

**Targeted Brownfields Assessment
Oklahoma Army National Guard
Healdton Armory
Healdton, Oklahoma**

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

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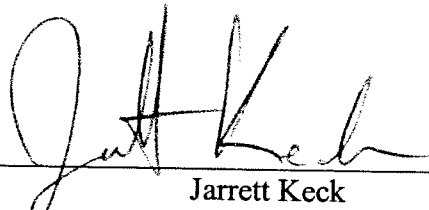
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Background and Disclaimer: The purpose of an environmental site assessment is to identify actual or potential “recognized environmental conditions” that may result in liability or land use restrictions. The ASTM Phase I Environmental Site Assessment 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 Redevelopment 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, DEQ cannot state with absolute certainty that no other hazards 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.

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1.0 Executive Summary

This Phase I Targeted Brownfield Assessment of the Healdton Armory was performed in accordance with the ASTM E 1527-05, a guide for conducting Environmental Site Assessments. Jarrett Keck performed the site reconnaissance on August 30, 2006.

The site is located in the Southeast ¼ of Section 2, Township 4 South, Range 3 West Indian Meridian, in Carter County, Oklahoma. The site is on the corner of 4th and Franklin Streets, in Healdton, Oklahoma. The main entrance to the armory is located at latitude 34°14'2.26", longitude -97°29'14.61".

A cursory summary of findings is provided below. However, details are not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

- An indoor firing range (IFR) sand trap and dust residue was found to have lead contamination. Past sampling in the sand trap and the indoor firing range show lead concentrations in need of remediation. Lead dust residue may also be present in the soil outside the IFR vent window. The indoor firing range constitutes a recognized environmental condition (REC) based on the lead concentrations and its leachability.
- A floor drain is located in the middle of the firing range. This drain was mainly used to drain waste water from within the firing range. The waste water likely drains into the city sewer system.
- Paint in several areas throughout the armory has peeled and is now hanging or has already fallen off in large chips. Due to the age of the building (1936), the paint and its peelings on the surfaces of the doors possibly contain lead. The soils where paint chips may have fallen near the windows around the perimeter of the building should be evaluated for possible lead contamination.
- Because of the age of the building, there is a potential for Asbestos Containing Material (ACM) to be present in building materials (roofing materials, floor tiles, mastic, ceiling tiles, window putty, and insulating materials).
- Transformers located behind the armory in the alley way must be assumed to contain Polychlorinated Biphenyls (PCBs). The transformers are owned by the Public Service Organization (PSO). Transformers constructed before 1977 contained PCBs. It is unknown if the PCB containing transformers have been replaced. Replacement of a PCB containing transformer is not required unless it is leaking or has failed. No staining or leaking of the transformers was observed. PCBs may also be present in fluorescent lighting ballasts or other electrical equipment used in the armory.
- Mercury may have been used in thermostats, gauges, lighting, or switching devices during the operation of the building. These devices should be evaluated for the presence of mercury.

- One 1,000-gallon gasoline underground storage tank (UST) was once located on the northwest corner of the parking lot curb where it was used to refuel military vehicles. This UST was the only tank the armory had on the property. The OCC UST database indicated the tank was closed in place September 23, 1997. No case was filed on the tank. Information from the database indicates the tank was asphalt coated or bare steel. No leak detection system was listed.
- An open pipe is protruding from the ground near the southeast corner of the building. It is unknown what the pipe was used for and may be a conduit for contamination.
- The Healdton Armory was placed on the National Register of Historic Places in 1994.

Recommendations

Based on the findings of this assessment, The DEQ recommends additional investigations be conducted to evaluate areas of the property that may need future clean up.

- The indoor firing range (IFR) and soils adjacent to the fresh air vent need additional evaluation and remediation efforts on the dust residue for lead.
- The drain in the middle of the IFR should also be investigated as a possible pathway for lead into the sewer system.
- Due to its age, the building should be evaluated for ACMs.
- Painted and peeling surfaces need to be tested for lead.
- The soils where paint chips may have fallen near the windows around the perimeter of the building should be evaluated for elevated lead concentrations.
- The presence of mercury containing devices and Polychlorinated Biphenyl containing electrical equipment should be evaluated.
- The exposed pipe protruding from the ground at the southeast corner of the building should be examined to determine its use and capped if necessary.

2.0 Introduction

The State of Oklahoma Department of Environmental Quality (DEQ) under a Brownfield Assistance Agreement (No. VC98677601) (Ref. 1) with the U.S. Environmental Protection Agency (EPA) conducted a Targeted Brownfield Assessment of the Healdton Armory at the request of the City of Healdton, 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 Healdton to assist in its redevelopment planning as well as meet the All Appropriate Inquiry requirement for 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 Liability Relief and Brownfields 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.

The 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

The DEQ examined the current use of the property and then identified the historical uses of the property to determine if recognized environmental conditions exist. The DEQ examined historical documents, governmental databases, deed records, aerial photographs, governmental environmental files, Sanborn Fire Insurance Maps, conducted interviews with past unit members, and a site reconnaissance of the area. A good faith effort was made to identify possible environmental conditions that might affect the development of the property.

2.3 Significant Assumptions

Significant assumptions and past studies of the Oklahoma Army National Guard Armories suggest there is a possibility of lead and asbestos contamination at the Healdton Armory. Most of the State armories, such as the Healdton Armory, have indoor firing ranges. These ranges usually contain concentrations of lead from past shooting activity. Since all of the armories were built before 1978, there is a high potential of finding PCB's, and ACM in the armory buildings. The U.S. began banning the use of asbestos and PCB's in most building products in 1978. ACMs may be found in the insulation wrapping of the heating pipes and/or heaters and surfacing materials, which were prevalent during the time the Healdton Armory was built. PCBs are commonly found in electrical transformers and ballasts. Mercury containing thermostats, lighting, and sump pump switches are commonly found in building process equipment and may be present in the armory.

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 redevelopment. 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 redevelopment project. However, the identification of old hazardous waste sites is an evolving process; therefore, DEQ cannot state with absolute certainty that no other hazards 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 residents in the community, information provided by the City of Healdton, the Oklahoma Military Department and observations of the environmental professional. The result of this assessment, as written in this report, is valid as of the date of the report. The assessment does not include sampling of soil, rock, groundwater, surface water, or air.

2.5 Special Terms and Conditions

This assessment report has been prepared for the City of Healdton 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 Description

3.1 Location and Legal Description

The subject property is located in Lots 4-8 Block 49 located in the Southeast ¼ of Section 2, Township 4 South, Range 3 West Indian Meridian in Carter County, Oklahoma on the corner of 4th and Franklin Streets, in the original town of Healdton (Appendix A). The main entrance to the armory is located at latitude 34°14'2.26", longitude -97°29'14.61".

3.2 Site and Vicinity General Characteristics

Environmental Setting

The general topography of the area is shown in Figure 4 of Appendix C. The armory is located within the city limits of Healdton. The area is paved and generally developed

with light commercial and residential structures surrounding the armory. Healdton is approximately 15 miles southwest of the Arbuckle Mountains.

Carter County, in the south-central part of Oklahoma, has an area of 535,680 acres. . Ardmore, the county seat, is located in the south part of the county. The county is largely rural, and the chief enterprise is raising livestock. Oil and gas production, as well as manufacturing, contribute to the economy (Ref. 5).

Carter County is hot in the summer. An occasional surge of cold air in winter causes a sharp drop in the otherwise mild temperature. In winter, the average temperature is 46 degrees Fahrenheit, and the average daily minimum temperature is 34 degrees Fahrenheit. In summer, the average temperature is 83 degrees Fahrenheit, and the average daily maximum temperature is 94 degrees Fahrenheit. Rainfall is uniformly distributed throughout the year, reaching a slight peak in spring. Snowfall is infrequent. Of the total annual precipitation (approximately 34 inches), 21 inches, or 62 percent, usually falls in April through September (Ref. 5).

Groundwater

The Wellington Formation comprises the bedrock geology underlying the subject property. This Permian formation is red-brown shale with several 20-30 foot bituminous sandstones at its base. The thickness of the formation ranges from approximately 100-200 feet, decreasing southeastward. The Wellington formation yields small to moderate amounts of water. The general yield of water underlying the subject property produces less than 25 gallons per minute. The Oklahoma Geological Survey Hydrologic Atlas indicates a well approximately 1.5 miles southwest of the property, with a water level at 55 ft. below ground surface (bgs). The yield of this well is 10 gallons per minute. Another well, approximately 2 miles west-northwest of the property, has a water level at 40 ft. bgs. The yield of this well is 16 gallons per minute (Ref. 6).

The Wellington Bedrock formation overlies the Pennsylvanian age Oscar formation. The Oscar formation is most favorable for development of groundwater supplies in this area. The formation is 300 to 500 feet thick consisting of shale, sandstone, and some limestone conglomerate near the Arbuckle Hills (Ref. 6).

Chemical quality of water is generally fair underlying the subject property. The area generally yields water containing variable concentrations of dissolved solids, which can vary markedly from place to place (Ref. 6).

There are no active Leaking Underground Storage Tanks cases listed in the Oklahoma Corporation Commission database (Appendix C). Wastewater from the armory is directed to the City sewer system. It is unlikely groundwater in this area is affected by contamination.

Soils

Carter County has predominantly woodland soils with about one-fourth of the area covered by prairie soils. Many areas of wooded soils have been cleared of native vegetation. The extreme northern part of the county is rocky slopping to steep limestone hills, which extend in a west-to-east band along the northern boundary. The main vegetation is prairie grass. The southern border of the county is mostly level to sloping tree covered uplands. The soils formed in deeply weathered soft sandstone, often referred to as pack sand. Gully erosion has been severe in most of the area that has been cultivated. The uplands in the rest of the county are predominantly intermingled areas of very gently sloping to strongly sloping, tree covered ridges and side slopes and narrow to gently sloping prairie valleys (Ref. 5).

The Windthorst-Weatherford Soil Complex, underlies the property. This soil (5 to 12 percent slopes) is 35 percent moderately well drained, moderately slowly permeable Windthorst soil and 30 percent well drained, moderately permeable Weatherford soil. These sloping or strongly sloping soils occur on ridge crests or side slopes, and the Weatherford soil is on the mid and lower slopes (Ref. 5).

The main concerns in soil management are the slope, the erosion hazard, brush control, and fertility. A plant cover of native grass or tame pasture grass is the best way to reduce erosion. Areas can be cleared of brush and trees when erosion by runoff is least hazardous and revegetation can be accomplished quickly (Ref. 5).

The potential is low to medium for most urban use but can be overcome by careful design. The chief limitations are slopes of 5 to 12 percent, the shallowness over bedrock of the sandy Weatherford soil, and the moderate or high shrink-swell potential of the clayey Windthorst soil (Ref. 5).

No areas of stressed vegetation were observed during the site visit. Most of the area surrounding the armory is paved. There is no historical evidence that indicates sub-surface soils beneath the property have been contaminated. However due to the age of the building, the surface soils where paint chips may have fallen near the windows around the perimeter of the building should be evaluated for possible concentrations of lead. Elevated lead concentrations may also have migrated from the IFR through the vent window. Surface soil or dust near the IFR vent window should be evaluated for elevated lead concentrations.

Air

The prevailing wind is from the south. Average wind speed is highest, at 13 miles per hour, in March (Ref. 5). During the August 30, 2006 site visit, no odors were observed in or around the subject property. Historic activities in the IFR may have contributed to intermittent elevated concentrations of lead dust in the air outside the Armory via the IFR vent. Today, the vent is sealed and the windows in the armory are largely intact. The possibility of the migration of contaminants from the Armory from the air pathway is low to none.

Surface water

The majority of the streams enter the county from the west and generally flows eastwards to Lake Murray and eventually the Red River. The elevation of the county averages around 960 feet above sea level. The largest flood plains are along the Walnut Creek (Walnut Bayou), Caddo Creek, Wildhorse Creek, and the Washita River. The armory is located near the center of Healdton. The area where the Healdton Armory lies is in an area determined to be outside any 500-year floodplain (Ref. 8). Surface water drains from the streets toward unlined drainage ditches leading to Walnut Creek (Walnut Bayou) approximately 0.5 miles from the property. No evidence of significant erosion in the drainage ditches was observed. No surface water is present at the armory. Historic or present activities at the armory have not impacted surface water.

Utilities

Utility information was obtained from the Oklahoma Corporation Commission Utility Directory. Natural gas is supplied by the Oklahoma Natural Gas Company and electricity is supplied by the Public Service Company of Oklahoma (Ref. 9). Water is supplied by the City of Healdton. Telephone service is supplied by AT&T. Utility service lines are located in the south alley behind the armory. No environmental impact from the utilities was observed during the site visit (Ref. 7).

Underground features

There was once a 1,000-gallon underground storage tank (UST), containing gasoline, located in the northwest corner outside of the armory building. The UST was closed in place by the Oklahoma Corporation Commission in 1997 after subsurface soil samples were determined to be acceptable (Appendix C).

A drain was noticed in the middle of the indoor firing range. The drain likely leads to the city sewer system. It is unknown if a sump system was used with the drain. No cisterns or septic tanks associated with the building were observed during the site visit (Ref. 7).

Structures

The Healdton Armory built in 1936, is a one story building constructed of brick with an IFR in the basement. The main entrance is located on the north side of the building. Office space within the building is constructed of wood frame and was been installed during the time of its operations. Drop ceilings were used in several of the office areas. A wood floor gymnasium (drill floor) is located in the south half of the building. Cracks in the building exterior are present in the southwest corner. No roofing leaks were observed during the site visit. No outbuildings are associated with the armory (Ref. 7).

Aboveground Storage Tanks (ASTs)

No ASTs were observed during the site visit. No evidence of staining or support structures that would indicate the past presence of an AST was observed during the site visit (Ref. 4). An interview with a retired employee and member of the Healdton

National Guard, Bob Treadwell, indicated during the period he worked in the building (1954-1994) there was never an AST located on the property (Appendix D).

Landfills, Dumping, Disturbed Soil

There are no landfills, dumping, or disturbed soil/vegetation at the subject property or adjoining properties. Southern Oklahoma Regional Disposal (SORD) Landfill is the nearest landfill located in Ardmore, OK (Ref. 10).

Impoundments

No impoundments were observed on the subject property (Ref. 7).

Air Emissions, Wastewater Discharge

There are no visible air emissions coming from the subject property. The property utilizes water and sewage facilities supplied by the City of Healdton. Currently, toilet and shower facilities comprise the total wastewater discharge from the armory. The floor drain in the IFR may have discharged wastewater during its operation. Due to the known presence of lead contamination in the IFR, wastewater discharged to this floor drain may also have been contaminated (Ref. 7).

Industrial Activities

There are no industrial activities currently on the subject property. The armory was used as a training center and munitions storage area. Vehicle storage and light maintenance activities also took place during its operation. Currently, there are two industrial activities found near the armory. A former gas station is located northwest of the armory. A drilling equipment storage facility is northeast of the property and an active gas station is southeast of the armory. Both gas station facilities have or have had USTs on their property. The armory also has a UST that was closed in place. Information of these industrial activities was obtained from the site visits and the Oklahoma Corporation Commission UST Notification Database (Appendix C).

