

Phase I Targeted Brownfield Assessment
(All Appropriate Inquiry-ASTM E 1527-05)

Oklahoma Army National Guard
Kingfisher Armory

301 North 6th Street, Kingfisher,
Kingfisher County, Oklahoma

March 15, 2010

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Environmental Professionals in charge of the project:

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 currently 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 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.

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1.0 Executive Summary

This Phase I Targeted Brownfield Assessment (TBA) of the Kingfisher Armory, located at 301 North 6th Street, Kingfisher, Oklahoma, was performed in accordance with the ASTM E 1527-05, for the purposes of identifying potential environmental concerns at the subject property. A preliminary inspection of the Armory was conducted by Travis Estes and Dustin Davidson of the Oklahoma Department of Environmental Quality (DEQ) on January 7, 2010.

The site is located in NW1/4, NW1/4, SE1/4, Section 15, Township 16N, Range 7W I.M., in Kingfisher, Kingfisher County, Oklahoma. The site address is 301 North 6th Street [at the northeast corner of 6th and Admire streets] Kingfisher, Oklahoma 73750 [latitude 35.863386, longitude -97.931241] (Ref. 4, 23) [Appendix A].

A cursory summary of the main environmental site assessment 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.

- The Kingfisher Armory was built by the Works Progress Administration in 1936. It was managed and maintained by the Oklahoma Military Department (OMD) to support the military mission of the Oklahoma Army National Guard (OKARNG).
- Results of Oklahoma Military Department (OMD) sampling on April 29, 2004 indicated lead dust concentrations ranging from 30,170 $\mu\text{g}/\text{ft}^2$ at the indoor firing range bullet trap to 1,182 $\mu\text{g}/\text{ft}^2$ near the stairs leading to the indoor firing range (IFR). Lead dust (1,108.75 $\mu\text{g}/\text{ft}^2$) was also detected on a window sill in the drill floor [Appendix F].
- Backstop sand samples were collected by DEQ personnel on January 7, 2010 from the indoor firing range (IFR) bullet trap [Appendix C]. The lead concentration in the sand sample one is 164,000 mg/kg, 164,000 parts per million (PPM), and 192,000 mg/kg, 192,000 PPM, in sample two. Both of these samples are well above DEQ's action level. The backstop sand should be treated as hazardous waste. No other samples were taken during the site reconnaissance.
- As a result of observing one radiation sign within the Armory during the January 7, 2010 site reconnaissance, DEQ is planning to conduct a radiation survey to determine the levels, if any, of residual radiation contamination within the Armory. At the time of this report, the radiation survey had not been completed.
- Review of the Oklahoma Corporation Commission's (OCC's) and OMD's records indicated that one underground storage tank (UST) had previously been present at the site [Appendix G]. The 1,000 gallon tank was installed reportedly in 1958 on the western side of the property and used for the storage of gasoline. Records indicate that the tank was removed on September 20, 1995. The tank was rendered unusable for storage of any fluids and the tank and its contents were disposed of in accordance with applicable local,

state, and federal regulations. OCC's records did not indicate that there had been an incidence of a leak in the UST at the site. Upon removal of the UST, soil tests were conducted for benzene, toluene, ethylbenzene, xylenes, and TPH. All of the tests results were below EPA detection limits. For the TPH test, it is undocumented as to whether this test was for diesel range organics (DRO) or gasoline range organics (GRO).

Thirteen UST and AST sites were identified within a one-half mile radius [Appendix A]. As per OCC records, none of these USTs have been reported as being leaking underground storage tanks. One of the three ASTs identified within a one-half mile radius of the site has been suspected of release, but has not been verified by the OCC.

- No sites on the National Priority List (NPL), deleted NPL database, active or archived Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, Resource Conservation and Recovery Act (RCRA) database, Emergency Response Notification System (ERNS) list, State Voluntary Cleanup Program and State Brownfield Programs lists were identified on the subject property. The site is on the DEQ Site Cleanup Assistance Program's list for investigation and cleanup of environmental hazards.

2.0 Introduction

The State of Oklahoma Department of Environmental Quality (DEQ) under a Brownfield Assistance Agreement (No.RP96681001-0) (Ref. 1) with the U.S. Environmental Protection Agency (EPA) conducted a Phase I Targeted Brownfield Assessment of the Kingfisher Armory located at 301 North 6th Street, Kingfisher, Oklahoma.

2.1 Purpose

The purpose of this assessment is to examine the environmental conditions within the target area. This information will be provided to the City of Kingfisher to assist 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). The purpose of a Phase I Targeted Brownfield Assessment (TBA) 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 of Kingfisher acquiring the property. Funding for this assessment has been provided by the 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 two city officials, reviewed OMD site records, and visited the site. A good faith effort was made to identify possible environmental conditions that might affect the development of the property. DEQ personnel collected a surface soil sample from the bullet trap in the indoor firing range (IFR) [Appendix C].

2.3 Significant Assumptions

Significant assumptions and past studies of the Oklahoma Army National Guard (OKARNG) Armories suggest there is a possibility for lead and asbestos contamination at the Kingfisher Armory. Most of these Armories have IFRs. These ranges usually contain lead contamination caused by past handgun and/or rifle shooting activity. As the Kingfisher Armory was constructed in 1936, there is the potential for asbestos containing material (ACM) in the Armory. The United States began banning the use of asbestos in most building products in the 1970s due to studies confirming the harmful health effects caused by exposure to airborne asbestos.

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. 22) 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 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, information provided by the City of Kingfisher, the OMD and observations made by the environmental professionals involved in the site reconnaissance and sampling event. The results of this assessment, as documented in this report, are valid as of the date of this report. This assessment does not include sampling of rock, groundwater, surface water, or air.

2.5 Special Terms and Conditions

This assessment report has been prepared for the City of Kingfisher by the DEQ with EPA funds. 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.

3.0 Site Description

3.1 Location and Legal Description

The site is located in NW1/4, NW1/4, SE1/4, Section 15, Township 16N, Range 7W I.M., in Kingfisher, Kingfisher County, Oklahoma. The site address is 301 North 6th Street, Kingfisher, Oklahoma 73750 [latitude 35.863386, longitude -97.931241] (Ref. 4) [Appendix A].

3.2 Site and Vicinity General Characteristics

Environmental Setting: Kingfisher County is in the central part of Oklahoma. The land area of this county is about 900 square miles. The county is in the eastern part of the main wheat-growing area of the State. It is in the southern part of the tall-grass prairie in the Central Lowland province of the United States. Kingfisher County was created in 1890 following the land run into the Unassigned Lands and the organization of Oklahoma Territory. A strip of land was later added to the western edge of the county after the land run of 1892. First known as County "Five," it was later named to honor the town of Kingfisher, which had been settled overnight after the land run of April 22, 1889 (Ref. 23).

The elevation of the county ranges from slightly more than 1,000 feet in the Cimarron River Basin at the east side to slightly less than 1,500 feet in the southwestern corner. At the City of Kingfisher, the elevation is 1,055 feet. Agriculture is the principal source of income in Kingfisher County. Weather records at Kingfisher, the county seat, reveal an average annual rainfall slightly more than 29 inches. May and June are the months of highest rainfall; the average is slightly more than four inches per month. Rainfall is least in December, January, and February, when the amount is about one inch per month. The average annual temperature is 61 degrees Fahrenheit. The average summer temperature is 82 degrees and the highest temperature is 118 degrees Fahrenheit.

Ground water: The Alluvium unit underlies the site. This unit consists of sand, silt, clay, and lenticular beds of gravel. Thickness range from about 30 to 100 feet and probably averages about 50 feet along major streams. Along minor streams, thickness ranges from a few feet to about 50 feet and probably averages about 25 feet. Alluvium is a major aquifer in parts of the Oklahoma City Quadrangle.

The closest well on the hydrologic atlas is located approximately two and one-half miles north of the site. The depth of the well is 52 feet, the water level below the land surface is at 19 feet, and the approximate yield of the well is 150 gallons per minute. Water in this region often exceeds 500 mg/l of dissolved solids and is generally considered unsatisfactory for most domestic and industrial uses.

The Oklahoma Water Resources Board (OWRB) database consists only of information submitted to OWRB for all well data reported by licensed firms since 1982 and monitoring well data reported since 1988. There could be other wells in the area that are not included in the database. Wells drilled prior to the licensing requirements for well drillers would not necessarily have had a well log submitted to the OWRB (Ref. 21). According the OWRB Map Server, there are two groundwater wells within one-half mile radius, both classified for domestic use [Appendix A]. There are no other well types documented on the data viewer within one-half mile radius.

Soils: General soils at the site belong to the Norge fine sandy loam (NoB), 1 to 3 percent slopes, of the Norge series. The Norge soils are deep, brown, grainy, fine sandy loams. They are on the upland areas in the central, west-central, and north-central parts of the county. The parent layer is mixed silty clay and sand. Norge fine sandy loam soils occupy gently sloping areas in association with the nearly level Norge soil and gently to moderately sloping Kingfisher and Renfrow soils [Ref. 8].

Air: The prevailing wind is from the south. Average wind speed is highest, 13.3 miles per hour in April. Southerly winds prevail across the County except in January and February, when winds become north-westerly. Wind speed averages about 12.5 miles per hour during July and August and about 15.5 miles per hour during March and April (Ref. 5).

Surface water: The City of Kingfisher is located in the northwest section of the Oklahoma City quadrangle (Ref. 6). Dead Indian Creek and Uncle John Creek run through Kingfisher, joining north of the city to form Kingfisher Creek which subsequently flows into the Cimarron River. There are no large bodies of surface water indicated on the quadrangle map near Kingfisher.

Utilities: Natural gas is supplied to the area by Oklahoma Natural Gas and telephone by Pioneer Telephone (Ref. 23). Electricity, water, sewer, and sanitation services are supplied by the City of Kingfisher (Ref. 4).

Underground features: A review of the Oklahoma Corporation Commission (OCC) database did not indicate the presence of underground storage tanks (USTs) at the site. As per information in the database, there are 13 UST sites, which may contain more than one UST, within a one-half mile radius of the site [See Section 5.1 for further details].

No sumps were observed during the site reconnaissance (Ref. 4).

Structures: The Kingfisher Armory is a self-contained, two-story building constructed of red brick with cast concrete detailing. The building measures 138 feet (east to west) by 125 feet (north to south). The Kingfisher Armory was built in 1936 by the Works Progress Administration (WPA). The building is comprised of two distinct sections, an east section containing the drill floor, and the west section which contains offices, supply and arms rooms and a garage area. The Armory has two principal facades, the west entry accessing Sixth Street, and one accessing Admire. Original metal downspouts are located on all facades. WPA markers identify the building. Over the front door is a small metal "USA/1936/WPA" shield. In the southwest corner of the west wall is a cornerstone with a "State Armory/Built by Works Progress Administration/1936/W.S. Key/State Administrator" inscription (Ref. 4) [Appendix B, C, D, and F].

The indoor firing range (IFR) at the Kingfisher Armory is approximately 110 feet long, 20 wide and 15 feet high and is built at sub grade beneath the drill hall stage. At one end is a backstop and bullet trap. The ventilation system within the IFR is comprised of a fan located in the wall that vented directly outside (Ref. 4) [Appendix B, C, D, and F]. The Armory covers an approximate area of 22,222 square feet. Entrances into the Armory can be found through the exterior doors on the west and south sides of the building. There is also an overhead door located on the south side of the drill hall, two overhead doors accessing the fitness center on the west side, and one overhead door accessing the motor pool area on the west side (Ref. 4).

Landfills, Dumping, Disturbed Soil: There are no landfills on the subject property or adjoining properties. There was no dumping observed either on-site or at the adjoining properties, during the site reconnaissance. Grass appeared to be in good health along the south side of the Armory at the time of the site reconnaissance [Appendix C]. No apparent signs of environmental contamination were observed in this area (Ref. 4).

Impoundments: No impoundments were observed on the subject property during the site reconnaissance (Ref. 4).

Air Emissions, Wastewater Discharge: There are no current air emissions or waste water discharges from the subject property (Ref. 4, 18).

Industrial Activities: There are no industrial activities currently being conducted on the subject property. (Ref. 4) [Appendix C].

Monitoring Wells: No monitoring wells were observed on the property at the time of the site reconnaissance (Ref. 4). The nearest groundwater wells, monitoring wells, and geotechnical borings reported in the Oklahoma Water Resources Board (OWRB) database are listed in the table below [Appendix A].

Well_ID	Lat	Long	Type
79012	35.864876	-97.933744	Monitoring
76693	35.864876	-97.931514	Montoring
76694	35.864876	-97.931514	Montoring
41984	35.860358	-97.92817	Groundwater

The City of Kingfisher is served by municipal water harvested from wells near Dover, Oklahoma. Well 41984 is presumably used for agricultural purposes, but this could not be confirmed during the course of this report.

Stained Soils & Seeps: No stained soils or seeps were observed at the subject property during the site reconnaissance (Ref. 4).

Chemical Spills: No chemical spills were observed at the subject property. No spills were reported on the subject property from the Emergency Response Notification System (ERNS) database either (Ref 18).

Known Ground Water or Surface Water Contamination: No groundwater data was collected during this Phase 1 assessment. No records were found indicating ground water contamination in the area. There is no surface water present on the property (Ref. 4).

Farm Waste & Known Pesticide Misapplication: No farm waste or evidence of pesticide misapplication was observed at the subject property during the site reconnaissance (Ref. 4).

Discharges and Runoff from Adjacent Property Affecting the Site: Along the east side of the property, standing water from surrounding snowmelt had accumulated (Ref. 4). The entire area on both the north and east sides of the armory is paved. The slope of the paved area is away from the IFR.

Hazardous Chemicals: In the IFR, there were at least three boxes containing flammable cleaning solvents that appeared to be unopened [Appendix D]. The contents listed on the side of the box read as follows: “cleaning compound, windshield (solvent and anti-freeze, concentrated).” Two buckets containing Patriot Premium Low Ash 30 were observed, one on each end of the IFR.

Unidentified Substance Containers: During the site reconnaissance, unmarked containers were present in the IFR [Appendix C and D]. Containers appear to have been used for the storage of liquid, such as water and gasoline or diesel fuel, as seen on transport vehicles. Most of the unmarked containers were in the IFR storage room, immediately adjacent to the bullet trap and sand pit.

Other Known or Suspected Environmental Concerns On the Site: A statewide sampling event for lead was conducted by C.H. Guernsey & Company for the OKARNG on all Armories containing IFRs. These sampling events led to the preparation of the 'Indoor Firing Range Lead Issues Report' [Appendix F]. According to the report, the IFR at the Kingfisher Armory was surveyed on May 6, 2005. Guernsey personnel collected wipe samples from the IFR on April 29, 2004. Five samples were collected from inside the IFR. The locations and concentrations of the lead contamination found in the samples are listed below:

- 30,170 ug/ft² of lead at the bullet trap (Sample ID#400- sampled 4/29/2004).
- 7,980 ug/ft² of lead was found at the IFR floor (Sample ID#401- sampled 4/29/2004).
- 1,182.50 ug/ft² of lead was found at the stairs leading to the IFR (Sample ID#403- sampled 4/29/2004).
- 1,108.75 ug/ft² of lead was found at window sill in the southwest corner of the drill hall (Sample ID#404- sampled 4/29/2004)
- 3,662 ug/ft² of lead (Sample ID#402 - sampled 4/29/2004) was found in the center of IFR by the vent.

The 'Indoor Firing Range Lead Issues Report' for the Kingfisher Armory has been included in Appendix F. The IFR and the rooms indicated as having lead dust contamination exceeding the 40 µg/ ft² standard constitute a recognized environmental condition (REC) for the purposes of this report.

DEQ personnel collected two backstop sand samples (Sample# 477204, 477205) from sand trap inside the IFR (January 7, 2010). Analytical results of the surface soil samples indicated a Total Lead concentration of 164,000 mg/kg and 192,000 mg/kg, 164,000 PPM and 192,000 PPM [Appendix C]. This concentration qualifies the backstop sand as hazardous waste.

During the site reconnaissance, a Radioactive Materials label was observed on the door of the Supply Room which contains an empty vault (Ref. 4) [Appendix D]. DEQ personnel are planning to conduct a radiation survey and wipe sampling of the area around the vault in the Armory.

Historical Recognized Environmental Conditions (HREC) on the Site: A review of the OCC database indicated that an underground storage tank (UST) used to store gasoline

was previously located on the subject property. A 1,000 gallon UST was removed from the site on September 20, 1995. According to closure documentation, the UST had not been in use since approximately March 1985, and no fuel has been purchased or pumped into or out of the tank in the previous five years [Appendix E]. Based on the information provided in the UST Closure Report, it is unclear as to what type of TPH test, gasoline range organics (GRO) or diesel range organics (DRO), was conducted on the soil after the removal of the tank.

