER, OK 74467	WAGONER	74467	WAGONER	7			P	08/21/86 Phone: 9184852166
OKR000015867	WAGONER TRANSMISSION Contact: JACKIE SMITH	310 SE 2ND STREET Mailing Adrs: 310 SE 2ND STREET, WAGONER, OK 74467	WAGONER	74467	WAGONER				P	02/02/01 Phone: 9184856291
OKR000017517	WAL-MART SUPERCENTER # 63 Contact: BILL BECHER	410 S DEWEY Mailing Adrs: 702 SW 8TH STREET, BENTONVILLE, AR 72716	WAGONER	74467	WAGONER	3			P	12/26/01 Phone: 9184859515
OKR000016816	350 STORAGE YARD Contact: PAUL L DURLER	2.5 M EAST OF HWY 75 ON Mailing Adrs: PO BOX 201, TULSA, OK 74102	BARTLESVILLE	74005	WASHINGTON	3			P P	04/01/08 Phone: 9183371246
OKD987068954	ACME BODY SHOP Contact: JAMES-A-JR DAIGLE	1602 SW 5TH Mailing Adrs: 1602 SW 5TH, BARTLESVILLE, OK 74003	BARTLESVILLE	74003	WASHINGTON	3			P	11/06/89 Phone: 9183368580
OKR000004861	ALTA PHOTOGRAPHIC INC Contact: KATHY S BOLEN	1421 INTERNATIONAL DR Mailing Adrs: 1421 INTERNATIONAL DR, BARTLESVILLE, OK 74006	BARTLESVILLE	74006	WASHINGTON	2			P P	02/28/03 Phone: 9183352582
OKD061633244	APPLIED AUTOMATION Contact: GL SHURTZ	PAWHUSKA RD Mailing Adrs: PAWHUSKA RD, BARTLESVILLE, OK 74003	BARTLESVILLE	74003	WASHINGTON	8			P	08/18/80 Phone: 9186617871
OKR000003699	ARCHER CLEANERS Contact: JACK ARCHER	2525 SE WASHINGTON Mailing Adrs: 2525 SE WASHINGTON, BARTLESVILLE, OK 74006	BARTLESVILLE	74006	WASHINGTON	2			P	11/12/97 Phone: 9183335800
OKR000003707	ARCHER CLEANERS Contact: JACK ARCHER	910 MADISON Mailing Adrs: 910 MADISON, BARTLESVILLE, OK 74006	BARTLESVILLE	74006	WASHINGTON	6			P	11/12/97 Phone: 9183336097
OKR000006353	BARTLESVILLE CYCLE SPORT Contact: GLEN RANDALL	1400 TUXEDO Mailing Adrs: 1400 TUXEDO, BARTLESVILLE, OK 74003	BARTLESVILLE	74003	WASHINGTON	3			P	02/12/99 Phone: 9183363800
OKD981915549	BARTLESVILLE EXAMINER ENTERPRI Contact: DAVE RENFRO	300 E FRANK PHILLIPS BLVD Mailing Adrs: PO BOX 1278, BARTLESVILLE, OK 74005	BARTLESVILLE	74003	WASHINGTON	6			P	05/26/87 Phone: 9183364254

ERNS

<u>NRC Report #</u>	<u>Type of Call</u>	<u>Description Of Incident</u>	<u>Type Of Incident</u>	<u>Incident Cause</u>	<u>Incident Date/Time</u>	<u>Location</u>	<u>State</u>	<u>Nearest City</u>	<u>County</u>	<u>Suspected Responsible Company</u>	<u>Medium Affected</u>	<u>Material Name</u>
25719	INCIDENT	POLE TRANSFORMERS / THE CITY MANAGER OF WAGNER ORDERED SOME OLDTRANSFORMERS TO BE BURIED IN DIRT PITS.	FIXED	OPERATOR ERROR	6/6/90	BEHIND THE CITY WAREHOUSE AND NEAR A PRESCHOOL ON PARKERSON ST.	OK	WAGONER	WAGONER	WAGNER CITY MANAGER	SUBSURFACE	POLYCHLORINATED BIPHENYLS
80042	INCIDENT	AT THE FULL SERVICE ISLAND, AN EMPLOYEE SPILLED SOME GASOLINE WHILE FILLING UP A CAR, THEN PROCEEDED TO HOSE THE GAS OFF OF THE PARKING LOT.	FIXED	OPERATOR ERROR	7/18/91	1009 WEST CHEROKEE APCO GAS STATION	OK	WAGONER	WAGONER	APCO GAS STATION	LAND	GASOLINE: AUTOMOTIVE (4.23G PB/G)
151379	INCIDENT	A SEAL ON A TANK CAR (TLDX223153) WAS OPENED BY VANDALS	RAILROAD	OTHER	1/2/93	COOKSON SIDING	OK	WAGONER	WAGONER	UNION PACIFIC RAILROAD	LAND	PROCESSING OIL

Materials	250465	INCIDENT	CALLER STATES MATERIAL IS BEING DUMPED INTO HOG PEN AREA	FIXED	DUMPING	7/14/94	1600 N LABARGE ST	OK	WAGONER	WAGONER	LABARGE PIPELINE	LAND	METHYL ETHYL KETONE
Materials	250465	INCIDENT	CALLER STATES MATERIAL IS BEING DUMPED INTO HOG PEN AREA	FIXED	DUMPING	7/14/94	1600 N LABARGE ST	OK	WAGONER	WAGONER	LABARGE PIPELINE	LAND	XYLENE (O-, M-, P-, & MIXTURES)
Materials	439979	INCIDENT	FREIGHT TRAIN (NO 2CBMFG-31) / TRAIN STRUCK A VAN AT A GRADE CROSSING SPEED OF TRAIN:UNKN OWN / DIRECTION:S OUTHBOUND / SIGNALS:UNKNOWN	RAILROAD NON-RELEASE	OTHER	6/3/98	MILEPOST:4 84 CROSS ST:DIRT ROAD DOT NO.UNKNO WN	OK	WAGONER	WAGONER		RAIL REPORT (N/A)	
Materials	456656	INCIDENT	TRACTOR TRAILER SADDLE TANKS / DRIVER HIT CURB OR OTHER OBJECT AND PUNCTURED TANK	MOBILE	OTHER	9/23/98	TRUCK STOP ON NORTH HWY 69 / .25 MILES NORTH OF 51 AND 69 JCT	OK	WAGONER	WAGONER	WINNIPEG MOTOR EXPRESS	LAND	OIL: DIESEL

Materials	500966	INCIDENT	VEHICLE STRUCK A FREIGHT TRAIN AT CROSSING / GATES WERE IN WORKING ORDER	RAILROAD NON-RELEASE	OTHER	10/2/99	DOT NUMBER: UNKNOWN COUNTY ROAD EO750	OK	WAGONER	WAGONER		RAIL REPORT (N/A)	
Materials	502864	INCIDENT	NORTHBOUND FREIGHT TRAIN/4 ENGINES/87 CARS TRACTOR TRAILER JUMPED TRACKS ALONG ROAD CAUSING SADDLE TANK RUPTURE	RAILROAD	UNKNOWN	10/19/99	STATE HIGHWAY 69 RR MP: 487	OK	WAGONER	WAGONER		LAND	OIL, FUEL: NO. 2-D
Materials	527966	INCIDENT	FREIGHT TRAIN STRUCK A PASSENGER CAR	RAILROAD NON-RELEASE	OTHER	5/3/00	N/A STATE HWY 16 AND MCQUARIE STREET	OK	WAGONER	WAGONER		RAIL REPORT (N/A)	

Materials		DUE TO HEAVY RAINS A TRACTOR TRAILER TRUCK JACK KNIFED RUPTURING THE TRUCK'S SADDLE TANK SPILLING DIESEL FUEL ONTO A SOIL SURFACE AND INTO A NEAR BY DRAIN DITCH.	MOBILE	TRANSPORT ACCIDENT	5/27/01	STATE HWY 69	OK	WAGONER	WAGONER	SITTON MOTOR LINES	WATER	OIL: DIESEL
Materials		STRUCK A PASSENGER CAR AT A GRADE CROSSING RESULTING IN A FATALITY FOR THE VEHICLE	RAILROAD NON-RELEASE	UNKNOWN	12/9/05	MP 588.7 WAGONER SUB	OK	WAGONER	WAGONER		RAIL REPORT (N/A)	
Materials		THIS REPORT IS IN REFERENCE TO REPORT # 781929 - REPORTING A TRESPASSER FATALITY DUE TO TRAIN STRIKING A VEHICLE.	RAILROAD NON-RELEASE	UNKNOWN	12/9/05	MILE POST 588.6	OK	WAGONER	WAGONER		NON-RELEASE (N/A)	

<p>Materials</p> <p>783648</p>	<p>INCIDENT</p>	<p>CALLER IS REPORTING AN UNKNOWN SHEEN.</p>	<p>UNKNOWN SHEEN</p>	<p>UNKNOWN</p>	<p>12/28/05</p>	<p>UNKNOWN SHEEN INCIDENT / VERDIGRIS RIVER</p>	<p>OK</p>	<p>WAGONER</p>	<p>WAGONER</p>		<p>WATER</p>	<p>UNKNOWN OIL</p>
<p>Materials</p> <p>814497</p>	<p>INCIDENT</p>	<p>CALLER STATED THERE IS A FACILITY THAT IS ALLOWING MATERIALS TO RELEASE FROM THE DOORS AND INTO A CREEK. CALLER STATED AT THIS MANUFACTURING FACILITY THERE ARE MACHINES THAT LEAK MATERIALS WHICH ARE LEAKING OUT THE DOOR TO A CREEK BEHIND THE FACILITY.</p>	<p>FIXED</p>	<p>DUMPING</p>	<p>9/15/06</p>	<p>1410 SE 15TH STREET</p>	<p>OK</p>	<p>WAGONER</p>	<p>WAGONER</p>	<p>COLSON PLASTIC</p>	<p>WATER</p>	<p>OIL, MISC: LUBRICATING</p>

Materials

CALLER STATED THERE IS A FACILITY THAT IS ALLOWING MATERIALS TO RELEASE FROM THE DOORS AND INTO A CREEK. CALLER STATED AT THIS MANUFACTURING FACILITY THERE ARE MACHINES THAT LEAK MATERIALS WHICH ARE LEAKING OUT THE DOOR TO A CREEK BEHIND THE FACILITY.

814497 INCIDENT

FIXED

DUMPING

9/15/06 1410 SE 15TH STREET OK

WAGONER

WAGONER

COLSON PLASTIC

WATER

HYDRAULIC OIL

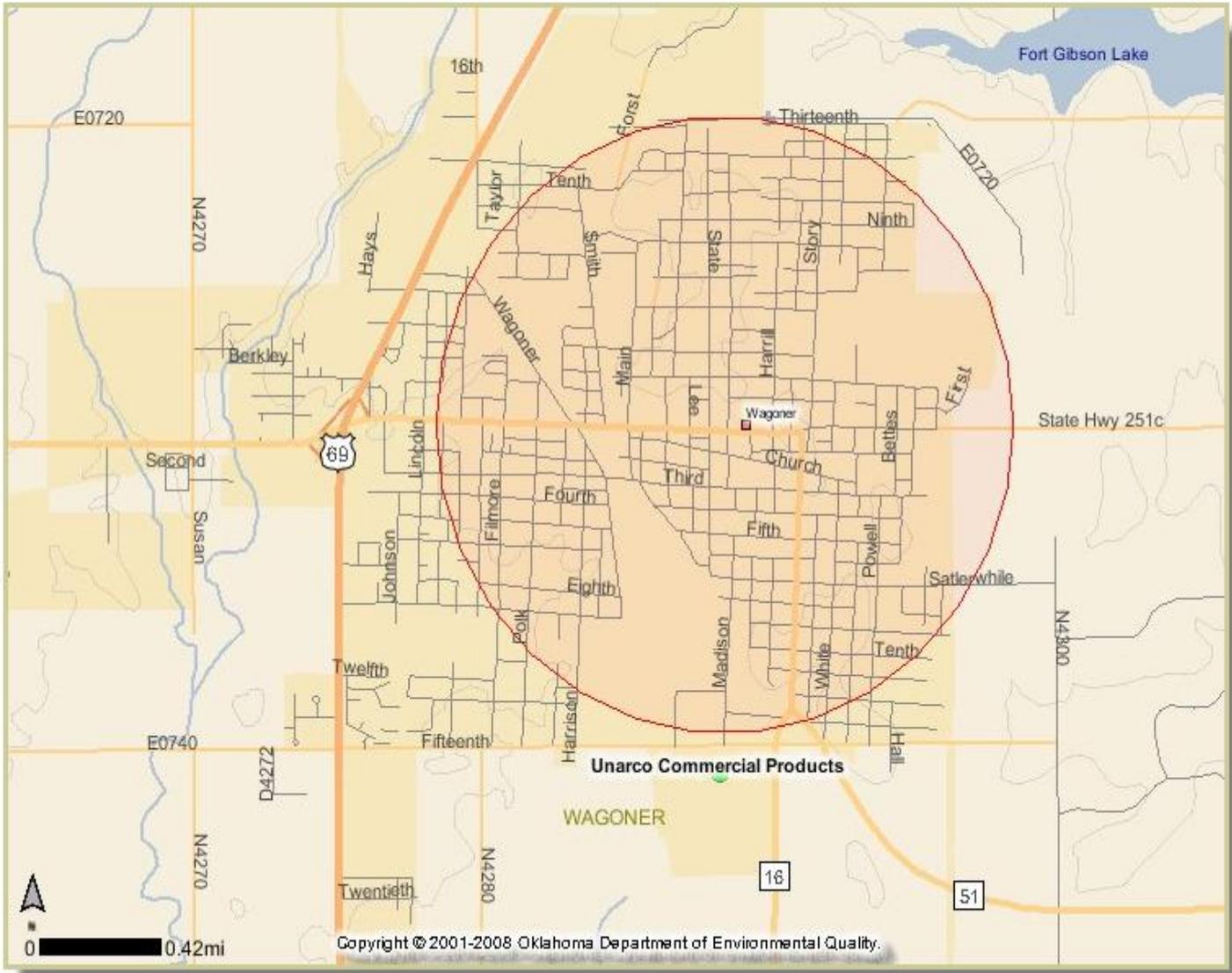
Radius Map

One mile radius around site



Oklahoma Department of Environmental Quality

GIS DATA VIEWER



Refresh Map

Master Facility List

- Visible Active Layer
- MASTER FACILITY LIST
 - MULTIMEDIA FACILITY LIST

Air Facilities

Land Facilities

- Visible Active Layer
- LAND MFL
 - LAND MULTIMEDIA MFL
 - VCP MFL
 - LQG MFL
 - SQG MFL
 - RCRA MFL
 - NON-HAZARDOUS MFL
 - SUPERFUND MFL