Monitoring Wells

No monitoring wells were present on the property. The Oklahoma Water Resources Board well record database showed seven groundwater wells within a one-half (1/2) mile radius to the armory. The wells are installed at depths ranging from 10 to 25 feet below grade surface (BGS) for the purpose of groundwater monitoring and site assessments (Ref. 11).

Stained Soils

No stained soils or stressed vegetation were observed at the property (Ref. 7).

Seeps

No seeps of any kind were observed at the property (Ref. 7).

Chemical Spills

No chemical spills were observed at the subject property (Ref. 7). No historic releases were observed by past operators. No spills were reported on the property from the Emergency Response Notification System (ERNS) database (Ref 12).

Oil and Gas Exploration

No oil or gas exploration activities or equipment was observed during the site visit. There are no active oil wells within a ½ mile radius of the armory. The general area where the subject property is located has had oil exploration in the past (Ref. 7)

Known Groundwater or Surface Water contamination

There is no known groundwater contamination. There is no surface water on the property or the adjoining properties. Monitoring wells located near the armory are installed as a leak detection system for the nearby gas station (Ref. 11).

Farm Waste

No farm waste was observed on the subject property. No farming waste sources was observed on or near the subject property (Ref 7).

Known Pesticide Misapplication

No known pesticide misapplications were observed at the site. According to interviewees, not pesticide misapplication occurred at the armory (Ref 7).

Discharges and Runoff from Adjacent Property Affecting the Site

No discharges and/or runoff were observed from any of the adjacent properties that would affect the subject property (Ref 7).

Pipelines

A floor drain is located in the middle of the IFR and may be contaminated by lead. No oil or gas production pipelines were observed within a ½ mile radius of the property (Ref 7).

Transformers/PCB Equipment

Electrical transformers located in the alley to the south of the armory. It was not determined during this investigation if they may contain PCB's. The pole-mounted transformers appears to be in good condition. No evidence of leaks or staining was observed during the site visit. The light fixtures in the gymnasium (drill floor) area have recently been replaced by the City (Ref 7). The original light fixtures have been placed in the IFR. Due to the age of the light fixtures the ballasts may contain PCB's.

Other known or Suspected Environmental Concerns On the Site

The indoor firing range (IFR) is contaminated by lead. Samples adjacent areas near the entrance of the IFR also appear to be contaminated by lead. During the site visit, it was observed that the IFR is currently used to store miscellaneous items. Surfaces of these items may also be contaminated by lead. Past sampling has been conducted to characterize the lead concentration in these areas. A statewide sampling event for lead was conducted by C.H. Guernsey & Company for the Oklahoma Army National Guard on all armories containing indoor firing ranges. This report is called the "Indoor Firing

Range Lead Issues Report” (Ref. 13). Seven samples were collected inside the firing range, target room and drill floor. The following are the locations and concentrations of lead that exceeded laboratory detection limits found in the room.

- 1832.5 ug/ft² of lead was found in the center of the IFR.
- 5150.0 ug/ft² of lead was found next to the north wall of the IFR.
- 517.5 ug/ft² of lead was found near the ventilation fan on the east wall .
- 218.5 ug/ft² of lead was found on the stairs leading into the IFR.
- 198.35 ug/ft² of lead was found on the window sill near the stairs leading into the IFR.

A copy of the Healdton Armory section of the Indoor Firing Range Lead Issues Report can be found in Appendix F.

Due to the age of the building, there is a potential for ACM in building materials (floor tiles, mastic, window putty, natural gas fired heating systems, insulation, roofing materials, etc) to be present. No samples were collected during the site visit. No information is readily available to indicate whether any asbestos confirmation sampling has been conducted.

Painted surfaces and peeling paint on windows, doors, walls, and floors in the armory building could contain lead. Chipped, cracked, and peeling paint was observed both inside and outside the armory. Soils beneath windows where lead-based paint was used may contain lead concentrations.

Thermostats, lighting, and other building process equipment may contain mercury.

Historical Recognized Environmental Conditions on the Site

- Lead based paint, mercury, PCBs, and asbestos may have been used at the site due to the age of the facility.
- There is known lead contamination in the IFR.
- A UST was used at the armory and was closed in place by the Oklahoma Corporation Commission (Appendix C).

3.3 *Operational History*

The Healdton Armory was built in 1936 and was managed and maintained by the Oklahoma Military Department to support the military mission of the Oklahoma Army National Guard (OKARNG). The Healdton Armory served as a training site and stored munitions and equipment. The OKARNG is a component of the United States Army and fulfills the military mission of national security (Ref. 14).

The Healdton City Manager, Brian Scribner, noted that the Healdton Armory went out of service in approximately 1996 and remained vacant for three to four years. The City of Healdton then occupied the building by lease in approximately 2000. No major remodeling has occurred at the armory since the City occupied the building (Ref. 7).

3.4 Current Use of the Property

The armory is currently used by various city departments. The Healdton Fire Department houses emergency vehicles within the garage bays and utilizes office space. The Fire Department conducts minor vehicle maintenance at the facility. All waste materials are properly handled and disposed of. The Healdton Police Department uses a vault located in the armory to house the evidence locker. The city Department of Public Works also uses office space. The IFR is kept locked with signage posted to restrict entry. The keys are kept by the City Manager. The drill floor area is used by the community for large gatherings and social functions. Community children also utilize the gymnasium (drill floor) space for recreation. Much of the unoccupied space within the armory houses miscellaneous unused furniture and equipment belonging to the National Guard (Ref 7).

3.5 Adjacent Properties

The Armory is surrounded by the U.S. Post Office and Oklahoma Department of Correction to the north, on the northwest by an abandoned gas station, storage and office buildings to the west, a medical office building to the south, an active gas station to the southwest, and a city office to the west. Further to the west on 3rd street is a truck sales lot, and to the north of the truck sales lot is a drilling equipment storage lot (Ref. 7).

3.6 Site Inspection

Site reconnaissance was performed on the following date: August 30 2006. City Manager, Brian Scribner, and City Fire Chief, Brian Gosevener was present during the visit. The site visit is explained in detail in Section 6.0.

4.0 User Provided Information

County Land Records Department

4.1 Title and Judicial Records

Title and judicial records were researched and reviewed on August 30, 2006. The State of Oklahoma, acting as trustee for the Oklahoma National Guard purchased lots four (4) through seven (7) in block number 49 in the original town of Healdton where the armory is currently located on September 7, 1935 (Ref. 4).

4.2 Environmental Liens or Activity and Use Limitations (AULs)

There are no environmental liens or activity use limitations known on the property (Ref. 7).

4.3 Specialized Knowledge or Experience of User

The Healdton Armory supported the military mission of the Oklahoma Army National Guard (OKARNG). The OKARNG is a component of the United States Army and fulfills the military mission of national security (Ref. 14).

The City of Healdton currently utilizes the building to house the city fire department, police storage, and public works employee office space. The drill floor is used by members of the community of all ages for large social functions and recreation (Ref 7).

4.4 Actual Knowledge of User

The City of Healdton currently utilizes the armory for various city and community functions. The City would like to take acquire the title to the property as soon as possible. However, this Phase I Targeted Brownfield Assessment and remedial activities must occur before this can happen. Currently, the State of Oklahoma has ownership of the property. The property will be transferred to the City of Healdton once an environmental assessment and completion of any necessary cleanup is completed.

4.5 Commonly Known or Reasonably Ascertainable Information

The subject property is owned by State of Oklahoma. The property is currently occupied by the City of Healdton. Some areas of the armory show weathering and age such as the cracking observed in the southwest corner exterior wall and scattered items owned by the National Guard. Completion of necessary remedial activities will have to be performed before the title can be transferred to the City.

4.6 Valuation Reduction for Environmental Issues

This section is outside the scope of this assessment.

4.7 Owner, Property Manager, and Occupant Information

The subject property is currently leased by the City of Healdton. The Oklahoma Military Department owns the property (Ref. 7).

4.8 Reason for Performing Phase I

The DEQ is performing the assessment of the property to guide the remediation of the property and provider the City an All Appropriate Inquiry of the property prior to its

acquisition of the facility. DEQ is working with the City, the Oklahoma Military Department, and the Department of Central Services to transfer the facility in an environmentally responsible manner. The City of Healdton would like to continue using the property for the following uses: vehicle storage, community/youth center, Storm shelter, office space, and police evidence storage. A Phase I TBA must be conducted along with any remedial actions necessary for occupancy of the property.

5.0 *Records Review*

5.1 *Standard Environmental Record Sources*

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.

Federal National Priorities List (NPL) Sites within one Mile

The subject property is not listed on the NPL. There are no NPL sites reported within a one-mile radius of the subject property (Ref. 15).

Federal Delisted NPL site list within one-half mile

There are no delisted NPL sites within one-half mile of the Site (Ref. 15).

Federal Active Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Sites within one-half mile

The subject property is not on CERCLIS. There are no CERCLIS sites reported within a 0.50-mile radius of the subject property (Ref. 16).

Federal Archived CERCLIS (NFRAP) Sites within one-half mile

There are no Archived CERCLIS sites. There are no Archived CERCLIS sites reported within a 0.50-mile radius of the subject property (Ref. 16).

Federal RCRA CORRACTS Facilities List within one mile

There are no federal RCRA CORRACTS facilities within one mile of the Site (Ref. 17).

RCRA non-CORRACTS TSD Facilities List within one-half mile

The subject property does not have any RCRA non-CORRACTS TSD facilities within one-half mile of the Site (Ref. 17).

Federal RCRA Generators List (property and adjoining properties)

There are no listed RCRIS-Large Quantity Generator (LQG) or RCRIS-Small Quantity Generators (SQG) on the Site. There is no RCRIS LQG or SQG sites reported at the adjoining properties either (Ref. 18).

Federal/State Institutional Control/Engineering control registries (property only)

There is no Institutional Control/Engineering control registries found on the property (Ref. 7).

Federal Emergency Response Notification System (ERNS) list (property only)

The subject property and adjoining properties are not listed as ERNS sites (Ref. 12).

State lists of hazardous waste sites identified for investigation or remediation (property only)

The Site is on the Oklahoma Department of Environmental Quality's Site Cleanup Assistance Program list of sites scheduled for remediation of hazardous substances (Ref. 7).

State Landfill and/or Solid Waste Disposal Sites within one-half mile

There are no listed state landfills within one-half mile of the Site (Ref. 10). Southern Oklahoma Regional Disposal Landfill is the closest landfill located in Ardmore, OK.

State Leaking Underground Storage Tank (LUST) List within one-half mile

There is one active LUST sites within one-half mile of the subject site located at 5th and Main. The LUST site has been active since 1999. The Oklahoma Corporation Commission (OCC) is the lead regulatory agency for LUST sites in Oklahoma. The UST Notification Database is maintained by the (Appendix C).

State Registered Storage Tank Lists (property and adjoining properties)

There are forty-four UST sites within a ½ mile radius of the property. Twenty-seven (27) of these registered UST sites have been closed by the OCC. A list of these sites can be found in Appendix C. This information was obtained from the UST Notification Database maintained by the Oklahoma Corporation Commission. The OCC database indicates the UST that was used by the Armory was closed in place September 23, 1997 (Appendix C).

State Voluntary Cleanup Sites and Brownfield Sites within one-half mile

There are no State Voluntary Cleanup Sites or Brownfield Sites listed in the DEQ database within one-half mile of the Site (Ref. 7).

5.2 Additional Environmental Record Sources

No other additional environmental record sources other than what is provided in this Phase I Targeted Brownfield Assessment were searched for this report.

5.3 Physical Setting Sources

Physical Setting sources were obtained from the U.S. Geological Survey, Federal Emergency Management Association, Sanborn Maps, United States Department of

Agriculture Soil Conservation Service Soil Survey of Carter County, Oklahoma, and a site visit conducted on August 30, 2006.

5.4 Historical Use Information on the Property

The subject property is presently occupied by the City of Healdton. Before the City of Healdton took operational control (in approximately 2000), prior to 2000 the Healdton Armory was vacant approximately three to four years after the Oklahoma Army National Guard vacated the building. According to Brian Scribner, the Healdton City Manager, the Oklahoma Army National Guard discontinued operations at the Healdton Armory in approximately 1996. From 1936 until 1996, the Healdton Armory was in full operation in conjunction with the Oklahoma Army National Guard (Ref. 7).

5.5 Historical Use Information on Adjoining Properties

Aerial Photo Review

Archived aerial photographs of the subject property were reviewed at the Oklahoma Department of Libraries. An aerial photograph taken on June 1, 1949 was the only year available at the library. The photograph shows the armory was constructed and in operation at that time. The armory at that time was surrounded by commercial/light industrial businesses. The photo also indicates Healdton was surrounded by farm and ranch land. Aerial photographs from 1995 and 2003 were obtained from the Oklahoma DEQ website (Ref. 20). These aerial photographs indicate some of the buildings near the armory have been razed but the armory and the immediate surrounding buildings appear to remain as they were in the 1949 photograph. Both the 1995 and 2003 photos show additional industry and housing surrounding the city since the 1949 photo. Photos containing the Healdton Armory can be found in Appendix C.

Zoning/Land Use Records Review

No zoning/land use records were reviewed while conducting this Phase I Targeted Brownfield Assessment of the Healdton Armory.

Fire Insurance Maps

The Healdton Armory is located in the center of the City of Healdton. A fire insurance map dating from 1923 indicates no buildings on the lot at that time. A second map dating from 1938 indicates the building with a church to the south of the property. These maps can be found in Appendix C.

Property Tax files

No property tax files were reviewed while conducting this Phase I Targeted Brownfield Assessment of the Healdton Armory.

City Directories

No city directories were reviewed while conducting this Phase I Targeted Brownfield Assessment of the Healdton Armory.

Building Department Records

No building department records were reviewed while conducting this Phase I Targeted Brownfield Assessment of the Healdton Armory.

Interviews

Information on the interviews is located in Section 7.0, "Interviews".

6.0 Site Reconnaissance

6.1 Methodology and Limiting Conditions

A site inspection at the Healdton Armory was performed on August 30, 2006 by Jarrett Keck from the Oklahoma Department of Environmental Quality (with representatives of the City of Healdton). The site reconnaissance consisted of an inspection of the armory building and its surrounding property. All areas of the armory with the exception of the roof were inspected (Ref. 7).

6.2 General Site Conditions

The site is readily accessible on all sides. There is no fence securing the property. Some vandalism (minor broken window on south side) and trespassing has occurred since the National Guard vacated the property. A pole mounted transformer owned by OG&E is located in the south alley behind the armory. A gas meter is located on the east wall outside of the armory. No wells were observed on the site. Drainage on the site is towards the east. There are two roof drains on the property (near the west entrance and the south side of the building) (Ref. 7).

6.3 External observations

Chipped and peeling paint around the windows was observed. A crack in the south west corner of the building was observed. It is unknown if the crack is structural or aesthetic. Transformers were observed in the south alley behind the armory. No sign of leaks or staining from the transformers was observed. An open pipe was observed protruding from the ground approximately six inches on the southeast corner of the building. It was undetermined what the pipe is used for. An abandoned gas station is located to the north west of the armory. An active gas station is located to the south east one block from the armory (Ref. 7).