Pipelines: The Armory is served by municipal water. A fire hydrant was observed to the north of the Armory. Water is supplied from the City of Kingfisher. Sewage and waste water drain to the municipal sewer system. There were several outdoor roof drains on the west and south sides of the building. There were floor drains observed in the IFR, kitchen, restrooms, fitness center, and drill floor during the site reconnaissance, all of which drain to the municipal sewer system. [Appendix C and D].

Transformers/PCB Equipment: A pad mounted transformer was observed on the northwest side of the Armory [Appendix C]. The transformer was observed to be in good condition and had a “No PCBs” label. Several fluorescent light fixtures were observed in the building during the site reconnaissance. These could potentially contain PCBs (polychlorinated biphenyls) in their ballast.

3.3 Operational History

The Kingfisher Armory was built in 1936. It was managed and maintained by the OMD to support the military mission of the OKARNG. The OKARNG is a component of the United States Army and fulfills the military mission of national security. According to Bill Tucker, City Clerk and Building Officer for the City of Kingfisher, the OMD ceased to operate at the Armory approximately in late 2008 (Ref. 4).

3.4 Current Use of the Property

According to Bill Tucker, the Armory has been vacant since late 2008 (Ref. 4). According to information provided by the City, the Armory has been used as storage for large city vehicles, along with space that has been rented to a local citizen for the storage of antiques and collectables. The City is interested in utilizing the Armory as the City’s fire department as the primary use. The subject property is currently owned by the DEQ.

3.5 Adjacent Properties

The Armory is located at 301 North 6th Street, in a commercial area. The property is bordered by Sixth Street on the west, by Admire on the south, by an alley on the east, and by a parking lot and commercial buildings on the north (Ref. 4).

3.6 Site Inspection

A site reconnaissance was performed on the following date: January 7, 2010 by Travis Estes and Dustin Davidson of DEQ. Bill Tucker, City Clerk and Building Officer for the City of Kingfisher, and Richard Reynolds, City Manager for the City of Kingfisher, were also present at the time of the site reconnaissance visit (Ref. 4). Observations made during the site visit have been included in Section 6.0.

4.0 User Provided Information

4.1 Title Records

By the early 1900s, Mr. William Bort had owned the lots that would become the Kingfisher Armory (Ref. 4). The lots had been used as a lumber yard. The Thompson family came to own the land next, and then sold the site on March 12, 1936, to D. U. Cochrane, Captain 158th Field Artillery, who was acting on behalf of the Oklahoma Military Department (OMD).

The OMD, through a quit claim deed, transferred ownership of the armory to DEQ on May 7, 2009 (Ref. 4). DEQ is the current owner of the facility until remediation is complete, at which time ownership will be transferred to the City of Kingfisher.

4.2 Environmental Liens or Activity and Use Limitations (AULs)

Information on AULs for the subject property was not provided by either the OMD or the City of Kingfisher during the preparation of this report. There were no known AULs on the subject property discovered during the record search.

4.3 Specialized Knowledge or Experience of User

The Kingfisher Armory supported the military mission of the OKARNG, which is classified as a component of those entities engaged in matters of national security. A statewide sampling event for lead was conducted by C.H. Guernsey & Company for the OKARNG on all Armories containing IFRs. These sampling events lead to the preparation of the 'Indoor Firing Range Lead Issues Report'. According to the report, the IFR at the Kingfisher Armory was surveyed on May 6, 2005. Guernsey personnel collected wipe samples from the IFR on April 29, 2004 [Appendix F].

4.4 Commonly Known or Reasonably Ascertainable Information

The Armory fulfilled a longstanding military need for an adequate, secure drill hall and arms storage building for use by two Oklahoma National Guard units, Headquarters Battery and Combat Train 2nd Battalion 158th Field Artillery, and Battery F 158th Field Artillery, of the 45th Infantry Division.

Beginning in the early 1900s, William Bort began amassing lots 13-18 in order to construct a lumber company which was then sold to Emma Thompson, who, by 1935, sold the lots that comprise the subject property to the Oklahoma Military Department (OMD). On May 7, 2009, the Oklahoma Department of Environmental Quality took ownership of the land through a quitclaim deed (Ref. 4). The OMD has ceased to operate from the Armory at the time of preparation of this report.

4.5 Valuation Reduction for Environmental Issues

A valuation reduction study of the property was not performed, as it is outside the scope of this Phase I TBA.

4.6 Owner, Property Manager, and Occupant Information

The State of Oklahoma, acting through the OMD, transferred the subject property to the DEQ through a quitclaim deed signed on May 7, 2009. The OMD has ceased to operate from the Armory at the time of preparation of this report (Ref. 4). Mr. Richard Reynolds, City Manager, City of Kingfisher currently controls access to the Armory.

4.7 Reason for Performing Phase I

The DEQ performed a Phase I TBA to determine the potential presence of recognized environmental conditions that might need to be addressed prior to transfer of ownership of the Armory to the City of Kingfisher.

5.0 Records Review

5.1 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 E 1527-05 document (Ref. 22). The DEQ performed a review of available federal and state databases to assess whether the subject property or adjacent properties were listed as having environmental concerns, which could have an adverse impact on the subject property. Summarized below is the information gained from the databases reviewed for the purposes of this report.

Federal National Priorities List (NPL) Sites within One Mile: The subject property is not an NPL site. There are no NPL sites reported within a one-mile radius of the subject property (Ref. 9, 12).

Federal Deleted NPL Site List within One-half Mile: The subject property does not have any deleted or partially deleted NPL sites within one-half mile (Ref. 10, 11).

Federal Active Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Sites: The subject property is not listed on the active CERCLIS list. There were no sites listed in the active CERCLIS database for the City of Kingfisher (Ref. 13).

Federal Archived CERCLIS (NFRAP) Sites: The subject property is not listed on the archived CERCLIS list. Aero Sprayers of Kingfisher, Inc., (EPA ID# OKD981517675), located approximately 1.2 miles west of Airport Road, and Hanneman Aerial Sprayer (EPA ID# OKD981524036), located approximately 10 miles west on HWY 33 and 1 mile north on Loyal are the closest archived sites. The status of both of these sites is No Further Remedial Action Planned. A preliminary assessment and site inspection of the Hanneman Aerial Sprayer facility was conducted on July 1, 1987, and was archived June 1, 1988. A preliminary assessment and site inspection of the Aero Sprayers of Kingfisher facility was conducted on August 1, 1986, and March 1, 1987 respectively, and the site was archived on August 8, 1994 (Ref. 12).

Federal RCRA CORRACTS Facilities List within One Mile: The subject property does not have any federal RCRA CORRACTS facilities within one mile (Ref. 19, 26).

Federal RCRA Non-CORRACTS TSD Facilities List within One-half Mile: The subject property does not have any federal RCRA non-CORRACTS TSD facilities within one-half mile (Ref. 19, 20, 26).

RCRA Generators List (property and adjoining properties): The subject property does not have any listed RCRIS-Large Quantity Generators (LQGs) or RCRIS-Small Quantity Generators (SQGs). There are no RCRIS LQG or SQG sites reported at the adjoining properties either (Ref. 19, 26).

Federal Institutional Control/Engineering Control Registries (property only): No federal institutional control/engineering control registries were reviewed while conducting this Phase I TBA of the Kingfisher Armory, as such registries were not readily available for review at the time of preparation of this report. However county land records do not show any Institutional Controls in effect at the subject property.

Federal ERNS List (property only): The subject property is not listed as an ERNS site (Ref. 14).

State and Tribal lists of Hazardous Waste Sites Identified for Investigation or Remediation (property only): The subject property is listed on the Site Cleanup Assistance Program's list for investigation and cleanup (Ref. 18). No tribal lists of hazardous sites were reviewed during the preparation of this Phase I TBA. At this time, such a list was not readily available for review.

State and Tribal Landfill and/or Solid Waste Disposal Sites within One-half Mile: The subject property does not have any listed state landfills within one-half mile. The Kingfisher County Transfer Station (Permit #3537008) is the only facility listed on the state database of Solid Waste Facilities (Ref. 17). The waste transfer station site is outside of the one-half mile radius. This site is monitored by DEQ and is currently compliant with environmental standards regulating solid waste. No tribal lists of landfill and/or solid waste disposal sites were reviewed during the preparation of this Phase I TBA. At this time, such lists are not readily available for review.

State and Tribal Registered Storage Tank Lists (property and adjoining properties): According to the OCC UST Notification Database, there are 13 UST sites within a one-half mile of the subject property [Appendix A]. There are 50 USTs and 10 ASTs within one-half mile of the subject property. No tribal lists of landfill and/or solid waste disposal sites were reviewed during the preparation of this Phase I TBA. At this time, such lists are not readily available for review.

State and Tribal Leaking Underground Storage Tank (LUST) List within One-half Mile: The UST Notification Database maintained by the OCC did not have any LUST cases listed for the subject property or listed within one-half mile of the Kingfisher Armory. No tribal lists of Leaking Underground Storage Tanks were reviewed during the preparation of this Phase I TBA. At this time, such lists are not readily available for review.

State and Tribal Institutional Control/Engineering Control Registries (property only): There are no Institutional Controls/Engineering Controls listed either in the preliminary data collected for Oklahoma's Institutional Control database or in the county land records for the subject property. No tribal institutional control/engineering control registries were reviewed while conducting this Phase 1 of the Kingfisher Armory. At the time of preparation of this report, such tribal registries were not readily available for review.

State and Tribal Voluntary Cleanup Sites and Brownfield Sites within One-half Mile: The subject property does not have any Brownfield sites listed in the DEQ database. There are no active VCP sites within one-half mile of the subject property, listed in the DEQ VCP tracking database. No tribal lists of VCP or Brownfield sites were reviewed during the preparation of this Phase 1. At this time, such lists are not readily available for review.

5.2 Physical Setting Sources

Physical setting sources were obtained from the U.S. Geological Survey, Federal Emergency Management Association, United States Department of Agriculture, Natural Resources Conservation Services, and site visits conducted by DEQ personnel on January 7, 2010.

5.3 Historical Use Information

Aerial photograph review:

A historical aerial photograph obtained from DEQ's archived aerial photographs, dated July 6, 1957, was reviewed for the purposes of this report [Appendix E]. This aerial photograph shows the armory and adjoining properties that are consistent with an area zoned commercial. No further detail is possible given the quality of the image.

Aerial photographs from 1995 and 2003, and 2008 were also reviewed for the purposes of this report. These photographs were obtained from DEQ's digital database of historical and current aerial photographs (Ref. 18). The Armory is visible onsite and adjacent properties appear to have buildings on them at that time that are consistent with the 1954 structures [Appendix E]. Aerial photographs of the property between 1954 and 1995 were not reviewed as at the time of preparation of this report, such photographs were not readily available for review. Aerial photos from 2003 and 2008 show no changes in structures in the immediate area surrounding the subject property.

Sanborn Fire Insurance Maps: Sanborn Fire Insurance maps were reviewed during the preparation of this Phase 1 [Appendix A]. Maps used show the development of the area in which the subject property is located. Below are the descriptions of the subject property as depicted on the maps.

September 1894: Two dwellings and a stable are present on lots 13-18 at the corner of Admire and 6th Street. The Long-Bell Lumber Company and its buildings are located to the north, on lots 8-12.

August 1895: The use of lots 13-18 at the corner of Admire and 6th Street remain the same as in the September 1894 Sanborn Fire Insurance Map. The Long-Bell Lumber Company and its various buildings occupy lots 20-24, at the corner of Roberts Avenue and 6th Street.

July 1898: W.F. Borts Lumber Yard occupies Lots 14-18 at the corner of Admire and 6th Street. Lots 20-24 to the north, is occupied by only a single stable.

November 1901: W.F. Borts Lumber Yard is present on lots 13-18 at the corner of Admire and 6th Street, and a feed store and machine shop are present on lots 19-24.

October 1904: W.F. Borts Lumber Yard is present on lots 13-18 at the corner of E. Admire and 6th Street, and a dwelling, feed store, blacksmith and the Kingfisher Machine Shop are present on lots 19-24 to the north.

October 1909: Lots 13-18 are occupied by a dwelling and shed at the corner of E. Admire and 6th Street, and the use of lots 19-24 remain the same as in the October 1904 Sanborn Fire Insurance Map.

October 1915: Lots 13-18 are occupied by what appear to be a dwelling, stable, general storage facility, two vacant buildings, and a transformer, at the corner of E. Admire and 6th Street. Lots 19-24 are occupied by the Kingfisher Machine Shop, a coal shed, and a wholesale produce store. The wholesale produce store appears to have replaced the feed store. The blacksmith store is no longer located on Lots 19-24.

December 1926: Lots 13-18 at the corner of E. Admire and 6th Street, are occupied by a single dwelling. Lots 19-24 are occupied by the Kingfisher Machine Shop, and what appear to be a produce store and a cream station. The coal shed appears to be vacant.

December 1926- March 1937: The Kingfisher Armory is present on the subject property. The use of lots 19-24 remain the same as in the December 1926 Sanborn Fire Insurance Map.

City Directories, Property Tax Files, Building Department Records, Zoning/Land Use Records: According to the Kingfisher Planning Department, the site on which the armory is located and surrounding properties are zoned commercial (Ref. 4). Currently, there are no plans to change or adjust zoning in the area.

5.4 National Register of Historic Places

The Kingfisher Armory was officially registered on the National Register of Historic Places on April 7, 1994 [Appendix F]. The site application was prepared in December of 1992. Since that time, no major changes have taken place on the outside façade. The armory appears to be in a similar condition today as it was during the time of application process.

As a result of being listed on the National Register, there may be certain restrictions in renovating the outside of the structure if federal funds are used in the rehabilitation process. The State Historic Preservation Officer (SHPO) should be consulted prior to any external modifications.

6.0 Site Reconnaissance

6.1 Methodology and Limiting Conditions

A site reconnaissance of the Kingfisher Armory was performed on January 7, 2010, by Mr. Travis Estes and Mr. Dustin Davidson of the DEQ. The site reconnaissance consisted of a visual inspection of the Armory building and its surrounding property.

During the January 7, 2010, site reconnaissance, two samples were collected from bullet trap inside the IFR (Sample# 477204 and 477205) [Appendix C].

The following observations were made during the site reconnaissance (Ref. 4).

6.2 General Site conditions

The Kingfisher Armory is a two-story building covering approximately 22, 222 square feet with decorative brickwork and cast concrete detailing. The Armory was constructed in 1936 by the Works Progress Administration. The property is bordered by Sixth Street on the west, Admire on the south, an alley on the east, and by a parking lot and commercial buildings on the north. The Armory has two principal facades, one accessing Sixth Street on the west, and one accessing Admire. The surrounding area is commercial in nature. The OMD has ceased to operate from the premises, and the Armory was vacant at the time of the site reconnaissance.

6.3 Exterior observations

On the west wall near the southwest corner of the building is affixed a diamond-shaped red and gold metal sign with the symbol of the 45th Infantry Division. Attached to the east wall and to the north wall is a chain-link fence separating the subject property from a neighboring parking lot (Ref. 4). An air conditioner condenser is located to the south of the main entrance, and a flagpole rises above the main entrance bay. A wooden sign identifying the property as a National Guard Armory is located at the street side.

Two air-conditioning units were observed on the east side of the Armory during the site reconnaissance. Parking lots are located to the east side of the building as part of Pioneer Cellular. A pad mounted transformer was observed to the northeast of the Armory. The transformer was observed to be in good condition and had a "Non PCB" label on it. There were no areas of stained soil, pits, ponds or lagoons, wells, septic systems, pump jacks, storage tanks, or drums observed on the site during the site reconnaissance. An area of seasonally appropriate grass was along the south side of the Armory at the time of the site reconnaissance. No obvious signs of environmental contamination were observed in this area. The Armory is surrounded by local businesses consistent with the local zoning (Ref. 4).

6.4 Interior observations

The Armory is divided into two functional sections, a Drill Floor area on the east, and a two-story administrative/garage section on the west. The first floor garage extends the width of the building, north to south, as does the second floor office section. The Drill Floor is characterized by a very high vaulted ceiling. In the 1980's a drop ceiling was added, but the lower portion of the steel trusses are still exposed. The entire Drill Floor, from ceiling to floor has been painted silver. The original wood-block floor in the Drill Floor was removed in the 1960's, leaving the concrete subfloor exposed. Still visible is

the residue of the asphalt, used in installing the wood floor. A large garage is located on either side of the central hallway/stairwell in the west section ground floor area. Each garage has two small storerooms. All interior walls on the first and second floor are made of brick.