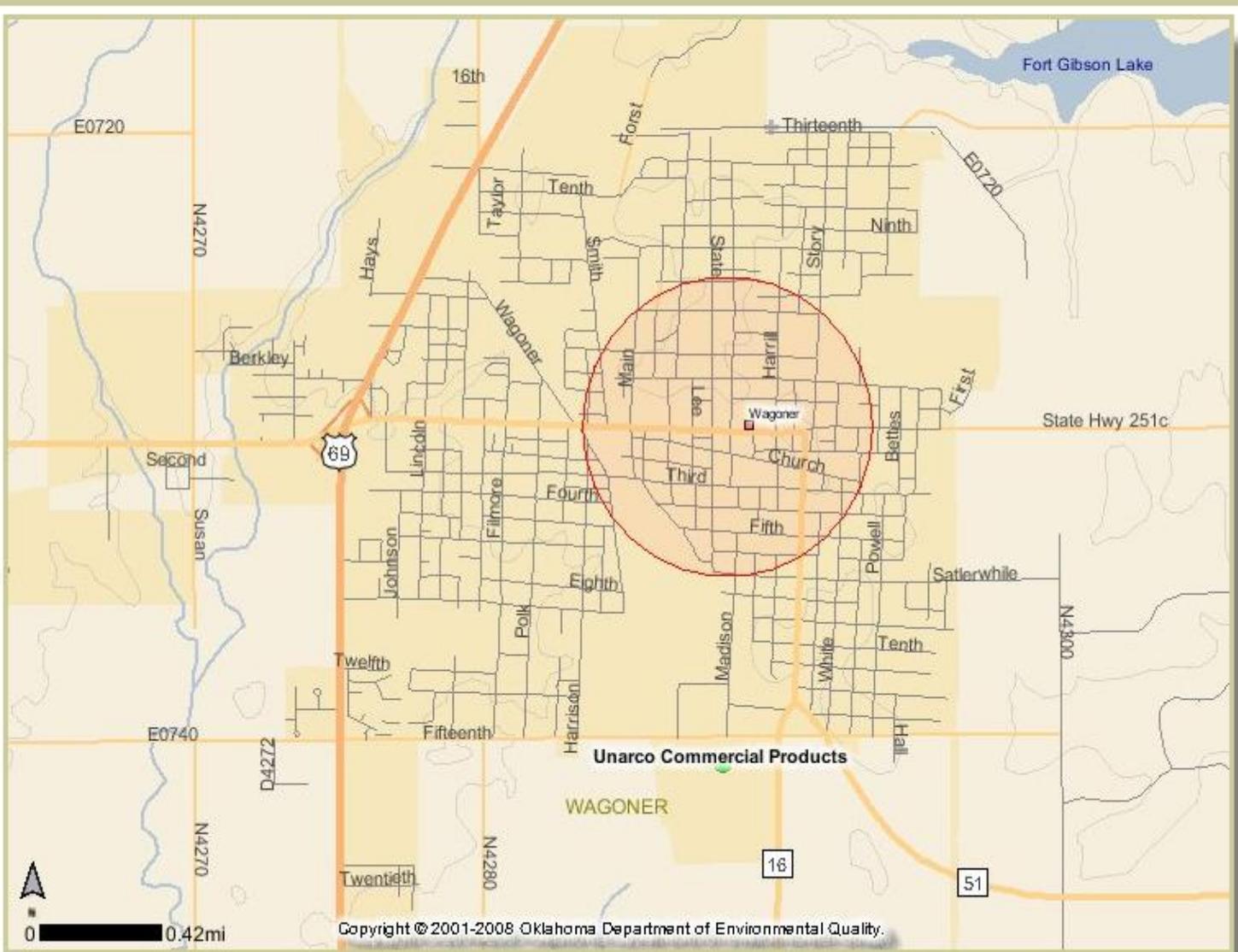
Water Facilities

Half mile radius around site



Oklahoma Department of Environmental Quality

GIS DATA VIEWER



Refresh Map

Master Facility List

- Visible Active Layer
- MASTER FACILITY LIST
 - MULTIMEDIA FACILITY LIST

Air Facilities

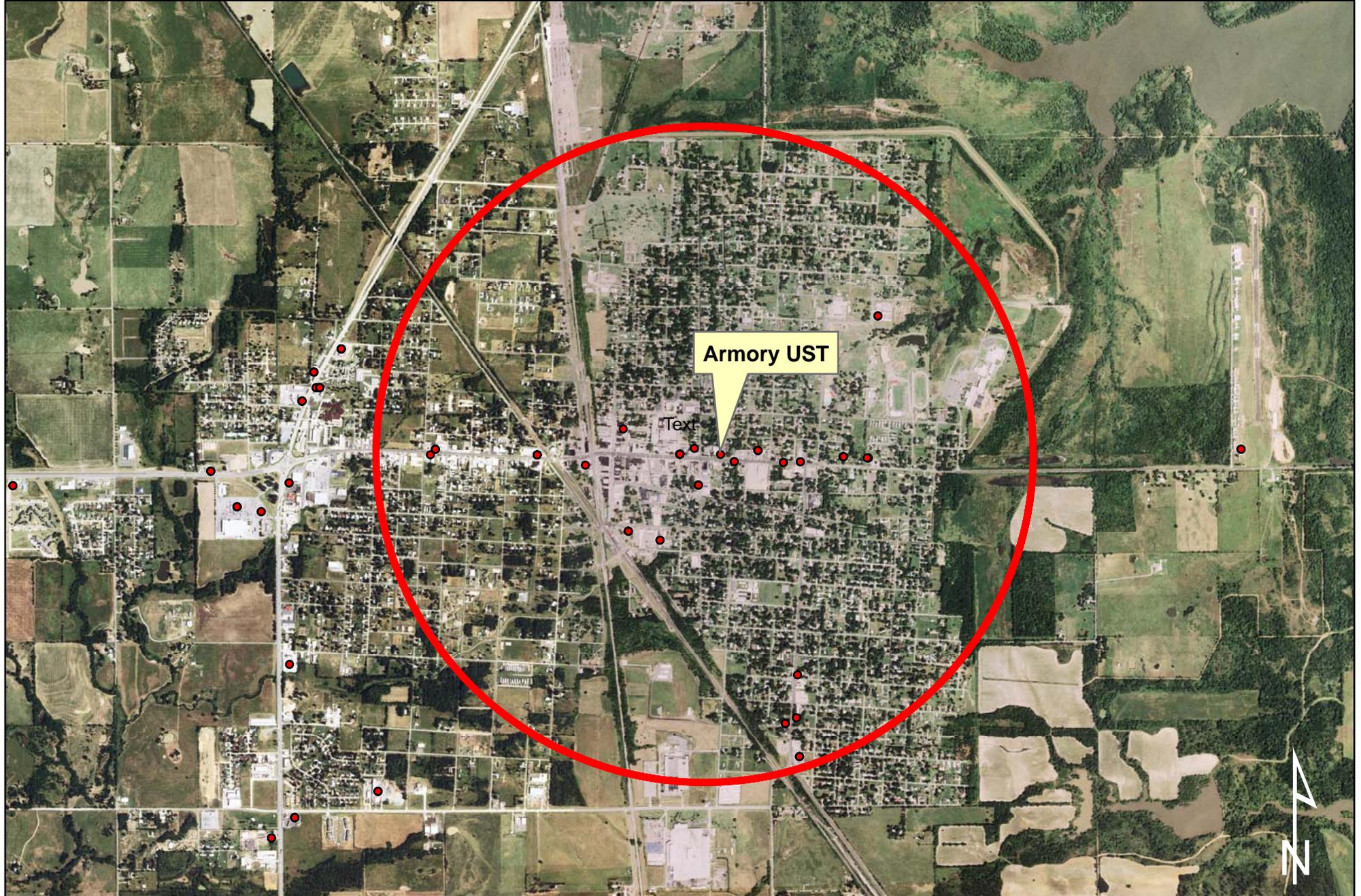
Land Facilities

- Visible Active Layer
- LAND MFL
 - LAND MULTIMEDIA MFL
 - VCP MFL
 - LQG MFL
 - SQG MFL
 - RCRA MFL
 - NON-HAZARDOUS MFL
 - SUPERFUND MFL

Water Facilities

Underground Storage Tanks

Wagoner USTs - 1 Mile Buffer



0 0.125 0.25 0.5 0.75 1 Miles

Tank Identification Number 7-305789 | Tank No. 1 | Tank No. | Tank No. | Tank No. | Tank No.

**7. Substance Currently or Last Stored
In Greatest Quantity by Volume**

- Gasoline
- Diesel
- Gasohol
- Kerosene
- Heating Oil
- Used Oil
- Other, Please specify

**Hazardous Substance
CERCLA name and/or,
CAS number**

**Mixture of Substances
Please specify**

X. TANKS OUT OF USE. OR CHANGE IN SERVICE

1. Closing of Tank

**A. Estimated date last used
(mo./day/year)**

Feb 88

**B. Estimate date tank closed
(mo./day/year)**

7-31-88

C. Tank was removed from ground

7/15/95

D. Tank was closed in ground

E. Tank filled with inert material

Describe...

F. Change in service--

2. Site Assessment Completed

Evidence of a leak detected

III. TYPE OF OWNER		IV. INDIAN LANDS	
<input type="checkbox"/> Federal Government	<input type="checkbox"/> Commercial	Tanks are located on land within an Indian Reservation or on other trust lands. <input type="checkbox"/>	Tribal or Native: _____
<input checked="" type="checkbox"/> State Government	<input type="checkbox"/> Private		
<input type="checkbox"/> Local Government			

V. TYPE OF FACILITY

Select the Appropriate Facility Description:

<input type="checkbox"/> Gas Station	<input type="checkbox"/> Railroad	<input type="checkbox"/> Trucking/Transport
<input type="checkbox"/> Petroleum Distributor	<input type="checkbox"/> Federal - Non-Military	<input type="checkbox"/> Utilities
<input type="checkbox"/> Air Taxi (Airline)	<input type="checkbox"/> Federal - Military	<input type="checkbox"/> Residential
<input type="checkbox"/> Aircraft Owner	<input type="checkbox"/> Industrial	<input type="checkbox"/> Farm
<input type="checkbox"/> Auto Dealership	<input type="checkbox"/> Contractor	<input checked="" type="checkbox"/> Other (Explain) <u>NATIONAL GUARD</u> <u>ARMORY</u>

VI. CONTACT PERSON IN CHARGE OF TANKS

Name	Job Title	Address	Phone Number (Include Area Code)
ALTON ENGBLEBRETSON	Deputy Dir. of Engineering	ATTN OKDE-D 3501 Military Circle, DCB	73111-4358 (405) 425-8334

VII. FINANCIAL RESPONSIBILITY

I have met the financial responsibility requirements in accordance with 40 CFR Subpart H

Check All that Apply

<input type="checkbox"/> Self Insurance	<input type="checkbox"/> Guarantee	<input type="checkbox"/> State Funds
<input type="checkbox"/> Commercial Insurance	<input type="checkbox"/> Surety Bond	<input type="checkbox"/> Trust Fund
<input type="checkbox"/> Risk Retention Group	<input type="checkbox"/> Letter of Credit	<input type="checkbox"/> Other Method Allowed Specify _____

VIII. CERTIFICATION (Read and sign after completing all sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative (Print)	Signature	Date Signed
ALTON L. ENGBLEBRETSON Deputy Dir. of Engineering Oklahoma Military Department	<i>Alton L. Engblebretson</i>	7-25-95

EPA estimates public reporting burden for this form to average 30 minutes per response, including time for reviewing instructions, gathering and maintaining the data needed and completing and reviewing the form. Send comments regarding this burden estimate to Chief, Information Policy Branch PM-223, U.S. Environmental Protection Agency, 401 M Street, Washington D.C. 20460, marked "Attention Desk Officer for EPA." This form amends the previous notification form as printed in 40 CFR Part 280, Appendix I. Previous editions of this notification form may be used while supplies last.

Notification for Underground Storage Tanks	STATE USE ONLY
Owner Name and Address <i>Oklahoma Military Department 3501 Military Circle, Okc, Ok 73111</i>	ID NUMBER <i>7-365789</i>
TYPE OF NOTIFICATION <input type="checkbox"/> A. NEW FACILITY <input type="checkbox"/> B. AMENDED <input checked="" type="checkbox"/> C. CLOSURE	DATE RECEIVED A. Date Entered into Computer _____ B. Data Entry Clerk Initials _____ C. Owner Was Contacted to Clarify Responses, Comments. _____
No. of tanks at facility _____ No. of continuation sheets attached _____	_____ _____ _____
INSTRUCTIONS	
Please type or print in ink all items except "signature" in section V. This form must be completed for each location containing underground storage tanks. If more than five (5) tanks are owned at this location, photocopy the following sheets, and staple continuation sheets to the form.	

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1984, or that are brought into use after May 8, 1984. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

- in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and
- in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuance of its use.

c) if the State agency so requires, any facility that has undergone any changes to facility information or tank system status (only amended tank information needs to be included).

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of regulated substances, and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. Gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fungicides.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are—

- farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes.
- tanks used for storing heating oil for consumption use on the premises where stored.

3. septic tanks;
 4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or when it is an interstate pipeline facility regulated under Subtitle C;
 5. surface impoundments, pits, ponds, or lagoons;
 6. storm water or waste water collection systems;
 7. flow-through process tanks;
 8. hand traps or compressed gathering lines directly related to oil or gas production and gathering operations;
 9. storage tanks located in an underground area (such as caverns, caverns, mine workings, drift, shaft, or tunnel) if the storage tank is underground or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous materials under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (50 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Send completed forms to:

Oklahoma Corporation Commission
 Underground Storage Tank Program
 Jim Thorpe Building
 Room 248
 Oklahoma City, OK 73105

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but not in the ground, must notify by May 8, 1984. 2. Owners who bring underground storage tanks into use after May 8, 1984, must notify within 30 days of bringing the tanks into use. If the State requires notification of any amendments to facility and tank information, notify immediately.

Penalties: Any owner who knowingly fails to notify or submit false information shall be subject to a civil penalty not to exceed \$5000 per violation for which notification is not given or for which false information is submitted.

I. OWNERSHIP OF TANK(S)

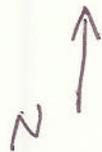
II. LOCATION OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity) OKLAHOMA MILITARY DEPARTMENT Street Address 3501 MILITARY CIRCLE City OKLAHOMA CITY, OK 73111-4398 State OKLAHOMA Phone Number (Include Area Code) 405/425-8334	I received by State, give the geographic location terms by departmental order: Latitude _____ Longitude _____ (If same as Section I, mark the box <input type="checkbox"/>) Facility Name or Company Site Identifier, as appropriate WAGONER National Guard Training Street Address (P.O. Box not appropriate) 511 E. Cherokee City WAGONER OK 74467-4789 State OKLAHOMA
---	--

IX. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

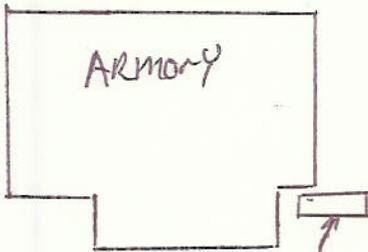
Tank Identification Number: 7-305 784 Tank No. 1 Tank No. Tank No. Tank No. Tank No.

1. Status of Tank (mark only one)	Currently in Use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Temporarily Out of Use <small>(Reference to 40 CFR section 261.11)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Permanently Out of Use <small>(Reference to 40 CFR section 261.11)</small>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Amendment of Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Date of Installation (mo./year)		<u>1957</u>				
3. Estimated Total Capacity (gallons)		<u>1,000</u>				
4. Material of Construction (Mark all that apply)	Asphalt Coated or Bare Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Cathodically Protected Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Epoxy Coated Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Composite (Steel with Fiberglass)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fiberglass Reinforced Plastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lined Interior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Double Walled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Polyethylene Tank Jacket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Excavation Liner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other, Please specify	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has tank been repaired?	<u>NO</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Piping (Material) (Mark all that apply)	Bare Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Galvanized Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fiberglass Reinforced Plastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Copper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Cathodically Protected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Double Walled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Secondary Containment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Please specify	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Piping (Type) (Mark all that apply)	Suction: no valve at tank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Suction: valve at tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Gravity Feed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has piping been repaired?	<u>NO</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



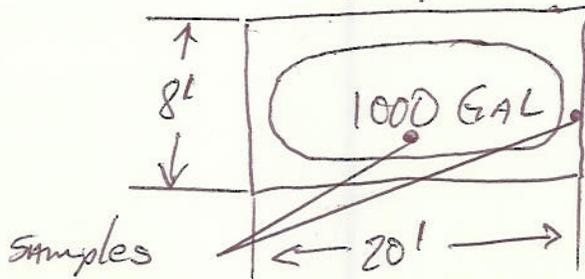
U.S.
HWY
69
←

WAGONER
1,000 GAL
25 Jul 95



← JEFFERSON
ST

↑
STATE HWY
51



Stanley Engineering, Inc.
Alpha Analytical Laboratories Division

2700 NW 39th Street
 Oklahoma City, Oklahoma 73112
 (405) 948-1979 (405) 948-1964 (FAX)
 Dr. Keith L. Stanley, P.E., C.I.H., Director of Field and Analytical Services

Client Oklahoma Military Department
Address 3501 Military Circle
 Oklahoma City, OK 73111-4898
Project
Req. By: Doyle Balzer

Date Collected: 7/28/95
Date Analyzed 7/31/95
Analyst Chris Hardeman
Received by: Pamela Green
Lab ID 951944, 951945

Sample ID	Parameter	Media	Method	Detection Limit	Result	Units
#1, Wagoner Side, 951944	TPH (GRO) (6As)	soil	EPA 8015(M)	0.1	2.22	mg/kg
	TPH (DRO)	soil	EPA 8100	1.0	<1.0	mg/kg
	*O-TP				99	%
#2, Wagoner Center, 951845	TPH (GRO) (6As)	soil	EPA 8015(M)	0.1	6.44	mg/kg
	TPH (DRO)	soil	EPA 8100	1.0	<1.0	mg/kg
	*O-TP				98	%
*Ortho-Terphenyl Surrogate Percent Recovery						

Post-It® Fax Note	7671	Date	8/10/95	# of pages	1
To		From	Pamela Green		
Co./Dept.	OK Military Dept.	Co.	Alpha Labs		
Phone #		Phone #	948-1979		
Fax #	425-8571	Fax #			

lge, A = Air

ICAL TESTING PROGRAM (PAT) 73112001

CH

sampling or during shipment; or errors resulting from shipping conditions

ing procedures; errors resulting from atmospheric conditions at the time of

Sheet 1 Of 1

Job No. Wagoner

Date 7-25-95

Completed by T. Wheeler

CERTIFICATE OF DESTRUCTION

Scrapping/Disposal Company:

Wheeler Metals
5500 Border
Muskogee, OK 74401

Site of Destruction:

Same

Tank Removal Contractor:

Okla. Military Dept.
OKDE-D

Tank Identification:

Tank No.: _____

Size: 1000 gallon

Location: Company Wagoner

Address _____

City/State Wagoner

Destruction Date: _____

I certify that the above described tank has been rendered unusable for the storage of any fluids, and all removed fluids, sludges and the tanks were disposed of in accordance with all applicable local, state, and federal regulations.

By Sammy Wheeler

Title Sec.

Subscribed & Sworn to before me this 26th day of July,
in the year 1995.

Notary Public Pamela M. Cook My Commission Expires: 1-4-98

Ticket No. _____

Date 7-25-95

WHEELER METALS

PIPE • SUCKER ROD •
NEW STEEL

Steel Warehouse and Recycling Center

RECEIVED
OKFAC
31 JUL 95 1 5 21

Material Tanks
Customer Name Army
Truck Number _____

Front	<u>33430</u>	Front	<u>34280</u>
Rear	<u>13480</u>	Rear	<u>17240</u>
Tare	<u>46910</u>	Gross	<u>51520</u>
		Tare	<u>46910</u>
		Net	<u>4610</u>

Driver On Off

Weight By Tom Wheeler

Weighed on Cardinal Scales
Muskogee, Oklahoma
918 - 682-1083

ALPHA ANALYTICAL LABORATORIES
2700 N.W. 39TH STREET
OKLAHOMA CITY, OK 73112

CHAIN OF CUSTODY RECORD

Package Shipped From: OK Military Dept. Date: 7/28/95

Address: _____

Phone # 425-8335 Fax # _____ Contact: Doyle Balzer

Condition of Package Upon Receipt: good P.O. # _____

Number of Samples Received: 2 Person Sampling: _____

Project I.D.: _____ Sample Type: Soil

NUMBER	RECEIVING SAMPLE #	DESCRIPTION	AAL LOG NUMBER
1	1	DRO, GRO	951944
2	2	DRO, GRO	951945
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

* Use additional sheets as needed.

Comments: _____

Relinquished by: Balzer Date: 7/28/95 Time: 1235 Received by: Alice Jussner
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____

Stanley Engineering, Inc.
Alpha Analytical Laboratories Division
 2700 NW 39th Street
 Oklahoma City, Oklahoma 73112
 (405) 948-1979 (405) 948-1964 (FAX)

Dr. Keith L. Stanley, P.E., C.I.H., Director of Field and Analytical Services

Client Oklahoma Military Department
Address 3501 Military Circle
 Oklahoma City, OK 73111-4398
Project
Req. By: Doyle Balzer

Date Collected: 7/28/95
Date Analyzed 7/31/95
Analyst Chris Hardeman
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Lab ID 951944, 951945

Sample ID	Parameter	Media	Method	Detection Limit	Result	Units
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	*O-TP				99	%
#2, Wagoner Center, 951845	TPH (GRO)	soil	EPA 8015(M)	0.1	6.44	mg/kg
	TPH (DRO)	soil	EPA 8100	1.0	<1.0	mg/kg
	*O-TP				93	%
	*Ortho-Terphenyl Surrogate Percent Recovery					

Media: W = Water, WW = Wastewater, DW= Drinking Water, S = Solid, SL = Sludge, A = Air

CERTIFICATIONS: OWRB # 8417' ; NVLAP # 1568; PROFICIENCY ANALYTICAL TESTING PROGRAM (PAT) 73112001

CH

SEI/AAL is not responsible for any errors resulting from improper or incorrect sampling procedures; errors resulting from atmospheric conditions at the time of sampling or during shipment; or errors resulting from shipping conditions

STANLEY ENGINEERING, INC.
 ENVIRONMENTAL MEASUREMENTS DIVISION
 ALPHA ANALYTICAL LABORATORIES DIVISION
 2700 N.W. 39
 OKLAHOMA CITY, OK 73112
 F.I.D.# 73-1102-137

Invoice

1590

DATE	INVOICE #
8/1/95	

Voice:
 Fax:

1

BILL TO:

Okahoma Military Department
 3511 Military Circle
 Oklahoma City, OK 73111-4398

Ship To:

Okahoma Military Department
 3511 Military Circle
 Oklahoma City, OK 73111-4398

Oklahoma Military De Doyle Balzer

PO. NUMBER	TERMS	PROJECT
------------	-------	---------

QUANTITY	DESCRIPTION	RATE	AMOUNT
4.00 TPH	TPH Analysis Log# 951944-45	40.00	160.00

Wagoner

RECEIVED

AUG 2 1995

OKSA

Subtotal	160.00
Sales Tax	
Total Invoice Amount	\$160.00
Payment Received	0.00
TOTAL	\$160.00

Check No:

RICK'S TANK TRUCK SERVICE

Mobile Phone
1-637-0534

P.O. Box 501
Copan, Okla. 74022

Office Phone
532-4151

Date 7-17-95

ATTN: OKFAC
Okla. Military Dept.
3501 Military Circle
Okla. City OK 7314-4398

Lease Name Prior + Wagoner

Well No. _____

Legal Description _____

Truck Hrs. 10

Price Hr. 45.00

Total _____

TRUCK NO.	DESCRIPTION	CHARGES
RECEIVED OKFAC 27 JUL 95 08 01	Emptied Tanks at armorys	
	_____ Surcharges	
	<u>50</u> Barrels	Disp. Charge <u>10.00</u>
	_____ Insurance Surcharge	

1779

TOTAL

460.00

Authorized Agent

Wagoner/RURAL/
45T

COMPANY B (-) 120TH ENGINEER BATTALION (COMBAT HEAVY)
Oklahoma Army National Guard
511 East Cherokee, Wagoner, Oklahoma 74467-4789

22 October 1990

MEMORANDUM FOR Enviromental Officer, OK Military Dept, 3501
Military Circle Oklahoma City, OK 73111

SUBJECT: Underground Fuel Storage Tank

1. The underground fuel storage tank at the National Guard Armory locate at 511 East Cherokee Wagoner, Oklahoma has been out of service since 15 October 1983. No Fuel has been purchased or pumped since that date.
2. POC this unit is the undersigned.