6.4 Internal observations

Paint various windows, walls and floors in the building have peeled cracked or peeled. Floor tiles and linoleum were observed in the mess hall and kitchen areas during the site visit. The office floors were largely painted or carpeted with the exception of the wood drill floor. The vehicle storage bays and adjacent offices are occupied by the City fire department. The City police department is utilizing the offices opposite the fire department for storage. Various other rooms contain miscellaneous unused equipment

and stored items. Ceiling panels observed during the site visit appeared to be made of a Styrofoam material and largely in good condition. It appears there was only one layer of ceiling panels installed in the armory. Natural-gas-fired space heaters are found hung by brackets from the ceiling. The heaters may contain asbestos. The duct-work did not appear to have insulation. However, a thorough inspection, sampling, and analysis for asbestos were not conducted. Lighting in the gymnasium area were replaced when the city occupied the building are stored in the IFR. These fixtures may have ballasts that contain PCBs if they were made prior to 1977. A floor drain was observed in the middle of the IFR. The floor drain may be a potential conduit for lead and other contamination to migrate (Ref. 7).

7.0 Interviews

7.1 Interviews with Past and Present Owners of the property

Retired Administrative Support Technician and Warrant Officer for the Healdton National Guard (1954 - 1994), Bob Treadwell, was interviewed by telephone on September 7, 2006. Mr. Treadwell recalled an underground storage tank (UST) was located on the northwest corner of the building. The UST was used for gasoline to fuel military vehicles housed in the armory. He was unaware if the UST had been removed. He did not recall any type of chemicals that were stored in the building other than automotive lubricants. He also did not recall there ever having been any large spills of stored materials. He stated a sand trap used to be in the firing range and was unaware when the trap had been removed. The room, adjacent to the main firing range hall was used to store targets and weapons (.22 rifles only). Building maintenance and painting was performed as funds became available. He was unaware if the paints used were lead based. He added the armory was added to the National Register of Historic Places soon after the National Guard vacated the facility. The property is currently owned by the State of Oklahoma. The DEQ has had several conversations regarding environmental and safety issues at the armories, with various employees of the military department. Major Joseph Merkle, Colonel James Peck, and Richard Brooks were among these individuals. A meeting with the Oklahoma Military Department (OMD) and The Department of Consumer Services (DCS) was held on September 20, 2006 to discuss the environmental issues at the armories in the State. The Oklahoma Military Department (OMD) provided a Baseline Assessment of the property to the DEQ, and the DEQ was able to review the OMD files on the indoor firing range (Appendix D).

7.2 Interviews with Key Site Manager

The Healdton City Manager, Brian Scribner was interviewed during the site visit. He recalled there may have been an above ground storage tank located outside the armory on the west side. He was unsure what the tank may have been used for. He stated the City has occupied the building for approximately five years. Prior to that, the building was vacant for three to four years. He stated there has been some vandalism and trespassing occurring since the city occupied the building. He noted the City has replaced the light

fixtures in the drill floor area since the City's occupation. Much of the miscellaneous furniture and equipment stored in the building was left by the National Guard. The building is used by the City fire, police and public works departments. The drill floor is used for large social functions by the community and recreational activities. He was unfamiliar with normal operations of the armory when the National Guard occupied the building (Appendix D).

The Healdton Fire Chief, Brian Gosevener, was also interviewed during the site visit. He stated the fire department has not modified the building other than painting yellow striping on the floor of the vehicle storage bays. The silver paint on the walls of the vehicle storage bays was painted by the National Guard prior to the City's occupation of the building (Appendix D)

7.3 Interviews with Operators and Occupants of the property

See sections 7.1 and 7.2.

7.4 Interviews with State and/or Local Government Officials

See sections 7.1 and 7.2.

7.5 Interviews with Others

No additional interviews were conducted.

8.0 Findings

This Phase I Targeted Brownfield Assessment of the Healdton Armory was performed in accordance with the ASTM E 1527-05, a guide for conducting Environmental Site Assessments. Jarrett Keck performed the site reconnaissance on August 30, 2006.

The site is located in the Southeast ¼ of Section 2, Township 4 South, Range 3 West, in Carter County, Oklahoma. The site is on the corner of 4th and Franklin Streets, in Healdton, Oklahoma. The main entrance to the armory is located at latitude 34°14'2.26", longitude - 97°29'14.61".

- An indoor firing range sand trap and dust residue was found to have lead contamination. Past sampling of lead in the sand trap and the rest of the indoor firing range show results of lead concentrations in need of remediation. Materials and equipment stored in the firing range may also be contaminated with lead. Lead dust residue may also be present in the soil outside the IFR vent window. The indoor firing range constitutes a recognized environmental condition (REC) based on the lead concentrations and its leachability.

- A floor drain is located in the middle of the firing range. This drain was mainly used to drain waste water from within the firing range. The waste water likely drains into the city sewer system.
- Paint in several areas throughout the armory has peeled and is now hanging or has already fallen off in large chips. Due to the age of the building (1936), the paint and its peelings on the surfaces of the doors possibly contain lead. The soils where paint chips may have fallen near the windows around the perimeter of the building should be evaluated for possible lead contamination.
- Because of the age of the building, there is a potential for Asbestos Containing Material (ACM) to be present in building materials (roofing materials, floor tiles, mastic, ceiling tiles, window putty, insulation, and natural gas heating systems).
- Transformers located behind the armory in the alley way may contain PCBs. Transformers constructed before 1977 contained PCBs. Replacement of a PCB containing transformer is not required unless it has leaked or failed. No staining or leaking of the transformers were observed. It is unknown if the transformers or their oil have been replaced. PCBs may also be present in fluorescent lighting ballasts or other electrical equipment used in the armory.
- Mercury may have been used in thermostats, gauges, lighting, or switching devices during the operation of the building. These devices should be evaluated for the presence of mercury.
- One 1,000-gallon gasoline UST was once located on the northwest corner of the parking lot curb where it was used to refuel military vehicles. This UST was the only tank the armory had on the property. The OCC UST database indicated the tank was closed in place September 23, 1997. No case was filed on the tank. Information from the database indicates the tank was asphalt coated or bare steel. No leak detection system was listed.
- An open pipe is protruding from the ground near the southeast corner of the building. It is unknown what the pipe was used for and may be a conduit for contamination.

9.0 *Opinion*

Based on the findings of this assessment, The DEQ recommends additional investigation be conducted to evaluate areas of the property that may need future clean up and remediation.

Areas of additional evaluation consist of the following:

- Indoor firing range, IFR vent, and adjacent areas for lead.
- Floor drain in IFR for lead

- Painted surfaces and chipped paint in the armory building for lead.
- Soils outside the armory where lead based paint may have been used and has chipped off and near the IFR vent should be investigated for lead contamination.
- The heating units, roofing, insulation, flooring, and other building materials installed prior to 1978 should be investigated for potential ACM.
- The thermostats, lighting, and other building process equipment should be investigated for the presence of mercury prior to disposal.
- The transformer and other pre-1978 electrical equipment should be evaluated for the presence of PCBs.
- The exposed pipe protruding from the ground at the southeast corner of the building should be examined to determine its use and capped if necessary.

10.0 Data Gaps

No samples were collected during this investigation. Due to the age of the building, some equipment and building materials are assumed to contain hazardous materials until sampled and analyzed.

11.0 Conclusions

A Phase I Targeted Brownfield Assessment in conformance with the scope of work and ASTM Practice E 1527-2005 was performed on the subject property. This assessment revealed recognized environmental conditions that may need additional investigation and remediation of the subject property before future occupational control can take place. The information provided in this assessment is to assist the City of Healdton in its redevelopment 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).

12.0 Additional Services

No additional services were provided in this Phase I Targeted Brownfield Assessment other than the lead and asbestos results of the IFR and tile given in Section 3.2, “Other known or Suspected Environmental Concerns on the Site.” In addition to the Phase I Targeted Brownfield Assessment, the DEQ will assist the city with removal of the environmental contaminants and ensure the property is ready for redevelopment.

13.0 Deviations

Tax files, city directories, and Building Department Records were not examined during this investigation. No other deviations from E 1527-05 were made for this Phase I site investigation.

14.0 References

1. U.S. Environmental Protection Agency. (2001). *Oklahoma Brownfields Assistance Agreement (No #VC98677601)*. July 19, 2001. Unpublished Document. State of Oklahoma: Oklahoma City, Oklahoma.
2. U.S. Environmental Protection Agency. (1980). *Comprehensive Environmental Response, Compensation, and Liability Act*. (Public Law 96-510). Washington, DC: U.S. Government Printing Office.
3. U.S. Environmental Protection Agency. (2002). *Small Business Liability Relief and Brownfields Revitalization Act*. (Public Law 107-118, Subtitle B). Washington, DC: U.S. Government Printing Office.
4. ASTM International. (2005). *Water and Environmental Technology: Phase I Environmental Site Assessment E 1527 – 05*. Baltimore, Maryland.
5. United States Department of Agriculture, Soil Conservation Service (1979). Moebius, Gordon E., Maxwell, Armine J. *Soil Survey of Carter County, Oklahoma. June 1979*. U.S. Government Printing Office: Washington, D.C.
6. U.S. Geological Survey. *Reconnaissance of the Water Resources of the Enid Quadrangle, Central Oklahoma*, Hydrological Atlas 7. The University of Oklahoma, Norman, OK. (1975).
7. Jarrett Keck (2006). *Field Notes for Site Reconnaissance of the Hominy Armory, August 29, 2006*.
8. Federal Emergency Management Association (FEMA). <https://msc.fema.gov>.
9. Oklahoma Corporation Commission (OCC) list of Regulated Utilities. <http://www.occ.state.ok.us/Divisions/PUD/RegUtilities/REGCOMPS.HTM>
10. State Landfill site list: <http://www.deq.state.ok.us/LpDnew/swindex.html>.
11. Oklahoma Water Resources board. <http://www.owrb.state.ok.us/wd/search/search.php>.
12. Emergency Response Notification System: <http://www.nrc.uscg.mil/foia.html>.
13. Oklahoma Army National Guard. *Indoor Firing Range Lead Issues Report*. C.H. Guernsey & Company. (2004).
14. Oklahoma Military Department Environmental Office (OKDE-ENV). *Limited Environmental Baseline Assessment, Wewoka Armory*. July 28, 2004.
15. EPA NPL list: <http://www.epa.gov/superfund/sites/npl/ok.htm>.

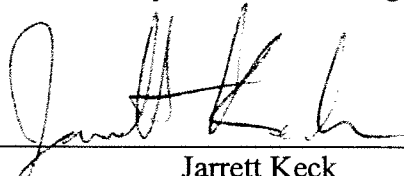
16. CERCLIS current and archived sites: <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>.
17. RCRA database: http://www.epa.gov/enviro/html/rcris/rcris_query_java.html.
18. RCRA NOTIFIERS sorted by county and then city:
<http://www.deq.state.ok.us/LPDnew/HW/Notifiers/notifiersbycountycity.pdf>.
19. State Hazardous Waste Sites: <http://www.deq.state.ok.us/LPDnew/hwindex.html>.
20. DEQ Dataviewer: <http://maps.scigis.com/deq%5Fwq/>.

15.0 Environmental Professional(s) Statement

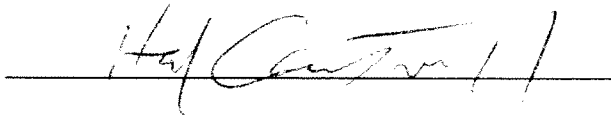
I declare that to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of this part. I have specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the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

16.0 Signature(s) of Environmental Professional(s)

Environmental Professionals in charge of the project:



Jarrett Keck
Environmental Programs Specialist II



Hal Cantwell
Environmental Programs Specialist IV



Rita Kottke, PhD
Environmental Programs Manager

17.0 Appendices

Appendix A - Site (Vicinity) Map

Appendix B - Site Photographs

Appendix C - Historical Research Documentations

Aerial Photographs

Topographical Map

Appendix D - Interview Documentation

Appendix E - Qualification(s) of Environmental Professionals

Appendix F - Analytical Results of Indoor Firing Range and Tile

Appendix A - Site (Vicinity) Map

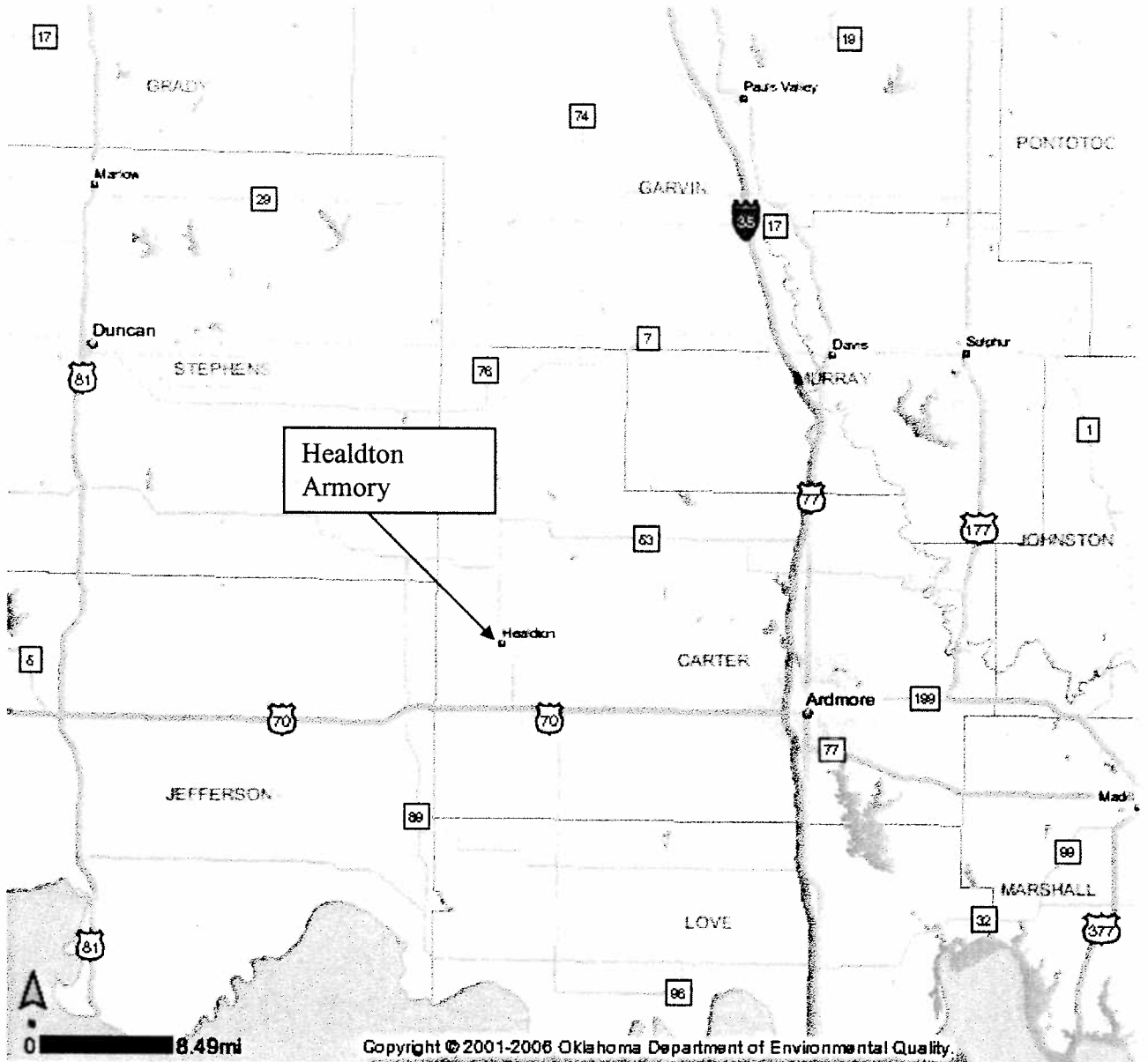


Figure 1. Site Vicinity Map

Appendix B - Site Photographs

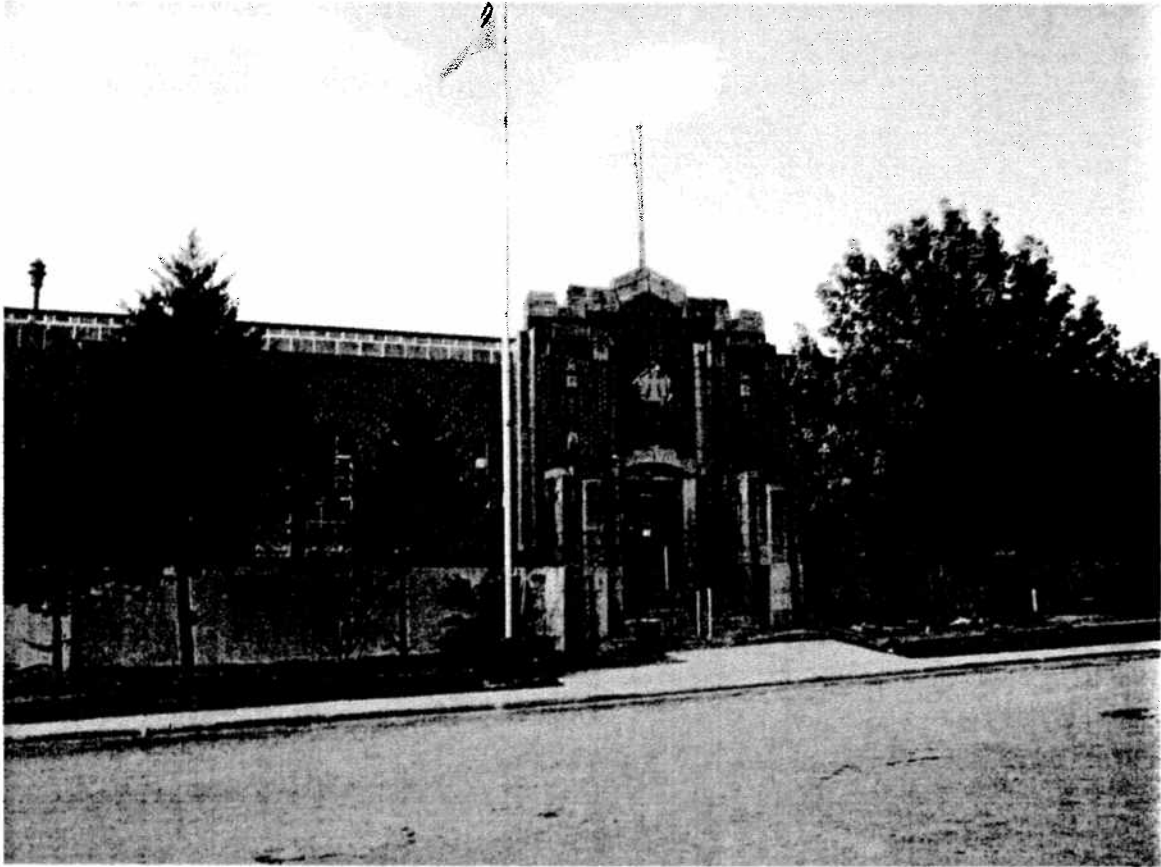


Figure 1: Healdton Armory – north entrance facing south

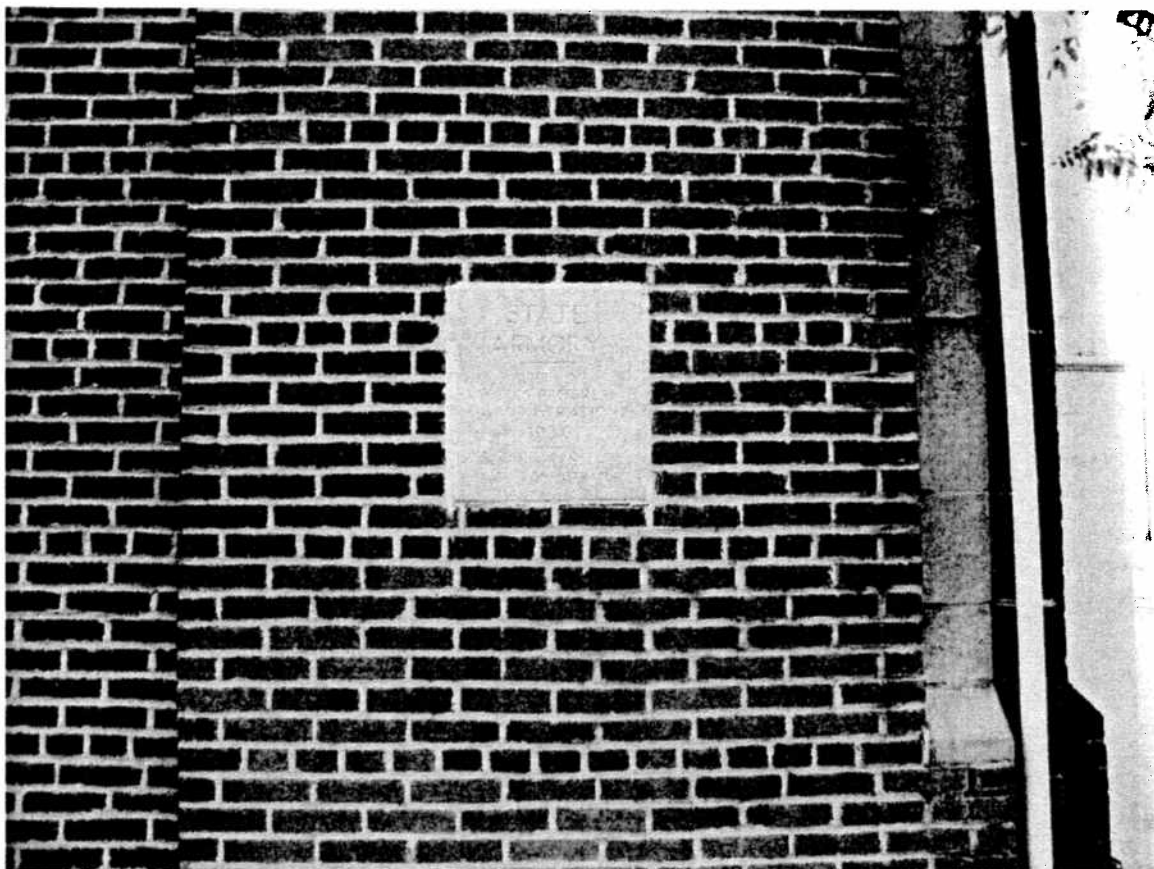


Figure 2: Healdton Armory – WPA 1936 face plate on the northwest corner of the building.



Figure 3: Healdton Armory - northwest corner, west entrance facing south.



Figure 4: Healdton Armory – south window on outside west wall with chipped paint.

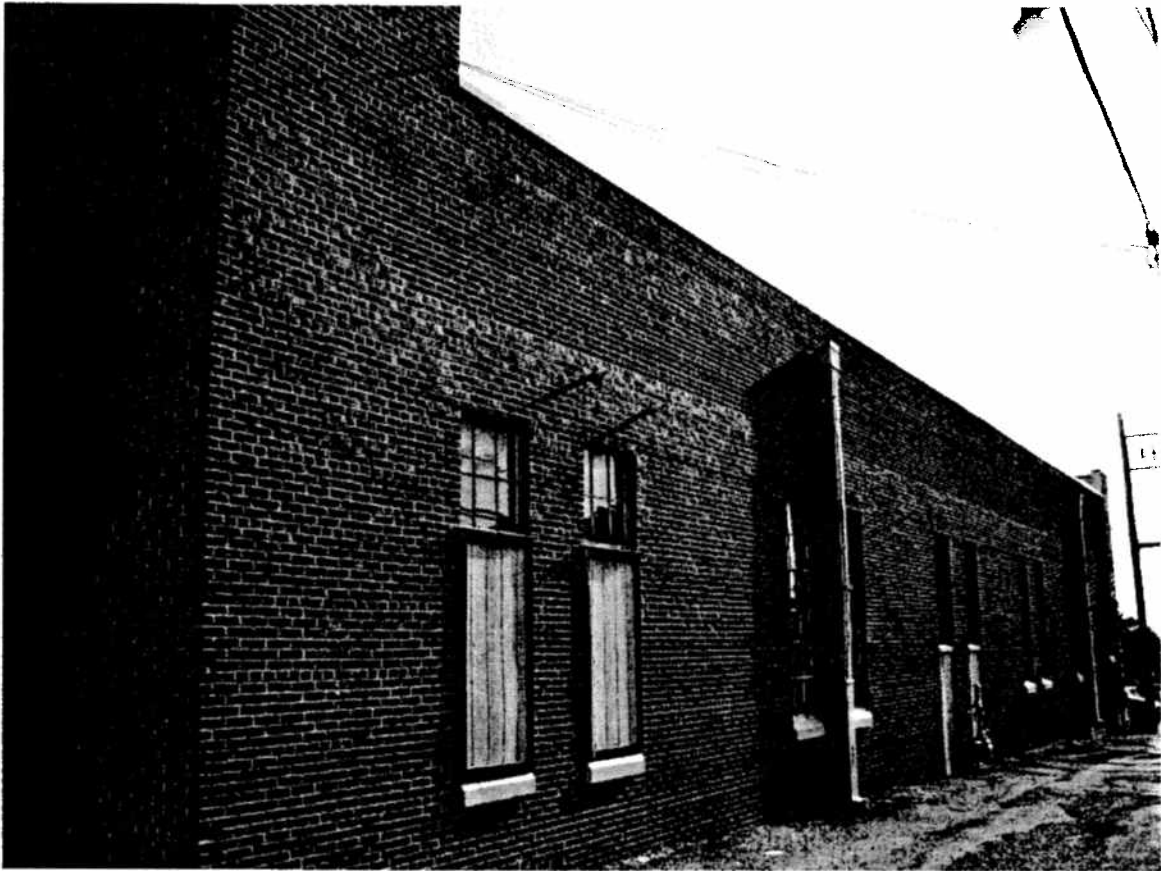


Figure 5: Healdton Armory – southwest corner facing west-northwest (note crack on southwest corner wall (left) and roof drains).

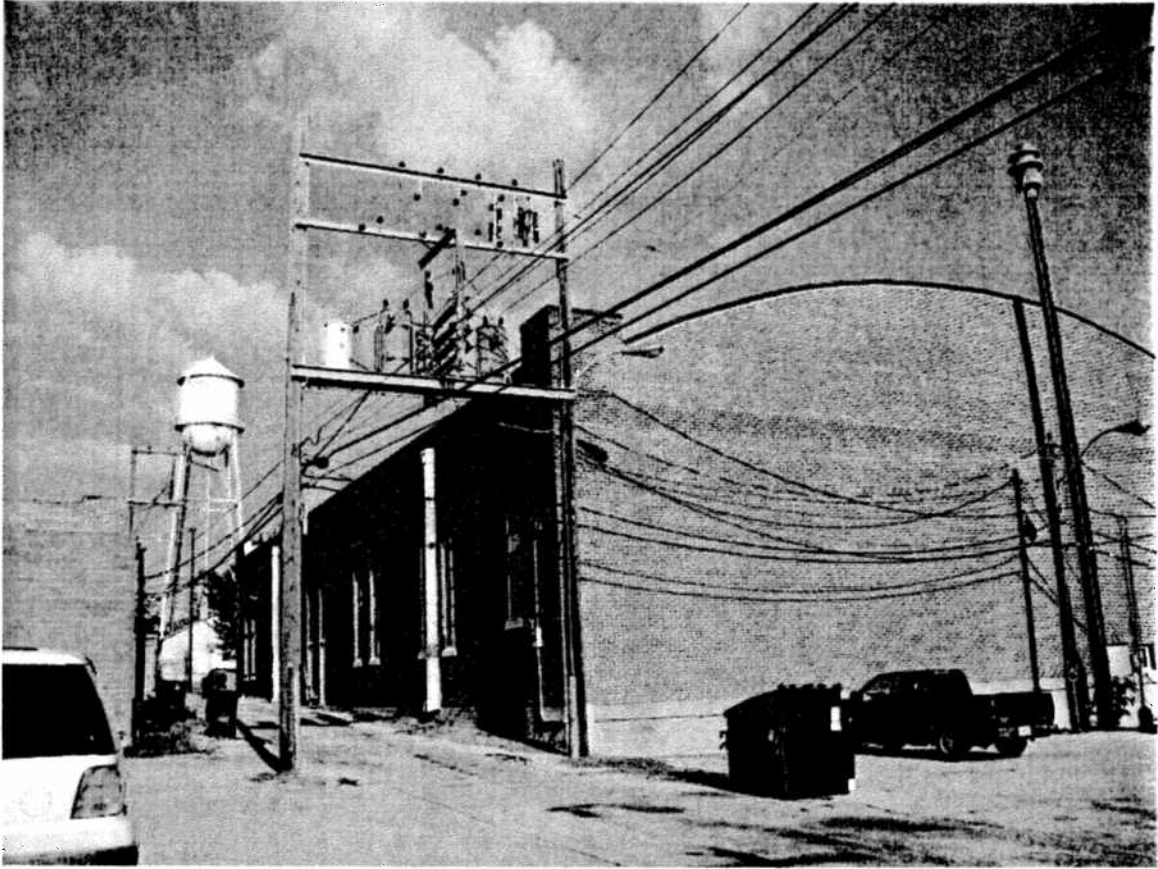


Figure 6: Healdton Armory- southeast corner facing east-northeast with electrical transformers in alley way.



Figure 7: Healdton Armory – office space/storage area located in northwest corner of gymnasium (drill floor) area.



Figure 8: Healdton Armory – steps leading to entrance of the indoor firing range in southeast corner of the gymnasium (drill floor).