The Armory was designed to house two separate National Guard units. The second floor is divided into two sections by a central east-west hallway/stairwell. A long north-south hallway bisects each section. Each unit had a locker room and supply room (with arms vault) on the east side of the hallway, and a shower room/restroom, an office and a classroom on the west side. One locker room (in the northeast corner), part of the hallway (walled off), and the original shower room served as a kitchen/mess hall. A wood framed wall divides the office in the southeast section into two rooms, and a drop ceiling conceals the original concrete ceiling. The original concrete ceilings are visible in all rooms except the remodeled office.

The Armory is currently functioning as a storage facility for the City of Kingfisher and for a local antique collector who is renting out the north motor pool space. In the fitness center room, formally the south motor pool, oxygen tanks and SCBA equipment are being stored, along with various types of emergency response equipment. Between the fitness center and the drill floor a leak from the roof had formed standing water which traveled from the west wall of the drill floor into the fitness center. The drill floor space is being used as a storage facility for municipal vehicles and emergency response vehicles. There were two HVAC units above the drill floor. There was no sign of chemicals being stored that may have been used for general vehicle maintenance in either motor pool. The IFR, which is below the stage of the drill floor, is full of items left by the OMD. While many of these items appear to be discarded vehicle parts, office materials like desks, and other miscellaneous items, there are multiple unmarked containers. Many of these containers appear to have been used for the storage of fuel, although most are unmarked. The majority of these containers are in the storage room adjacent to the IFR bullet trap. Within this room there is also a sealed box containing a cleaning compound that is marked "flammable."

On the second floor, all of the rooms were observed to be empty. All exterior walls are exposed, painted brick. The vaults in the fire direction control room and supply room were both empty, although the south door entering the supply room had a radioactive sign on it. There was one gas hot water furnace observed on the second floor in the north latrine. There was a gas wall heater unit observed in the liaison office and another one in the west classroom. In the supply room, one HVAC unit was observed. There was water damage visible on the floor of the radio section room and administrative office. In the 1st Sgt. Office, a gas heater was in the closet.

During the site reconnaissance, no piping insulation was observed, although an inspection into areas not easily accessible was not completed. This type of piping, along with window mastic and specific tiles often used in armories of this age may contain asbestos

and may exist within this armory. A specialized asbestos inspection was not completed during this site visit.

7.0 Interviews

7.1 Interviews with Past and Present Owners of the Property

The DEQ has had several conversations regarding environmental and safety issues at the armories, with various employees of the military department. The Oklahoma Military Department (OMD) provided an 'Indoor Firing Range Lead Issues Report' to the DEQ [Appendix F]. OMD also provided DEQ with access to their files on the Kingfisher Armory.

7.2 Interviews with Key Site Manager

There is no current key site manager for the property. Therefore, no interviews were conducted with a key site manager. Mr. Richard Reynolds, City Manager, City of Kingfisher currently controls access to the property. The property is regularly entered by city employees who use the site for the storage of municipal vehicles.

7.3 Interviews with Operators and Occupants of the property

An interview was not conducted with a prior operator or occupant of the property, as one was not available during the time in which this Phase 1 was being conducted.

7.4 Interviews with State and/or Local Government Officials

An interview was conducted with Mr. Richard Reynolds, City Manager, City of Kingfisher, and Mr. Bill Tucker, City Clerk and Building Officer of Kingfisher, during the site reconnaissance [Appendix C]. The following details were ascertained from the discussion.

- All sewage and waste water drain to the City of Kingfisher's sewage system.
- To Mr. Tucker's knowledge, no underground storage tanks were present onsite.
- The military had vacated the Armory in the latter part of 2008.
- Mr. Tucker did not know why a Radioactive Materials sign was posted on the south door of the supply room where the weapons vault is located, as he had no knowledge of any radioactive materials having been stored inside the vault or at the armory. The weapons vault was empty.
- It was unknown as to what type of vehicle work was done in the motor pool areas.

8.0 Findings

This Phase I Targeted Brownfield Assessment (TBA) of the Kingfisher Armory was performed in accordance with the ASTM E 1527-05, a guide for conducting Environmental Site Assessments. The site is located in Section 15, Township 16N, Range 7W I.M., in Kingfisher, Kingfisher County, Oklahoma. The site is located at 301 North 6th Street, Kingfisher [latitude 35.863386, longitude -97.931241] (Ref. 4, 23). Summarized below are the major environmental findings of this Phase I TBA [See relevant sections of this report for further details on each finding].

- Results of the Guernsey sampling on April 29, 2004 indicated lead dust concentrations ranging from 30,170 $\mu\text{g}/\text{ft}^2$ at the indoor firing range bullet trap to 1,182 $\mu\text{g}/\text{ft}^2$ near the stairs leading to the indoor firing range (IFR). Lead dust (1,182 $\mu\text{g}/\text{ft}^2$) was also detected on a window sill in the drill floor [Appendix F].

The IFR and the rooms indicated as having lead dust contamination exceeding the 40 $\mu\text{g}/\text{ft}^2$ standard constitute a recognized environmental condition (REC) for the purposes of this report.

- During the site reconnaissance on January 7, 2010, DEQ employee Travis Estes collected two samples from the IFR bullet trap [Appendix C]. Both of the samples tested extremely high for lead contamination. Sample 477204 had a concentration of 164,000 mg/kg, 164,000 PPM, and sample 477205 had a concentration of 192,000 mg/kg, 192,000 PPM. This information is consistent with the findings of the 'Indoor Firing Range Lead Issues Report' conducted in 2004 [Appendix F].
- Review of the Oklahoma Corporation Commission's (OCC's) and OMD's records indicated that one underground storage tank (UST) had previously been present at the site [Appendix G]. The 1,000 gallon tank was installed reportedly in 1958 on the western side of the property and was used to store gasoline. Records indicate that the tank was removed on September 20, 1995. The tank was rendered unusable for storage of any fluids and the tank and its contents were disposed of in accordance with applicable local, state, and federal regulations. OCC's records did not indicate that there had been an incidence of a leak in the UST at the site. Sample results from the soil upon removal do not indicate any levels of contamination above EPA detection limits standard for the time in which the tank was removed.
- No National Priority List (NPL), deleted NPL, active or archived, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, Resource Conservation and Recovery Act (RCRA) database, Emergency Response Notification System (ERNS) list, State Voluntary Cleanup Program and State Brownfield Programs lists were identified on the subject property. The site is on the DEQ Site Cleanup Assistance Program's list for investigation and cleanup of environmental hazards. There are no Institutional Controls/Engineering Controls listed

either in the preliminary data collected for Oklahoma's Institutional Control database or in the county land records for the subject property. The subject property does not have any listed state landfills within one-half mile.

- A pad mounted transformer was observed to the northeast of the Armory (Ref. 4). The transformer was observed to be in good condition and had a "Non PCB" label on it.
- There were no areas of stained soil, pits, ponds or lagoons, wells, septic systems, wells, pump jacks, storage tanks, drums observed on the site during the site reconnaissance (Ref. 4).
- The Armory is immediately bound by commercial structures on all sides (Ref. 4)

9.0 Recommendations

Based on the findings of this assessment, The DEQ recommends that additional investigation be conducted to support a cleanup of the environmental hazards at the Armory.

- The IFR bullet trap was found to have lead contamination in the remaining sand [Appendix C and F]. The sand should be removed and disposed of safely and appropriately. The spent bullets and fragments in the bullet trap should also be disposed of appropriately.
- Miscellaneous cleaning chemicals in the Armory should be used for their intended purpose or disposed of safely. Many containers with remnants of liquid, the nature of which is unknown, were observed in the side room adjacent to the bullet trap in the IFR at the time of the January 7, 2010 site reconnaissance. These substances should be disposed of safely and appropriately.
- If fluorescent light fixtures in the Armory are replaced, they should be examined for possible leaking ballasts. If the ballasts contain polychlorinated biphenyls (PCBs) and are leaking, they must be appropriately disposed according to the Toxic Substance Control Act. Fluorescent light bulbs may be handled as Universal Waste under the Resource Conservation and Control Act (RCRA).
- An asbestos inspection should be completed, and any identified ACM materials should be removed and disposed of safely and appropriately. Areas that are suspect for asbestos may include window putty, piping insulation (which was not observed but may not be exposed), and tiles and mastic often used in armories of this age.

10.0 Data Gaps

Property tax files, city directories, and building development records for the subject property were not reviewed during the preparation of this report. No tax records or city directories were reviewed for the purposes of this report.

11.0 Conclusions

DEQ has performed a Phase I Targeted Brownfield Assessment (TBA)/Environmental Site Assessment in conformance with the scope of work and limitations of ASTM Practice E 1527-05 of the Kingfisher Armory, located at 301 North 6th Street, Kingfisher, Oklahoma (Section 15, Township 16N, Range 7W I.M., in Kingfisher County, Oklahoma). Any exceptions to, or deletions from, this practice are described in Sections 2.4, 13.0 of this report. This assessment revealed a recognized environmental condition regarding contaminated sand in the indoor firing range and residual dust that may have potentially spread throughout much of the Kingfisher Armory, and as a result, the need for additional investigation and remediation before future occupational control can take place has been identified. The information provided in this assessment is to guide future cleanup action and to assist the City of Kingfisher 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

Additional services provided for this Phase I Targeted Brownfield Assessment include soil sampling by DEQ personnel of the IFR bullet trap. In addition to the Phase I TBA, the DEQ will assist the city with remediation of the environmental contaminants and ensure that the property is prepared for redevelopment.

13.0 Deviations

Tribal environmental lists, property tax files, city directories, and building development records for the subject property were not reviewed during the preparation of this report.

14.0 References

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24. USGS National Geochemical Survey:
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25. U.S. Environmental Protection Agency, Geographic Information System Data Set:
http://www.epa.gov/region6/gis/data/kml_files/index.htm.

15.0 Appendices

Appendix A – Site (Vicinity) Map

- USGS Topographic Maps
- DEQ Data Viewer & DEQ GIS Maps
- Oklahoma Water Resources Board (OWRB) Maps
- FEMA Floodplain Map
- Sanborn Maps
- UST Map
- Geographic Information for USTs

Appendix B - Floor Plan

Appendix C – Site Notes

Appendix D – Site Photographs

Appendix E- Aerial Photographs

Appendix F – C.H. Guernsey & Company. Indoor Firing Range Lead Issues Report (Oklahoma Army National Guard), October 2005

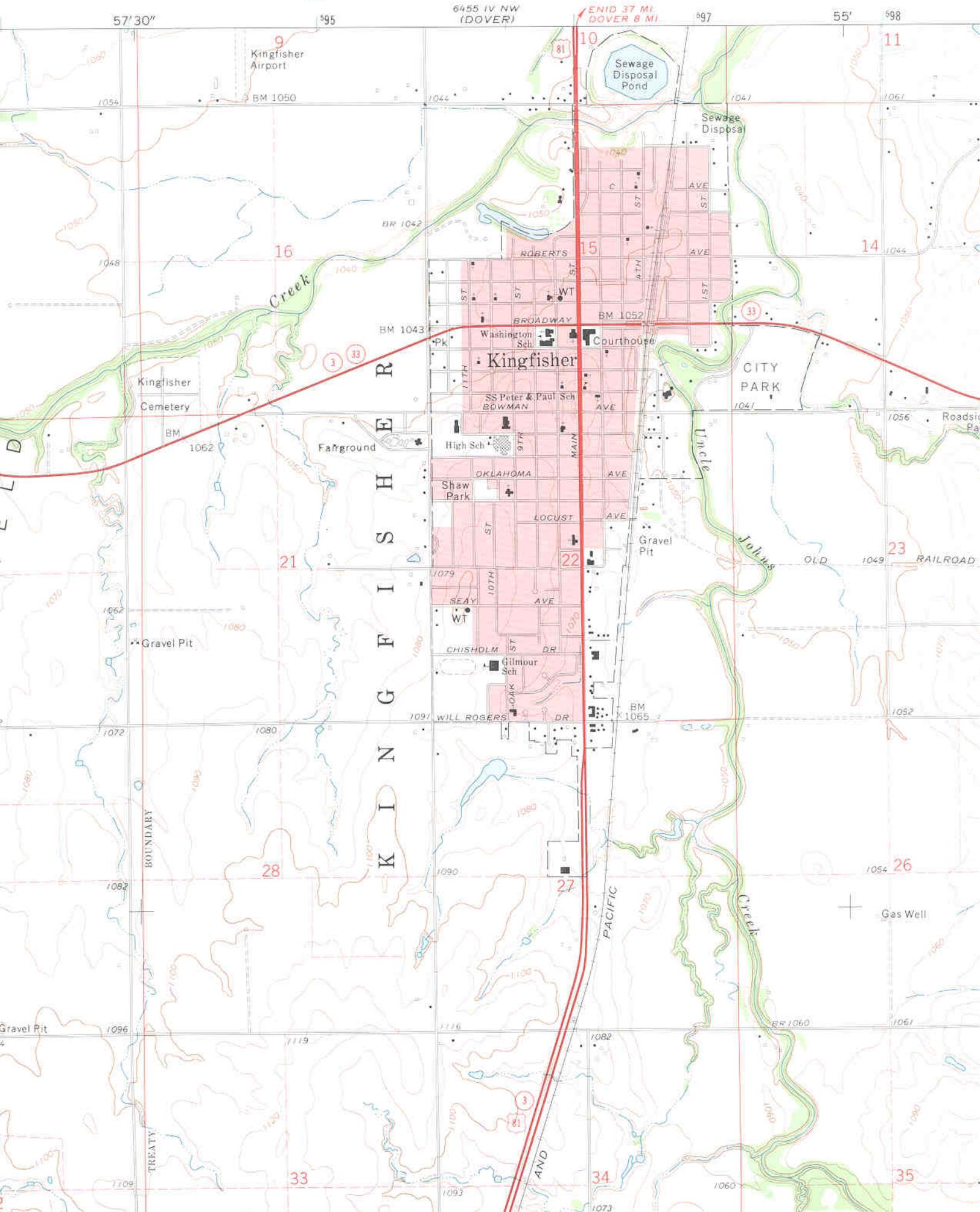
Appendix G – OCC UST Closure Report

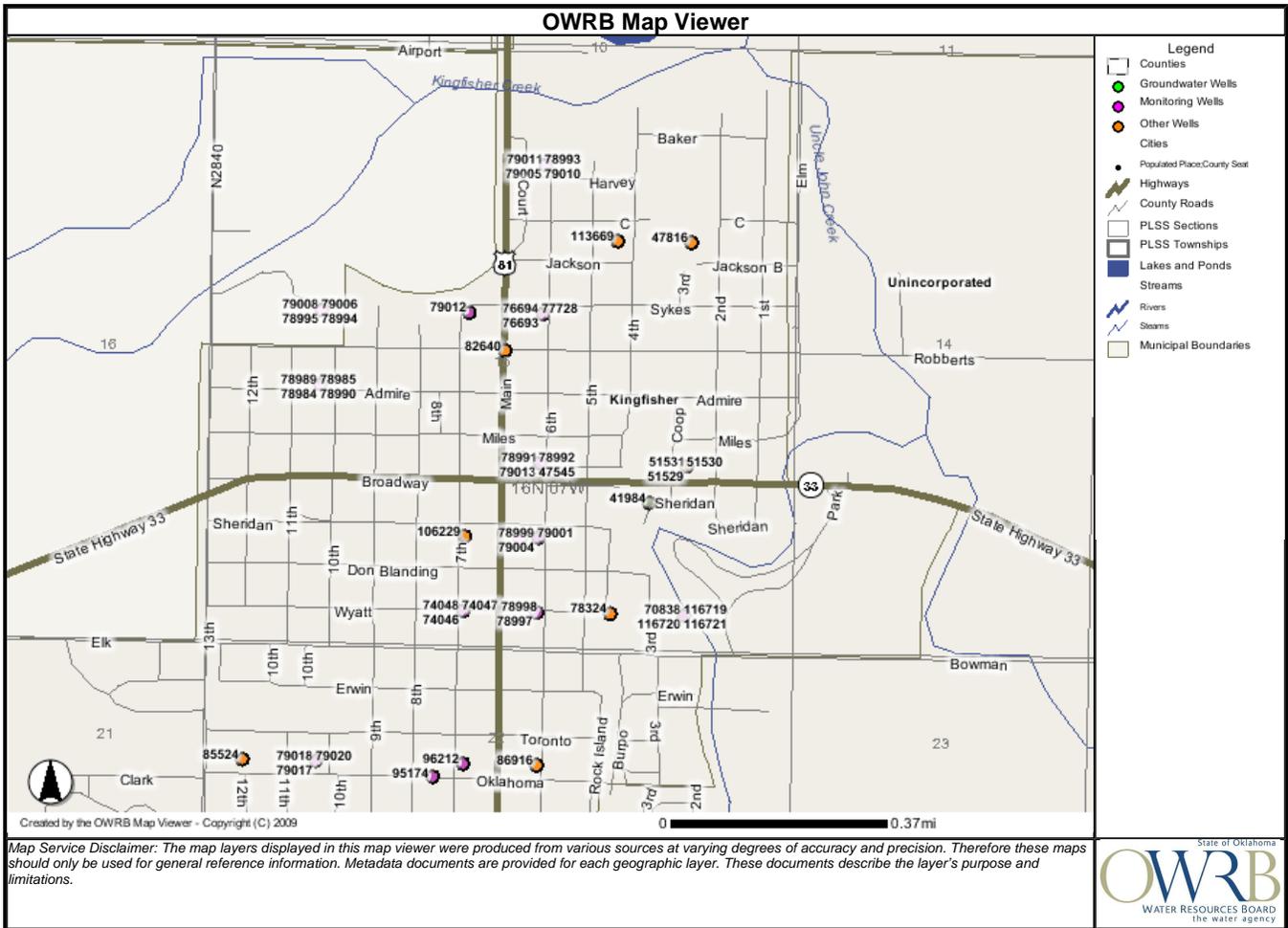
Appendix F – National Register Documentation