FOR THE COMMANDER:



BENNY C. COX
SFC, OKARNS
Readiness NCO

OWRB Water Well Search

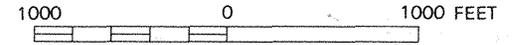
OWRB Well Search Performed 12-4-08

Rec	Latitude	Longitude	Well ID	County	Well Type	Well Owner	Qtr 1	Qtr 2	Qtr 3	Sec	Tnp	Rng	Use Class	Total Depth	First Water	Approx Yield	Lat/Lon Method	Construction Date
1	35.959433	-95.369525	109508	Wagoner	Monitoring Well	KWICKWAY OF WAGONER	SE	SE	SE	10	17N	18E1	Site Assessment	27	0	0	Mathematical conversion program	Thu, 17 May 2007 00:00:00
2	35.959858	-95.369458	108488	Wagoner	Monitoring Well	Kwickway of Wagoner, Inc.	SE	SE	SE	10	17N	18E1	Site Assessment	0	0	0	Mathematical conversion program	Tue, 26 Dec 2006 00:00:00
3	35.959433	-95.369525	109509	Wagoner	Monitoring Well	KWICKWAY OF WAGONER	SE	SE	SE	10	17N	18E1	Site Assessment	22	0	0	Mathematical conversion program	Thu, 17 May 2007 00:00:00

FEMA Floodplain Map



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
WAGONER,
OKLAHOMA
WAGONER COUNTY

ONLY PANEL PRINTED

COMMUNITY-PANEL NUMBER
400219 0005 C

EFFECTIVE DATE:
OCTOBER 19, 1982



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Appendix D – Site Photographs



WPA sign – built in 1936



Adjacent property to the south



Adjacent property to the east



Adjacent property to the south



Adjacent property to the north



Adjacent property to the south



Adjacent property to the west



East side of armory



Ditch for IFR sump runoff



East side of armory



East side of armory and alleyway to the north



Front of armory



Ditch for IFR sump pipe runoff



IFR sump pipe outfall



Standing water on IFR stairway



Mastic in room 28



Rusty, standing water in supply room



Overgrown alleyway to the north of armory



Room 2



Room 1



Room 3



Room 3



Room 4



Room 6



Room 5



Room 7



Room 8



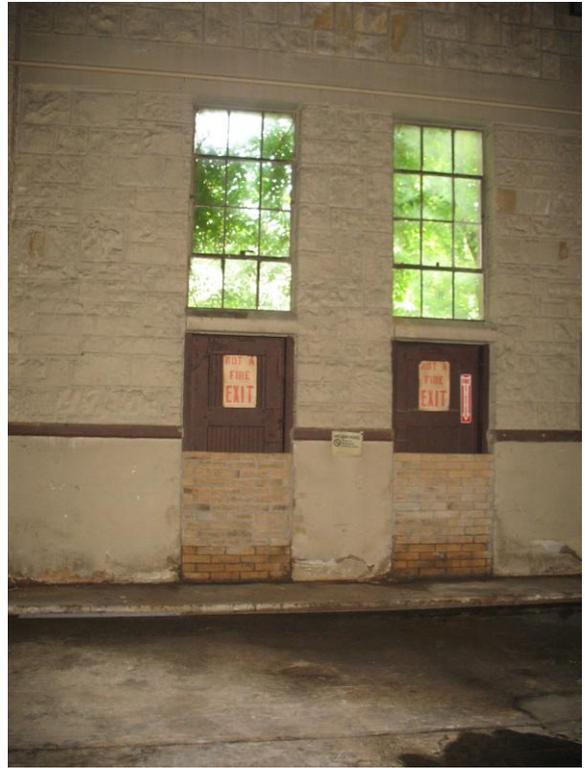
Room 8



Room 8



Room 8



Room 8



Pooled water in room 8



Water seeping through floor in room 8



Flooded firing range



Room 10 under the stairs



Room 11



Room 13



Room 12



Room 13



Room 14 – three rooms upstairs



Room 14 – three rooms upstairs



Room 15



Room 16



Room 17



Room 18



Room 18 water valve



Room 19



Room 19



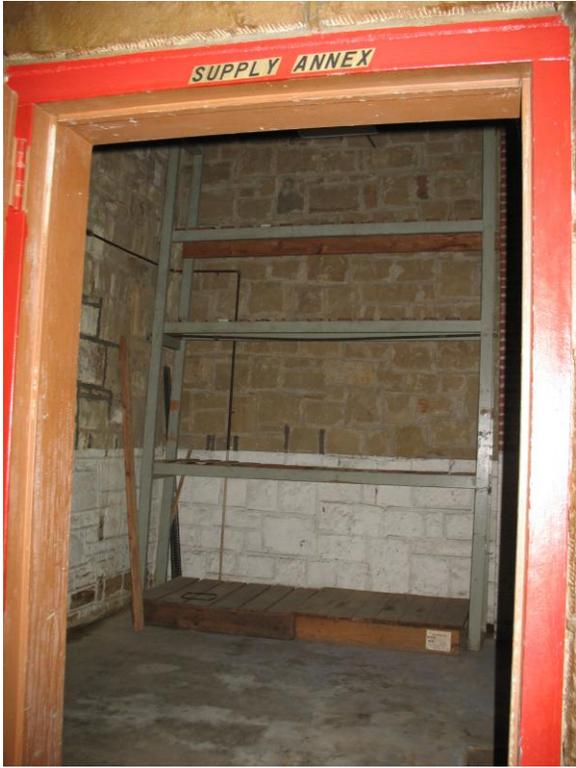
Room 8



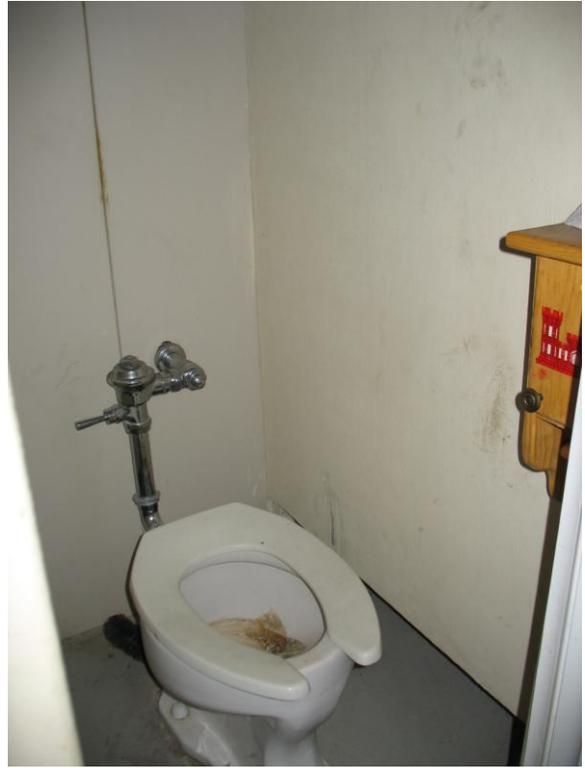
Room 20



Room 20



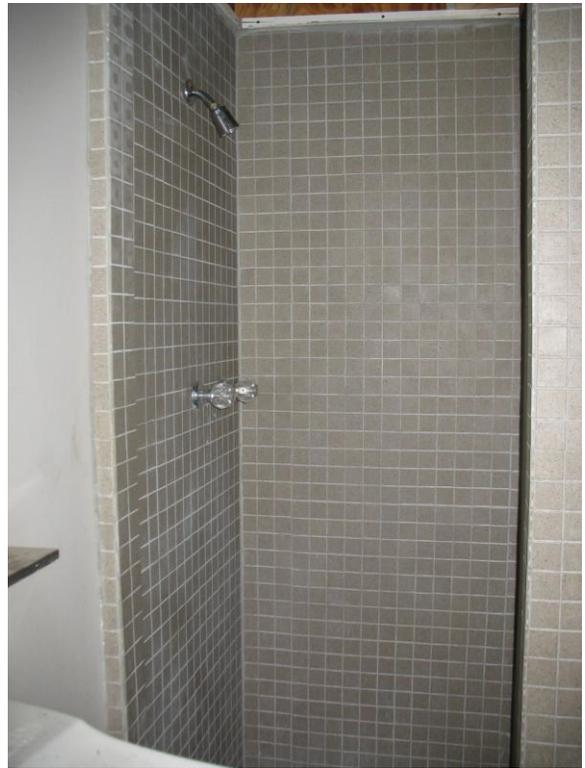
Room 20



Room 23



Room 21 – Supply closet



Room 23



Room 24



Room 25



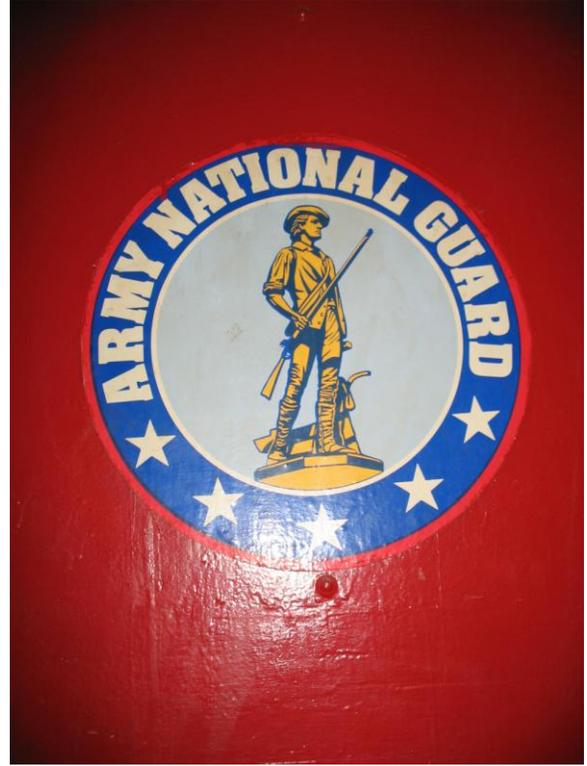
Room 24



Room 26



Room 27



Room 29



Room 28



Room 29



Room 30



Room 31



Room 29 – Rusty water on floor



UST vent on east side of building



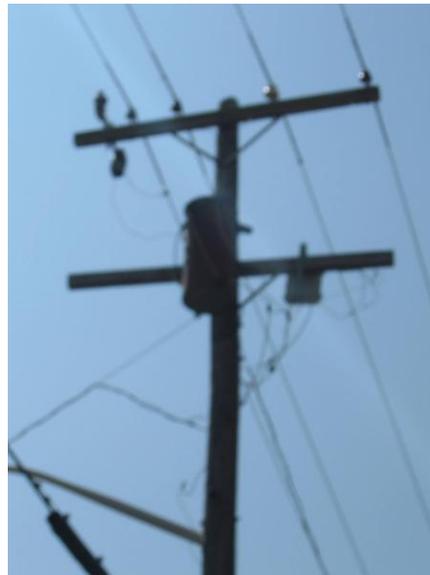
Sump pipe on west side of building



Vent fan and sump pipe on west side of building



Pole transformer on east side of building



Pole transformer on east side of building

Appendix E- Site Visit Notes

AAI Site Visit

Facility name: Wagoner Armory

Facility address: 511 E Cherokee Wagoner, OK

Date of visit: 6-19-08

DEQ staff in attendance: Heather Mallory, Dustin Davidson

People interviewed/affiliation with site: Blaine Davis – former supply sergeant for 38 years

Note: Take a copy of the facility map with you to mark where drains, utilities, and sampling locations are located

Asbestos

Note: If Marshall Environmental has already surveyed for asbestos then we can get this information from their report.

Suspect asbestos containing materials (ACM):

<u>Location of ACM</u>	<u>Material</u>	<u>Notes</u>
1.	Marshall Environmental sampled during this visit, so refer to their report	
2.		
3.		

Military Department Property (Please provide a detailed inventory of military property)

No Boiler present? No Radiator present? # of radiators _____

Rooms radiator(s) present in: _____

Yes Old lighting ballasts present? None are leaking and all appear to be modern

Rooms old lighting ballasts present in: entire building _____

	<u>Type of property</u>	<u>Amount</u>	<u>Room Located In</u>
1.	N/A		
2.			
3.			

Radiation Signs

Are radiation signs present in the building? No

What does the sign say? _____

Utilities

X City water Well X City sewer Septic tank

X Natural gas Propane

City of Wagoner Electric
OG&E Natural Gas

Underground features

Yes USTs removed Yes Vent pipes present USTs not removed

Above ground features

No Cisterns present No ASTs No Impoundments

Structures on adjoining property

Residential, commercial structures, churches, schools etc

S – Family eye care, state farm insurance, chiropractic clinic, appliance service, & antique shop

N – alleyway and residence

E – American Legion

W – Wedding chapel, parking lot, old Catholic Church (now funeral home)

Onsite information

No Air Emissions No Wastewater Discharge

Sump pipe runs outside on ground and out into street

Industrial activities

No Monitoring wells *Location:*

No Stained soils *Location:*

No Seeps

Location:

No Chemical spills

Location: Rust stains in supply room and an oily residue in kitchen storage closet near doorway

No Oil and Gas Exploration *Describe:*

No Known Groundwater or Surface Water contamination

Describe:

No Farm Wastes

No Known Pesticide Misapplication

No Discharges and Runoff from Adjacent Property Affecting the Site

Yes Transformers/PCB Equipment *Location: 2 pole transformers on E side of building*

Describe: no sign of leakage, could contain PCBs – could not read markings to confirm or deny, owned by city according to Blaine Davis

Other known or Suspected Environmental Concerns On the Site

N/A

Historical Recognized Environmental Conditions On the Site

- Lead dust contamination from indoor firing range
- Indoor firing range has a history of flooding and water was discharged onto ground via a sump pump and pipe
- Possible asbestos contamination in the building from historic building materials
- Possible lead-based paint in the building
- UST for gasoline

Current Use of the Property

Descriptions of Structures, Roads, Other Improvements on the Site

- E and S – paved roads border subject property
- E – gravel parking area
- N – alleyway between subject property and residence
- W – parking lot borders subject property

Description of adjacent properties

S – Family eye care, state farm insurance, chiropractic clinic, appliance service, & antique shop

N – alley way and residence

E – American Legion

W – Wedding chapel, parking lot, old Catholic Church (now funeral home)

Owner, Property Manager, and Occupant Information

- Owned by the Oklahoma Military Department
- Building is vacant

Additional Environmental Record Sources

City Records: e.g. Material Safety Data Sheets for chemicals used at industrial or commercial facilities Land Use Restrictions

- Found an evacuation map in the building that gave different room descriptions (included at the end of these notes)

Physical Setting Sources

Historical Use Information on the Property

- OK Army National Guard
- Housed equipment and tools needed for disaster response
- Earth moving equipment was housed at off-site vehicle compound near Wagoner highschool

Historical Use Information on Adjoining Properties

- E – was always an American Legion meeting lodge
- W – Funeral home used to be a Catholic Church and storage building, now the storage building is a wedding chapel
- N – was always residential
- S – always had businesses there (Blaine Davis didn't elaborate)

Site Reconnaissance

Methodology and Limiting Conditions: The method used to observe the property and limitations imposed by physical obstructions or limiting weather conditions.

- Site was walked on foot
- Alleyway was overgrown with weeds and poison ivy

General Site conditions:

External observations

No Stained soil or pavement No Stressed vegetation No Solid waste

Other: There was a small ditch worn into the land where the sump pump water once was discharged.

Internal observations

X Odors X Pools of liquids Drums

X Stains or Corrosion on floors, walls, or ceilings

- Musty odor in building, pine oil smell in bathrooms, old food/cooking oil smell in supply closet near kitchen
- Rust stains on floor of storage room and greasy stains on floor of kitchen storage room
- Standing water on floor, some rusty water in storage room

General notes:

The vehicle compound on 2nd Street was used to store bulldozers and other earth moving equipment and vehicles. Some chemicals were stored a vehicle compound (such as motor oil). The property was leased from the school and has now reverted back to the school (according to Blaine Davis).

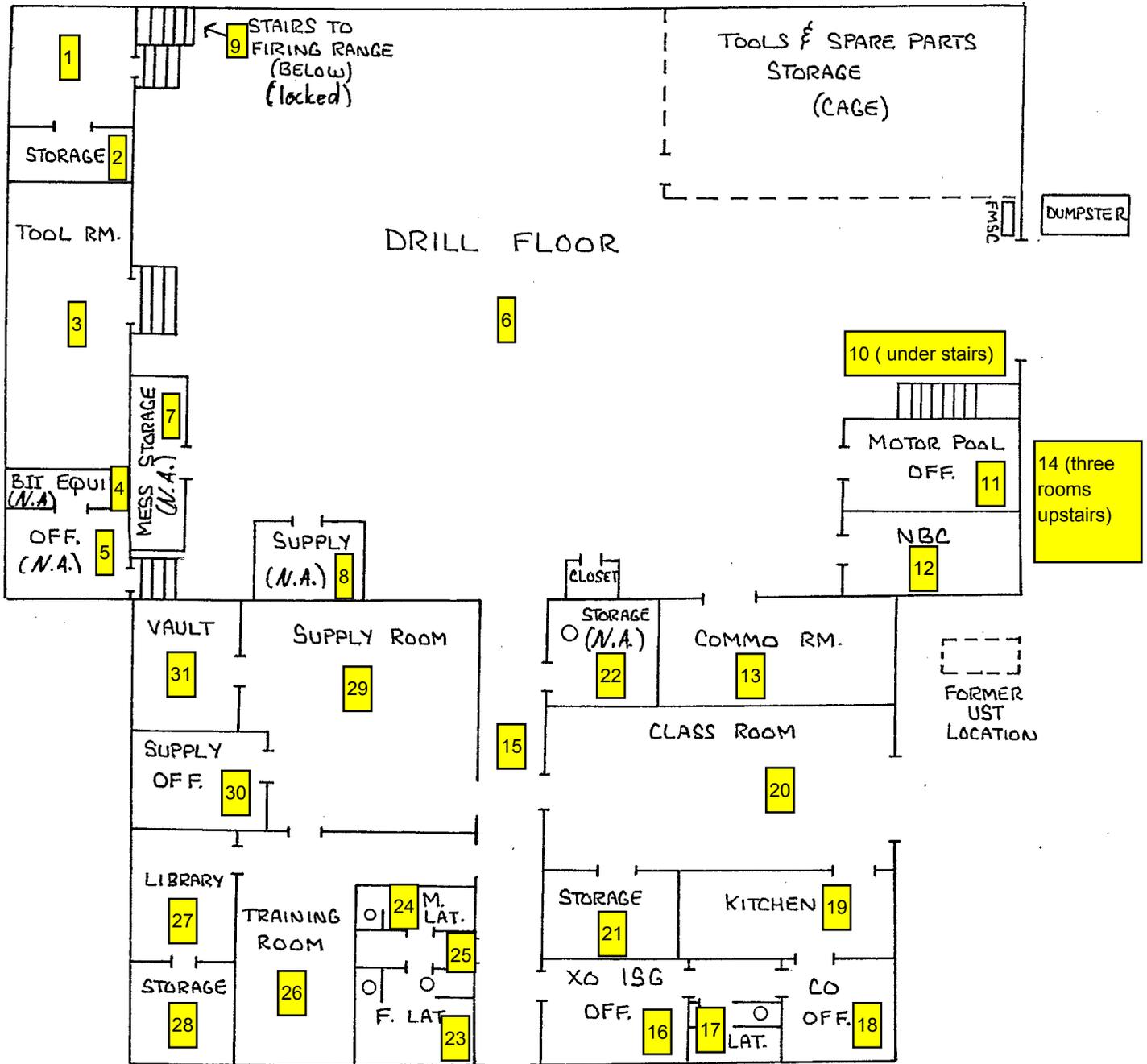
WAGONER ARMORY

511 EAST CHEROKEE

BUILT: 1936



Note: These room numbers were used by DEQ for photo labels and site notes. Marshall Environmental Management used different room numbers.