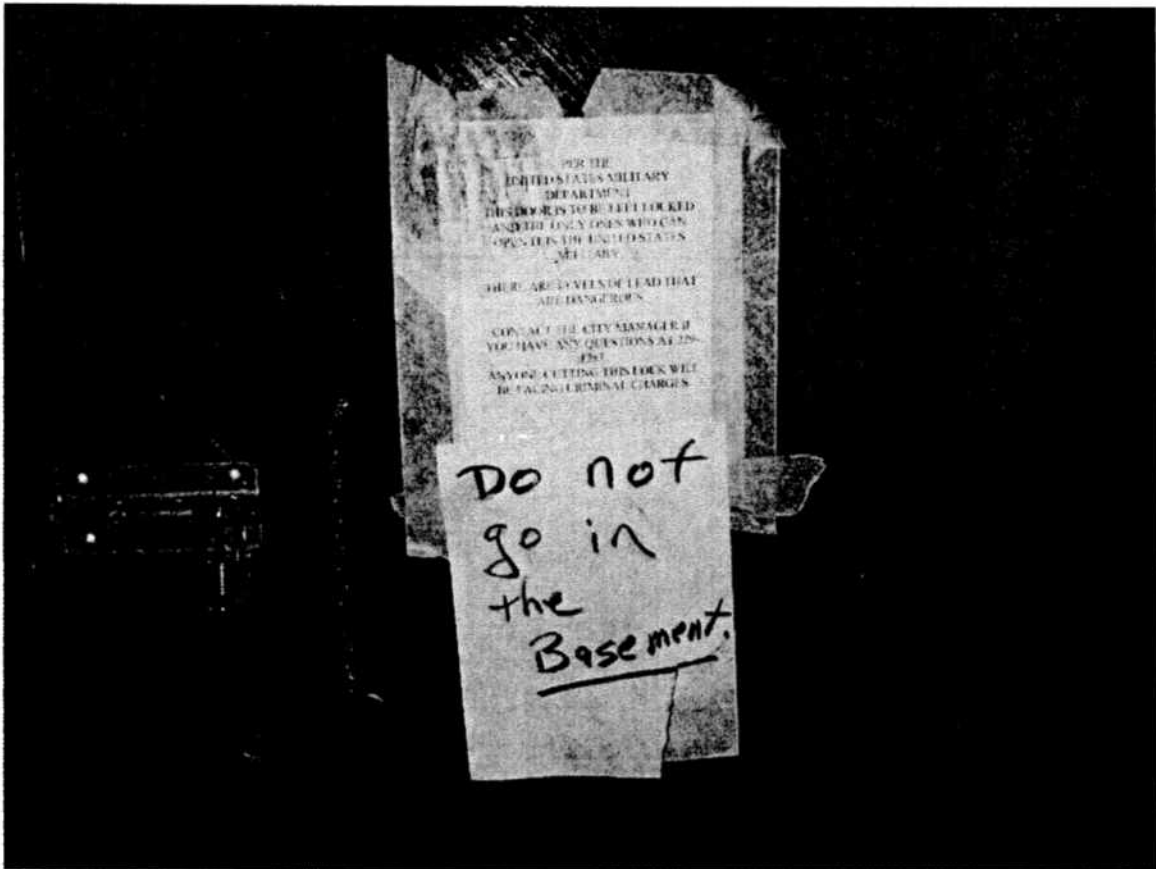


Figure 9: Healdton Armory – close-up of the warning signs placed on the entrance to the indoor firing range.



Figure 10: Healdton Armory – indoor firing range, near entrance, facing north showing stored chairs.

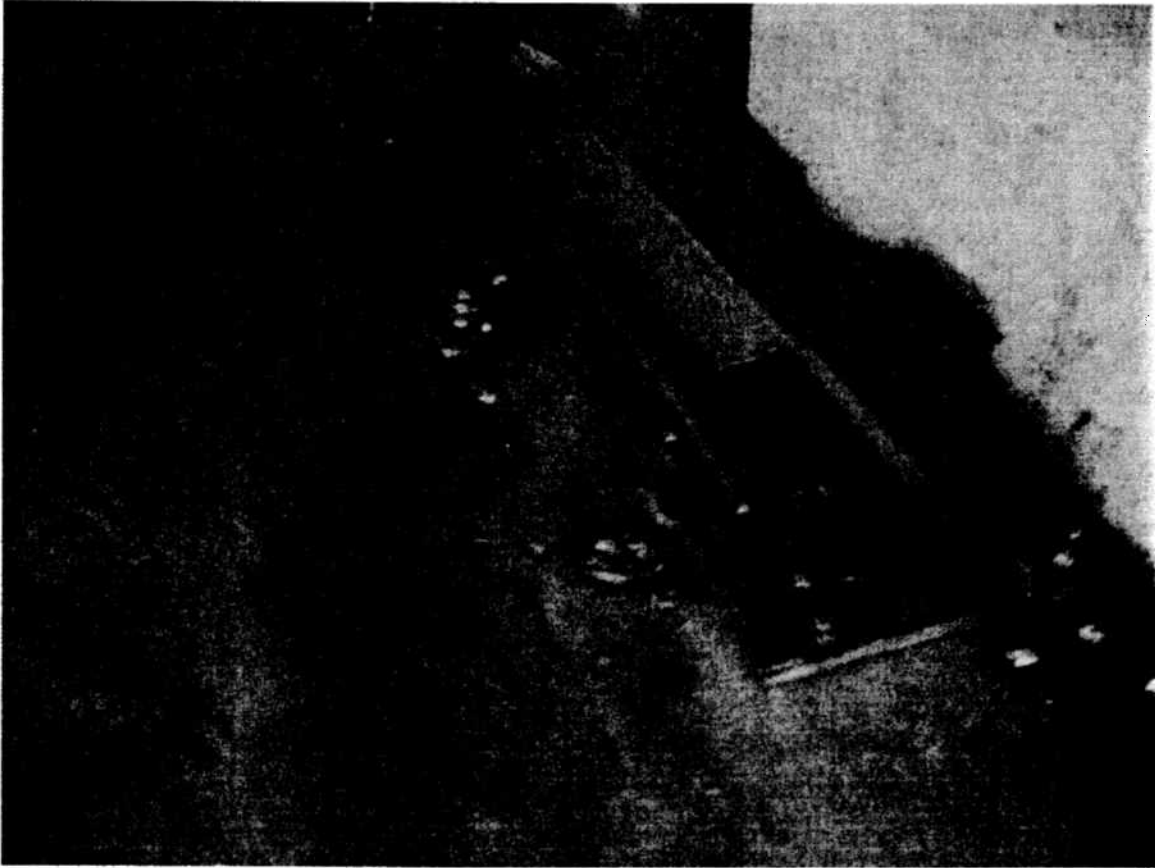


Figure 11: Healdton Armory – floor drain in the indoor firing range located in the center of the room near the east wall.

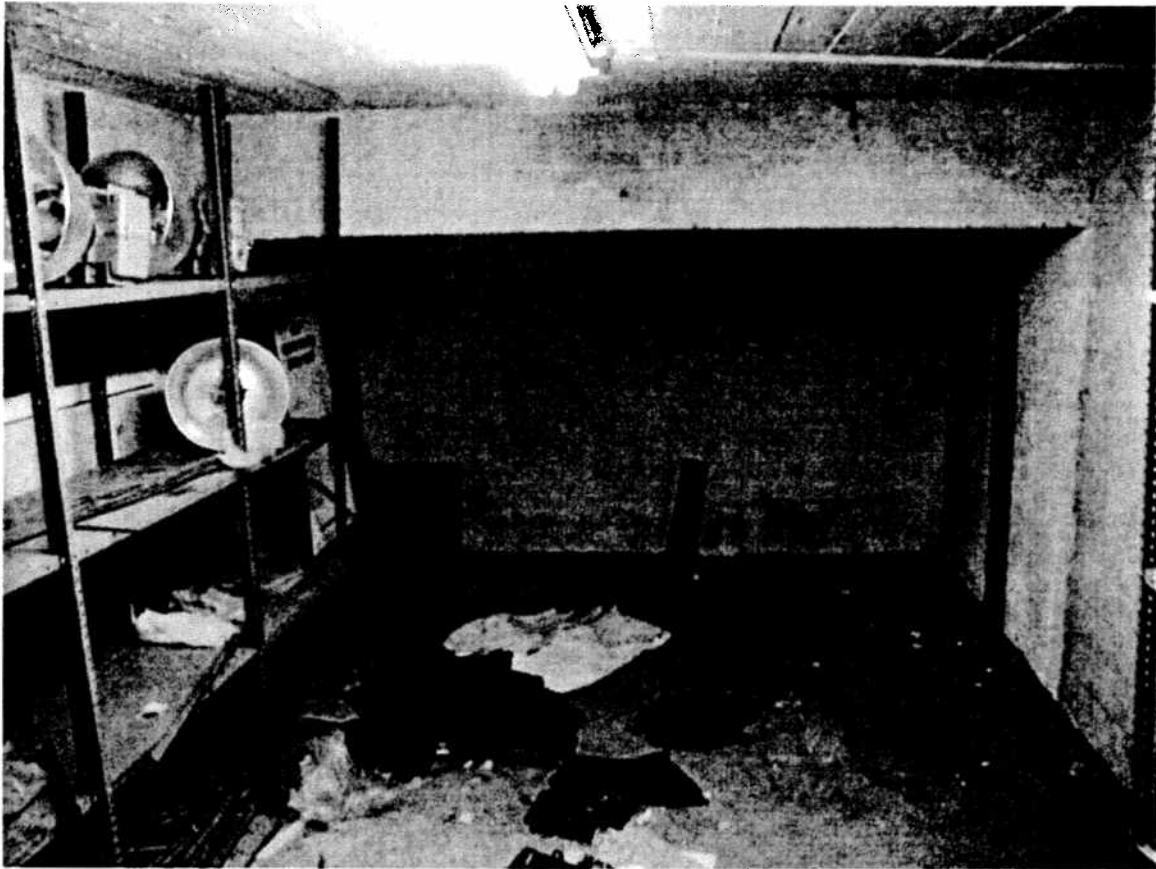


Figure 12: Healdton Armory – indoor firing range, small room located off the northwest corner of the indoor firing range showing recently replaced lighting held in storage.

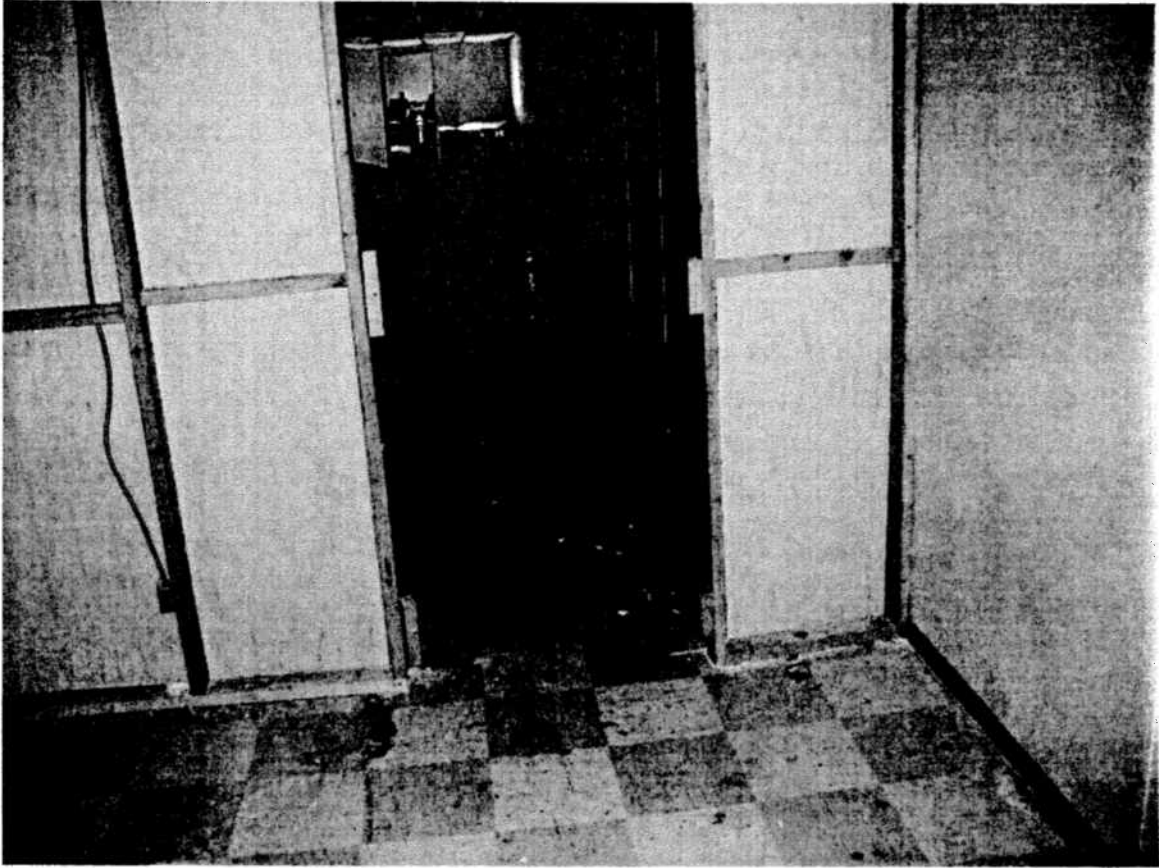


Figure 13: Healdton Armory – mess hall area located at the east end of the gymnasium (drill floor) showing 12"x12" tiles and stored items in the background.

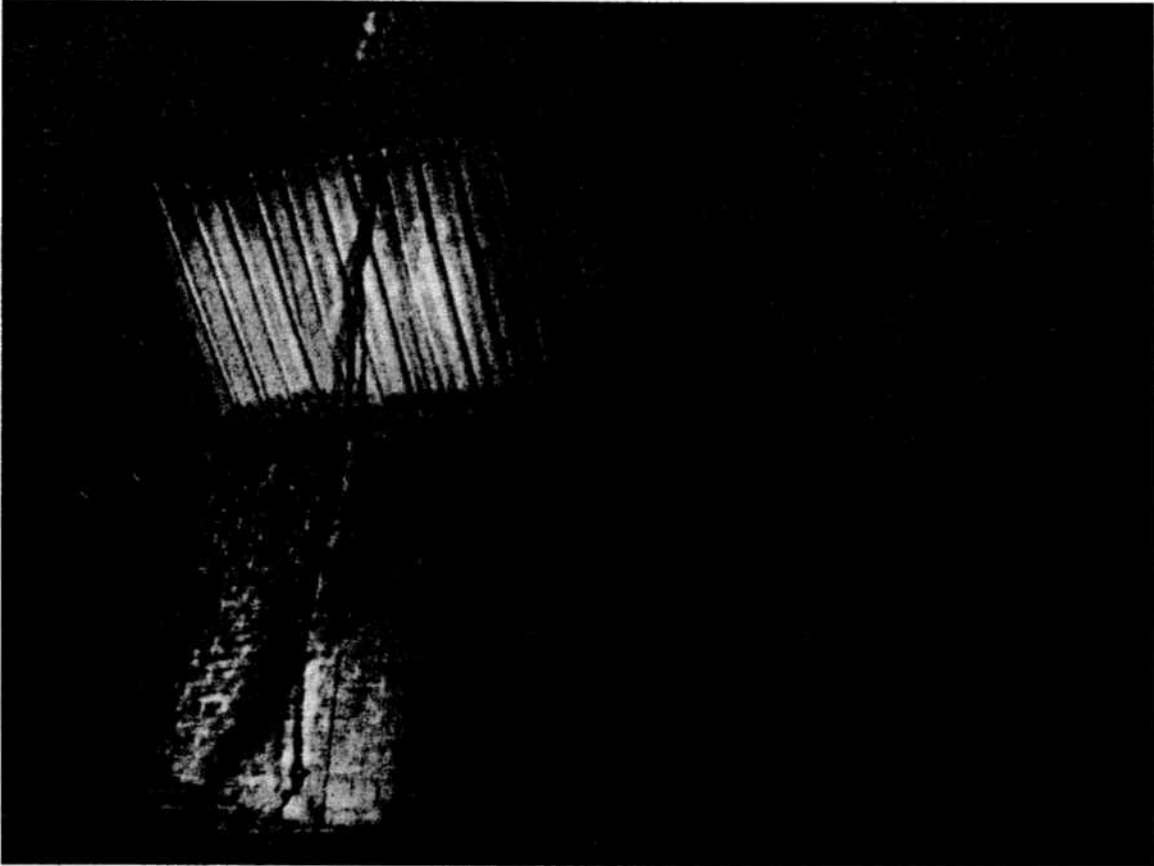


Figure 14: Healdton Armory – plenum space above drop ceiling above the mess hall. This is typical view of the plenum space throughout the building. No insulation in this area was observed during the site visit.