Appendix G – Qualifications of Environmental Professionals

Appendix A: Site (Vicinity) Map

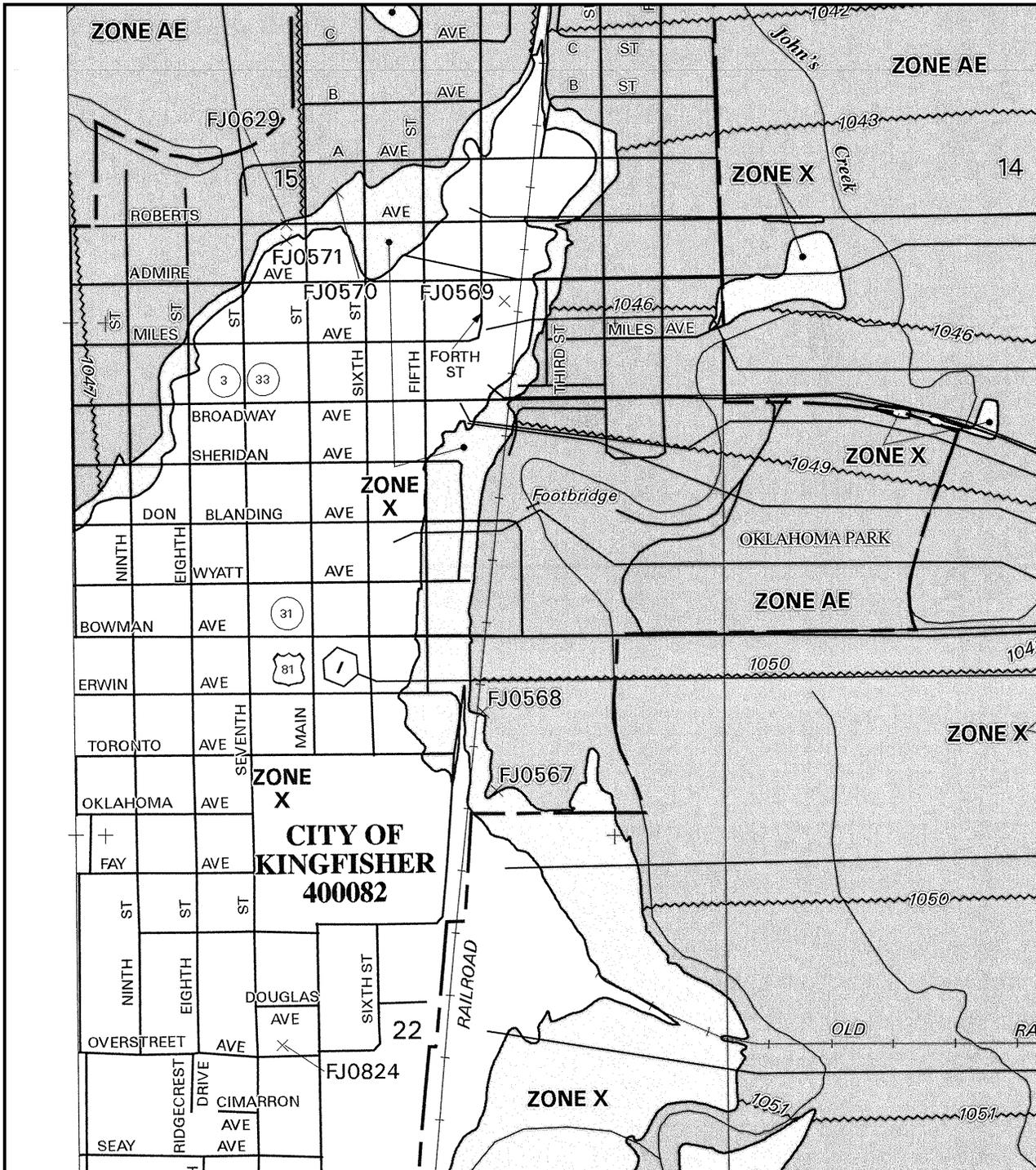
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Oklahoma State Dept of Health
N. E. 10th Street & Stonewall
Oklahoma City, Oklahoma 73152



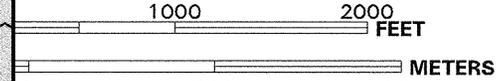


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Source: OWRB Data Viewer



SCALE 1" = 1000'



PANEL 0435 C

FIRM
FLOOD INSURANCE RATE MAP
 KINGFISHER COUNTY,
 OKLAHOMA AND
 INCORPORATED AREAS

PANEL 435 OF 625

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

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KINGFISHER, CITY OF	400082	0435	C

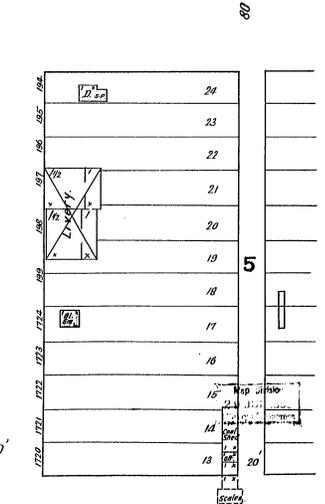
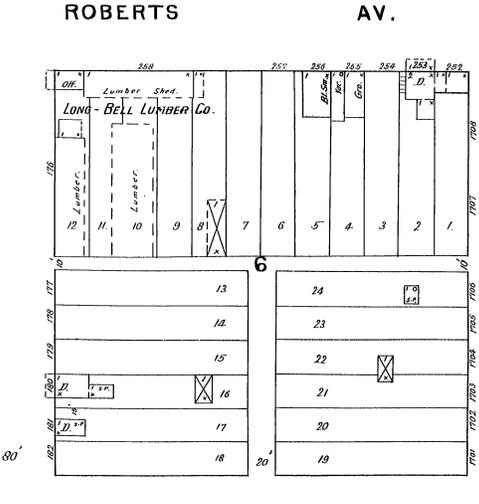
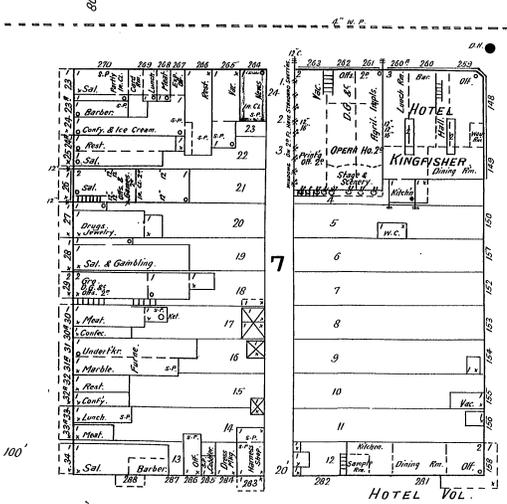
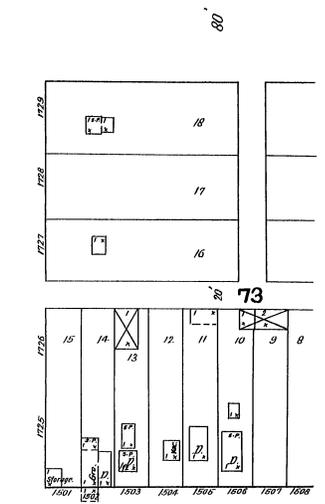
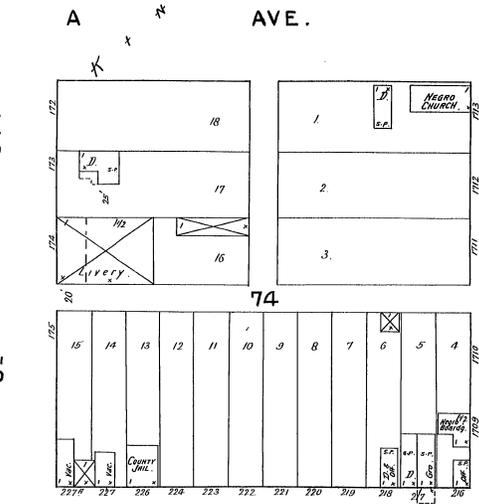
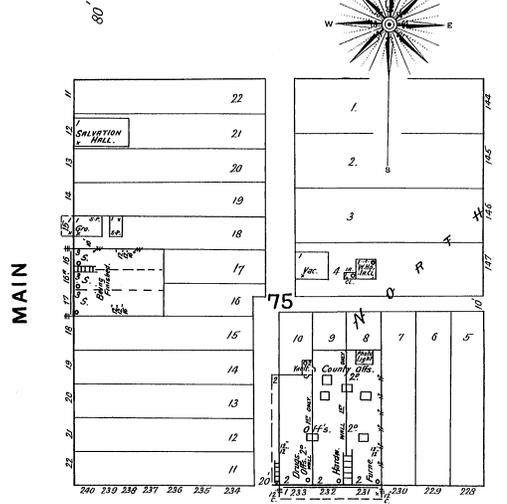
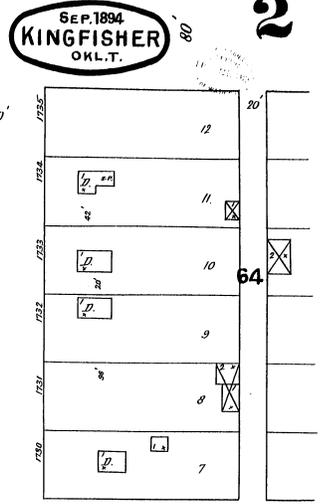
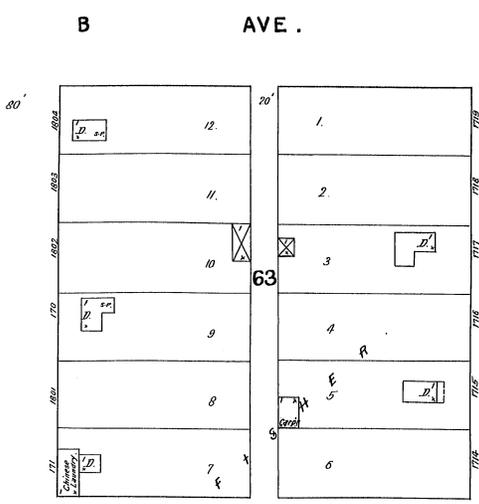
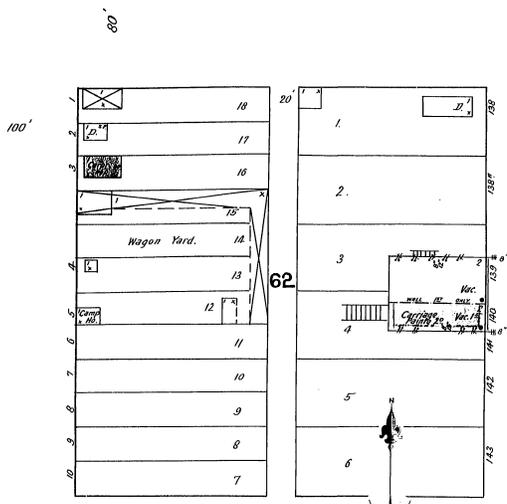
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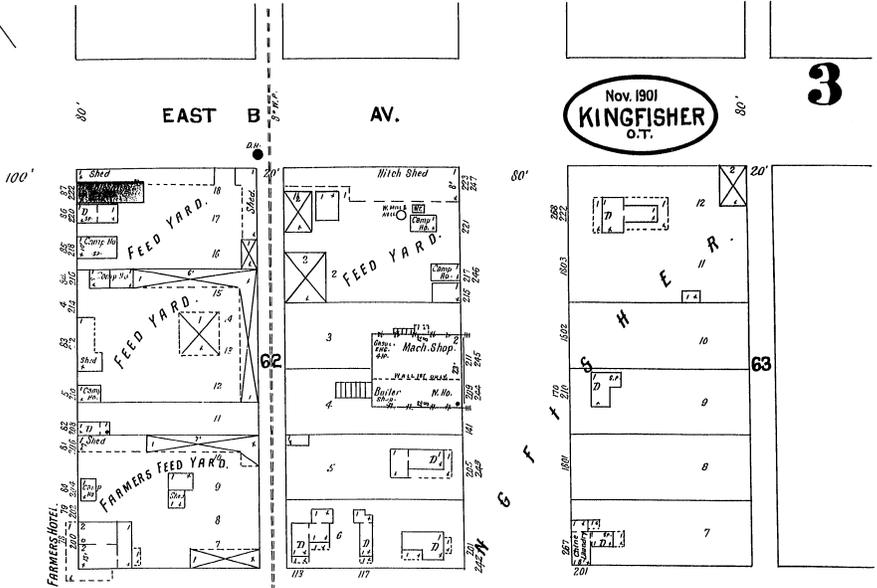
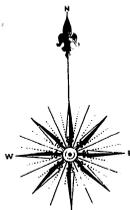
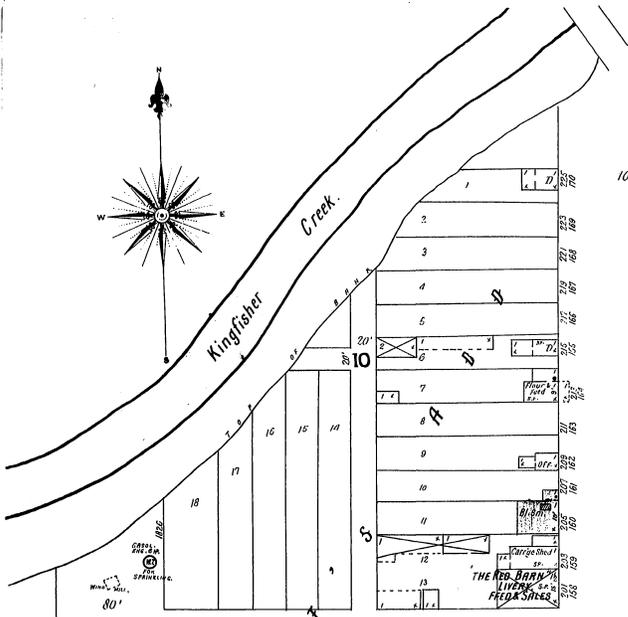