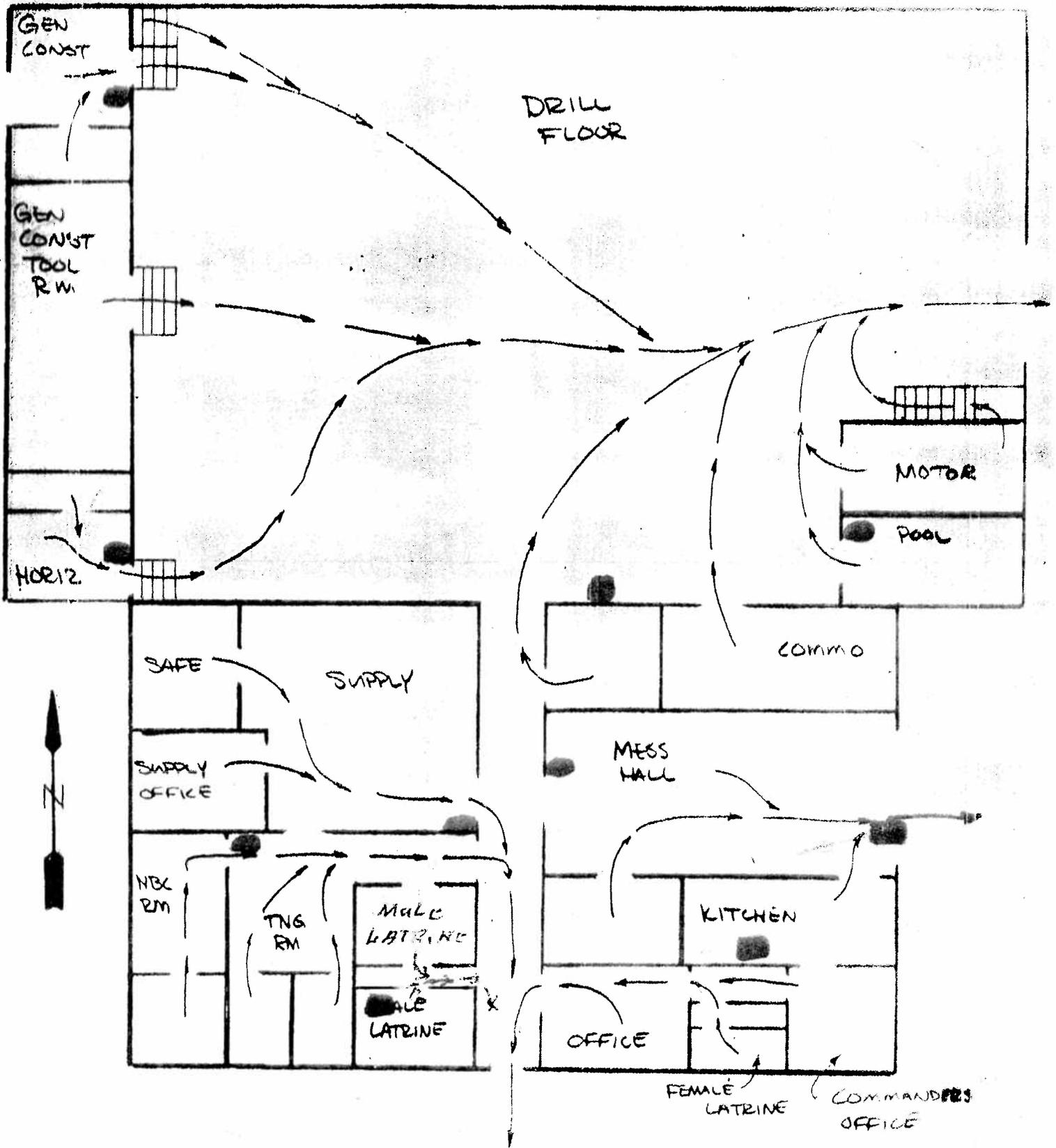
MAIN ENTRANCE

CHEROKEE STREET

O-FLOOR DRAIN
N.A. - not accessible

Notes for numbered floor plan map – from interview with Blaine Davis

- Room 1 and 2– Platoon leaders office, office for general construction
- Room 3 – Tool Room: housed axes, picks, field gear, ropes, mauls
- Room 4 - Basic Issue Items (BII) equipment room: held vehicle and trailer components
- Room 5 - Office
- Room 6 – Drill floor: used for formation, mold and standing water seeping through cracks in cement, small closet on the map near room 22 is no longer there, tools and spare parts cage is no longer there, FMSC is no longer there – it used to hold chemicals
- Room 7 – Mess Storage
- Room 8 – Supply room
- Room 9 – Indoor firing range
- Room 10 – Storage under stairwell: stored lawnmower there (had a faint petroleum odor)
- Room 11 –Library for motor pool
- Room 12 – NBC room: held gas masks and chemical suits (standing water in this room)
- Room 13 – Communication room: radios stored here
- Room 14 – Three rooms upstairs, these rooms weren't used much and were still under construction, floor is unstable
- Room 15 - Hallway
- Room 16 - Office
- Room 17 – Female latrine
- Room 18 – CO Office: has water shut off valve in wall
- Room 19 – Kitchen: has hot water heater, wall has been knocked out, stove is still there
- Room 20 – Class room and former mess hall
- Room 21 – Mess hall storage
- Room 22- Storage: has a chimney that was never used, water outlet
- Room 23 – Female latrine: had soap in there
- Room 24 – Male latrine: had pine oil and pine x
- Room 25 - Hallway between latrines
- Room 26 – Training room
- Room 27 - Library
- Room 28 - Storage
- Room 29 – Supply room, rust stains on floor, standing water
- Room 30 – Supply office
- Room 31 – Vault – stored weapons and ammunition



Appendix F – Sample Results

DEQ Sample Results

Site Name:
Wagoner Armory

Site Location:
511 E. Cherokee
Wagoner, OK 74467

Code:

493

Sample Location

Date

Time

*GCMS Extractables

GCMS Purgeables

Metals (Lead)

General Chemistry

S.E.L. Number

IFRU-1

6-19-08

12:01

1

444632

D-1

6-19-08

12:25

1

444635

D-2

6-19-08

12:30

1

444634

D-3

6-19-08

12:35

1

444633

IFRU-1

6-19-08

13:20

1

444631

Sampler's Signature
(Relinquished by):

Thomas R Malloy

6-19-08 16:57

Received by:

STG

Relinquished by:

Received by:

JUN 20 08 02:22

Indicate the number of containers for each analyte in the comments section.

Remarks:

Received by:

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010
 General Inquiries: 1-800-869-1400
 Sample Receiving: (405) 702-1113
Report of Analysis by Metals
 EPA Drinking Water Certification #OK00013

Sample Number: 444631
 Project Code: LP-ARM
 Agency Number: 493
 Date Collected: 6/19/2008
 Time Collected: 1320
 Date Received: 6/20/2008
 Date Completed: 06/27/2008
 Collected By: HRM
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 06/27/2008

To: LAND PROTECTION DIVISION
 HEATHER MALLORY

CC: FILE COPY

Name	Qualifier	SAMPLE DATA			
		Value	Units	Analyzed	Method Prep Type
Lead, Total	<	10.0	UG/L	06/27/08	200.7

Summary

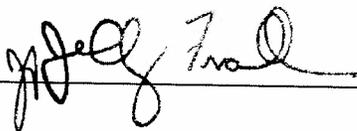
Labs performing analysis on this Sample:

Metals

SOURCE: WAGONER ARMORY

SAMPLERS COMMENTS:
 WATER FROM IFR; IFR-1

ANALYST'S COMMENTS:

* ANALYST 

Sample Number: 444632
Project Code: LP-ARM
Agency Number: 493
Date Collected: 6/19/2008
Time Collected: 1201
Date Received: 6/20/2008
Date Completed: 06/26/2008
Collected By: HRM
PWS Id:
Location Code:
Station:
Facility:
Report Date: 06/26/2008

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010
 General Inquiries: 1-800-869-1400
 Sample Receiving: (405) 702-1113
Report of Analysis by Metals
 EPA Drinking Water Certification #OK00013

To: LAND PROTECTION DIVISION
 HEATHER MALLORY

CC: FILE COPY

Name	Qualifier	SAMPLE DATA		Analyzed	Method	Prep Type
		Value	Units			
Lead, Sediment		41.0	MG/KG	06/24/08	6010	
% Solids		72.2	%	06/25/08	CLP 05.3	

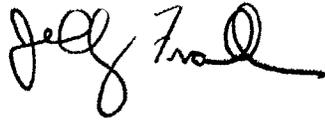
Summary

Labs performing analysis on this Sample:
 Metals

SOURCE: WAGONER ARMORY

SAMPLERS COMMENTS:
 IFR VENT FAN - SOIL; IFRV-1

ANALYST'S COMMENTS:



* **ANALYST** _____

Sample Number: 444635
Project Code: LP-ARM
Agency Number: 493
Date Collected: 6/19/2008
Time Collected: 1225
Date Received: 6/20/2008
Date Completed: 06/26/2008
Collected By: HRM
PWS Id:
Location Code:
Station:
Facility:
Report Date: 06/26/2008

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010
General Inquiries: 1-800-869-1400
Sample Receiving: (405) 702-1113
Report of Analysis by Metals
EPA Drinking Water Certification #OK00013

To: LAND PROTECTION DIVISION
HEATHER MALLORY

CC: FILE COPY

Name	Qualifier	SAMPLE DATA			
		Value	Units	Analyzed	Method Prep Type
Lead, Sediment		472	MG/KG	06/24/08	6010
% Solids		71.3	%	06/25/08	CLP 05.3

Summary

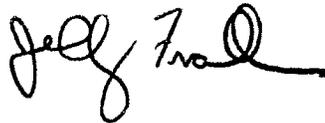
Labs performing analysis on this Sample:

Metals

SOURCE: WAGONER ARMORY

SAMPLERS COMMENTS:
DITCH NEAR IFR - TOP; D-1

ANALYST'S COMMENTS:



*

* ANALYST _____

Sample Number: 444634
Project Code: LP-ARM
Agency Number: 493
Date Collected: 6/19/2008
Time Collected: 1230
Date Received: 6/20/2008
Date Completed: 06/26/2008
Collected By: HRM
PWS Id:
Location Code:
Station:
Facility:
Report Date: 06/26/2008

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010
 General Inquiries: 1-800-869-1400
 Sample Receiving: (405) 702-1113
Report of Analysis by Metals
 EPA Drinking Water Certification #OK00013

To: LAND PROTECTION DIVISION
 HEATHER MALLORY

CC: FILE COPY

Name	Qualifier	SAMPLE DATA		Analyzed	Method	Prep Type
		Value	Units			
Lead, Sediment		71.0	MG/KG	06/24/08	6010	
% Solids		71.2	%	06/25/08	CLP 05.3	

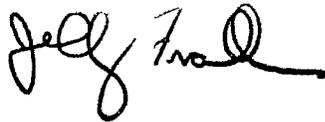
Summary

Labs performing analysis on this Sample:
 Metals

SOURCE: WAGONER ARMORY

SAMPLERS COMMENTS:
 DITCH NEAR IFR - MIDDLE; D-2

ANALYST'S COMMENTS:



* **ANALYST** _____

Sample Number: 444633
Project Code: LP-ARM
Agency Number: 493
Date Collected: 6/19/2008
Time Collected: 1235
Date Received: 6/20/2008
Date Completed: 06/26/2008
Collected By: HRM
PWS Id:
Location Code:
Station:
Facility:
Report Date: 06/26/2008

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010
General Inquiries: 1-800-869-1400
Sample Receiving: (405) 702-1113
Report of Analysis by Metals
EPA Drinking Water Certification #OK00013

To: LAND PROTECTION DIVISION
HEATHER MALLORY

CC: FILE COPY

Name	Qualifier	SAMPLE DATA		Analyzed	Method	Prep Type
		Value	Units			
Lead, Sediment		100	MG/KG	06/24/08	6010	
% Solids		60.2	%	06/25/08	CLP 05.3	

Summary

Labs performing analysis on this Sample:

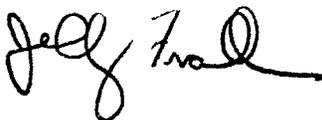
Metals

SOURCE: WAGONER ARMORY

SAMPLERS COMMENTS:

DITCH NEAR IFR - BOTTOM; D-3

ANALYST'S COMMENTS:

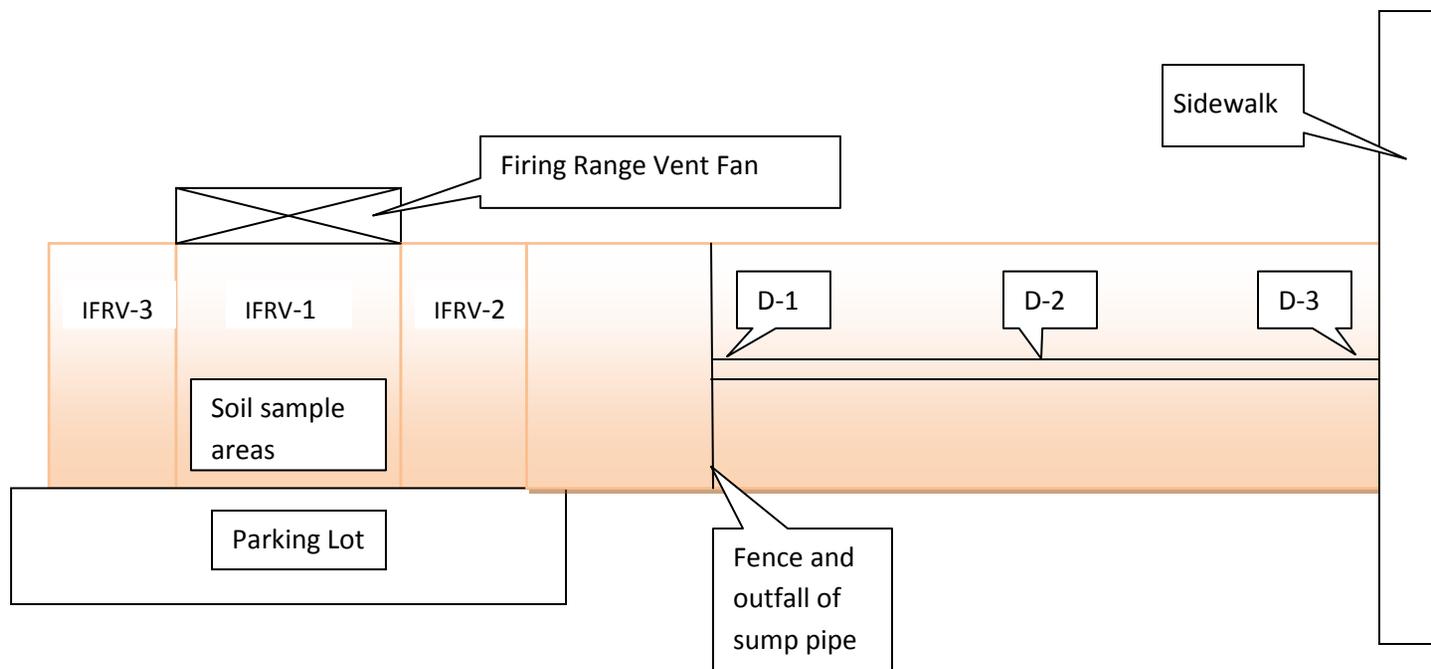


*

* ANALYST _____

Soil Samples Taken Outside of Firing Range Vent Fan and in the Ditch Below the Sump Pipe Outfall

Wagoner Armory



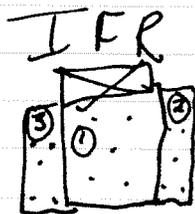
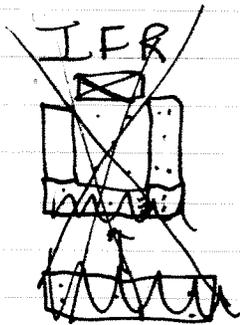
Note: Samples IFRV-1, IFRV-2, & IFRV-3 are five part composites; sample D-1 is a three part composite; samples D-2 and D-3 are grab samples

Wagoner Armory 6-19-08

Arrived: 10:45 A.M.

left: 1:10 p.m.

Wind out of ~~west~~ SE.
88°F, breezy, pty cloudy



concrete/asphalt
parking lot

① IFRV-1

② IFRV-2

③ IFRV-3

(all samples of soil for total Pb)
poison oak & ivy on S. side
of building

IFR vent fan on W. side of
building

Soil Samples of IFR runoff pipe

D-1 - upper part of ditch

D-2 - middle of ditch

D-3 - bottom of ditch

(all samples are for total lead)
Variances of QAPP:

D-1 was a 3 part composite

D-2 & D-3 were grab samples

We decided to change ^{the} sampling
strategy due to unusual
circumstances of pipe flowing
runoff out of IFR vent fan
into a small narrow ditch.

Note: Ditch flows N. to
street & flows east down
street to the city sewer

Heather Mallory & Dustin Davidson
took samples.

Blaine Davis - former Army

present

Photos taken:

(Starting w/ 97... other pictures
for Tar Creek)

- 97 - Room 2
- 98 - " 1
- 99-100: " 3
- 101: " 4
- 102: " 5
- 103: " 6
- 104: " 7
- 105-110: " 8
- 111: " 9 (IFR)
- 112: Room 8
- 113: under stairs (10)
- 114: Room 11
- 115: " 12
- 116-117: " 13
- 118: old coke machines on drill floor
- 119-120: Room 14 (upstairs)
- 121: outside vent pipe of former
UST (on E side of building)

- 122-123: W side of building
- 124: Room 15
- 125: " 16
- 126: " 17
- 127-128: " 18
- 129-132: " 19 & 20
- 133: " 21
- 134: Room 20
- 135: " 22
- 136-137: " 23
- 138-139: " 24
- 140 - " 25
- 141-143: Room 26
- 144: " 27
- 145-146: " 28
- 147: " 29
- 148: " 30
- 149: " 31
- 150-153: " 29
- 154-156: front of building (N)
- 157-158: right side of building (E)
- 159-160: back of building (S)
- ~~161: adjacent property to S.~~
- 162-164: ditch sampled on
front of building running
S. to N.