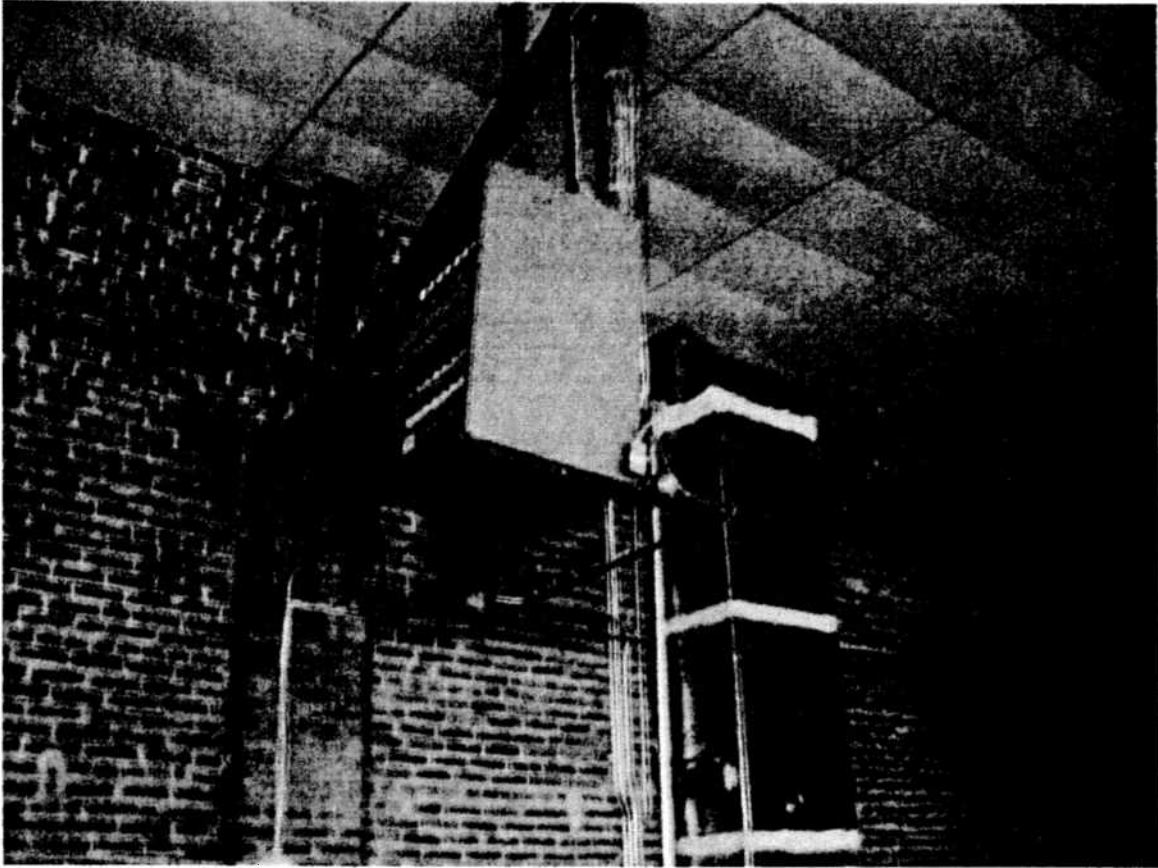


Figure 15: Healdton Armory – space heater in the gymnasium (drill floor) area near the north wall.

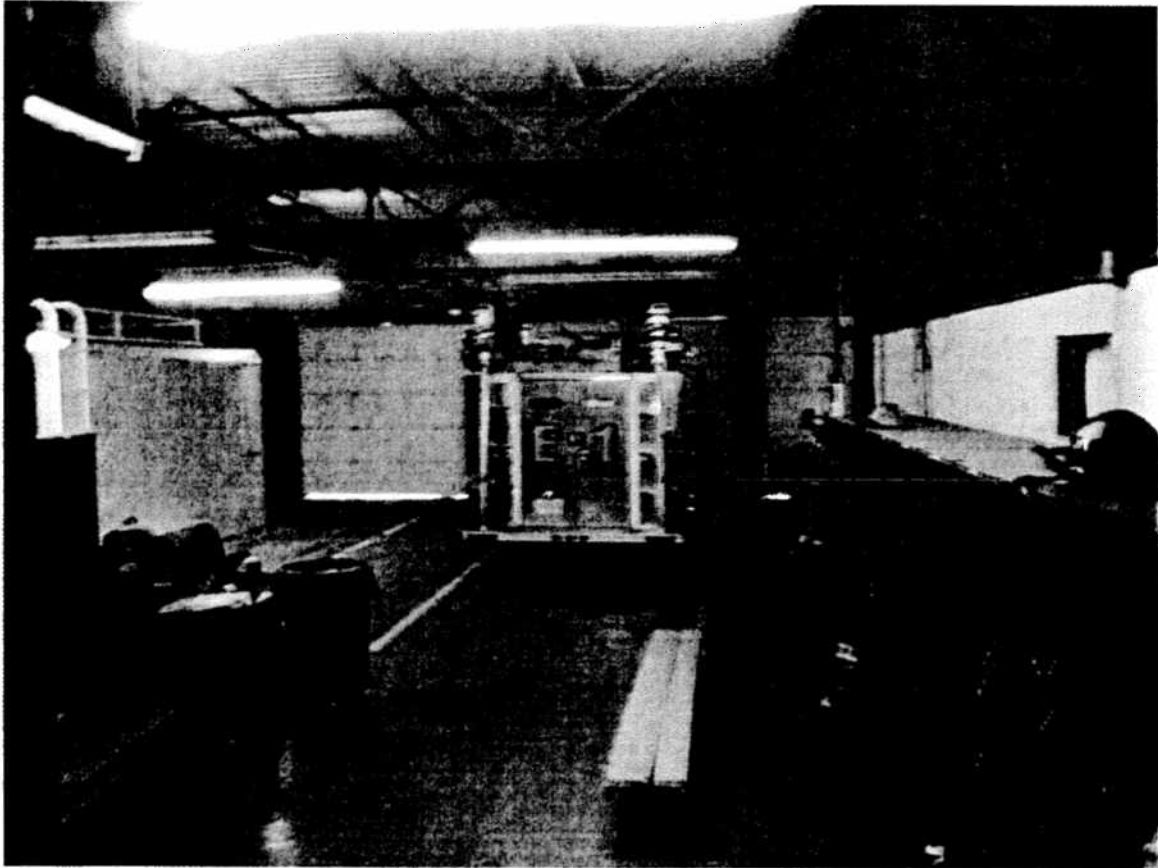


Figure 16: Healdton Armory – garage bay area in west side of the building used for the Healdton Fire Department emergency vehicle storage. The gray painted floors and walls are original to the National Guard. The Healdton Fire Department has recently painted the yellow lines.

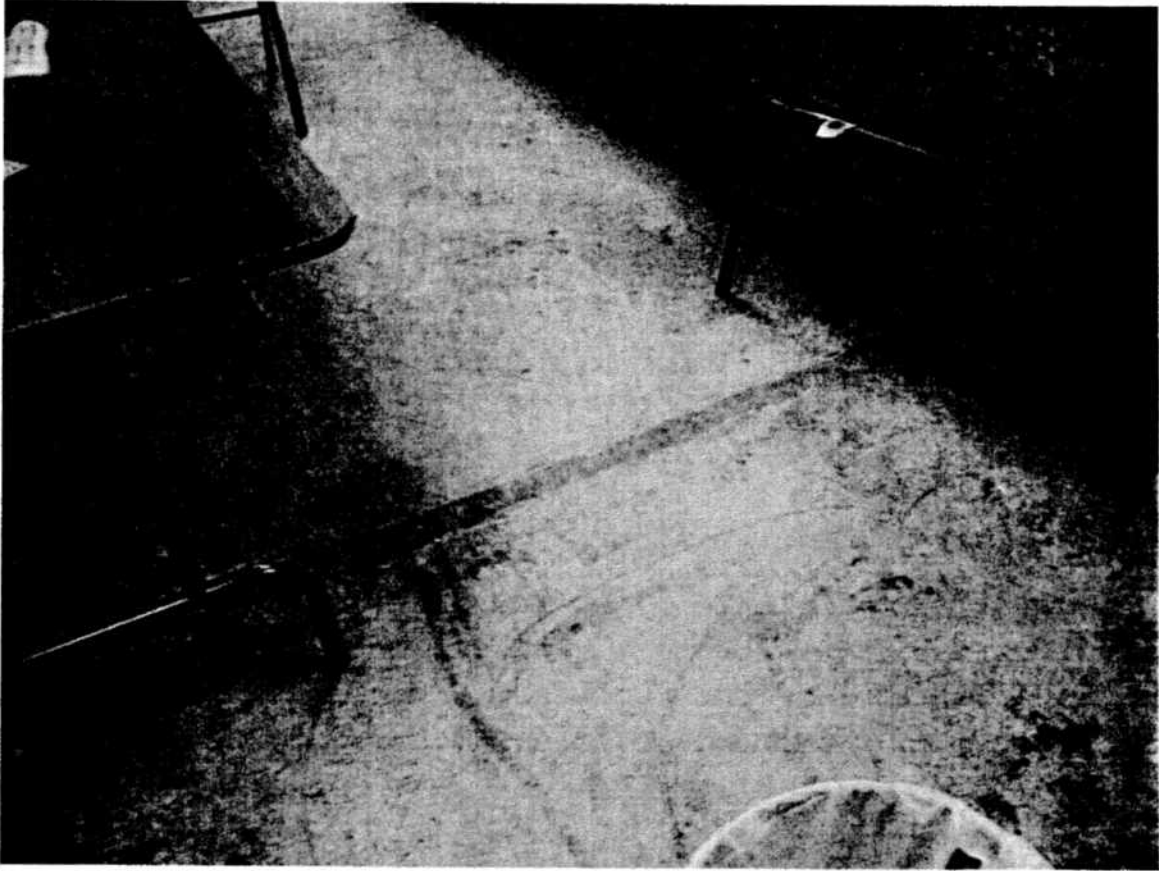


Figure 17: Healdton Armory: Healdton Fire Department meeting room in west side of the building. Carpeting used by the National Guard was removed. This picture shows the carpet glue left behind.

Appendix C - Historical Research Documentations
Aerial Photographs
Topographical Map

Enter some part of the street address. City and/or county info. speeds searches.

Street: Search
 City: healdton County: Address Search

Facility ID/System ID	Name	Address	
1006997	HEALDTON KOK	300 E MAIN	
1006997		Healdton	OK
1000688	DOWELL SCHLUMBERGER IN	HCR 64, BOX 6	
1000698		Healdton	OK
1002355	HALLIBURTON SERVICES	815 SE 8TH STR	
1002355		Healdton	OK
1003331	REMA TOOL INC	1 1/4 MI N HWY 76	
1003331		Healdton	OK
1003848	GOVEY'S TEXACO	703 GILMER	
1003848		Healdton	OK
1004620	HEALDTON PUBLIC SCHOOL	4TH & TEXAS	
1004620		Healdton	OK
1004652	CARTER COUNTY DIST #2	2350 W. LAKE RD.	
1004652		Healdton	OK
1004729	MOBIL OIL HEALDTON OFFIC	MOBIL RD, NW OF HEALDTON	
1004729		Healdton	OK
1005826	OKLAHOMA NATIONAL GUAR	4TH & FRANKLIN	
1005826		Healdton	OK
1005903	PETCO FISHING & RENTAL T	HWY 76 SOUTH	
1005903		Healdton	OK
1006279	SUTHERLAND WELL SERVIC	HWY 76 S - DRAWER 400	
1006279		Healdton	OK
1006953	HEALDTON STATION	N HWY 76	
1006953		Healdton	OK
1007663	MRS JOE TAYAR	A 01 FRANKLIN	
1007663		Healdton	OK
1008046	HEALDTON DISTRICT SVR CE	8TH AND TEXAS	
1008046		Healdton	OK
1008664	MLFFORD'S ONE-STOP	1ST & MAIN STR	
1008664		Healdton	OK
1008665	PICKELSIMER GULF	308 HWY 76	
1008665		Healdton	OK
1008668	E. L. COX OIL CO	S OF HEALDTON	
1008668		Healdton	OK
1008670	JEAN PUMP & SUPPLY	HWY 76	
1008670		Healdton	OK

1008671	HEALDTON SCHOOL	TEXAS STREET	
1008671		Healdton	OK
1008700	S & J DELI	324 S HWY 76 S	
1008700		Healdton	OK
1008701	HEALDTON FULL SERVE	263 W MAIN	
1008701		Healdton	OK
1008703	76 GROCERY & FEED	N HWY 76	
1008703		Healdton	OK
1009174	HEALDTON YARD	P O BOX 857	
1009174		Healdton	OK
1009372	KERR-MCGEE SERVICE STAT	5 MI N HEALDTON ON HWY 76	
1009372		Healdton	OK
1009374	HEALDTON OIL CO. INC.	N HWY 76	
1009374		Healdton	OK
1009375	HEALDTON OIL CO INC	5TH & MAIN	
1009375		Healdton	OK
1010026	MOM'S MINIT MART INC.	235 W MAIN	
1010026		Healdton	OK
1010127	MELVIN MARTIN	STREET RT	
1010127		Healdton	OK
1010128	CREEL'S STORE	HC 63 BOX 2150	
1010128		Healdton	OK
1013111	COX HEALDTON YARD	1 1/2 MI HEALDTON ON HOSPITAL	
1013111		Healdton	OK
1013461	DOWELL	N HWY 76	
1013461		Healdton	OK
1050322	GALVERYS APCO STATION	1 MILE E ON HWY 70	
1050322		Healdton	OK
1014495	HEALDTON OIL CO INC	S HWY 76	
1090919		Healdton	OK
1014903	SWBT R55125 HEALDTON CO	23 S 3RD	
9913927		Healdton	OK
H1016293	BOBBIE MARTIN KERR-MCGE	6 MI N ON HWY 76	
9915170		Healdton	OK
H1016796	Walls Quick Check	1 Mile S Hwy 76	
9915840		Healdton	OK
H1016961	Mobil Station	224 E Main	
9916357		Healdton	OK
H1017613	BORDEN WYLINE (APCO)	NORTH END OF MAIN STREET	
9916594		Healdton	OK
H1017617	MAGNOLIA PET. CO. EULK	23 SOUTH 1ST	
9916597		Healdton	OK