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EFFECTIVE DATE:
MAY 5, 2003

Federal Emergency Management Agency

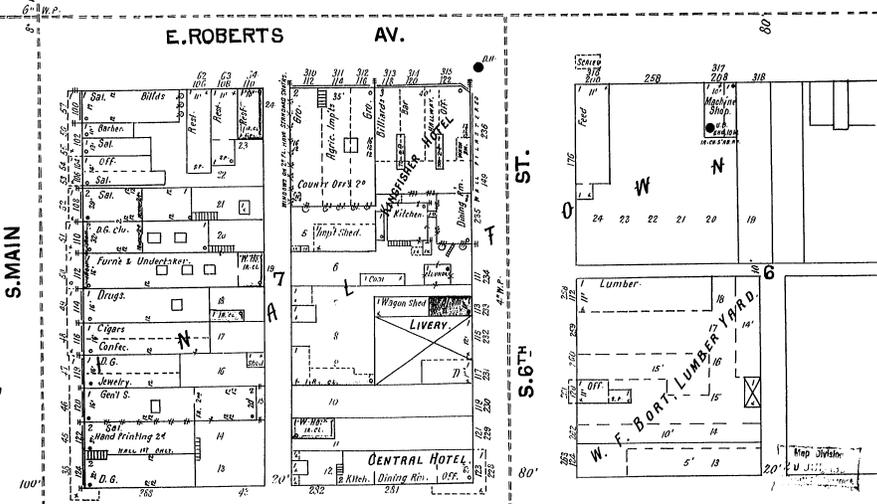
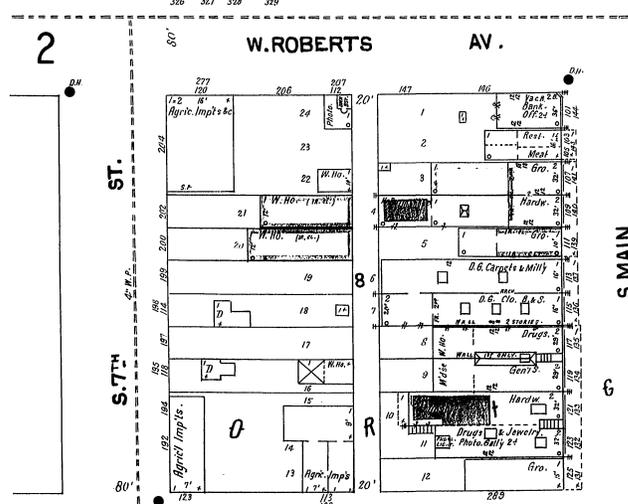
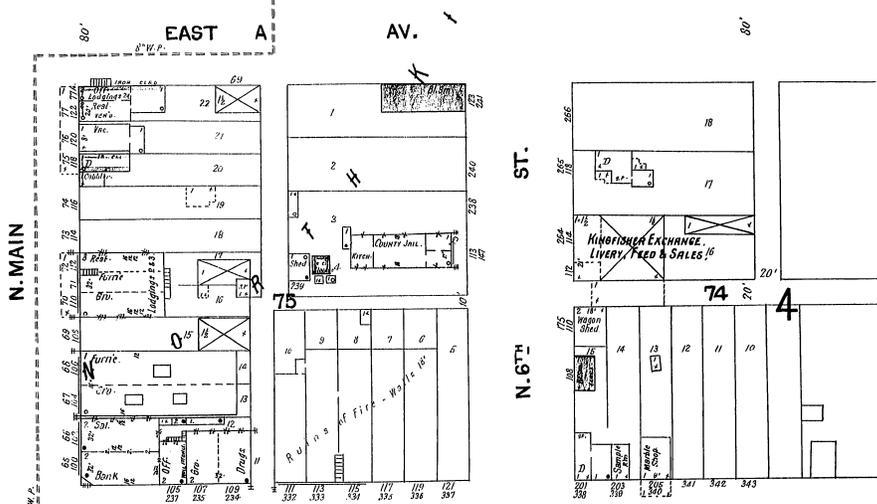
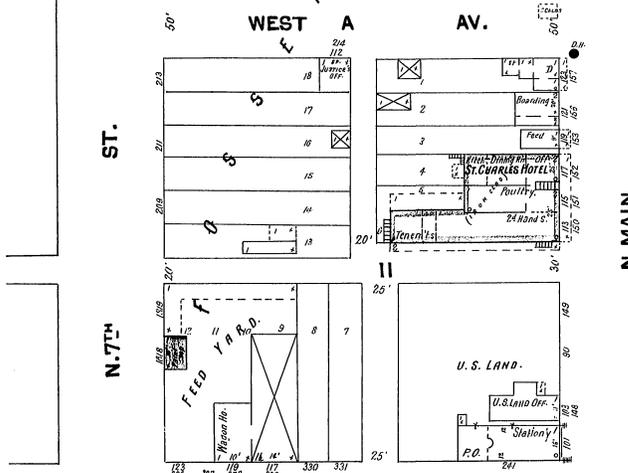
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program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





Nov. 1901
KINGFISHER
O.T.

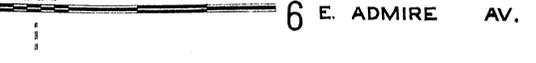
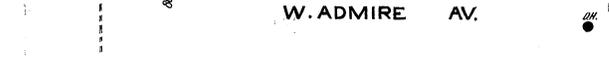
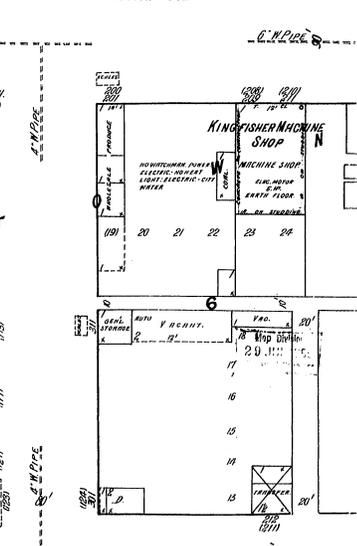
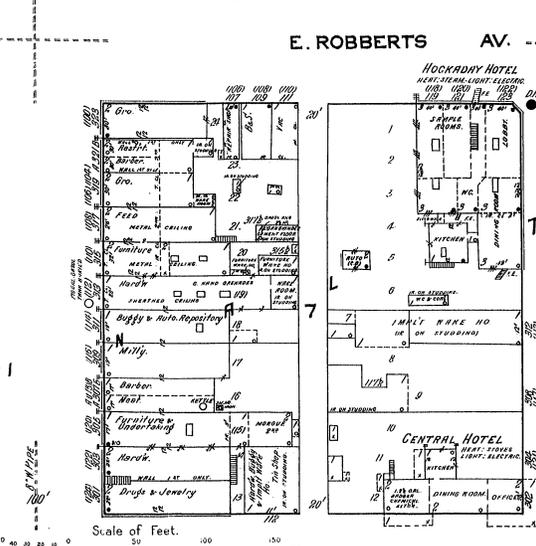
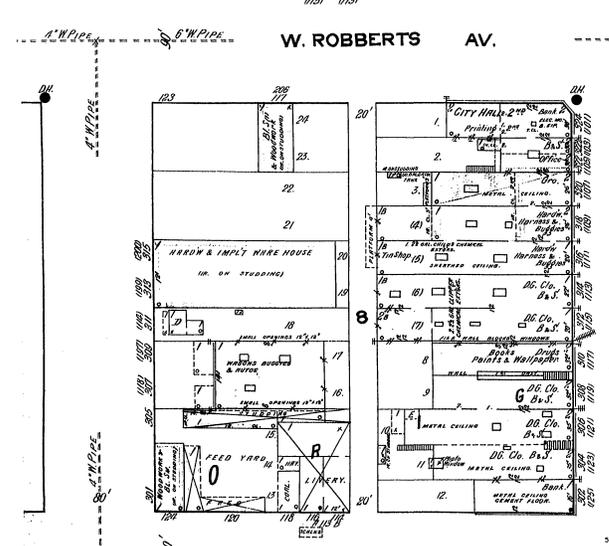
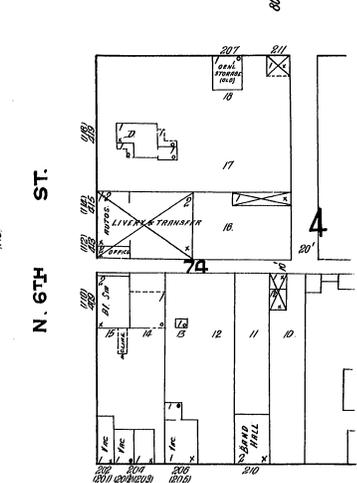
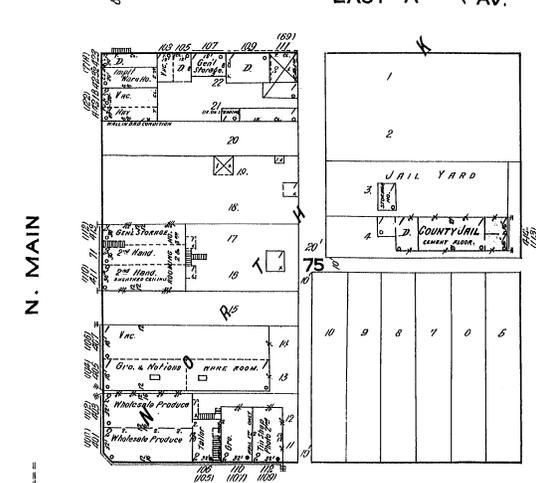
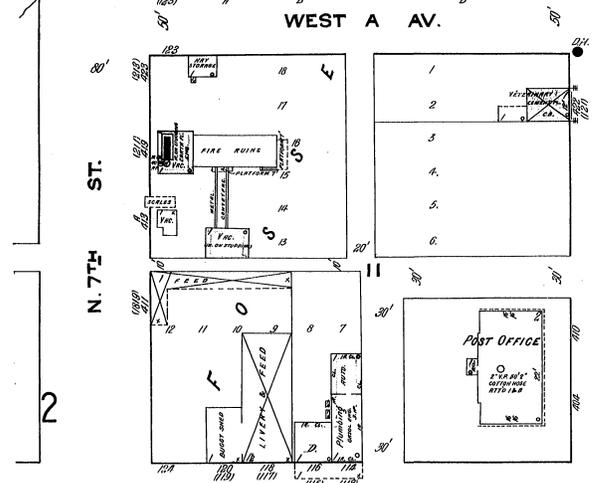
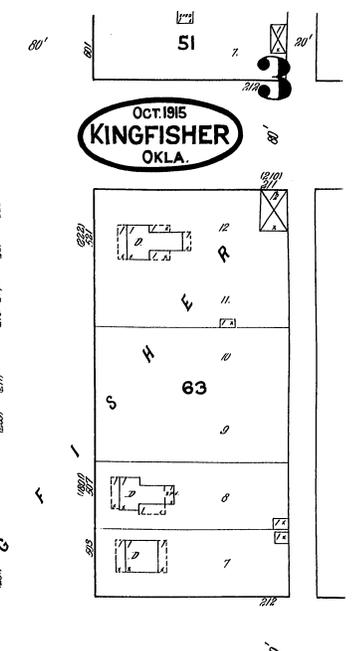
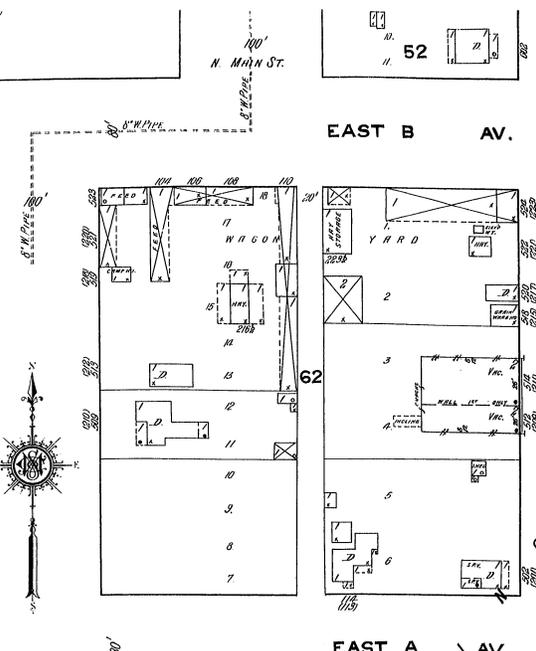
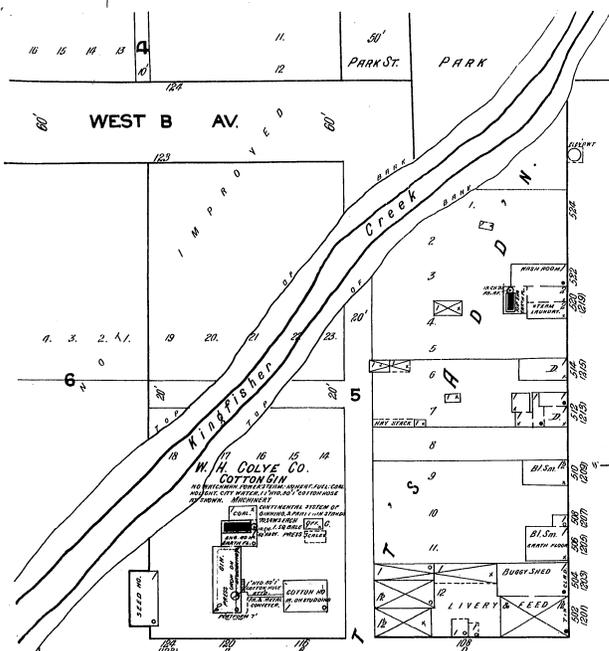
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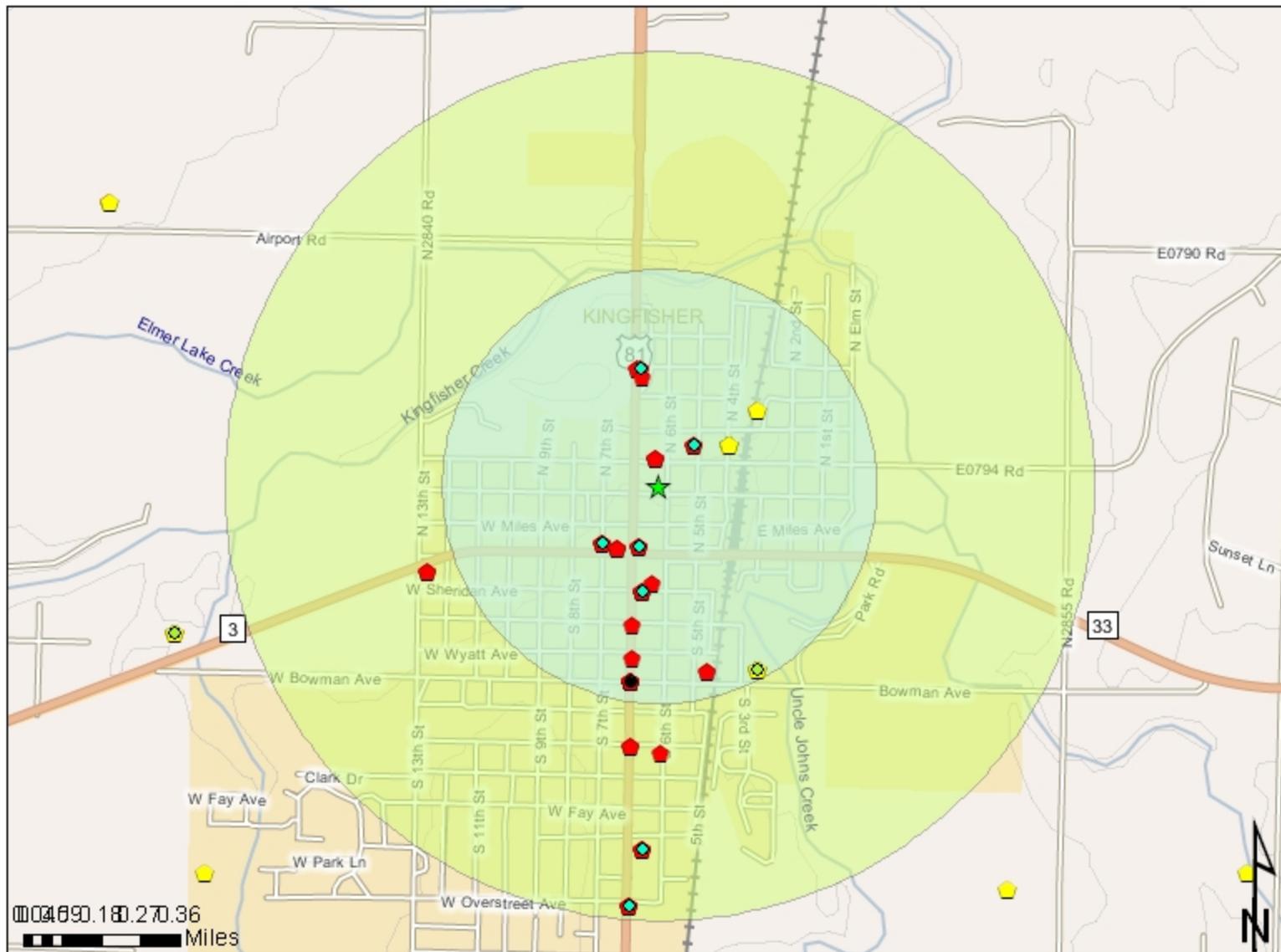
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6