⁻¹⁶⁷
165 : adjacent property to N

168 : adjacent property to W

169-170 : adjacent property
to E

171 : adjacent property to S

172 : IFR (Room 9)

Flooded IFR - took water
sample

IFRF-1 : took 1 liter water
sample for total lead

Took GPS point from front
door of building using
#79.

HM 6-19-08

Guernsey Report

48.0 WAGONER ARMORY

C.H. Guernsey & Company (GUERNSEY) surveyed the indoor firing range (IFR) at the Wagoner Armory on February 23, 2005 (Photographs 48-1 through 48-11). The IFR is approximately 110 feet long, approximately 20 feet wide, and the ceiling is approximately 15 feet high. It is located subgrade. At one end is a backstop and bullet trap. The ventilation system within the IFR is comprised of a fan located in the ceiling and vented directly outside. There is evidence of water damage within the IFR space.

Based upon information supplied to GUERNSEY, Oklahoma Military Department (OMD) personnel collected wipe samples from the IFR on May 5, 2004. Concentrations in the IFR ranged from 754 $\mu\text{g}/\text{ft}^2$ on the stairs leading into the IFR to 29 $\mu\text{g}/\text{ft}^2$ on the drill floor. Table 48-1 summarizes the laboratory results for the wipe samples.

**Table 48-1
Laboratory Analysis**

Sample ID #	Sample Date	Result ($\mu\text{g}/\text{sq. ft.}$)	Lab Report ID #
363	5/5/2004	754.25	Quantem 111990
364	5/5/2004		Quantem 111990
365	5/5/2004	29.35	Quantem 111990

No equipment was identified for cleaning by OMD and armory personnel.

Table 48-2 provides a preliminary cost estimate to clean the equipment and/or remediate the lead contamination in the IFR. Figure 48-1 shows the approximate locations of the OMD samples.

48.1 OTHER ENVIRONMENTAL CONSIDERATIONS

Beyond the issues related to the IFR, the following environmental related issues potentially exist at the Armory:

- Asbestos containing material (ACM) is material that contains 1% or more asbestos fibers. Because of the Armory's age, there is a potential for ACM in building materials (roofing materials, floor tiles, mastic, ceiling tiles, window putty, natural gas-fired heating systems, etc);
- Lead has been used as a color carrier in paints for hundreds of years. In 1978, its use in residential paints was restricted in the United States. Because of its age, there is a potential for lead containing paints at the Armory;
- Polychlorinated biphenyls (PCB) are oils that were used in electrical equipment until their regulation in 1977. There is a potential for PCB in fluorescent lighting ballasts, capacitors, transformers and other dielectric fluid filled electrical equipment at the Armory;
- The potential for mold exists within the Armory due to a compromise of the building envelope and the presence of standing water and visible water damage;
- Chlorofluorocarbons (CFCs) are compounds used in heating, ventilation, and cooling (HVAC) systems and in fire suppression (i.e., halon) systems. The use, release and recycling

of these compounds are regulated by EPA. There is a potential for CFCs to be present in the HVAC equipment and fire suppression system of the Armory;

- Mercury is a heavy metal used in thermostats, pressure gauges, and other building and process related equipment. There is a potential for mercury containing thermostats at the Armory;
- Lead, nickel, and cadmium are heavy metals used in batteries. There is a potential for heavy metal containing batteries in the emergency lighting and exit signage at the Armory; and
- Other issues may be present that were not visually evident to GUERNSEY.

**Table 48-2
Preliminary Cost Estimate**

Equipment Cleaning Costs (a)				
Item Description	Number	Unit	Cost Per Unit	Total Cost
Total				\$0

Remediation Costs (b)				
Item Description	Number	Unit	Cost Per Unit	Total Cost
Mob/DeMob	1	Each	\$1,500	\$1,500
Stage/Clean Equipment/Components for Disposal	1	Each	\$2,500	\$2,500
Cleaning of Army Equipment (a)	N/A	N/A	N/A	\$0
Clean/Seal Firing Range surfaces	8780	ft ²	\$5	\$39,510
Clean Drill Floor	0	ft ²	\$0.10	\$0
Solidify/Stabilize Material in Bullet Trap	300	ft ³	\$15	\$4,500
Waste Disposal (non-hazardous)	3	Ton	\$1,000	\$3,000
Total (+/- 25%)				\$51,010

Notes:

- (a) Includes the cleaning of equipment identified by OMD personnel during site visit. Please reference photographs for each item.
- (b) Includes cleaning of firing range space, drill floor, and other surfaces to <40 ug/ft².

WAGONER ARMORY - PHOTOGRAPH LOG



Photograph #48-1



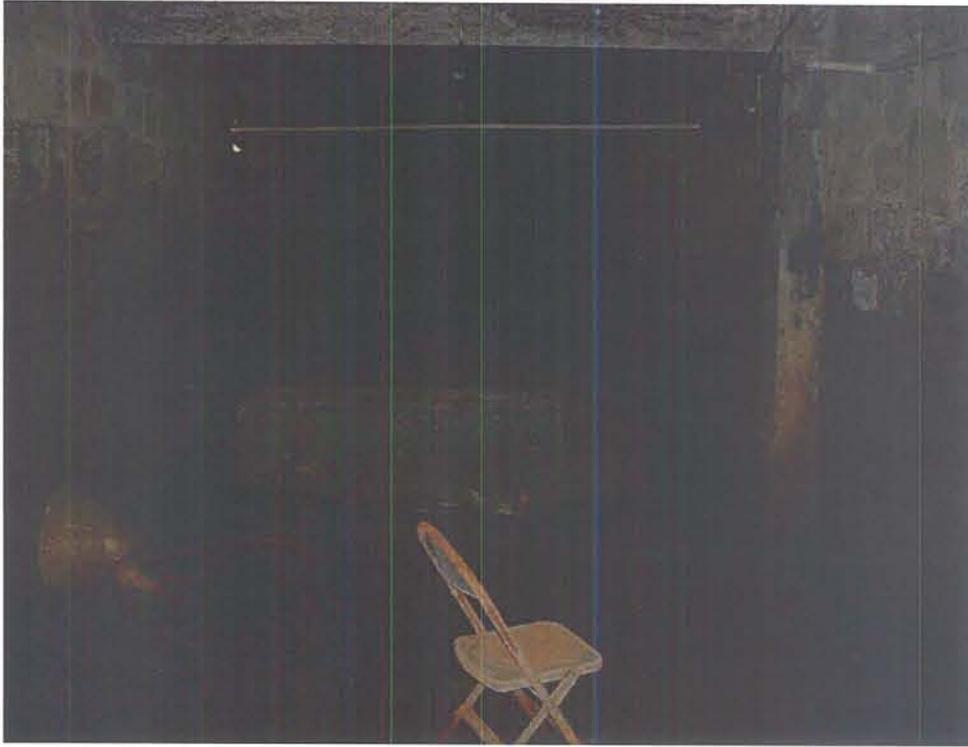
Photograph #48-2



Photograph #48-3



Photograph #48-4



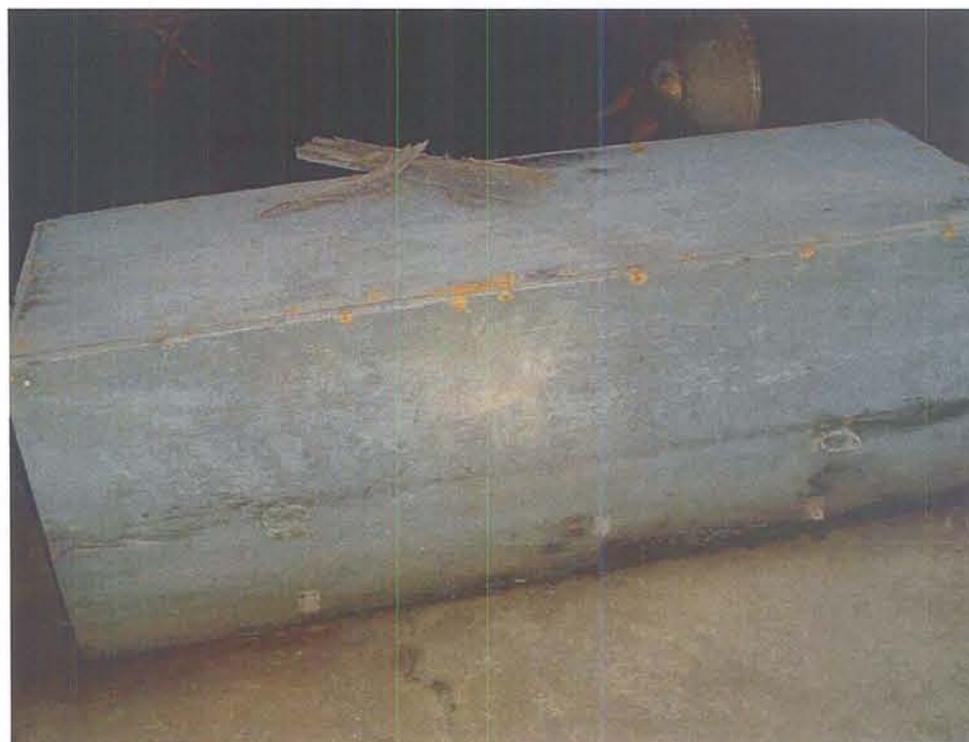
Photograph #48-5



Photograph #48-6



Photograph #48-7



Photograph #48-8



Photograph #48-9



Photograph #48-10



Photograph #48-11

Marshall Environmental Management Sample Results

RECEIVED

SEP 01 2008

LAND PROTECTION DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY

**LEAD-BASED PAINT INSPECTION REPORT
FOR**

Wagoner Armory

Wagoner, Oklahoma

July 22, 2008

Services Provided for:

Oklahoma Department of Environmental Quality

Land Protection Division

707 N. Robinson

Oklahoma City, OK 73102

Certified Industrial Hygiene Services Provided By:

Marshall Environmental Management, Inc.

1601 SW 89th Street Suite A100

Oklahoma City, OK 73159

(405) 616-0401

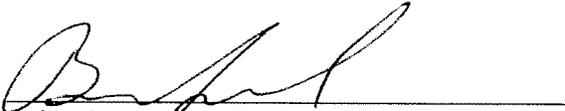
CERTIFICATION

This is to certify that the Lead-Based Paint Inspection conducted at the Wagoner Armory Located in Wagoner Oklahoma (Year of Construction: 1936) on July 22, 2008 was conducted in accordance with "*Good Industrial Hygiene Practice.*" The results of the testing accurately reflect the condition of the property at the time the sampling was performed.

Current Owner Information

State of Oklahoma

Certified Lead Based Paint Risk Assessor/Inspector



Brice Semrad, Safety/IH Tech.

Certified Lead-Based Paint Inspector/Risk Assessor OKRASR13046

Certified Lead-Based Paint Firm #OKFIRM11160

Marshall Environmental Management, Inc.

1601 SW 89th Street Suite A100

Oklahoma City, Oklahoma 73159

(405) 616-0401

XRF Information

Niton XLp Spectrum Analyzer

Model #XLp 300A

Serial #12585

Source: 40 mCi

Executive Summary:

Sampling Methodology:

Lead based paint (LBP) testing was done to determine lead levels on painted structural building components at the Wagoner Armory. Each room of the Building was numbered on a floor plan that is provided in the Appendix. The front side of the Armory Building was marked "Side A" and going in a clockwise motion the remaining sides were categorized as Sides B, C, and D, respectively.

The building is a one-story structure constructed on a concrete slab foundation with an asphalt composite flat roof over the Office, Storage, and Garage Bay. A metal pitched roof covered the Drill Hall. Brick covered the sides of the Building. All of the windows are metal. Throughout the Building were concrete floors. The roof was constructed with steel rafters and concrete decking with asphalt roof / metal.

The findings from the XRF testing indicated that there is lead-based paint in amounts greater than the EPA Standard for XRF readings or equal to 1.0 mg/cm² located on the Building components.

The following locations contain lead-based paint:

1. Concrete Walls in Room #30
2. Concrete Floor in Room #5 (Highly damaged paint on floor)
3. Overhead Door Frames around and in the Building
4. Historic Interior & Exterior Doors and Frames in the building (See attach Chart)
5. Wood Wall Trim Around Drill Floor (6)
6. Stage Hand Rails in Drill Floor (6)
7. Window Frames / Window Bars (Total Square Footage is 696 sqft.)
8. Outside Downspouts

Please note that the following items were not tested in this inspection:

1. Structural Steel
2. Non-painted floors
3. Non-painted walls
4. Non-fixed Items on the property

ROOM LEGEND

<u>Site</u>	<u>Current Use</u>
1	North Stage Room
2	Stage Storage
3	Tool Room
4	BII Equipment
5	Stage Office
6	Drill Floor
7	Mess Storage
8	Drill Floor Supply
9	Closet (Does Not Exist)
10	NBC
11	Motor Pool Office
12	Rooms above 10 & 11
13	Vault
14	Supply Room
15	Supply Office
16	Library
17	Storage
18	Training Room
19	Men's Latrine
20	Female's Latrine
21	Training Room Hall
22	Main Hallway
23	Hall Storage
24	Commo Room
25	Class Room
26	Storage
27	Kitchen (North Wall taken Down)
28	Xo ISG Office
29	CO Office
30	CO Latrine
IFR	Firing Range (Not Accessible)
Outside	Outside

Door Spread Sheet

Oklahoma Department of Environmental Quality
Land Protection Division
WAGONER ARMORY

Lead Inspection Inspection by:
Marshall Environmental Management, Inc.
Summary of Doors that Tested Positive for Lead
Date of Inspection: 7/22/2008

Room #	Wall	Result	Dementions (inches)
Room #1 Interior	D	Positive	36x84
Room #5 Interior	D	Positive	36x84
Room #4 Interior	A	Positive	36x84
Room #6 Interior	C	Positive	(2)36x84
Room #6 Exterior	A	Positive	(2)36x84
Room #14 Interior	A	Positive	36x84
Room #14 Interior	D	Positive	48x84
Room #21 Interior	D	Positive	36x84
Room #23 Interior	B	Positive	36x84
Room #24 Interior	C	Positive	36x84
Room #25 Interior	B	Positive	48x84
Room #28 Interior	B	Positive	36x84
Room #30 Interior	C	Positive	22x72
Room #30 Interior	B	Positive	36x84
Room #29 Interior	C	Positive	36x84

CERTIFICATES

Department of Environmental Quality

This is to Certify That

BRICE SEMRAD

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

INSPECTOR/RISK ASSESSOR

Certification #: OKRASR13046

This certificate is valid from the date of issuance and expires as prescribed by law
Issued on: 4/1/2008 Expires on: 3/31/2009



Division Director
Air Quality Division



Environmental Programs Manager
Air Quality Division



Department of Environmental Quality

MARSHALL ENVIRONMENTAL MANAGEMENT FIRM

This is to Certify That

has met the specifications of the Oklahoma 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: 4/1/2008 Expires on: 3/31/2009



A. Todd

Division Director
Air Quality Division

Randall Z. Ward

Environmental Programs Manager
Air Quality Division

SITE MAP

XRF READINGS

Component	Substrate	Side	Condition	Color	Room	Results	PHC	PHL	PHK
		CALIBRATE				Null	4.97 ± 0.00	0.60 ± 0.00	0.01 ± 0.00
		CALIBRATE				Positive	< LOD : 1.20	< LOD : 1.20	< LOD : 6.78
		CALIBRATE				Positive	1.19 ± 0.10	1.10 ± 0.10	0.80 ± 0.50
		CALIBRATE				Positive	1.10 ± 0.10	1.10 ± 0.10	0.80 ± 0.40
		CALIBRATE				Positive	1.28 ± 0.20	1.20 ± 0.20	< LOD : 1.20
		CALIBRATE				Negative	< LOD : 0.16	< LOD : 0.16	< LOD : 2.55
WALL	brick	A	INTACT	BROWN		Negative	< LOD : 0.12	< LOD : 0.12	< LOD : 2.21
WALL	brick	A	INTACT	BROWN	1	Negative	< LOD : 0.12	< LOD : 0.12	< LOD : 8.70
DOOR	WOOD	D	INTACT	BROWN	1	Positive	2.90 ± 1.90	2.90 ± 1.90	< LOD : 10.35
DOOR FRAME	METAL	D	INTACT	BROWN	1	Positive	< LOD : 3.75	< LOD : 3.75	< LOD : 7.80
DOOR FRAME	METAL	C	INTACT	BROWN	2	Positive	2.10 ± 1.10	2.10 ± 1.10	< LOD : 2.23
WALL	brick	A	INTACT	BROWN	2	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.44
WALL	brick	C	INTACT	BROWN	2	Negative	< LOD : 0.08	< LOD : 0.08	< LOD : 3.90
WALL	rock	A	INTACT	TAN	3	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 1.10
WALL	rock	B	INTACT	TAN	3	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.26
WALL	rock	C	INTACT	TAN	3	Negative	< LOD : 0.75	< LOD : 0.03	< LOD : 0.75
DOOR	METAL	D	INTACT	TAN	3	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.76
DOOR FRAME	METAL	D	INTACT	TAN	3	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.84
DOOR FRAME	METAL	A	INTACT	TAN	4	Positive	2.30 ± 1.10	2.30 ± 1.10	< LOD : 3.34
DOOR	WOOD	B	INTACT	BROWN	5	Positive	3.50 ± 2.10	3.50 ± 2.10	1.90 ± 0.90
DOOR FRAME	METAL	D	INTACT	BROWN	5	Positive	< LOD : 3.00	< LOD : 3.00	< LOD : 12.00
WALL	ROCK	A	INTACT	TAN	5	Negative	< LOD : 0.13	< LOD : 0.13	< LOD : 2.01
WALL	ROCK	B	INTACT	TAN	5	Negative	0.04 ± 0.02	0.04 ± 0.02	< LOD : 0.90
WALL	ROCK	C	INTACT	TAN	5	Negative	0.07 ± 0.04	0.07 ± 0.04	< LOD : 1.21
WALL	ROCK	D	INTACT	TAN	5	Negative	0.06 ± 0.03	0.06 ± 0.03	1.00 ± 0.40
WALL	ROCK	B	INTACT	TAN	7	Negative	< LOD : 0.12	< LOD : 0.12	< LOD : 2.04
WALL	ROCK	A	INTACT	TAN	6	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.09
WALL	ROCK	B	INTACT	TAN	6	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.40
WALL	ROCK	C	INTACT	TAN	6	Negative	< LOD : 0.25	< LOD : 0.25	< LOD : 2.55
WALL	ROCK	D	INTACT	TAN	6	Negative	< LOD : 0.05	< LOD : 0.05	< LOD : 1.80
WALL FRIM	WOOD	A	INTACT	BROWN	6	Positive	< LOD : 4.95	< LOD : 4.95	< LOD : 9.15
WALL FRIM	WOOD	C	INTACT	BROWN	6	Positive	2.70 ± 1.50	2.70 ± 1.50	< LOD : 6.30
STAGE HANDRAILS	METAL	B	POOR	BROWN	6	Positive	2.50 ± 1.40	2.50 ± 1.40	< LOD : 8.40
WINDOW	METAL	C	POOR	BROWN	6	Positive	1.60 ± 0.60	1.60 ± 0.60	< LOD : 2.85
DOOR	WOOD	C	INTACT	BROWN	6	Positive	3.30 ± 2.20	3.30 ± 2.20	< LOD : 6.00
DOOR FRAME	METAL	C	INTACT	BROWN	6	Positive	2.90 ± 1.60	2.90 ± 1.60	< LOD : 9.15
WINDOW	METAL	D	POOR	BROWN	6	Positive	2.70 ± 1.60	2.70 ± 1.60	< LOD : 7.65
DOOR	METAL	D	INTACT	WHITE	6	Negative	< LOD : 0.03	< LOD : 0.03	< LOD : 2.96