H1018495	TEXAS OIL CO BULK PLANT	15 SOUTH 1ST	
9916712		Headton	OK
H1018152	HELP-UR-SELF WILCO	1/2 MI E 1/2 MI S HWY 76	
9916690		Headton	OK
H1018963	DONALD DUKE BELL	1/4 MI N ON HWY 76	
9917811		Headton	OK
H1018964	B J BURKETT SKELLY	E MAIN	
9917812		Headton	OK
1020786	JD LEWIS CONSTRUCTION	HWY 76 N	
9916455		Headton	OK
14 Total Matches		OK	Cancel

Facility Summary for 1005826

Owner Name and Address: OKLAHOMA MILITARY DEPT 3501 MILITARY CIRCLE Oklahoma City OK OKDE-ENV
 (OKDE-ENV) 73111 Owner Phone: (405) 235-5363

Facility ID 1005826	Location Name OKLAHOMA NATIONAL GUARD ARMORY	Location Street Address 4TH & FRANKLIN	Location City Healdton	Zip 73438	Facility Phone						
Tank ID / AST	Installed	Product	Capacity	Tank Mat'l of Construction	Secondary Option	Piping Material	Piping Type	Exempt	Tank Release Detection	Piping Release Detection	Over/Spill/CP
1	No	12/31/195	Gasoline	1,000	Asphalt Coated or Bare Steel	Galvanized Steel	None	Not Listed	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	No
Permanently Out of Use	53			None	None			Yes	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	No

Tank closed in place 9/23/97

No case

Tank/Piping Release Detection Codes

<input type="checkbox"/> A Manual Tank Gauging	<input type="checkbox"/> C Inventory Control	<input type="checkbox"/> E Vapor Monitoring	<input type="checkbox"/> G Interst. Sec. Con. Monitor	<input type="checkbox"/> I SIR	<input type="checkbox"/> K Deferred
<input type="checkbox"/> B Tank/Line Tightness Testing	<input type="checkbox"/> D ATG/Auto Line LD	<input type="checkbox"/> F GW Monitoring	<input type="checkbox"/> H Interst. Sec. Con. Monitor	<input type="checkbox"/> J Other Methods	<input type="checkbox"/> L Not Listed

Facility Summary for 1009375

Owner Name and Address: HEALDTON OIL CO INC
 PO BOX 208 Healdton OK 73438
 Owner Phone: (580) 224-1502

Facility ID	Location Name	Location Street Address	Location City	Zip	Facility Phone					
1009375	HEALDTON OIL CO INC	5TH & MAIN	Healdton	73438						
Tank ID / AST	Installed Age	Product Capacity	Tank Mat'l of Construction	Piping Material	Secondary Option	Piping Type Exempt	Tank Release Detection	Piping Release Detection	FR Met	Over-Spill/CP
1	No	4/16/1979 Gasoline 5,000	Asphalt Coated or Bare Steel None	Galvanized Steel None	Galvanized Steel None	Not Listed No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes	No
2	No	4/15/1979 Gasoline 6,000	Asphalt Coated or Bare Steel None	Galvanized Steel None	Galvanized Steel None	Not Listed No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes	No
3	Yes	11/1/1998 Gasoline 1,000	Single Wall Steel None	Galvanized Steel None	Galvanized Steel None	Suction Valve at No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes	No

Tanks closed in place 3/10/99

064-2369 Active case

Tank Piping Release Detection Codes

A Manual Tank Gauging
B Tank/Line Tightness Testing
C Inventory Control
D ATG/Auto Line LD
E Vapor Monitoring
F GW Monitoring
G Interstr. Dip/Wall Monitor
H Interstr. Sec. Con. Monitor
I SIR
J Other Methods
K Deferred
L Not Listed

Facility Summary for 1014903

Facility Name and Address: Southwestern Bell Communications 308 South Akard, Room 900 Owner Phone: (214) 464-7165
 Dallas TX 75202

Facility ID	Location Name	Location Street Address	Location City	Zip	Facility Phone
1014903	308 SOUTH AKARD	308 SOUTH AKARD	DALLAS	75202	(214) 464-7165
Tank ID	Installed	Product	Tank Material of Construction	Piping Type	Tank Release Detection
1014903-001	1/1/1993	Diesel	Double Wall Steel	Exempt	Piping Release Detection
Status	Age	Capacity	Secondary Option	Suction: Valve at 1	FR Met
Yes	13	292	None	(A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L)	Over/Spill/CP
Priority in Use			Other	(B) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L)	Yes
			None		Yes

NO CASE

- Tank/Piping Release Detection Codes**
- A Manual Tank Gauging
 - B Tank/Line Tightness Testing
 - C Inventory Control
 - D ATG/Auto Line LD
 - E Vapor Monitoring
 - F GW Monitoring
 - G Remote Diagnostics Monitor
 - H Interstitial Sec. Con. Monitor
 - I SIR
 - J Other Methods
 - K Deferred
 - L Not Listed

Facility Summary for 1004620

Owner Phone: (580) 229-0566

73438

Healdton OK

432 WEST TEXAS

HEALDTON PUBLIC SCHOOLS

Location Name and Address:

Location Name: HEALDTON PUBLIC SCHOOLS
 Location Street Address: 432 WEST TEXAS HEALDTON OK 73438
 Location City: Healdton
 Location State: OK
 Location Zip: 73438
 Location Phone: (580) 229-0566

Facility ID	Location Name	Location Street Address	Location City	Zip	Facility Phone	FR Met	Over/Spill/CP
1004620	HEALDTON PUBLIC SCHOOLS	432 WEST TEXAS HEALDTON OK 73438	Healdton	73438	(580) 229-0566	No	No
Product	Capacity	Tank Mat'l of Construction	Piping Material	Piping Type	Tank Release Detection	Piping Release Detection	
Gasoline	11,200	Asphalt Coated or Bare Steel	Fiberglass Reinforced Plastic	Not Listed	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	
Age	30	Secondary Option	None	Exempt	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	
4/17/1976		None		Not Listed	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	
Permanently Out of Use				No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	

Tank closed in place 6/30/80

No cases

Tank/Piping Release Detection Codes

- A Manual Tank Gauging
- B Tank/Line Tightness Testing
- C Inventory Control
- D ATG/Auto Line LD
- E Vapor Monitoring
- F GW Monitoring
- G Interstitial Gas Monitor
- H Interstitial Sec. Con. Monitor
- I SIR
- J Other Methods
- K Deferred
- L Not Listed

Facility Summary for 1007663

Owner Phone: (405) 729-1230

PO BOX 883 Healdton OK 73438

JOE TAYAR (MRS)

Address:

Facility ID	Location Name	Location Street Address	Location City	Zip	Facility Phone	SP Met	
1007663	MRS JOE TAYAR	1A 01 FRANKLIN	Healdton	73438			
Tank ID / AST	Installed Age	Product Capacity	Tank Mat'l of Construction	Piping Material Secondary Option	Piping Type Exempt	Tank Release Detection Piping Release Detection	Cover/Spill CP
1	No 5/5/1968 38	Gasoline 3,000	Cathodically Protected Steel None	Galvanized Steel None	Not Listed Yes	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L) (B)(D)(E)(F)(G)(H)(I)(J)(K)(L)	No No No
2	No 5/5/1968 38	Gasoline 3,000	Cathodically Protected Steel None	Galvanized Steel None	Not Listed No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L) (B)(D)(E)(F)(G)(H)(I)(J)(K)(L)	No No No
3	No 5/5/1968 38	Gasoline 3,000	Cathodically Protected Steel None	Galvanized Steel None	Not Listed No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L) (B)(D)(E)(F)(G)(H)(I)(J)(K)(L)	No No No

Tanks closed in place 12/19/98

NO CASES

Tank/Piping Release Detection Codes

- A** Manual Tank Gauging
- B** Tank/Line Tightness Testing
- C** Inventory Control
- D** ATG/Auto Line LD
- E** Vapor Monitoring
- F** GW Monitoring
- G** Interst'l. Dept. 'Vial' Monitor
- H** Interst'l. Sec. Con. Monitor
- I** SIR
- J** Other Methods
- K** Deferred
- L** Not Listed

Facility Summary for 1010026

Owner Name and Address: MOM'S MINIT MART INC
 235 W MAIN ST Healdton OK 73438
 Owner Phone: (580) 229-2445

Facility ID	Location Name	Location Street Address	Location City	Zip	Facility Phone	FR Met					
1010026	MOM'S MINIT MART INC	1235 W MAIN	Healdton	73438	(580) 229-2645						
Tank ID / AST	Installed Age	Product Capacity	Tank Mat'l of Construction	Secondary Option	Piping Material	Secondary Option	Piping Type	Exempt	Tank Release Detection	Piping Release Detection	Over/Spill/CP
1	No	1/1/1974 Gasoline 10,000	Asphalt Coated or Bare Steel Lined Interior		Bare Steel	Cathodically Protected	U.S. Suction	No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes
2	No	1/1/1974 Gasohol 4,000	Asphalt Coated or Bare Steel Lined Interior		Bare Steel	Cathodically Protected	U.S. Suction	No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes
3	No	1/1/1974 Gasoline 4,000	Asphalt Coated or Bare Steel Lined Interior		Bare Steel	Cathodically Protected	U.S. Suction	No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes

Tank #2 closed in place 9/7/00
064-2292 opened 6/23/99
closed 1/22/03

Tank/Piping Release Detection Codes
 A Manual Tank Gauging
 B Tank/Line Tightness Testing
 C Inventory Control
 D ATG/Auto Line LD
 E Vapor/Air Testing
 F GW Monitoring
 G Interst. Sec. Con. Monitor
 H Interst. Sec. Con. Monitor
 I SIF
 J Other Methods
 K Deferred
 L Not Listed

Facility Summary for 1008046

Owner Name and Address: OG&E ENERGY CORP
 PO BOX 321, MC 506 Oklahoma City OK 73101
 Owner Phone: (405) 563-3177

Facility ID 1008046	Location Name HEALDTON DISTRICT SVR CENTER	Location Street Address 18TH AND TEXAS	Location City Healdton	Zip 73438	Facility Phone
Tank ID / AST	Installed	Product	Tank Mat. of Construction	Piping Type	Tank Release Detection
Status	Age	Capacity	Secondary Option	Exempt	Piping Release Detection
1	12/1988	Gasoline	Cathodically Protected Steel	Not Listed	(A)(B)(C)(D)(E)(F)(G)(H)(J)(K)(L)
Permanently Out of Use	25	10,000	None	No	(B)(D)(E)(F)(G)(H)(J)(K)(L)

Tank Retained 11/24/92
 NO CASES

Tank/Piping Release Detection Codes

- A Manual Tank Gauging
- B Tank/Line Tightness Testing
- C Inventory Control
- D ATG/Auto Line LD
- E Vapor Monitoring
- F GW Monitoring
- G Interstit. Dbl-Wall Monitor
- H Interstit. Sec. Con. Monitor
- I SIPR
- J Other Methods
- K Deferred
- L Not Listed

Facility Summary for 1006997

Owner Name and Address: Campbell Oil Co P O Box 698 Ardmore OK 73402 Owner Phone: (580) 223-7221

Facility ID	Location Name	Location Street Address	Location City	Zip	Facility Phone	Tank Mat'l of Construction	Piping Material	Piping Type	Tank Release Detection	Piping Release Detection	FR Met
1006997	HEALDTON, OK	1300 E MAIN	Healdton	73438							
Tank ID / AST	Installed	Age	Product	Capacity	Secondary Option	Secondary Option	Secondary Option	Exempt	Piping Release Detection	Piping Release Detection	Over/Spill P.P
1	No	4/28/1985	Gasoline	6,000	Cathodically Protected Steel	Galvanized Steel	Galvanized Steel	Pressurized	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes
2	No	4/28/1985	Gasoline	6,000	Cathodically Protected Steel	Galvanized Steel	Galvanized Steel	Pressurized	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes
3	No	4/28/1985	Diesel	4,000	Cathodically Protected Steel	Galvanized Steel	Galvanized Steel	Pressurized	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes
4	No	4/28/1985	Diesel	4,000	Cathodically Protected Steel	Galvanized Steel	Galvanized Steel	Pressurized	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes

No cases

Tank/Piping Release Detection Codes

- A Manual Tank Gauging
- B Tank-Lane Tightness Testing
- C Inventory Control
- D ATG/Auto Line LD
- E Vapor Monitoring
- F GW Monitoring
- G Interst. Dy. Wat. Monitor
- H Interst. Sec. Con. Monitor
- I SIR
- J Other Methods
- K Deferred
- L Not Listed

Facility Summary for 1008664

OWNER: ELMER GARRISON P O BOX 1461 Lone Grove OK 73443 Owner Phone: (405) 657-2585

Location Name	Location Street Address	Location City	Zip	Facility Phone		
MEFFORDS ONE-STOP	1ST & MAIN STR	Headton	73438			
Installed Age	Product Capacity	Tank Matl of Construction	Piping Material	Piping Type	Tank Release Detect on	EP Matl
Age	Capacity	Secondary Option	Secondary Option	Exempt	Piping Release Detection	Crack/Sp CP
1	Gasoline 4,000	Asphalt Coated or Bare Steel None	Fiberglass Reinforced Plastic None	Not Listed No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L) (B)(D)(F)(G)(H)(I)(J)(K)(L)	Yes No No No
2	Gasoline 4,000	Asphalt Coated or Bare Steel None	Fiberglass Reinforced Plastic None	Not Listed No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L) (B)(D)(F)(G)(H)(I)(J)(K)(L)	Yes No No No
3	Diesel 2,000	Asphalt Coated or Bare Steel None	Fiberglass Reinforced Plastic None	Not Listed No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L) (B)(D)(F)(G)(H)(I)(J)(K)(L)	Yes No No No
4	Not Listed 4,000	Asphalt Coated or Bare Steel None	Fiberglass Reinforced Plastic None	Not Listed No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L) (B)(D)(F)(G)(H)(I)(J)(K)(L)	Yes No No No
5	Kerosene 2,000	Asphalt Coated or Bare Steel None	Galvanized Steel None	Not Listed No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L) (B)(D)(F)(G)(H)(I)(J)(K)(L)	Yes No No No
6	Gasoline 12,000	Composite (Steel w/ FRP) None	Fiberglass Reinforced Plastic None	Safe Suction No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L) (B)(D)(F)(G)(H)(I)(J)(K)(L)	Yes Yes Yes Yes

Tanks 1-5 closed in place 3/1/99

NO CASES

Tank/Piping Release Detection Codes

- A Manual Tank Gauging
- B Tank Tightness Testing
- C Inventory Control
- D ATG/Auto Line LD
- E Vapor Monitoring
- F GW Monitoring
- G Interstit. Det/Wall Monitor
- H Interstit. Sec. Con. Monitor
- I SIR
- J Other Methods
- K Deferred
- L Not Listed

Facility Summary for 1008701

Owner Name and Address: CLOWE OIL COMPANY
 PO BOX 1488 Ardmore OK 73402
 Owner Phone: (580) 223-2365