4



Scale of Feet. 0 50 100 150



Kingfisher Armory UST/AST Map

UST/AST Cases

CaseType

- Back Fill
- ◆ Confirmed Release
- ◆ Suspicion of Release

UST/AST

Tank Type

- ◆ AST
- ◆ UST
- ★ Kingfisher Armory

◆ 0.5 Mile Buffer

◆ 1 Mile Buffer

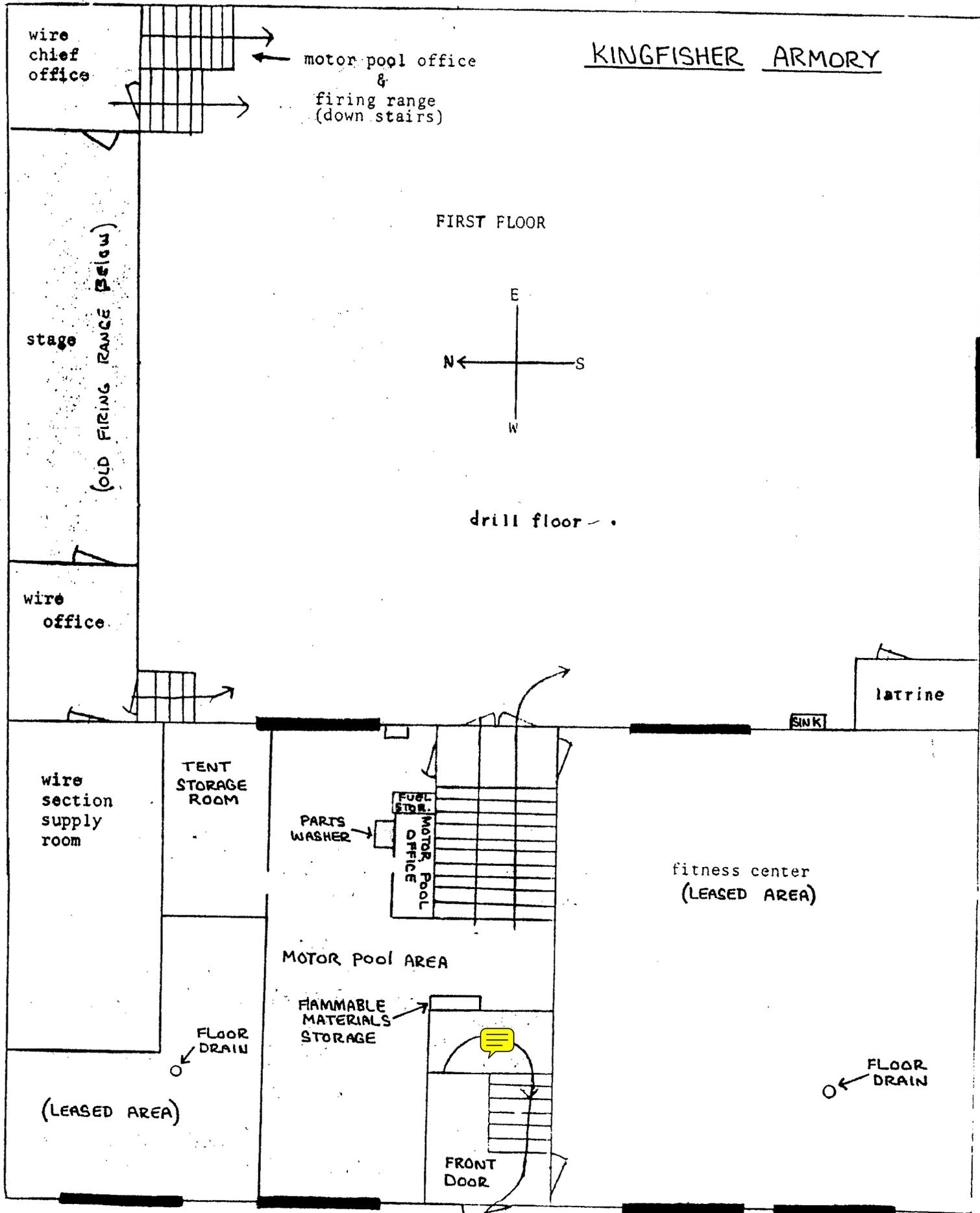
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3711881	DOUBLE D CONOCO	619 N MAIN	Kingfisher	OK	73750	35.8671	-97.9325	1	POU	UST
3711881	DOUBLE D CONOCO	619 N MAIN	Kingfisher	OK	73750	35.8671	-97.9325	2	POU	UST
3719355	DOUBLE D'S	701 N MAIN	Kingfisher	OK	73750	35.8671	-97.9326	1	CIU	UST
3719355	DOUBLE D'S	701 N MAIN	Kingfisher	OK	73750	35.8671	-97.9326	2	CIU	UST
3710194	FM PARTS SUPPLY	115 E ROBBERTS	Kingfisher	OK	73750	35.8641	-97.9318	1	POU	UST
3710194	FM PARTS SUPPLY	115 E ROBBERTS	Kingfisher	OK	73750	35.8641	-97.9318	2	POU	UST
3710194	FM PARTS SUPPLY	115 E ROBBERTS	Kingfisher	OK	73750	35.8641	-97.9318	3	POU	UST
3710194	FM PARTS SUPPLY	115 E ROBBERTS	Kingfisher	OK	73750	35.8641	-97.9318	4	POU	UST
3706535	FORMER SARGENTS SINCLAIR	101 N MAIN	Kingfisher	OK	73750	35.8612	-97.9324	1	POU	UST
3706535	FORMER SARGENTS SINCLAIR	101 N MAIN	Kingfisher	OK	73750	35.8612	-97.9324	2	POU	UST
3706535	FORMER SARGENTS SINCLAIR	101 N MAIN	Kingfisher	OK	73750	35.8612	-97.9324	3	POU	UST
3706535	FORMER SARGENTS SINCLAIR	101 N MAIN	Kingfisher	OK	73750	35.8612	-97.9324	4	POU	UST
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3704188	H & J OIL CO., INC.	500 N. MAIN	Kingfisher	OK	73750	35.8567	-97.9326	2	POU	UST
3704188	H & J OIL CO., INC.	500 N. MAIN	Kingfisher	OK	73750	35.8567	-97.9326	3	POU	UST
3714584	HILL SUPPLY INC	417 N 4TH	Kingfisher	OK	73750	35.8646	-97.9288	1	CIU	AST
3714584	HILL SUPPLY INC	417 N 4TH	Kingfisher	OK	73750	35.8646	-97.9288	2	CIU	AST
3714584	HILL SUPPLY INC	417 N 4TH	Kingfisher	OK	73750	35.8646	-97.9288	3	CIU	AST
3714584	HILL SUPPLY INC	417 N 4TH	Kingfisher	OK	73750	35.8646	-97.9288	4	TOU	AST
3714584	HILL SUPPLY INC	417 N 4TH	Kingfisher	OK	73750	35.8646	-97.9288	5	POU	AST
3701500	KINGFISHER COUNTY CIVIL DEFENSE	124 E. SHERIDAN, P.O. BOX 225	Kingfisher	OK	73750	35.8600	-97.9318	1	POU	UST
3701501	KINGFISHER COUNTY DIST #1	5TH AND BOWMAN	Kingfisher	OK	73750	35.8571	-97.9295	1	CIU	UST
3701501	KINGFISHER COUNTY DIST #1	5TH AND BOWMAN	Kingfisher	OK	73750	35.8571	-97.9295	2	CIU	UST

3719413	KINGFISHER MUNICIPAL POWER PLANT	301 EAST BOWMAN	Kingfisher	OK	73750	35.8572	-97.9274	1	POU	AST
3719413	KINGFISHER MUNICIPAL POWER PLANT	301 EAST BOWMAN	Kingfisher	OK	73750	35.8572	-97.9274	2	POU	AST
3719413	KINGFISHER MUNICIPAL POWER PLANT	301 EAST BOWMAN	Kingfisher	OK	73750	35.8572	-97.9274	3	POU	AST
3719413	KINGFISHER MUNICIPAL POWER PLANT	301 EAST BOWMAN	Kingfisher	OK	73750	35.8572	-97.9274	4	CIU	AST
3701344	KINGFISHER STATION	124 W BROADWAY	Kingfisher	OK	73750	35.8613	-97.9339	1	CIU	UST
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3701344	KINGFISHER STATION	124 W BROADWAY	Kingfisher	OK	73750	35.8613	-97.9339	4	CIU	UST
3704771	KINGFISHER TEXACO	505 N MAIN	Kingfisher	OK	73750	35.8567	-97.9326	1	POU	UST
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3704771	KINGFISHER TEXACO	505 N MAIN	Kingfisher	OK	73750	35.8567	-97.9326	4	POU	UST
3704746	KINGFISHER WAREHOUSE	501 N MAIN	Kingfisher	OK	73750	35.8567	-97.9326	1	POU	UST
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3704746	KINGFISHER WAREHOUSE	501 N MAIN	Kingfisher	OK	73750	35.8567	-97.9326	4	POU	UST
3704746	KINGFISHER WAREHOUSE	501 N MAIN	Kingfisher	OK	73750	35.8567	-97.9326	5	POU	UST
3704746	KINGFISHER WAREHOUSE	501 N MAIN	Kingfisher	OK	73750	35.8567	-97.9326	6	POU	UST
3703168	LOVE'S COUNTRY STORE #5	203 S MAIN STREET	Kingfisher	OK	73750	35.8597	-97.9322	1	POU	UST
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3703168	LOVE'S COUNTRY STORE #5	203 S MAIN STREET	Kingfisher	OK	73750	35.8597	-97.9322	3	POU	UST

3703168	LOVE'S COUNTRY STORE #5	203 S MAIN STREET	Kingfisher	OK	73750	35.8597	-97.9322	4	POU	UST
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3701448	MITCHELL OIL CO INC.	HWY 33 AND ROCK ISLAND	Kingfisher	OK	73750	35.8668	-97.9324	1	POU	UST
3705084	PHILLIPS 66 CO #016814	US 81 & OK 3	Kingfisher	OK	73750	35.8611	-97.9333	1	POU	UST
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3705084	PHILLIPS 66 CO #016814	US 81 & OK 3	Kingfisher	OK	73750	35.8611	-97.9333	4	POU	UST
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3701000	PIONEER TELEPHONE COOPERATIVE	214 EAST ROBBERTS	Kingfisher	OK	73750	35.8646	-97.9302	2	CIU	UST
3701000	PIONEER TELEPHONE COOPERATIVE	214 EAST ROBBERTS	Kingfisher	OK	73750	35.8646	-97.9302	3	CIU	UST
3713485	WALTER BUILDING CENTER	416 N MAIN	Kingfisher	OK	73750	35.8575	-97.9326	1	POU	UST
3720534	WOLF READY MIX	517 N 3RD	Kingfisher	OK	73750	35.8658	-97.9276	1	POU	UST
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Appendix B: Floor Plan

KINGFISHER ARMORY

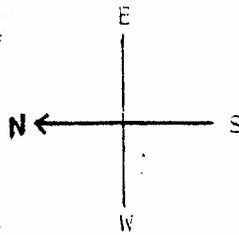


Kingfisher Armory Floor Plan Source: OMD

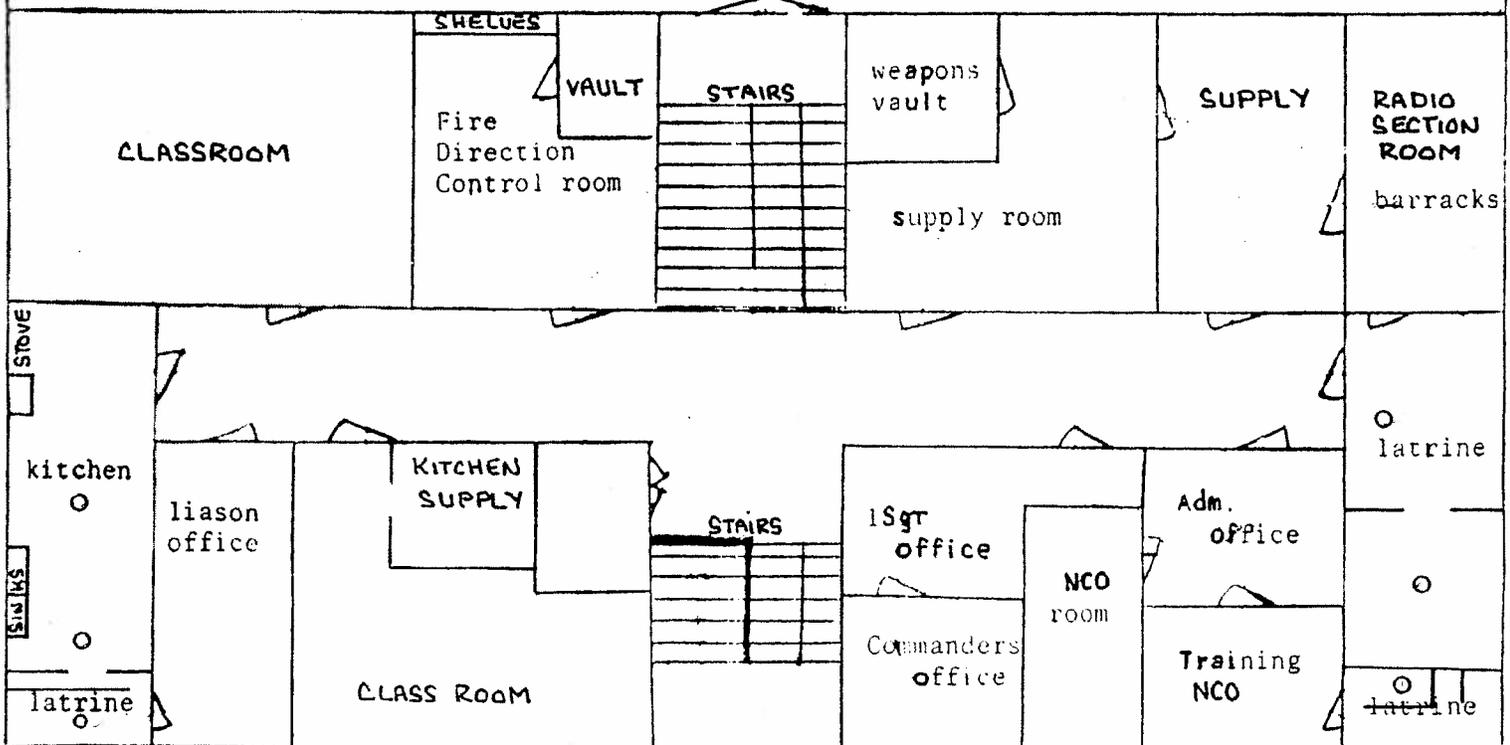
(OVER) → FUEL PUMP
 ← LIFT

KINGFISHER ARMORY

SECOND FLOOR



○ — FLOOR DRAIN



Appendix C: Field Notes

AAI Site Visit

Facility name: Kingfisher Armory

Facility address: 301 N. 6th St. Kingfisher, OK 73750

Date of visit: December 29, 2009

DEQ staff in attendance: TRAVIS ESTES / JUSTIN DAVIDSON

People interviewed/affiliation with site: BILL TULLER, CITY WORK/BUILDING OFF.
RICHARD REYNOLDS, CITY MANAGER

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.	FLOOR TILE	
2.	MASTIC	
3.	WINDOW	
4.	POTENTIAL PIPE WAS (NONE OBSERVED)	
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

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

Boiler present? Radiator present? # of radiators _____

Rooms radiator(s) present in: _____

Old lighting ballasts present?

Rooms old lighting ballasts present in: _____

	<u>Type of property</u>	<u>Amount</u>	<u>Room Located In</u>
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Radiation Signs

Are radiation signs present in the building? YES

What does the sign say? _____

Utilities

City water ^{- consists of 2 tanks} Well City sewer Septic tank
 Natural gas Propane city electric (currently off)

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

AN ADJACENT PROPERTIES APPEAR TO BE COMMERCIAL

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: NE ON ADJACENT SITE. NEAR IFR VENT FAN.*

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

PROPERTY IS NEARLY ENTIRELY SURROUNDED BY CONCRETE, LOCATING DIRECTLY OUTSIDE OF THE IFR VENT FAN.