Component	Substrate	Side	Condition	Color	Room	Results	PbC	PhI	PbK
WALL	stone	B	INTACT	TAN	24	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 2.51
WALL	stone	C	INTACT	TAN	24	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 1.95
WALL	WOOD	D	INTACT	TAN	24	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 1.80
DOOR	WOOD	C	INTACT	BROWN	24	Positive	4.70 ± 3.10	4.70 ± 3.10	< LOD: 9.30
DOOR frame	METAL	C	INTACT	BROWN	24	Positive	3.20 ± 1.80	3.20 ± 1.80	< LOD: 9.60
DOOR frame	METAL	B	INTACT	RED	25	Positive	< LOD: 4.20	< LOD: 4.20	< LOD: 12.00
DOOR	WOOD	B	INTACT	RED	25	Positive	4.80 ± 3.10	4.80 ± 3.10	< LOD: 9.60
WALL	stone	B	INTACT	WHITE	25	Negative	0.04 ± 0.02	0.04 ± 0.02	< LOD: 0.90
WALL	stone	C	INTACT	WHITE	25	Negative	< LOD: 0.12	< LOD: 0.12	< LOD: 1.87
WALL	stone	D	INTACT	WHITE	25	Negative	< LOD: 0.06	< LOD: 0.06	< LOD: 1.80
WALL	stone	A	INTACT	WHITE	25	Null	0.04 ± 0.02	0.04 ± 0.02	0.90 ± 0.20
WALL	stone	A	INTACT	WHITE	25	Negative	< LOD: 0.06	< LOD: 0.06	< LOD: 1.05
WALL	DRYWALL	C	INTACT	WHITE	26	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 2.09
WALL	DRYWALL	B	INTACT	WHITE	26	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 2.05
WALL	DRYWALL	D	INTACT	WHITE	26	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 1.83
WALL	CONCRETE	A	INTACT	WHITE	28	Null	0.80 ± 0.30	< LOD: 0.10	0.80 ± 0.30
WALL	CONCRETE	B	INTACT	WHITE	28	Null	0.70 ± 0.30	0.14 ± 0.08	0.70 ± 0.30
DOOR	WOOD	B	INTACT	RED	28	Positive	2.80 ± 1.50	2.80 ± 1.50	< LOD: 8.10
DOOR frame	WOOD	B	INTACT	RED	28	Positive	2.70 ± 1.50	2.70 ± 1.50	< LOD: 10.20
DOOR frame	WOOD	D	INTACT	BROWN	28	Positive	< LOD: 5.40	< LOD: 5.40	< LOD: 14.40
DOOR	WOOD	D	INTACT	BROWN	28	Positive	< LOD: 3.45	< LOD: 3.45	< LOD: 6.45
DOOR	WOOD	C	INTACT	RED	30	Positive	1.90 ± 0.90	1.90 ± 0.90	< LOD: 3.75
DOOR frame	WOOD	C	INTACT	WHITE	30	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 1.36
WALL	CONCRETE	A	INTACT	WHITE	30	Negative	< LOD: 0.11	< LOD: 0.11	< LOD: 1.20
WALL	CONCRETE	C	INTACT	WHITE	30	Positive	< LOD: 12.15	< LOD: 3.90	< LOD: 12.15
WALL	CONCRETE	B	INTACT	WHITE	30	Positive	5.90 ± 3.30	2.50 ± 1.60	5.90 ± 3.30
WALL	CONCRETE	A	INTACT	WHITE	30	Positive	< LOD: 4.20	< LOD: 4.20	< LOD: 9.90
DOOR2	WOOD	B	INTACT	TAN	30	Positive	2.40 ± 1.30	2.40 ± 1.30	< LOD: 5.70
DOOR2 frame	METAL	B	INTACT	TAN	30	Positive	3.40 ± 2.20	3.40 ± 2.20	< LOD: 7.05
WINDOW bar	METAL	A	FAIR	TAN	30	Positive	< LOD: 13.35	< LOD: 7.65	< LOD: 13.35
WINDOW bar	METAL	A	FAIR	BROWN	29	Positive	4.00 ± 2.30	4.00 ± 2.30	< LOD: 11.40
WALL	WOOD	A	INTACT	WHITE	29	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 1.92
WALL	WOOD	B	INTACT	WHITE	29	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 1.96
WALL	WOOD	C	INTACT	WHITE	29	Negative	< LOD: 0.04	< LOD: 0.04	< LOD: 1.85
WALL	WOOD	D	INTACT	WHITE	29	Negative	< LOD: 0.03	< LOD: 0.03	< LOD: 1.47
DOOR	WOOD	C	INTACT	BROWN	29	Positive	2.60 ± 1.50	2.60 ± 1.50	< LOD: 6.00
DOOR frame	METAL	C	INTACT	BROWN	29	Positive	3.30 ± 2.10	3.30 ± 2.10	< LOD: 11.40
WINDOW sill	CONCRETE	A	POOR	WHITE	OUTSIDE	Negative	< LOD: 1.21	0.12 ± 0.08	< LOD: 1.21
WINDOW	CONCRETE	A	POOR	WHITE	OUTSIDE	Null	< LOD: 1.50	< LOD: 1.50	< LOD: 3.75
WINDOW	CONCRETE	A	POOR	WHITE	OUTSIDE	Negative	< LOD: 0.75	< LOD: 0.75	< LOD: 3.90

Component	Substrate	Site	Condition	Color	Room	Results	PbC	PbI	PbK
down spouts	METAL	B	POOR	WHITE	OUTSIDE	Positive	4.70 ± 2.50	4.70 ± 2.50	7.10 ± 4.00
down spouts	METAL	D	POOR	WHITE	OUTSIDE	Positive	< LOD : 13.50	< LOD : 10.35	< LOD : 13.50
overhead door frame	METAL	D	POOR	WHITE	OUTSIDE	Positive	< LOD : 3.75	< LOD : 0.90	< LOD : 3.75
overhead door frame	METAL	D	POOR	WHITE	OUTSIDE	Positive	3.30 ± 2.20	2.10 ± 1.30	3.30 ± 2.20
overhead door frame	METAL	D	POOR	WHITE	OUTSIDE	Positive	3.20 ± 2.00	< LOD : 1.20	3.20 ± 2.00
	CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	1.00 ± 0.50
	CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	0.90 ± 0.50
	CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	< LOD : 0.75
	CALIBRATE					Positive	4.98 ± 0.00	0.71 ± 0.00	0.01 ± 0.00
	CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	< LOD : 0.90
	CALIBRATE					Positive	1.40 ± 0.40	1.40 ± 0.40	< LOD : 2.85
	CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	< LOD : 0.75
FLOOR	CONCRETE	LOWER	POOR	BROWN	1	Negative	< LOD : 0.16	< LOD : 0.16	< LOD : 2.59
FLOOR	CONCRETE	LOWER	POOR	BROWN	1	Negative	0.18 ± 0.10	0.18 ± 0.10	< LOD : 2.33
FLOOR	CONCRETE	LOWER	POOR	RED	5	Positive	1.10 ± 0.10	1.10 ± 0.10	1.00 ± 0.60
FLOOR	CONCRETE	LOWER	POOR	BROWN	10	Null	< LOD : 0.75	< LOD : 0.75	< LOD : 8.25
FLOOR	CONCRETE	LOWER	POOR	BROWN	10	Negative	< LOD : 0.12	< LOD : 0.12	< LOD : 2.82
FLOOR	CONCRETE	LOWER	POOR	BROWN	22	Negative	< LOD : 0.05	< LOD : 0.05	< LOD : 2.80
FLOOR	CONCRETE	LOWER	POOR	RED	16,17	Negative	< LOD : 0.17	< LOD : 0.17	< LOD : 2.86
FLOOR	CONCRETE	LOWER	POOR	RED	16,17	Negative	< LOD : 0.24	< LOD : 0.24	< LOD : 2.87
FLOOR	CONCRETE	LOWER	POOR	RED	25	Negative	< LOD : 0.08	< LOD : 0.08	< LOD : 3.33
FLOOR	CONCRETE	LOWER	POOR	YELLOW	25	Negative	< LOD : 0.06	< LOD : 0.06	< LOD : 2.69
FLOOR	CONCRETE	LOWER	POOR	YELLOW	25	Negative	< LOD : 0.04	< LOD : 0.04	< LOD : 3.60
FLOOR	CONCRETE	LOWER	POOR	gray	25	Null	1.00 ± 0.10	1.00 ± 0.10	0.70 ± 0.30
	CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	< LOD : 0.75
	CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	0.90 ± 0.50
	CALIBRATE					Positive	1.10 ± 0.10	1.10 ± 0.10	< LOD : 0.75

ASBESTOS INSPECTION REPORT

WAGONER ARMORY

Wagoner, Oklahoma

July 22, 2008

RECEIVED

SEP 11 2008
LAND PROTECTION DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY

Services Provided For:

Oklahoma Department of Environmental Quality
Land Protection Division
707 North Robinson
Oklahoma City, OK 73102

Asbestos Inspection Services Provided By:

Marshall Environmental Management, Inc.
1601 SW 89th Street, Suite A 100
Oklahoma City, Ok 73159
(405) 616-0401

TABLE OF CONTENTS

I.	CERTIFICATION	3
II.	LIMITATIONS OF SURVEY	4
III.	EXECUTIVE SUMMARY	5
IV.	REGULATORY REVIEW	6
V.	HISTORICAL OVERVIEW OF ASBESTOS ACTIVITIES	9
VI.	RESULTS OF THE ASBESTOS INSPECTION	9
VII.	ASBESTOS INSPECTION-CONCLUSIONS & FINDINGS	12
VIII.	RECOMMENDATIONS	13

LIST OF TABLES

Table 1 - Summary of Sampling Data for Samples that were Positive for Asbestos Content

APPENDIX

ASBESTOS SAMPLING TEST RESULTS

CHAIN OF CUSTODY FORMS

SUMMARY OF ESTIMATED QUANTITIES OF ACM

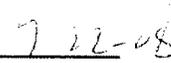
ARMORY FLOOR PLAN

I. CERTIFICATION

This is to certify that an Asbestos Inspection was performed at the Wagoner Armory located in Wagoner Oklahoma for the Land Protection Division of the Oklahoma Department of Environmental Quality on July 22, 2006. The inspection was performed in an attempt to identify building materials considered suspect for asbestos content. This Inspection for friable and non-friable building materials was performed by an Oklahoma State Department of Labor Licensed AHERA Management Planner, Dr. Charles L. Marshall, Ph.D., C.I.H. The contents, conclusions, and recommendations made in this report are believed to accurately depict the site conditions as noted on the date the inspection work was performed.



Charles L. Marshall, Ph.D., C.I.H., C.S.P



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 - #400517 Inspector
#500396 Management Planner
#2415 Project Designer
Oklahoma Department of Labor License - #OKMP-0028 Project Designer
#OKMP-0246 Management Planner
#OK-150343 Inspector
AIHA/NIOSH PAT Lab ID #102334

Laboratory Analysis Performed by:
Marshall Environmental Management, Inc. (AIHA PAT ID# 102334)
1601 SW 89th Street, A-300
Oklahoma City, OK. 73159

II. LIMITATIONS OF SURVEY

This Inspection was conducted within the limitations of budgetary constraints, cost, time, and scope and reflects a limited investigation and evaluation. Physical limitations of facility construction may have, in some cases, prevented the complete inspection of hidden or inaccessible building materials and substrates. Inaccessible Asbestos Containing Building Materials (ACM) were not inspected. Locations with high potential for disturbance, or locations presenting a hazard to the inspectors, or the Armory staff or visitors were also not inspected at this time. Additional inspections should be conducted whenever the Owner anticipates conducting demolition or renovation work. Plans for the abatement of friable asbestos should only be developed by an Oklahoma State Department of Labor (ODOL) Licensed Asbestos Project Designer. Additional sampling may be required to support the planning for asbestos abatement work.

Our Investigation was performed using the degree of care and skill ordinarily exercised under similar circumstances by professional consultants practicing in this or similar localities. The findings of this Report are valid as of the date of the investigation. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Professional services have been performed, results 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 based on field inspections and other data presented in this report.

III. EXECUTIVE SUMMARY

The Oklahoma Department of Environmental Quality (DEQ) Land Protection Division (LPD) requested that the Oklahoma Department of Central Services (DCS) provide a Licensed Asbestos Inspection Firm to evaluate the locations and conditions of Asbestos Containing Materials (ACM) in the Wagoner Armory in Wagoner, Oklahoma.

Marshall Environmental Management, Inc. (MEM) was contracted by DCS to conduct an Asbestos Inspection for the ODEQ at the Wagoner Armory. The Asbestos Inspection was conducted on July 22, 2008. A total of thirty-four (34) asbestos samples were analyzed in accordance with the EPA authorized Method 600 49 CFR Part 61 Subpart M, Asbestos NESHAPS Rules.

The Asbestos Inspection did not identify the presence of asbestos in the Armory's plumbing system's Thermal System Insulation (TSI). ACM was also not identified in the surfacing material in the armory. ACM was detected in miscellaneous materials consisting of interior and exterior window caulking around the building.

The principal recommendations of the Asbestos Inspection Report consist of developing plans for a response action to remove the asbestos containing window caulking at the Armory Building.

IV. REGULATORY REVIEW

The Wagoner Armory Building was constructed prior to 1980. Completed in approximately 1936, the Armory Building was constructed in the era when asbestos was used in construction and installed in certain building components. In 1994, the Occupational Safety and Health Administration (OSHA) required employers to identify asbestos containing building materials (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 identification surveys, owners and/or operators must treat suspected ACM as asbestos. In such cases, this is referred to as presumed ACM or PACM. One of the purposes of the Asbestos Survey was to identify the types of ACM present in the various building components.

The Oklahoma Department of Labor (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 for in OAC 380 Chapter 45. [http://www.state.ok.us/~okdol/peosh/PEOSHTitle%20380-45%20\(8-06\).pdf](http://www.state.ok.us/~okdol/peosh/PEOSHTitle%20380-45%20(8-06).pdf)

Specific provisions of the Standard (OAC: 45-15-1) addresses an Asbestos Notice and Labeling requirement. The Labeling requirements specify that various equipment, such as pipe insulation and equipment with asbestos insulation (e.g. HVAC equipment), as well as room locations where asbestos is present, such as mechanical rooms, be provided with an Asbestos Warning Label. These 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 is used in acoustical materials on ceilings and walls. This type of ACM is referred to as Surfacing Material.

The U.S. Environmental Protection Agency (EPA) requires inspections in schools grades K through 12, as part of the Asbestos Hazard and Emergency Response Act (AHERA), which is authorized in 40 CFR 763.6. These AHERA requirements would only be applicable to the Armory in the case that the future use of the Armory Facility would include any use by a Local Educational Authority (LEA), such as a school grades K through 12. The AHERA inspection protocol requires a thorough sampling of all forms of asbestos. The types of ACM to be assessed as part of an AHERA Inspection include:

Thermal System Insulation (TSI) – found on plumbing lines, HVAC equipment, boilers and steam lines

Surfacing Materials (SM) – blown on, textured or troweled onto building components (e.g. ceilings and beams)

Miscellaneous Materials (Misc.) – floor tile, mastics, ceiling tile, wallboard, cement asbestos boards, etc.

The AHERA sampling protocol addresses the systematic sampling of each of these forms of ACM and the identification of both friable ACM (i.e. that which can be rendered to a powder by hand pressure) and non-friable ACM, such as floor tiles and mastic. This Inspection also evaluated the condition of the ACM identified as good, damaged, or significantly damaged. No significantly damaged ACM was identified in the Inspection. The potential for disturbance of the ACM identified was indicated on the field inspection forms in accordance with the AHERA inspection protocol in order to assist with future Asbestos Management Planning efforts.

In addition to AHERA, the EPA regulates asbestos removal and land disposal requirements. These efforts are now administered by the Oklahoma Department of Environmental Quality (DEQ). Air quality regulations require the filing of advance notices of any demolition or renovation activities. These notices are referred to as a National Emission Standard for Hazard Air Pollutants (NESHAPS) Notice. Both historical and future asbestos abatement response actions track asbestos removal from the Armory to the DEQ approved landfill on a project by project basis as part of this NESHAP notification process.

The ODOL Asbestos Division regulates the abatement of asbestos in Oklahoma. Under the ODOL asbestos rule, OAC 380:50, only Licensed Contractors can perform asbestos abatement, develop management plans and project designs. All abatement supervisors, abatement workers, and asbestos inspectors must also be licensed by the Oklahoma State Department of Labor. It should be noted that the ODOL Asbestos Rules are currently undergoing a Rule Change process regarding the current ODOL Asbestos Rules.

One of the goals of the Asbestos Inspection was to identify the presence, types, and quantity of ACM within the Armory so that plans can be made to abate the asbestos, and therefore eliminate the need for any long term asbestos management requirements, such as those required by ODOL or the EPA AHERA regulations.

V. HISTORICAL OVERVIEW OF ASBESTOS ACTIVITIES

This Asbestos Inspection did not identify any evidence of prior asbestos inspection work or previous abatement of friable ACM. No historical inspection records were available. As a result, this Asbestos Inspection took the approach of a thorough initial sampling of the Armory, as opposed to a re-inspection and confirmation sampling approach.

VI. RESULTS OF THE ASBESTOS INSPECTION

The DEQ LPD requested that the DCS provide a Licensed Asbestos Inspection Firm to perform an initial Asbestos Inspection of the Armory. Marshall Environmental Management, Inc. began a systematic inspection of the Armory on June 3, 2008 to locate and assess the condition of the suspected Asbestos Containing Materials in the facility. Each room was visually inspected by a Licensed AHERA Asbestos Inspector. All accessible locations throughout the Armory were visually inspected for suspected ACM.

Sampling consisted of taking bulk asbestos samples from each category of suspected ACM consisting of the following typical examples:

Surfacing Materials (SM) – blown on or troweled on ACM, typically observed on ceilings, structural steel, and concrete ceils or metal pan decks.

Thermal System Insulation (TSI) - typically located on plumbing, HVAC equipment, boilers, steam lines and heated thermal processes.

Miscellaneous Materials (Misc.) - typically consists of floor tiles, mastics, ceiling tiles, sheet vinyl flooring and wallboard bedding tapes and joint compounds, and other suspect ACM not typically included in Surfacing Materials or TSI designations.

A total of thirty-four (34) samples were collected and four (4) were identified by laboratory testing to be “Positive” for asbestos content, which is defined by EPA regulations to consist of any material with more than 1% asbestos as determined by the EPA approved Test Method 0600 or Polarized Light Microscopy (PLM).

The following Table is a summary of the samples collected by location and type of building component. Locations where ACM was identified can be identified by referring to the facility floor plan diagram provided in the Appendix of this Inspection Report. A summary of the estimated quantities of ACM located during the Asbestos Inspection is provided in the Appendix.