Facility ID	Location Name	Location Street Address	Location City	Zip	Facility Phone	FR Me:		
1008701	HEALDTON FILL SERVE	263 W MAIN Healdton	Healdton	73438		Over/Spill/CP		
Tank ID / AST	Installed Age	Product Capacity	Tank Mat" of Construction	Piping Material	Piping Type Exempt	Tank Release Detection	Piping Release Detection	FR Me:
1	No	Gasoline 5,000	Cathodically Protected Steel None	Fiberglass Reinforced Plastic None	Pressurized No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes
2	No	Gasoline 5,000	Cathodically Protected Steel None	Bare Steel Cathodically Protected	Pressurized No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes
3	No	Used Oil	Asphalt Coated or Bare Steel None	Galvanized Steel None	Gravity Feed No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	Yes
4	Yes	Diesel 1,000	Single Wall Steel None	Bare Steel None	Suction: Valve at t No	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	(A)(B)(C)(D)(E)(F)(G)(H)(I)(J)(K)(L)	No

Tank #3 closed in place 12/15/98
 Tank #4 closed Jan 99 - AST
 NO CASES

Tank/Piping Release Detection Codes

A Manual Tank Gauging
 B Tank/Line Tightness Testing
 C Inventory Control
 D ATG/Auto Line LD
 E Vapor Monitoring
 F GW Monitoring
 G Interstitial Drip Wall Monitor
 H Interstitial Sec Con Monitor
 I SIR
 J Other Methods
 K Deferred
 L Not listed



Figure 1: Healdton Armory – 2004 Aerial photograph



Figure 2: Healdton Armory – 1996 Aerial photo

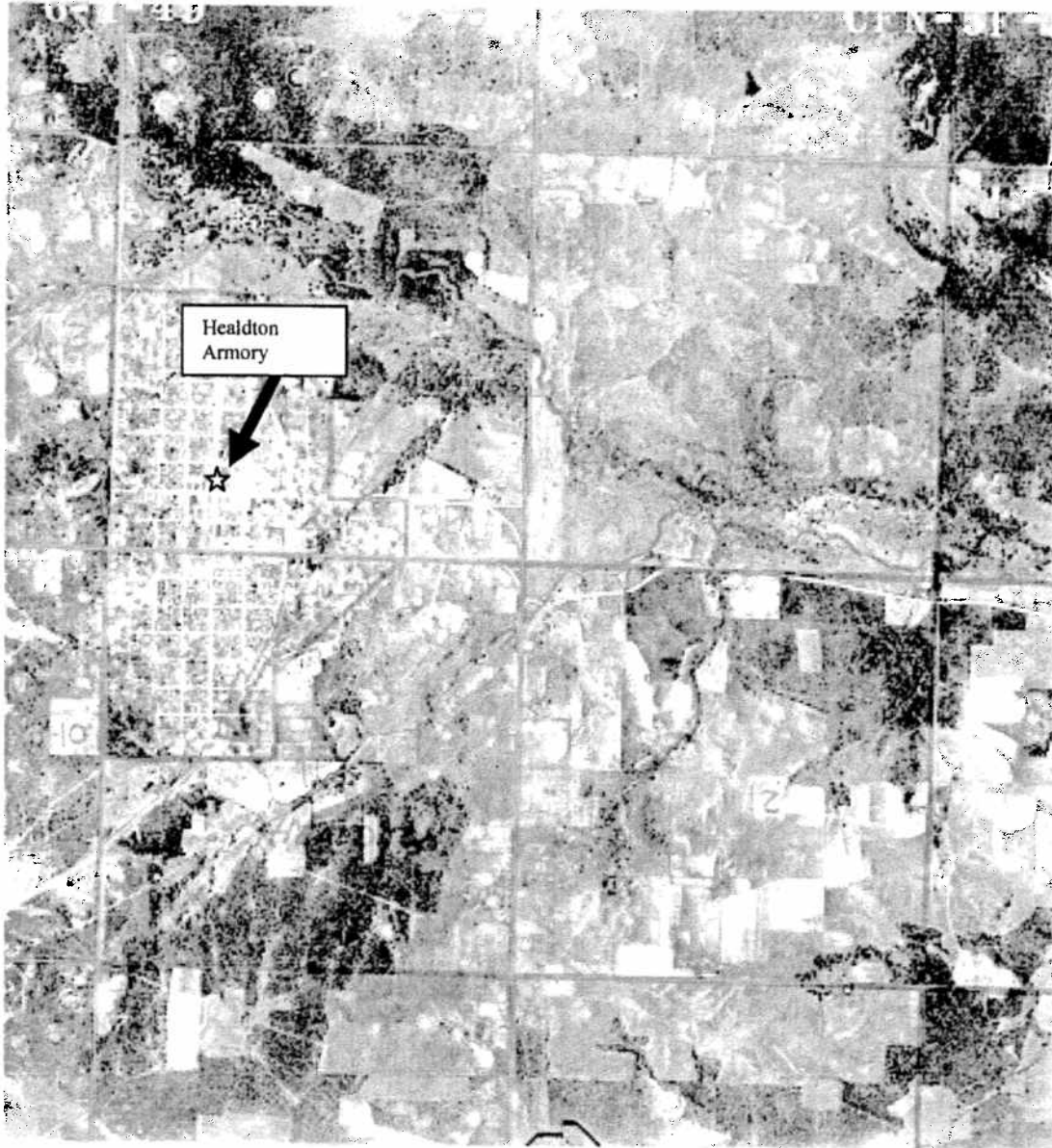


Figure 3: Healdton Armory- Arial photo 6-1-49

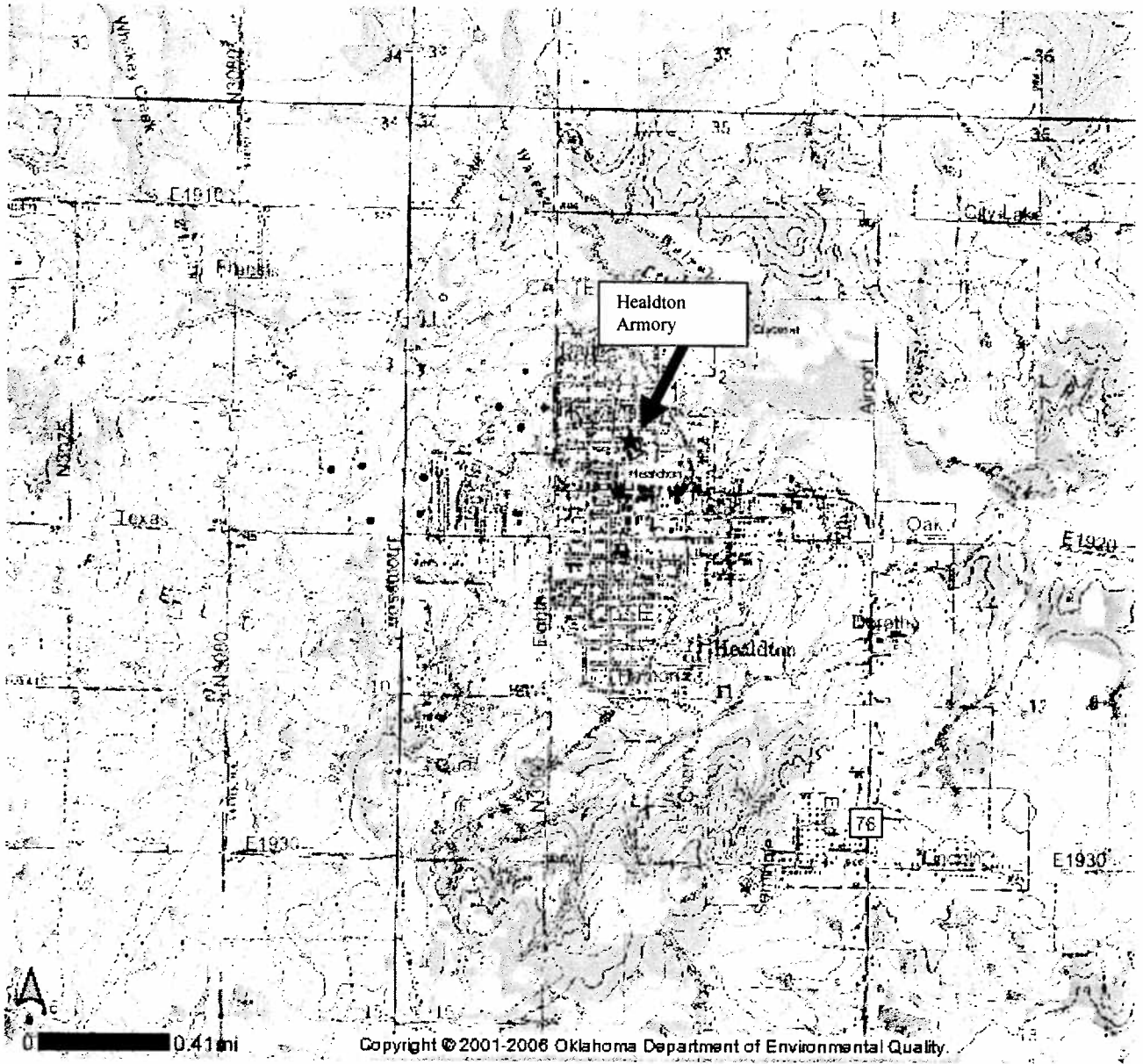


Figure 4: Healdton Armory – USGS Topographic Map.

Appendix D - Interview Documentation

AAI Site Visit

Facility name: *AAI*

Facility address: *1000 ...*

Date of visit: *...*

DEQ staff in attendance: *...*

People interviewed/affiliation with site:
...

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

Military Department Property

Military Department Property is left in the armory

Items left in armory: *...*

Radiators

Radiator present in armory

List room(s) located in:

Florescent lighting

Florescent lighting present above current ceiling? (ie. Above drop ceiling)

List room(s) located in: *...*

Utilities

City water Well City sewer Septic tank
 Natural gas Propane

Underground features

USTs removed Vent pipes present USTs not removed

Above ground features

Cisterns present ASTs Impoundments

Structures on adjoining property

Residential, commercial structures, churches, schools etc

Onsite information

Air Emissions Wastewater Discharge

Industrial activities

Monitoring wells *Location:*

Stained soils *Location:*

Seeps *Location:*

Chemical spills *Location:*

Oil and Gas Exploration *Describe:*

Known Groundwater or Surface Water contamination

Describe:

____ Farm Wastes

____ Known Pesticide Misapplication

____ Discharges and Runoff from Adjacent Property Affecting the Site

____ Transformers/PCB Equipment *Location:*

Describe:

Other known or Suspected Environmental Concerns On the Site

Historical Recognized Environmental Conditions On the Site

Current Use of the Property

Descriptions of Structures, Roads, Other Improvements on the Site

Description of adjacent properties

Owner, Property Manager, and Occupant Information

Additional Environmental Record Sources

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

Physical Setting Sources

Historical Use Information on the Property

Historical Use Information on Adjoining Properties

Site Reconnaissance

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

Appendix E - Qualifications of Environmental Professionals

Appendix E – Qualifications of Environmental Professionals

Jarrett Keck holds a Bachelors of Science Degree in Environmental Engineering Technology from California State University Long Beach. He is an Environmental Programs Specialist for the Land Protection Division of the Oklahoma Department of Environmental Quality. His duties include providing technical and regulatory oversight in the Voluntary Cleanup and Brownfield programs. Mr. Keck has over five years of experience in the environmental field performing Phase I/ II Environmental Site Assessment activities, various site remediation technologies, and providing regulatory oversight for state and local government.

Rita R. Kottke, Ph.D., holds a Doctorate in Environmental Science from Oklahoma State University. She is an Environmental Programs Specialist 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 Brownfield Programs. She has 13 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 Brownfield Memorandum of Agreement (MOA) with EPA, and the development of the Brownfield Cleanup Revolving Loan Fund Grant Proposal.

Hal Cantwell holds a Bachelor Degree in Geography with emphasis in Physical Geography and ecological form the University of Oklahoma, and a Masters Degree in Geography with emphasis in Biogeography and Remote Sensing from the University of Oklahoma. Mr. Cantwell has 21 years experience working in the Superfund program including directing the investigation and remediation of National Priority List (NPL) sites. He has 21 years experience in performing site assessments and eleven years experience in directing and supervising CERCLA Preliminary Assessments and Site Investigations with the Oklahoma Department of Environmental Quality Land Protection Site Assessment Unit. He also has eleven years experience performing and supervising Targeted Brownfield Assessments under the DEQ Brownfields Program.

Appendix F - Analytical Results of Indoor Firing Range

Appendix F - Analytical Results of Indoor Firing Range

25.0 HEALDTON ARMORY

C.H. Guernsey & Company (GUERNSEY) surveyed the indoor firing range (IFR) at the Healdton Armory on May 5, 2005 (Photographs 25-1 through 25-24). The IFR is approximately 115 feet long, approximately 23 feet wide, and the ceiling is approximately 15 feet high. It is located subgrade. An approximately 10-foot by 20-foot target room is located adjacent to the IFR. The ventilation system within the IFR is comprised of a fan located on the exterior wall and vented directly through the wall to the outside.

Based upon information supplied to GUERNSEY, Oklahoma Military Department (OMD) personnel collected wipe samples from the IFR on May 5, 2004. Concentrations were between 5,150 $\mu\text{g}/\text{ft}^2$ at the former location of the bullet trap and 218 $\mu\text{g}/\text{ft}^2$ at the IFR entrance. A sample obtained from a window sill on the drill floor was 198 $\mu\text{g}/\text{ft}^2$. The drill floor has been assumed to be above the 40 $\mu\text{g}/\text{ft}^2$ threshold. Table 25-1 summarizes the laboratory results for the wipe samples.

Table 25-1
Laboratory Analysis

Sample ID #	Sample Date	Result ($\mu\text{g}/\text{sq. Ft.}$)	Lab Report ID #
481	5/05/2004	1,832.5	Quantem 111990
482	5/05/2004	5,150.0	Quantem 111990
483	5/05/2004	517.50	Quantem 111990
484	5/05/2004	218.50	Quantem 111990
485	5/05/2004	198.35	Quantem 111990
1	5/10/2005	<16.00	Quantem 123542
2	5/10/2005	<16.00	Quantem 123542

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

Table 25-2 provides a preliminary cost estimate to clean the equipment and/or remediate the lead contamination in the IFR. Figure 25-1 shows the approximate locations of the OMD samples.

25.1 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 25-2
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	10250	ft ²	\$5	\$46,125
Clean Drill Floor	10000	ft ²	\$0.10	\$1,000
Solidify/Stabilize Material in Bullet Trap	0	ft ³	\$15	\$0
Waste Disposal (non-hazardous)	6	Ton	\$1,000	\$6,000
Total (+/- 25%)				\$57,125

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.

HEALDTON FIRING RANGE NOTES:

1. ALL MEASUREMENTS ARE APPROX.
2. SAMPLE LOCATIONS ARE APPROX. & IDENTIFIED BY "*"
3. SAMPLE CONCENTRATIONS ARE IN MICROGRAMS PER SQUARE FOOT
4. SAMPLES COLLECTED BY OMD PERSONNEL 05-MAY-04
5. SEE PHOTOGRAPHS FOR REFERENCE
6. SEE INVENTORY LIST FOR DESCRIPTION OF EQUIPMENT TO BE PL