Description of adjacent properties

Owner, Property Manager, and Occupant Information

CITY TURNED OVER TO DEP IN 2009

Additional Environmental Record Sources

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

N/A

Physical Setting Sources

Historical Use Information on the Property

ARMORY FROM 1936-2008

Historical Use Information on Adjoining Properties

COMMERCIAL FOR DECADES

Site Reconnaissance

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

General Site conditions:

External observations

___ Stained soil or pavement ___ Stressed vegetation ___ Solid waste

Other: SOME DRAINING WATER ALONG EAST SIDE OF BUILDING FROM SNOWMELT

Internal observations

B/T DF EFC CAUSED BY LEAKING
ROOF

Odors Pools of liquids Drums

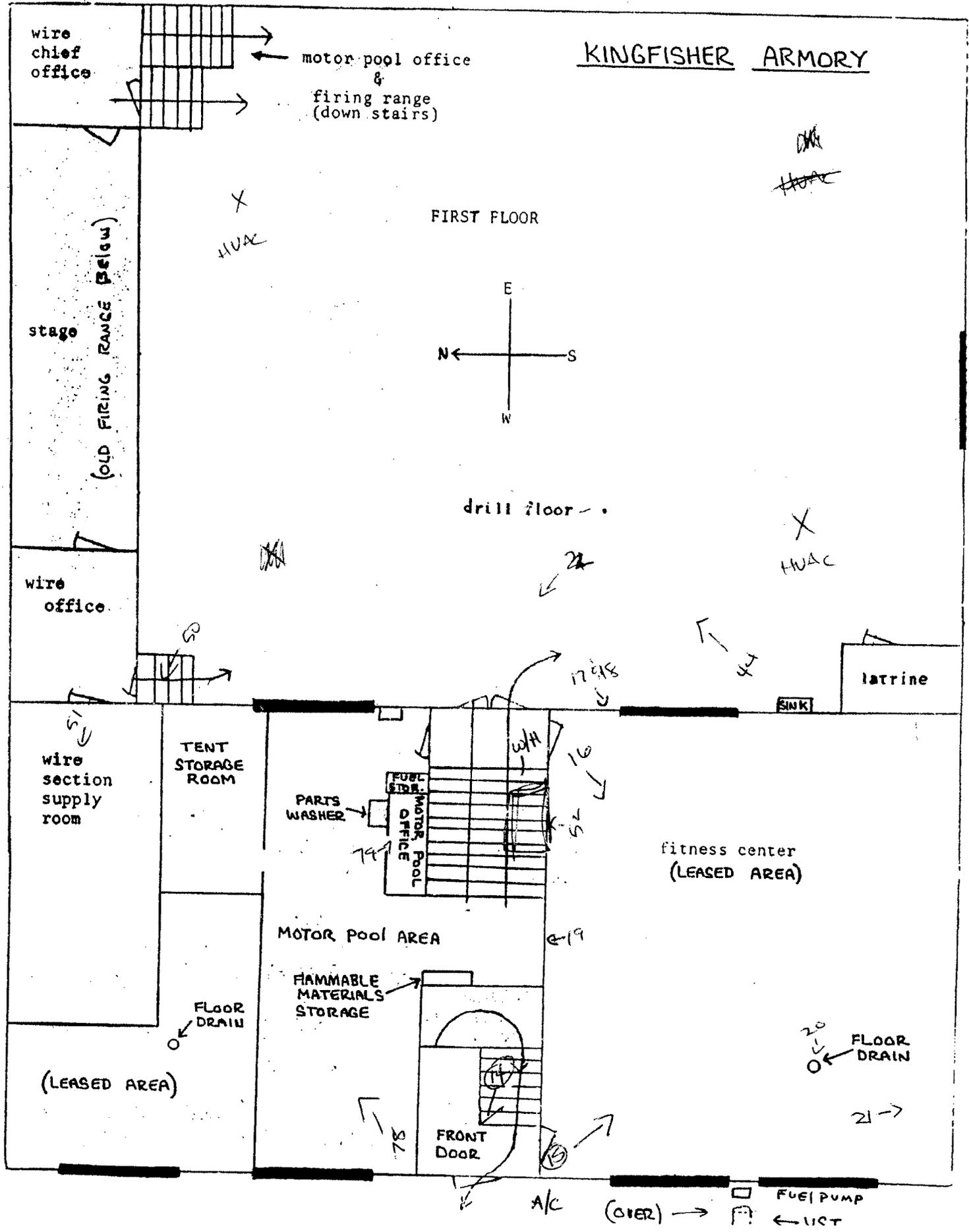
Stains or Corrosion on floors, walls, or ceilings

Other:

General notes:

- RADIATION SIGN → UNKNOWN REASON
- 22,000 SF
- LAST USED 2008

KINGFISHER ARMORY

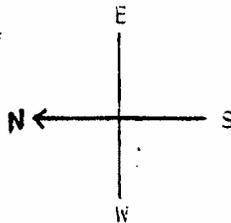


X GPS POINT
 35.863386
 -97.931241

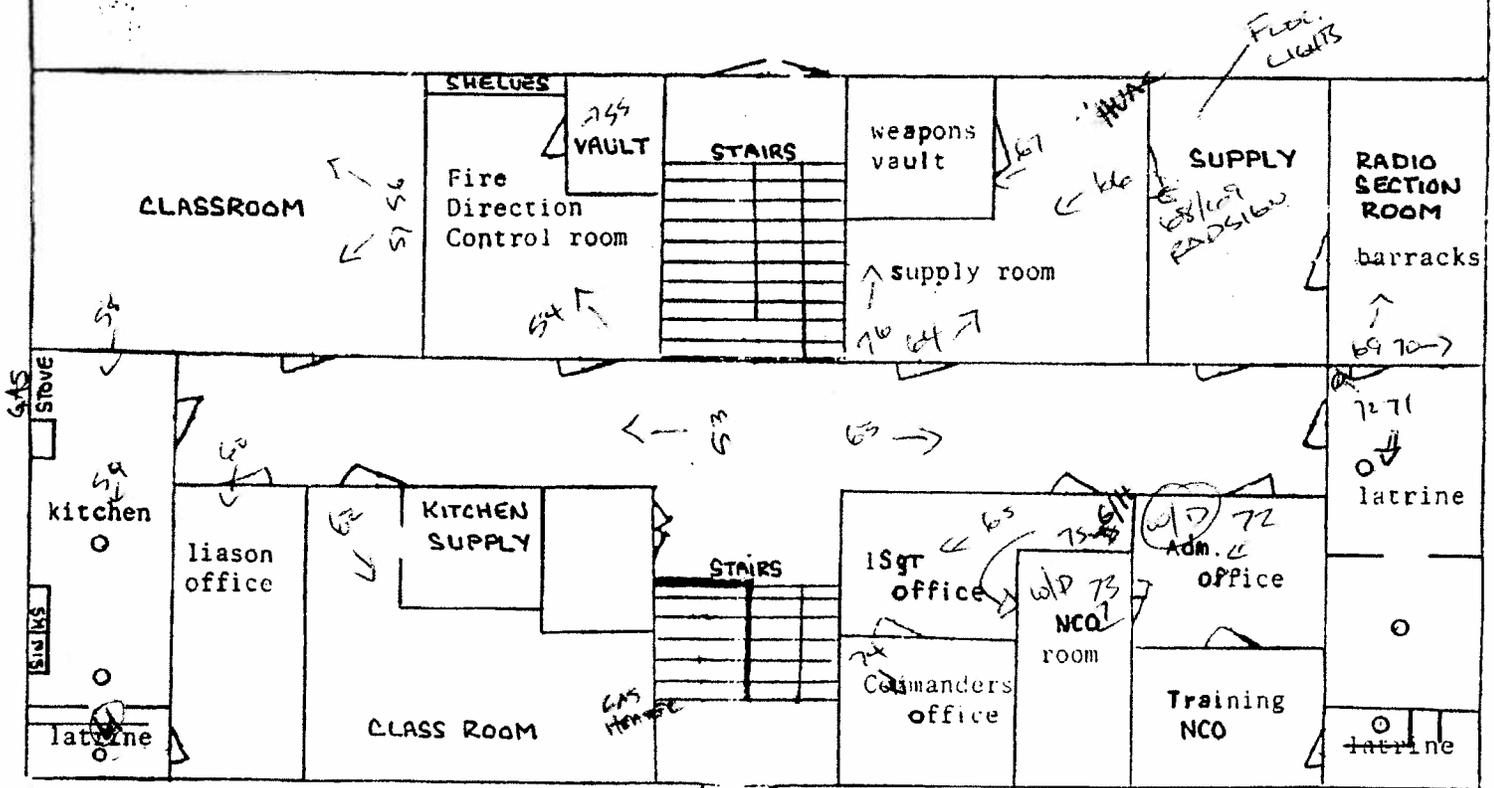
80

KINGFISHER ARMORY

SECOND FLOOR



○ — FLOOR DRAIN



GAS HEATERS

||||

WATER TABLES

|

Sample Number: 477204
Project Code: LP-ARM
Agency Number:
Date Collected: 1/6/2010
Time Collected: 1450
Date Received: 1/7/2010
Date Completed: 01/15/2010
Collected By: TE
PWS Id:
Location Code:
Station:
Facility:
Report Date: 1/15/2010

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	Value	Units	Analyzed	Method	Prep Type
Lead, Sediment		164000	MG/KG	01/11/10	6020	3050
Lead (TCLP)		619000	UG/L	01/15/10	6010	3050
% Solids		99.6	%	01/13/10	CLP 05.3	3050

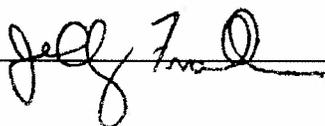
Summary

Labs performing analysis on this Sample:
Metals

SOURCE: KINGFISHER ARMORY

SAMPLERS COMMENTS:
IFR SAND TRAP/COMPOSITE OF THREE POINTS; IFR-01

ANALYST'S COMMENTS:

* ANALYST 

Sample Number: 477205
 Project Code: LP-ARM
 Agency Number:
 Date Collected: 1/6/2010
 Time Collected:
 Date Received: 1/7/2010
 Date Completed: 01/15/2010
 Collected By: TE
 PWS Id:
 Location Code:
 Station:
 Facility:
 Report Date: 1/15/2010

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE ENVIRONMENTAL LABORATORY
707 N. ROBINSON
OKLAHOMA CITY
OKLAHOMA, 73102-6010
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 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	Value	Units	Analyzed	Method	Prep Type
Lead, Sediment		192000	MG/KG	01/11/10	6020	3050
Lead (TCLP)		567000	UG/L	01/15/10	6010	3050
% Solids		99.7	%	01/11/10	CLP 05.3	3050

Summary

Labs performing analysis on this Sample:
Metals

SOURCE: KINGFISHER ARMORY

SAMPLERS COMMENTS:

IFR SAND TRAP/COMPOSITE OF THREE POINTS; IFR-02

ANALYST'S COMMENTS:

*

* ANALYST

Jelly Frail

Appendix D: Site Photos



Front of armory.



Front of armory and south side.



Downspouts on south side of armory. LBP concern.



Armory front entrance .



East side of armory.



Framing of garage door.



South armory entrance.



North side of armory.



IFR vent fan.



IFR vent fan .



PCB tag on electric cabinet.



Front door interior.



Electric cabinet on north side.



Fitness center room. Current use is storage.





Oxygen tanks stored in FC.



Floor drain in FC.



Water heater in FC.



Standing water between DF and FC from melting snow.



Above: DF roof.

Right: Leak from room on DF wall.



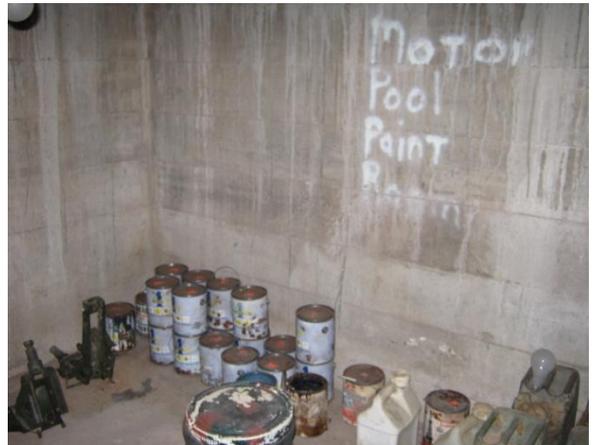
IFR bullet trap.



IFR bullet trap.



IFR bullet trap.



Chemicals stored in IFR side room.



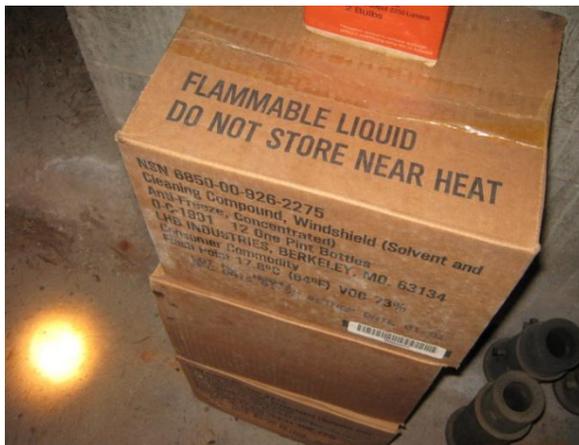
Floor drain in IFR.



Low ash container in IFR.



Chemicals in IFR side room.



Box in IFR side room.



Chemicals in IFR side room.



Sand behind bullet tarp.



Wood with bullet holes in IFR.



Stored items in IFR.



IFR vent fan.



IFR vent fan.



Items stored in IFR.



Items stored in IFR.



Items stored in IFR.



Sand and wood splinters near floor drain in IFR. 22 and 9mm bullet casings near center of debris.



Above and right: stairs leading to IFR.



Items stored in IFR.



Items stored in IFR.



Wire section supply room.



DF with stored vehicles



Office in FC.



Second floor north hallway.



Fire direction control room.



FDCR vault.



North classroom.



North classroom.



Kitchen.



Kitchen.



West classroom.



Water heater in latrine.



South hallway.



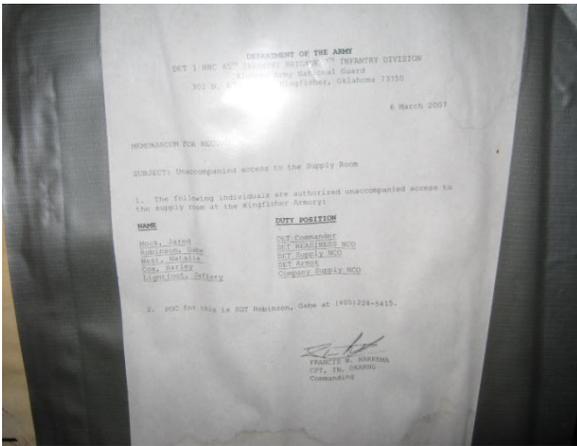
Liaison office.



Supply room.



Sgt. Office.



Sign on SR door.



Supply room.



Above: Radioactive sign on SR door.

Right: Vault door in SR.



Radio section room.



Radio section room.



Adm. Office with water damage.



Adm. office.



Latrine pipe.



Latrine.



HVAC in Sgt. room.



Commanders office.



Supply room.



Motor pool with stored items.



Motor pool with stored items.



Location of removed UST on west side of building.



East side of building with draining snowmelt.