Location	Sample ID	Type of ACM	Asbestos Content Type (%)	Condition - Item
Around the Building	WA-26-26 WA-05-27 WA-05-28 WA-O6-29	Misc Material	Chrysotile <1%	Damaged – Window Caulking

Table 1 - Summary of Sampling Data for Samples that were Positive for Asbestos Content

Copies of the individual asbestos sample test results provided by the accredited testing lab, along with the chain of custody forms and several digital photos are provided for review in the Appendix of this Inspection Report.

VII. ASBESTOS INSPECTION – CONCLUSIONS AND FINDINGS

The results for this initial Asbestos Inspection did identify that ACM was present in the Wagoner Armory in the form of friable window caulking material.

The following are some of the conclusions and findings related to the results of this initial Asbestos Inspection Report.

1. **Surfacing Materials** –No Surfacing materials were found in this inspection.

CONDITION OF SURFACING MATERIALS - No ACM were found in surfacing materials within the Wagoner Armory.

2. **Thermal System Insulation** – No Thermal System Insulation (TSI) was found to contain asbestos as part of the Asbestos Inspection of the Wagoner Armory.

Plumbing – No ACM were found on TSI within the Wagoner Armory.

HVAC – No ACM was identified on HVAC equipment or components.

CONDITION OF TSI – No TSI was found.

4. **Miscellaneous Materials** – Consisted of window caulking materials around the Armory.

CONDITION OF MISCELLANEOUS ACM –

Caulking Material - Damaged

VIII. RECOMMENDATIONS

This Asbestos Inspection Report should be considered as the initial step in a process to develop plans for asbestos abatement or an Armory Asbestos Management Plan.

The principal recommendations of the Asbestos Inspection Report consist of developing plans for a response action to remove the asbestos containing window caulking.

The following specific recommendations help address the future goals for facility asbestos management and abatement:

1. A Project Design needs to be developed to allow for the removal of the windows and caulking around the Armory.

APPENDIX

ASBESTOS SAMPLING TEST RESULTS

CHAIN OF CUSTODY FORMS

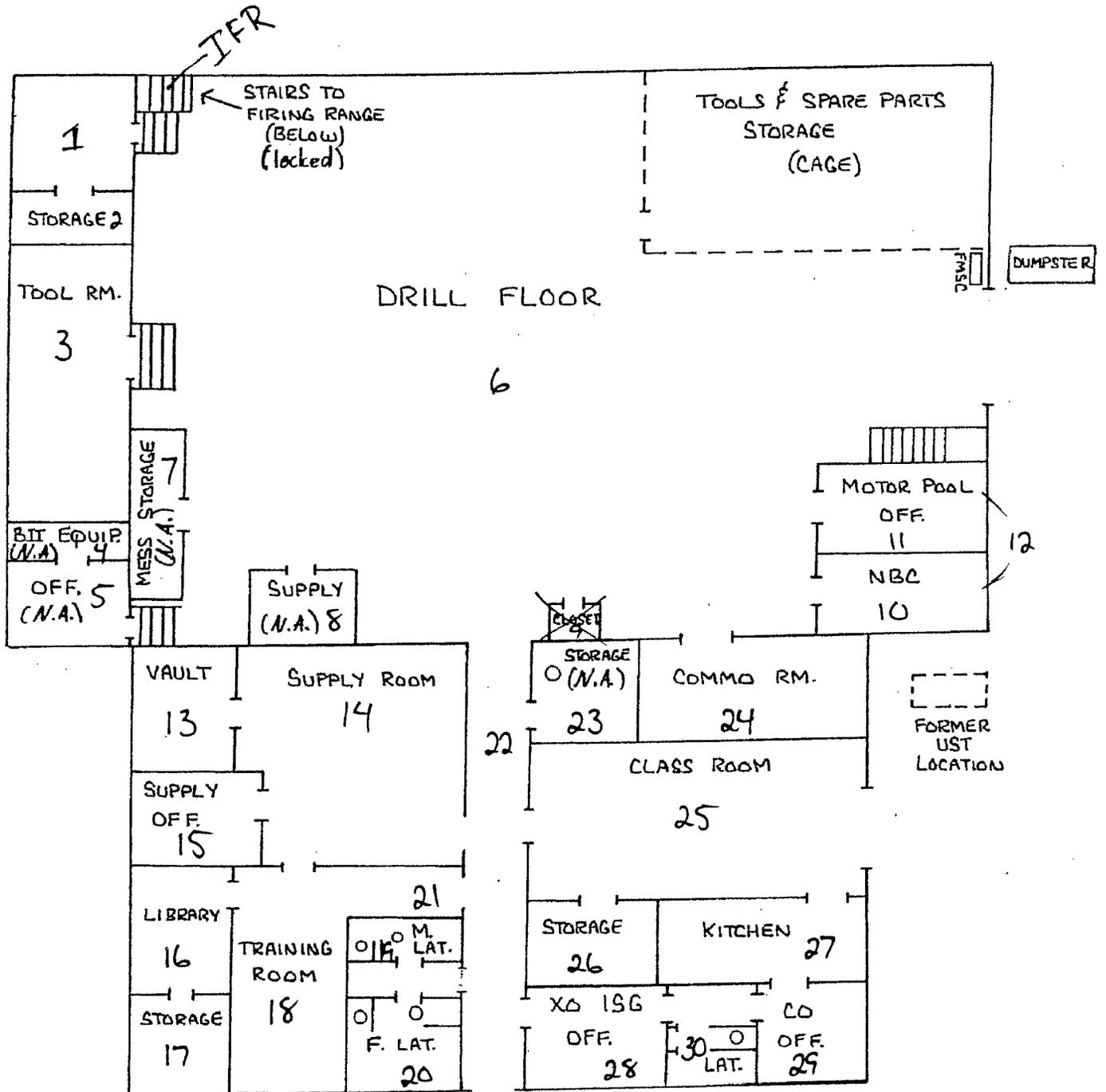
SUMMARY OF ESTIMATED QUANTITIES OF ACM

ARMORY FLOOR PLAN

WAGONER ARMORY

511 EAST CHEROKEE

BUILT: 1936



MAIN ENTRANCE

CHEROKEE STREET

O-FLOOR DRAIN
N.A. - not accessible



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

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 165161	Client:	Marshall Environmental Management, Inc.
Account Number: A331		1601 SW 89th Street, Ste. A-100
Date Received: 08/14/2008		Oklahoma City, OK 73159
Received By: Barbara Holder	Project:	Wagoner Armory
Date Analyzed: 08/21/2008	Project Location:	N/A
Analyzed By: Stacey Holder	Project Number:	2464
Methodology: EPA/600/R-93/116		

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)
001	WA-01-01	Homogeneous	Beige Sheetrock	Asbestos Not Present	Cellulose 25
002	WA-06-02	Layered	White Skim Coat	Asbestos Not Present	Cellulose <1
002a		Layered	Gray Plaster	Asbestos Not Present	Cellulose <1
003	WA-06-03	Homogeneous	Gray Plaster	Asbestos Not Present	Cellulose <1
004	WA-11-04	Homogeneous	White Joint Compound	Asbestos Not Present	Cellulose 2
005	WA-11-05	Homogeneous	White Joint Compound	Asbestos Not Present	Cellulose 2
006	WA-11-06	Homogeneous	Beige Sheetrock	Asbestos Not Present	Cellulose 20

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

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



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

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 165161	Client:	Marshall Environmental Management, Inc.
Account Number: A331		1601 SW 89th Street, Ste. A-100 Oklahoma City, OK 73159
Date Received: 08/14/2008		
Received By: Barbara Holder	Project:	Wagoner Armory
Date Analyzed: 08/21/2008	Project Location:	N/A
Analyzed By: Stacey Holder	Project Number:	2464
Methodology: EPA/600/R-93/116		

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	
007	WA-11-07	Layered	White Floor Tile	Asbestos Not Present	Cellulose	2
007a		Layered	Yellow Mastic	Asbestos Not Present	Cellulose	2
008	WA-24-08	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	30 30
009	WA-14-09	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose Glass Fiber	25 30
010	WA-14-10	Homogeneous	White Joint Compound	Asbestos Not Present	Cellulose	2
011	WA-14-11	Homogeneous	White Sheetrock	Asbestos Not Present	Cellulose	20
012	WA-14-12	Homogeneous	White Joint Compound	Asbestos Not Present	Cellulose	2

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

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 165161	Client:	Marshall Environmental Management, Inc.
Account Number: A331		1601 SW 89th Street, Ste. A-100
Date Received: 08/14/2008		Oklahoma City, OK 73159
Received By: Barbara Holder	Project:	Wagoner Armory
Date Analyzed: 08/21/2008	Project Location:	N/A
Analyzed By: Stacey Holder	Project Number:	2464
Methodology: EPA/600/R-93/116		

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)
013	WA-15-13	Homogeneous	White Sheetrock	Asbestos Not Present	Cellulose 25
014	WA-18-14	Homogeneous	White Sheetrock	Asbestos Not Present	Cellulose 25
015	WA-18-15	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose <1
016	WA-14-16	Layered	Cream Floor Tile	Asbestos Not Present	Cellulose <1
016a		Layered	Yellow Mastic	Asbestos Not Present	Cellulose 2
017	WA-17-17	Homogeneous	Red Caulk	Asbestos Not Present	Cellulose 2
018	WA-25-18	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 25 Glass Fiber 25

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Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 165161	Client:	Marshall Environmental Management, Inc.
Account Number: A331		1601 SW 89th Street, Ste. A-100
Date Received: 08/14/2008		Oklahoma City, OK 73159
Received By: Barbara Holder	Project:	Wagoner Armory
Date Analyzed: 08/21/2008	Project Location:	N/A
Analyzed By: Stacey Holder	Project Number:	2464
Methodology: EPA/600/R-93/116		

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	
019	WA-26-19	Homogeneous	White Joint Compound	Asbestos Not Present	Cellulose	2
020	WA-26-20	Homogeneous	White Sheetrock	Asbestos Not Present	Cellulose	20
021	WA-26-21	Homogeneous	White Joint Compound	Asbestos Not Present	Cellulose	2
022	WA-28-22	Layered	Tan Floor Tile	Asbestos Not Present	Cellulose	2
022a		Layered	Yellow Mastic	Asbestos Not Present	Cellulose	2
023	WA-29-23	Laycred	Tan Floor Tile	Asbestos Not Present	Cellulose	2
023a		Layered	Yellow Mastic	Asbestos Not Present	Cellulose	2

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

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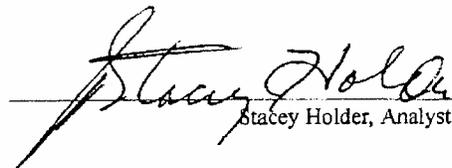


2033 Heritage Park Drive / Oklahoma City, OK 73120 / (405) 755-7272 / Fax (405) 755-2058

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 165161	Client:	Marshall Environmental Management, Inc.
Account Number: A331		1601 SW 89th Street, Ste. A-100
		Oklahoma City, OK 73159
Date Received: 08/14/2008	Project:	Wagoner Armory
Received By: Barbara Holder	Project Location:	N/A
Date Analyzed: 08/21/2008	Project Number:	2464
Analyzed By: Stacey Holder		
Methodology: EPA/600/R-93/116		

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)
024	WA-22-24	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30
025	WA-28-25	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 30 Glass Fiber 30
026	WA-26-26	Homogeneous	Brown Caulk	Asbestos Present Chrysotile <1	Cellulose <1
027	WA-OS-27	Homogeneous	White Caulk	Asbestos Present Chrysotile <1	NA
028	WA-OS-28	Homogeneous	White Caulk	Asbestos Present Chrysotile <1	NA
029	WA-06-29	Homogeneous	White Caulk	Asbestos Present Chrysotile <1	NA

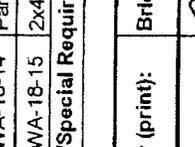
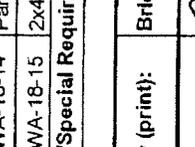

 Stacey Holder, Analyst

8/21/2008
 Date of Report

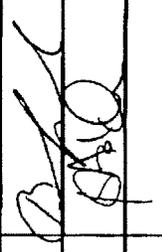
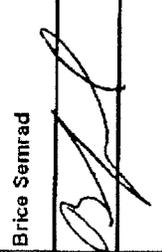
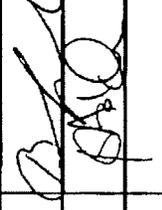
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165161

Marshall Environmental Management, Inc. 1601 SW 89th Street Suite A100 Oklahoma City, OK 73159 email: marshenv@svbell.net		Turn Around Time: Standard Phone: (405) 616-0401 Fax: (405) 681-6753		Job Identification: 2464 Wagoner Armory		Project Name: Invoice To:	
Address: Wagoner Armory Wagoner, Oklahoma		Address: Oklahoma Department of Environmental Quality Attention: Land Protection Division 707 North Robinson Oklahoma City, Oklahoma 73102		Phone No.: Fax No.:		Project Location:	
Sample Date	Sample Number	Location/Description	Sample Type/Media	Time/Volume	Analysis Requested	Date	Time
7/22/2008	WA-01-01	Panel Drywall	Bulk	N/A	Asbestos	7/22/08	1700
7/22/2008	WA-06-02	Plaster Wall South Side	Bulk	N/A	Asbestos	8/14/08	1456
7/22/2008	WA-06-03	Plaster Wall East	Bulk	N/A	Asbestos		
7/22/2008	WA-11-04	Bedding Tape	Bulk	N/A	Asbestos		
7/22/2008	WA-11-05	Joint Compound	Bulk	N/A	Asbestos		
7/22/2008	WA-11-06	Drywall	Bulk	N/A	Asbestos		
7/22/2008	WA-11-07	12x12 Floor Tile + Mastic	Bulk	N/A	Asbestos		
7/22/2008	WA-24-08	2x4 Ceiling Tile	Bulk	N/A	Asbestos		
7/22/2008	WA-14-09	2x4 Ceiling Tile	Bulk	N/A	Asbestos		
7/22/2008	WA-14-10	Joint Compound West Wall front Office (14x19)	Bulk	N/A	Asbestos		
7/22/2008	WA-14-11	Drywall West Wall from Office	Bulk	N/A	Asbestos		
7/22/2008	WA-14-12	Bedding Tape West Wall Office	Bulk	N/A	Asbestos		
7/22/2008	WA-15-13	Panel Drywall	Bulk	N/A	Asbestos		
7/22/2008	WA-18-14	Panel Drywall	Bulk	N/A	Asbestos		
7/22/2008	WA-18-15	2x4 Ceiling Tile	Bulk	N/A	Asbestos		
Instructions/Special Requirements:							
Collected By (print): Brice Semrad		Date: 7/22/2008		Collector's Signature: 		Date: 7/22/08	
Relinquished By: 		Time: 1700		Receive By: 		Time: 1700	
Relinquished By:		Date: 8/14/08		Receive By:		Date: 8/14/08	
Method of Shipment:		Time: 13:55		Receive By:		Time: 1456	
				Condition Upon Reception:			

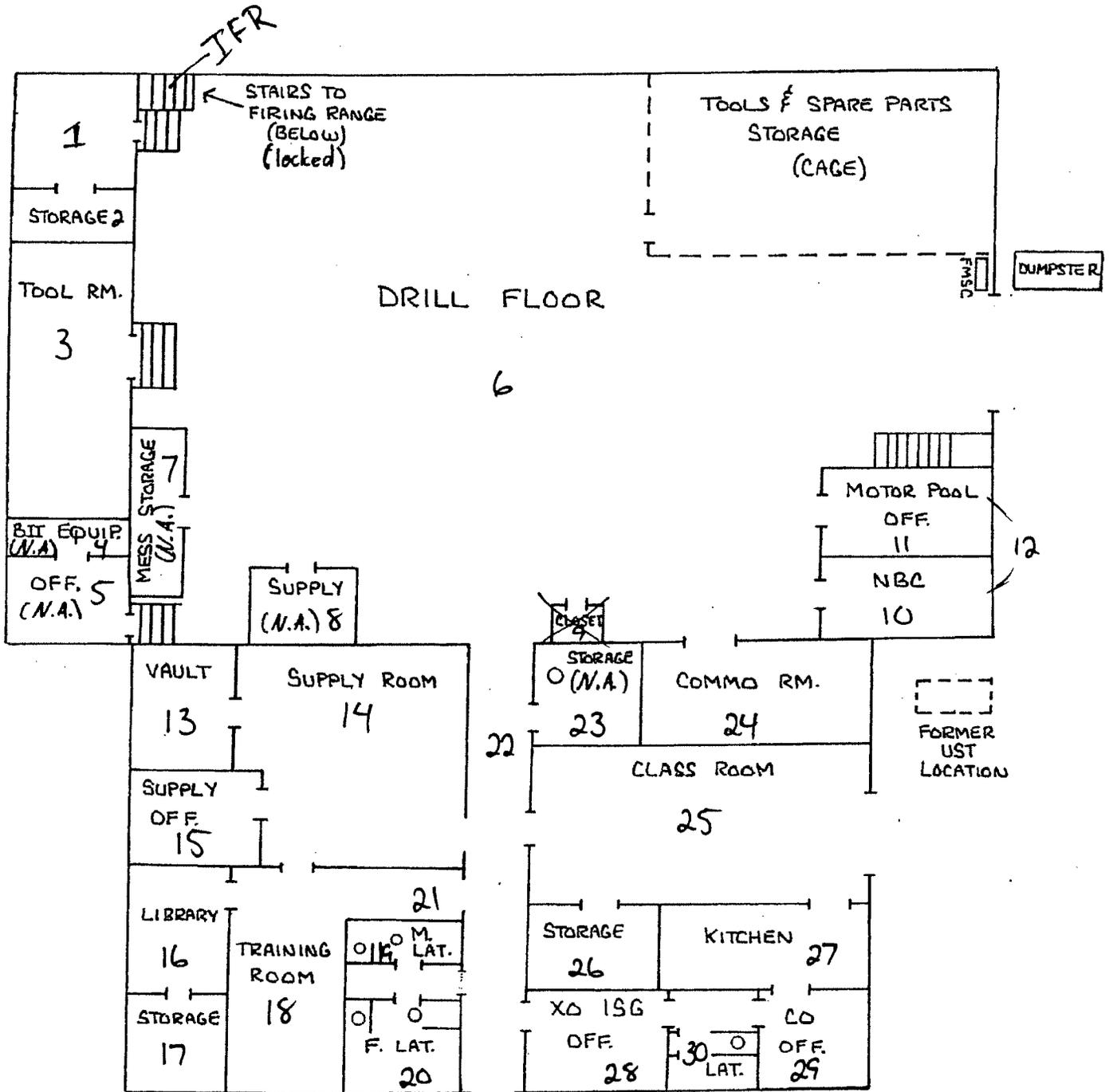
165161

Marshall Environmental Management, Inc. 1601 SW 89th Street Suite A100 Oklahoma City, OK 73159 email: majshenv@swbell.net		Turn Around Time: Standard Phone: (405) 616-0401 Fax: (405) 681-6753		Job Identification: 2464 Project Name: Wagoner Armory	
Project Location: Wagoner Armory Wagoner, Oklahoma		Address: Oklahoma Department of Environmental Quality Attention: Land Protection Division 707 North Robinson Oklahoma City, Oklahoma 73102		Invoice To:	
Contact: Phone No.: Fax No.:		Phone No.: Fax No.:		Sample No.:	
Sample Date	Sample Number	Location/Description	Sample Type/Media	Time/Volume	Analysis Requested
7/22/2008	WA-14-16	12x12 Floor Tile + Mastic (26x28)	Bulk	N/A	Asbestos
7/22/2008	WA-17-17	Window Caulking Inside	Bulk	N/A	Asbestos
7/22/2008	WA-25-18	2x4 Ceiling Tiles	Bulk	N/A	Asbestos
7/22/2008	WA-26-19	Bedding Tape (9x19)	Bulk	N/A	Asbestos
7/22/2008	WA-26-20	Drywall	Bulk	N/A	Asbestos
7/22/2008	WA-26-21	Joint Compound	Bulk	N/A	Asbestos
7/22/2008	WA-28-22	12x12 Floor Tile + Mastic (18x9)	Bulk	N/A	Asbestos
7/22/2008	WA-29-23	12x12 Floor Tile + Mastic (21x9)	Bulk	N/A	Asbestos
7/22/2008	WA-22-24	2x4 Ceiling Tiles	Bulk	N/A	Asbestos
7/22/2008	WA-28-25	2x4 Ceiling Tiles	Bulk	N/A	Asbestos
7/22/2008	WA-06-26	Window Caulking Inside North Side	Bulk	N/A	Asbestos
7/22/2008	WA-OS-27	Window Caulking Outside East	Bulk	N/A	Asbestos
7/22/2008	WA-OS-28	Window Caulking Outside South	Bulk	N/A	Asbestos
7/22/2008	WA-06-29	Window Caulking Inside East	Bulk	N/A	Asbestos
Instructions/Special Requirements:					
Collected By (print): Brice Semrad		Date: 7/22/2008 Time: 1700		Collector's Signature: 	
Relinquished By: 		Date: 8/14/08 Time: 13:48		Receive By: 	
Relinquished By:		Date:		Receive By:	
Method of Shipment:		Condition Upon Reception:		Date: 7/20/08 Time: 1700 Date: 8-14-08 Time: 1430	

WAGONER ARMORY

511 EAST CHEROKEE

BUILT: 1936



MAIN ENTRANCE

CHEROKEE STREET

O-FLOOR DRAIN
N.A. - not accessible

Marshall Environmental Management, Inc.

Charles L. Marshall, Ph.D., C.I.H.
President

Established 1987

- Certified Industrial Hygiene
- Environmental Science
- Occupational Health & Safety
- Asbestos Management
- Toxic & Hazardous Waste
- Medical Hazards Management
- Research & Consultation

August 27, 2008

Ms. Angela Brunsman
Land Protection Division
Oklahoma Department of Environmental Quality
707 N. Robinson
Oklahoma City, OK 73102

RECEIVED
SEP 09 2008
LAND PROTECTION DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY

RE: Wagoner Armory Surface Wipe Sampling for Lead in Dust.

Dear Angela:

As part of the Inspection at the Wagoner, Oklahoma Armory on July 22, 2008, Marshall Environmental Management, Inc. was requested to collect surface wipe samples for lead in dust at various locations in the Armory. Attachments to this correspondence include the Certified Lab Analysis for the surface wipe samples conducted by the EPA Accredited Environmental Lead Lab and the associated Chain of Custody form.

The results of the testing for floor wipes identified thirteen (13) out of the twenty-eight (28) samples taken on the floor of the Armory as exceeding the Army National Guard (ARNG) and Air National Guard (ANG) action level of 200 micrograms/ft² for floor surfaces. The QC Blanks were below detection limits.

The ARNG and ARG Guidelines for Converting Indoor Firing Ranges to Other Use advise that floor surfaces exceeding 200 micrograms/ft² be cleaned, so that post cleaning lead wipe testing is below this action level or that, at least, a 75% reduction is obtained between the pre-and post-cleanup levels.

If we can be of further assistance in this regard, please don't hesitate to give us a call.

Sincerely,
Marshall Environmental Management, Inc.


Charles L. Marshall, CIH
President



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

Environmental Chemistry Analysis Report

QuanTEM Set ID: 165158
Date Received: 08/14/08
Received By: Barbara Holder
Date Sampled:
Time Sampled:
Analyst: EC
Date of Report: 8/15/2008

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

Acct. No.: A331

Project: Wagoner Armory

Location: N/A

Project No.: 2464

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
001	WR-06-01	Wipe	Lead	120.58	16.00	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
002	WR-06-02	Wipe	Lead	62.11	16.00	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
003	WR-06-03	Wipe	Lead	404.84	16.00	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
004	WR-06-04	Wipe	Lead	157.79	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
005	WR-01-05	Wipe	Lead	4606.07	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
006	WR-03-06	Wipe	Lead	528.57	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
007	WR-5-07	Wipe	Lead	3635.87	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
008	WR-07-08	Wipe	Lead	501.60	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
009	WR-8-09	Wipe	Lead	449.30	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
010	WR-12-10	Wipe	Lead	70.93	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
011	WR-11-11	Wipe	Lead	110.80	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
012	WR-10-12	Wipe	Lead	1242.00	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
013	WR-13-13	Wipe	Lead	125.79	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
014	WR-14-14	Wipe	Lead	108.79	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
015	WR-15-15	Wipe	Lead	<21.33	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
016	WR-16-16	Wipe	Lead	280.87	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
017	WR-17-17	Wipe	Lead	301.18	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
018	WR-18-18	Wipe	Lead	<21.33	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
019	WR-19-19	Wipe	Lead	29.55	21.33	ug/sq. Ft.	08/15/08 11:35	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: 165158
Date Received: 08/14/08
Received By: Barbara Holder
Date Sampled:
Time Sampled:
Analyst: EC
Date of Report: 8/15/2008

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

Acct. No.: A331

Project: Wagoner Armory

Location: N/A

Project No.: 2464

AIHA ID: 101352

QuanTEM ID	Client ID	Matrix	Parameter	Results	Reporting Limits	Units	Date/Time Analyzed	Method
020	WR-20-20	Wipe	Lead	32.21	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
021	WR-22-21	Wipe	Lead	212.49	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
022	WR-23-22	Wipe	Lead	134.53	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
023	WR-25-23	Wipe	Lead	59.33	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
024	WR-26-24	Wipe	Lead	618.10	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
025	WR-28-25	Wipe	Lead	160.96	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
026	WR-30-26	Wipe	Lead	2349.40	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
027	WR-29-27	Wipe	Lead	4092.20	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
028	WR-24-28	Wipe	Lead	156.55	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
029	WR-BB-29	Wipe	Lead	<21.33	21.33	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100
030	WR-BB-30	Wipe	Lead	<16.00	16.00	ug/sq. Ft.	08/15/08 11:35	NIOSH 9100

Authorized Signature: _____

Eric Caves, 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.

QAQC Results

QA ID: 6161
Test: Lead

Date: 8/15/2008
Matrix: Wipe

Lab Number: 165158
Approved By: Eric Caves
Date Approved: 8/15/2008

Notes:

Blank Data:

Type of Blank	Blank Value
Initial	0
Continuing	0
Final	0

Standards Data:

Standard	Low Limit	Obtained	High Limit
FCV	225	243	275
CCV	225	244	275
ICV	22.5	24.1	27.5
RLVS	12.8	17.4	19.2

Duplicate Data:

Recovery Data:

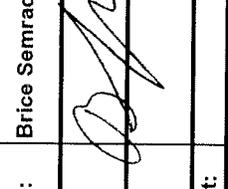
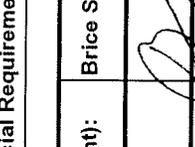
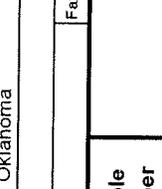
Sample Number	Result	Spike Level	Result + Spike	% Recovery	Dup. Result + Spike	% Dup. Recovery	% Spike RPD
MSW 3	0.000	5369.000	5188.000	96.6	5176.000	96.4	0.2
MSW 2	0.000	5369.000	5230.000	97.4	5262.000	98.0	0.6
MSW 1	0.000	5369.000	5696.000	106.1	5639.000	105.0	1.0

Authorized Signature: _____

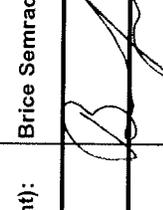


Eric Caves, Analyst

165158

Marshall Environmental Management, Inc. 1601 SW 89th Street Suite A100 Oklahoma City, OK 73159 email: marshenv@swbell.net		Turn Around Time: Standard Phone: (405) 616-0401 Fax: (405) 681-6753		Job Identification: 2464 Wagoner Amory	
Project Location: Wagoner Armory Wagoner, Oklahoma		Project Name: Wagoner Amory		Invoice to: Oklahoma Department of Environmental Quality Attention: Land Protection Division 707 North Robinson Oklahoma City, Oklahoma 73102	
Address: Wagoner Armory Wagoner, Oklahoma		Phone No.: Phone No.: Fax No.:		Phone No.: Fax No.:	
Sample Date	Sample Number	Location/Description	Sample Type/Media	Time/Volume	Analysis Requested
7/22/2008	WR-06-01	Floor in Room #6 (Drill Floor) Front Near Outside Door	Wipe	144 sq. inch	Lead
7/22/2008	WR-06-02	Floor in Room #6 (Drill Floor) Middle of Room	Wipe	144 sq. inch	Lead
7/22/2008	WR-06-03	Floor in Room #6 (Drill Floor) Back of Room Near IFR Entrance	Wipe	144 sq. inch	Lead
7/22/2008	WR-06-04	Floor in Room #6 (Drill Floor) "C"	Wipe	108 sq. inch	Lead
7/22/2008	WR-01-05	Floor in Room #5	Wipe	108 sq. inch	Lead
7/22/2008	WR-03-06	Floor in Room #3	Wipe	108 sq. inch	Lead
7/22/2008	WR-5-07	Floor in Room #5	Wipe	108 sq. inch	Lead
7/22/2008	WR-07-08	Floor in Room #7	Wipe	108 sq. inch	Lead
7/22/2008	WR-8-09	Floor in Room #8	Wipe	108 sq. inch	Lead
7/22/2008	WR-12-10	Floor in Room #12	Wipe	108 sq. inch	Lead
7/22/2008	WR-11-11	Floor in Room #11	Wipe	108 sq. inch	Lead
7/22/2008	WR-10-12	Floor in Room #10	Wipe	108 sq. inch	Lead
7/22/2008	WR-13-13	Floor in Room #13	Wipe	108 sq. inch	Lead
7/22/2008	WR-14-14	Floor in Room #14	Wipe	108 sq. inch	Lead
7/22/2008	WR-15-15	Floor in Room #15	Wipe	108 sq. inch	Lead
Instructions/Special Requirements:					
Collected By (print): Brice Semrad		Date: 7/22/2008 Time: 1700	Collector's Signature: 		Date: 7/22/08 Time: 1700
Relinquished By: 		Date: 8/14/08 Time: 13:45	Receive By: 		Date: 8/14/08 Time: 1454
Relinquished By:		Date:	Receive By:		Date:
Method of Shipment:		Condition Upon Reception:			

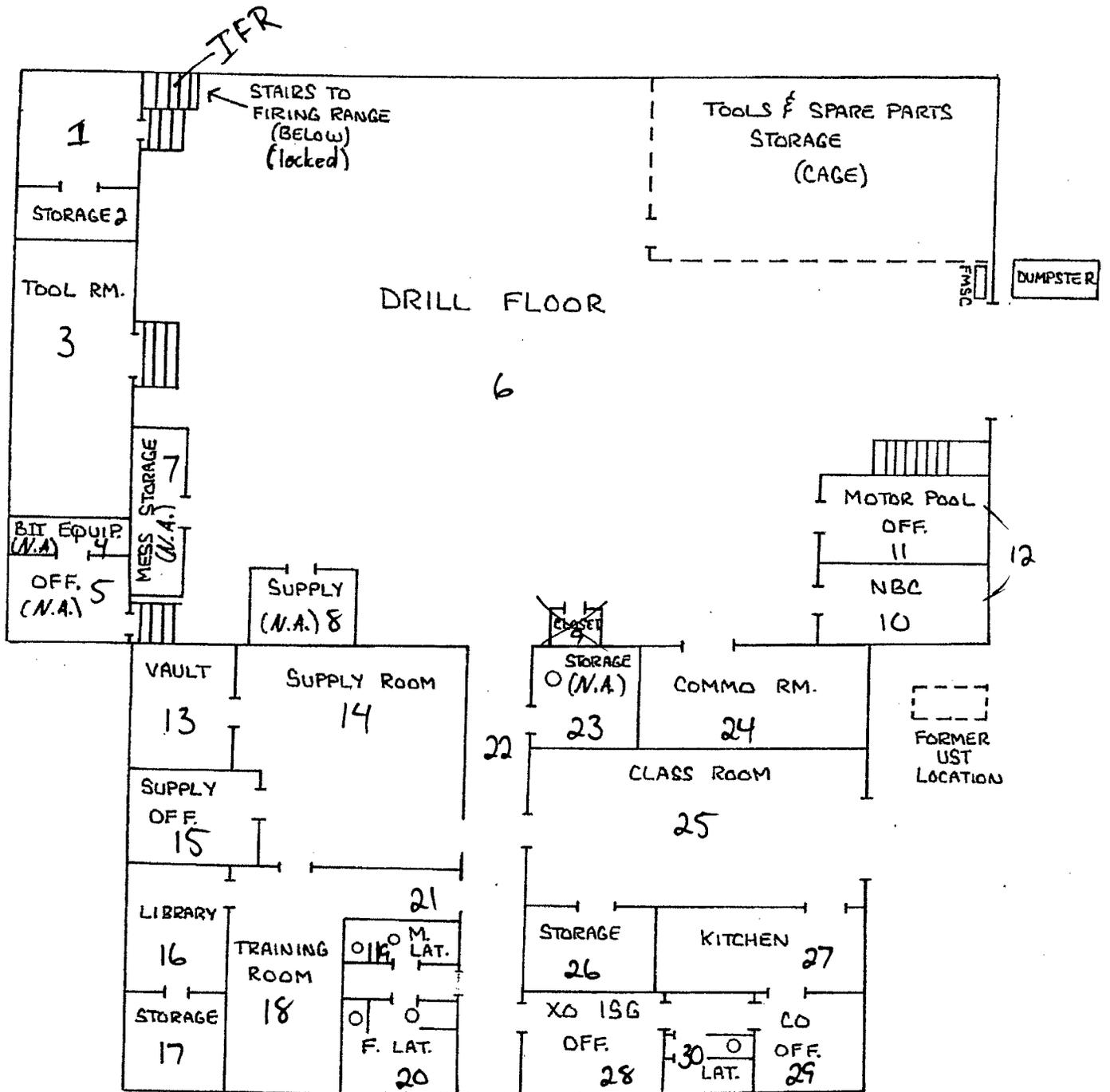
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Marshall Environmental Management, Inc. 1601 SW 89th Street Suite A100 Oklahoma City, OK 73159 email: marshenv@swbell.net		Turn Around Time: Standard Phone: (405) 616-0401 Fax: (405) 681-6753		Job Identification: 2464 Project Name: Wagoner Amory	
Project Location: Wagoner Armory Wagoner, Oklahoma		Address: Oklahoma Department of Environmental Quality Attention: Land Protection Division 707 North Robinson Oklahoma City, Oklahoma 73102		Invoice To:	
Contact: Phone No.: Fax No.:		Phone No.:		Fax No.:	
Sample Date	Sample Number	Location/Description	Sample Type/Media	Time/Volume	Analysis Requested
7/22/2008	WR-16-16	Floor in Room #16	Wipe	108 sq. inch	Lead
7/22/2008	WR-17-17	Floor in Room #17	Wipe	108 sq. inch	Lead
7/22/2008	WR-18-18	Floor in Room #18	Wipe	108 sq. inch	Lead
7/22/2008	WR-19-19	Floor in Room #19	Wipe	108 sq. inch	Lead
7/22/2008	WR-20-20	Floor in Room #20	Wipe	108 sq. inch	Lead
7/22/2008	WR-22-21	Floor in Room #22	Wipe	108 sq. inch	Lead
7/22/2008	WR-23-22	Floor in Room #23	Wipe	108 sq. inch	Lead
7/22/2008	WR-25-23	Floor in Room #25	Wipe	108 sq. inch	Lead
7/22/2008	WR-26-24	Floor in Room #26	Wipe	108 sq. inch	Lead
7/22/2008	WR-28-25	Floor in Room #28	Wipe	108 sq. inch	Lead
7/22/2008	WR-30-26	Floor in Room #30	Wipe	108 sq. inch	Lead
7/22/2008	WR-29-27	Floor in Room #29	Wipe	108 sq. inch	Lead
7/22/2008	WR-24-28	Floor in Room #24	Wipe	108 sq. inch	Lead
7/22/2008	WR-BB-29	QA/QC Blank	Wipe	108 sq. inch	Lead
7/22/2008	WR-BB-30	QA/QC Blank	Wipe	108 sq. inch	Lead
Instructions/Special Requirements:					
Collected By (print): Brice Semrad		Date: 7/22/2008 Time: 1700		Collector's Signature: 	
Relinquished By: 		Date: 8/14/08 Time: 13:45		Receive By: 	
Relinquished By:		Date: Time:		Receive By:	
Method of Shipment:		Condition Upon Reception:		Date: 7/22/08 Time: 1700 Date: 8/14/08 Time: 1450	

WAGONER ARMORY

511 EAST CHEROKEE

BUILT: 1936



MAIN ENTRANCE

CHEROKEE STREET

O-FLOOR DRAIN
N.A. - not accessible

Appendix G – Qualification(s) of Environmental Professionals

Environmental Professional Qualifications

Heather Mallory holds a Bachelors and Masters Degree in Environmental Science from the University of Oklahoma. Mrs. Mallory has 5 years experience in environmental sampling and technical studies. She is an Environmental Programs Specialist with the Land Protection Division of the Oklahoma Department of Environmental Quality. Her responsibilities include: project management of the Tar Creek Superfund Site, conducting Targeted Brownfield Assessments, and project management of remediation and sampling associated with the Site Cleanup Assistance Program.

Rita R. Kottke, Ph.D., holds a Doctorate in Environmental Science from Oklahoma State University. She is an Environmental Programs Manager with the Land Protection Division of the Oklahoma Department of Environmental Quality. She functions as the DEQ's Brownfield Coordinator, Brownfield Cleanup Revolving Loan Fund Contact, Superfund Site Redevelopment Contact, Superfund Emergency Response Contact, Land Revitalization/Reuse Contact, and as a liaison between the state, EPA, and local communities. Her responsibilities also include acting as technical project manager at various Voluntary Cleanup and Superfund sites within the state. She has been with the agency for thirteen years, working in the Superfund and Brownfields Programs. She has 14 years experience performing site assessments of real property. She was heavily involved in the formulation of the Brownfields Program's implementing rules, the negotiation of DEQ's Brownfields Memorandum of Agreement (MOA) with EPA, and the development of the Brownfield Cleanup Revolving Loan Fund Grant Proposal.

Angela Hughes holds a Bachelors Degree in Environmental Science and a Masters Degree in Construction Science from the University of Oklahoma. Ms. Hughes has 13 years experience working for the state of Oklahoma in the environmental remediation field. Duties have included managing Superfund sites, coordinating with local, state, and federal agencies, and currently managing the state Site Cleanup Assistance Program.