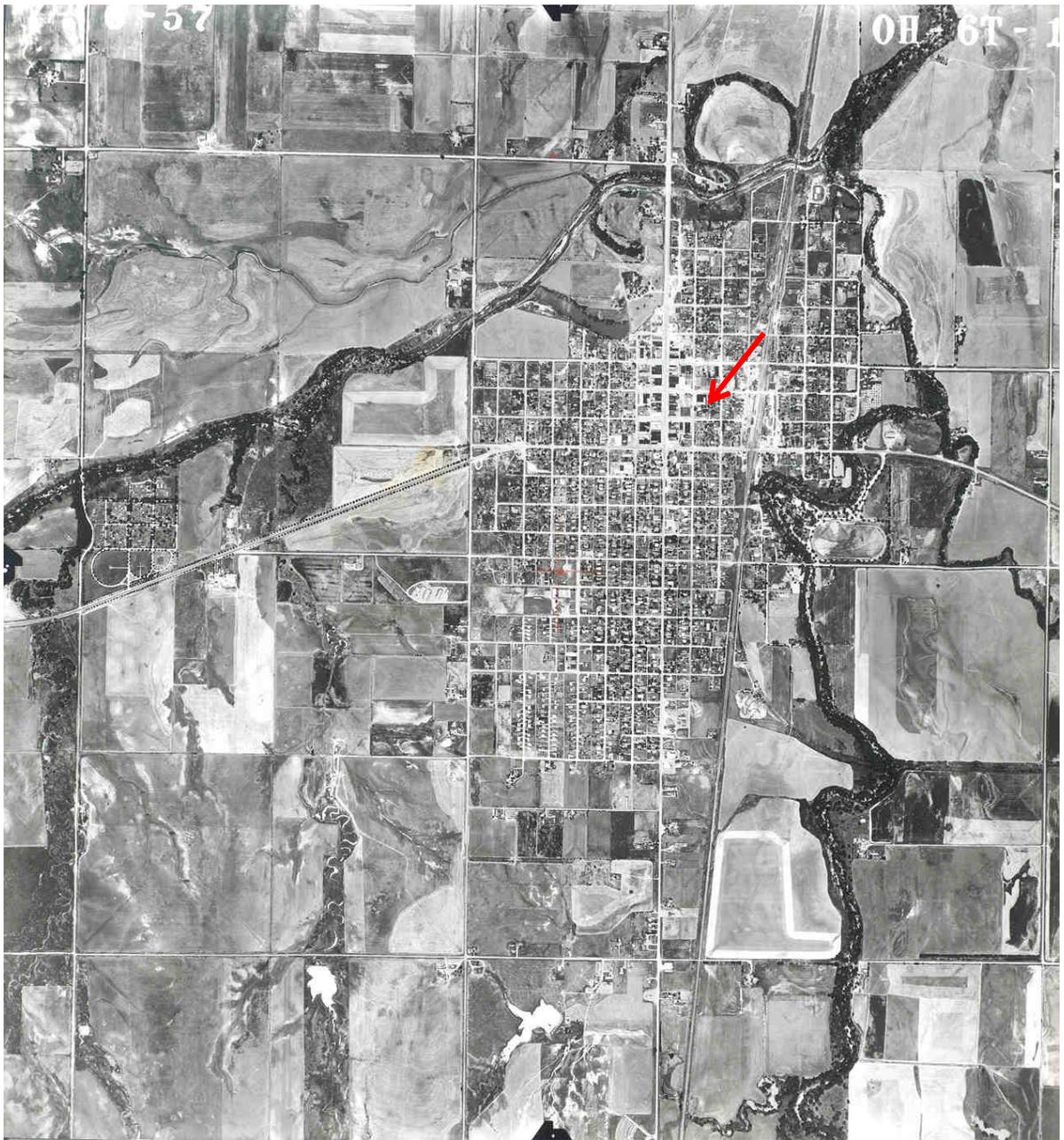


Example of lighting in FC, DF, and MP.



Front of armory.

Appendix E: Aerial Photos



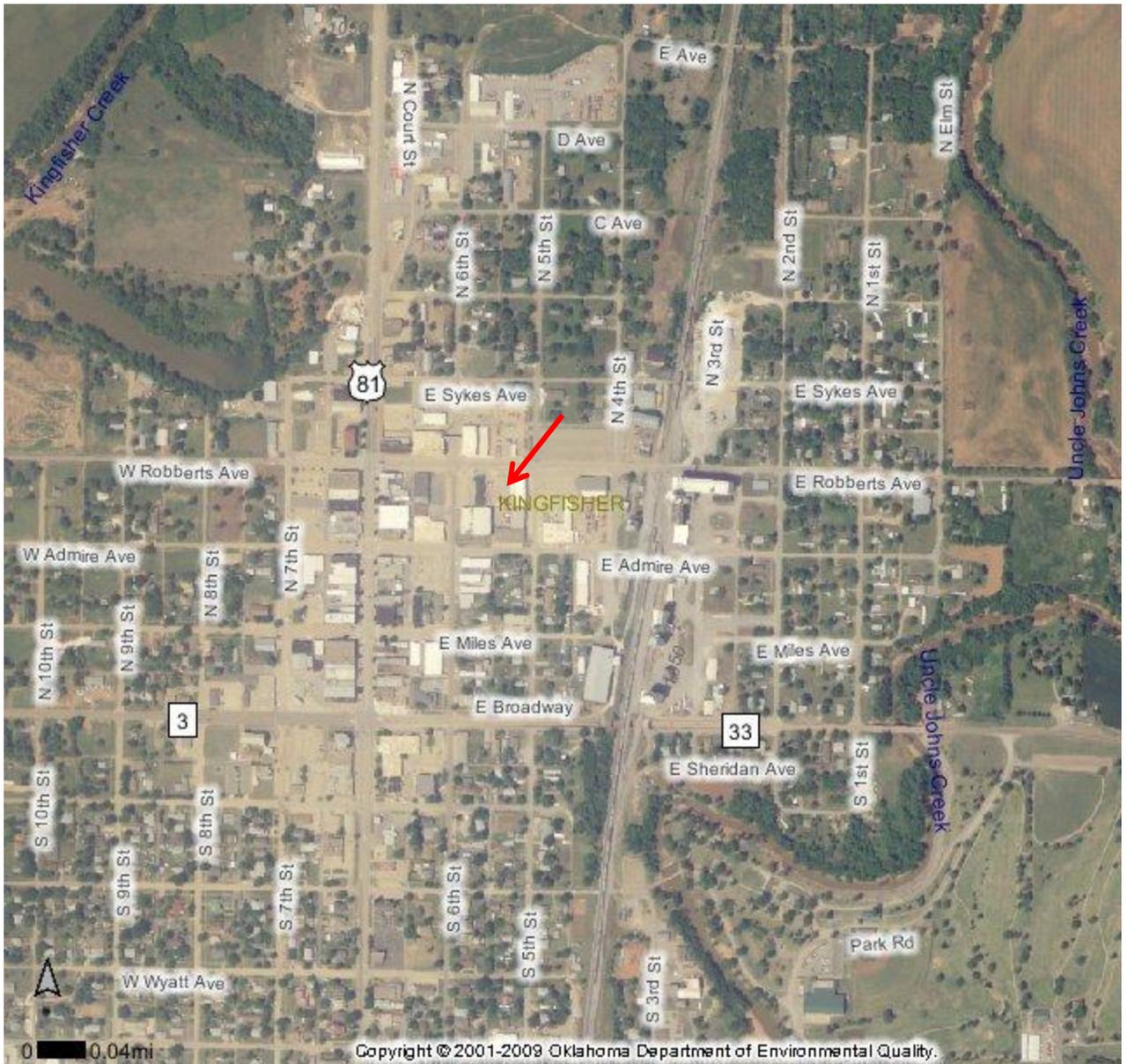
1957 Aerial Photo of Kingfisher. Source: DEQ Image Library



1995 Aerial Photo of Kingfisher. Source: DEQ Data Viewer



2003 Aerial Photo of Kingfisher. Source: DEQ Data Viewer



2008 Aerial Photo of Kingfisher. Source: DEQ Data Viewer

Appendix F: C.H. Guernsey & Company Indoor Firing Range Lead Issues Report

(Oklahoma Army National Guard), October 2005

*Photos contained within this
section do not represent the
current conditions on the
subject property.

29.0 KINGFISHER ARMORY

C.H. Guernsey & Company (GUERNSEY) surveyed the indoor firing range (IFR) at the Kingfisher Armory on May 6, 2005 (Photographs 29-1 through 29-43). The IFR is approximately 110 feet long, approximately 20 feet wide, and the ceiling is approximately 15 feet high. At one end of the IFR is a bullet trap and backstop. Adjacent to the bullet trap is an approximately 12 foot by 12 foot target room. The IFR is located subsurface. The ventilation system within the IFR is comprised of a fan located in the wall and vented directly outside.

Based upon information supplied to GUERNSEY, Oklahoma Military Department (OMD) personnel collected wipe samples from the IFR on April 29, 2004. Concentrations within the IFR ranged from 30,170 $\mu\text{g}/\text{ft}^2$ at the bullet trap to 1,182 $\mu\text{g}/\text{ft}^2$ near the entry way. A window sill sample was 1,108 $\mu\text{g}/\text{ft}^2$. It is assumed the drill floor is above the 40 $\mu\text{g}/\text{ft}^2$ threshold. Table 29-1 summarizes the laboratory results for the wipe samples.

**Table 29-1
Laboratory Analysis**

Sample ID #	Sample Date	Result ($\mu\text{g}/\text{sq. Ft.}$)	Lab Report ID #
400	4/29/2004	30,170.0	Quantem 111870
401	4/29/2004	7,980.0	Quantem 111870
402	4/29/2004	3,662.0	Quantem 111870
403	4/29/2004	1,182.50	Quantem 111870
404	4/29/2004	1,108.75	Quantem 111870

Table 29-2 lists equipment identified for cleaning by OMD and armory personnel.

**Table 29-2
Equipment Identified for Cleaning**

Description	Number
Fog Generator	1
Rubber Hose ~20' Length	5
Fog Control Panels	6

Table 29-3 provides a preliminary cost estimate to clean the equipment and/or remediate the lead contamination in the IFR. Figure 29-1 shows the approximate locations of the OMD samples.

29.1 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 29-3
Preliminary Cost Estimate**

Equipment Cleaning Costs (a)				
Item Description	Number	Unit	Cost Per Unit	Total Cost
Fog Generator	1	Each	200	200
Rubber Hose ~20' Length	5	Each	100	500
Fog Control Panels	6	Each	100	600
	Total			\$1,300

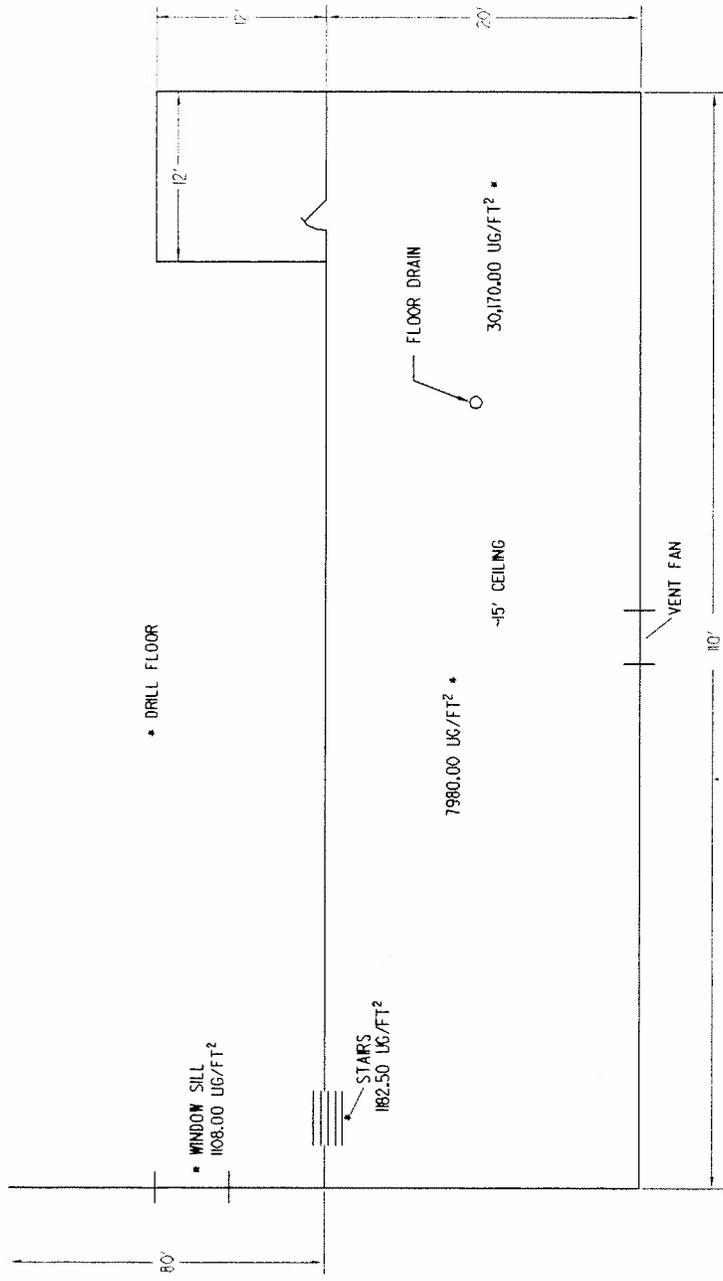
Remediation Costs (b)				
Item Description	Number	Unit	Cost Per Unit	Total Cost
Mob/DeMob	1	Each	\$1,500	\$1,500
Stage/Clean Equipment/Components for Disposal	1	Each	\$2,500	\$2,500
Cleaning of Army Equipment (a)	N/A	N/A	N/A	\$1,300
Clean/Seal Firing Range surfaces	8924	ft ²	\$5	\$40,158
Clean Drill Floor	8800	ft ²	\$0.10	\$880
Solidify/Stabilize Material in Bullet Trap	400	ft ³	\$15	\$6,000
Waste Disposal (non-hazardous)	2	Ton	\$1,000	\$2,000
Total (+/- 25%)				\$54,338

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.



- KINGFISHER FRINGE RANGE NOTES:**
1. ALL MEASUREMENTS ARE APPROX.
 2. SAMPLE LOCATIONS ARE APPROX. & IDENTIFIED BY "*".
 3. SAMPLE LOCATIONS ARE IN MICROGRAMS PER SQUARE FOOT (UG/FT²).
 4. SAMPLES COLLECTED BY OMD PERSONNEL 29-APRIL-01
 5. SEE PHOTOGRAPHS FOR REFERENCE
 6. SEE INVENTORY LIST FOR DESCRIPTION OF EQUIPMENT TO BE CLEANED



Consultant:

UNIVERSITY
OF OKLAHOMA & COMPANY

KINGFISHER ARMORY - PHOTOGRAPH LOG



Photograph #29-1



Photograph #29-2



Photograph #29-3



Photograph #29-4



Photograph #29-5



Photograph #29-6



Photograph #29-7



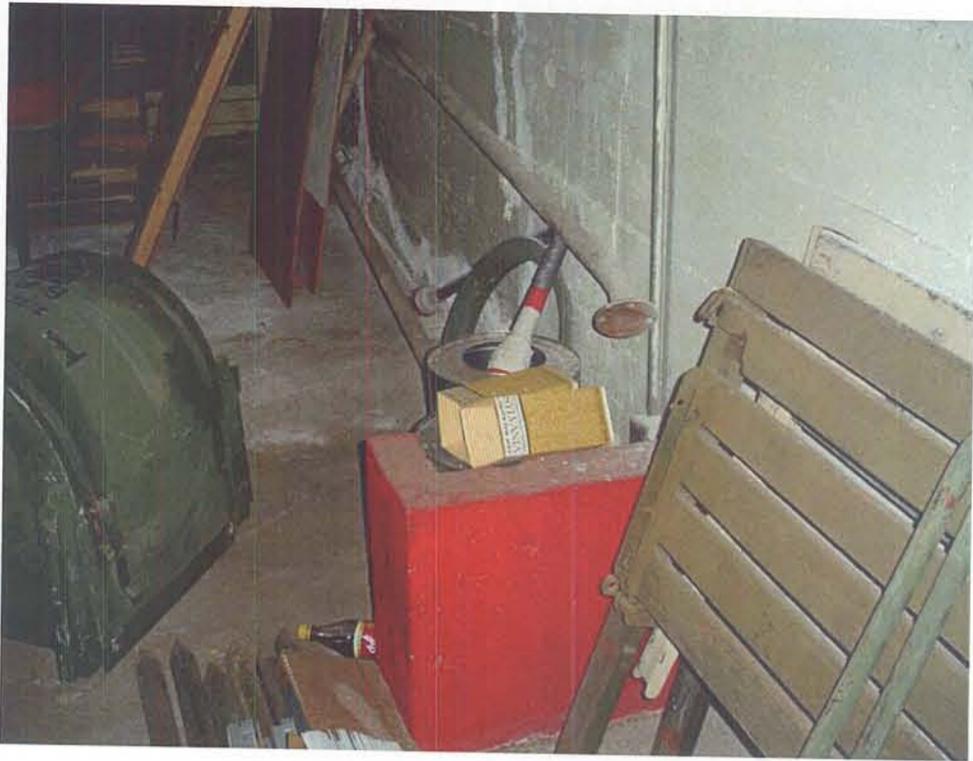
Photograph #29-8



Photograph #29-9



Photograph #29-10



Photograph #29-11



Photograph #29-12



Photograph #29-13



Photograph #29-14



Photograph #29-15



Photograph #29-16



Photograph #29-17



Photograph #29-18



Photograph #29-19



Photograph #29-20



Photograph #29-21



Photograph #29-22



Photograph #29-23



Photograph #29-24



Photograph #29-25



Photograph #29-26



Photograph #29-27



Photograph #29-28



Photograph #29-29



Photograph #29-30



Photograph #29-31



Photograph #29-32



Photograph #29-33



Photograph #29-34



Photograph #29-35



Photograph #29-36



Photograph #29-37



Photograph #29-38



Photograph #29-39



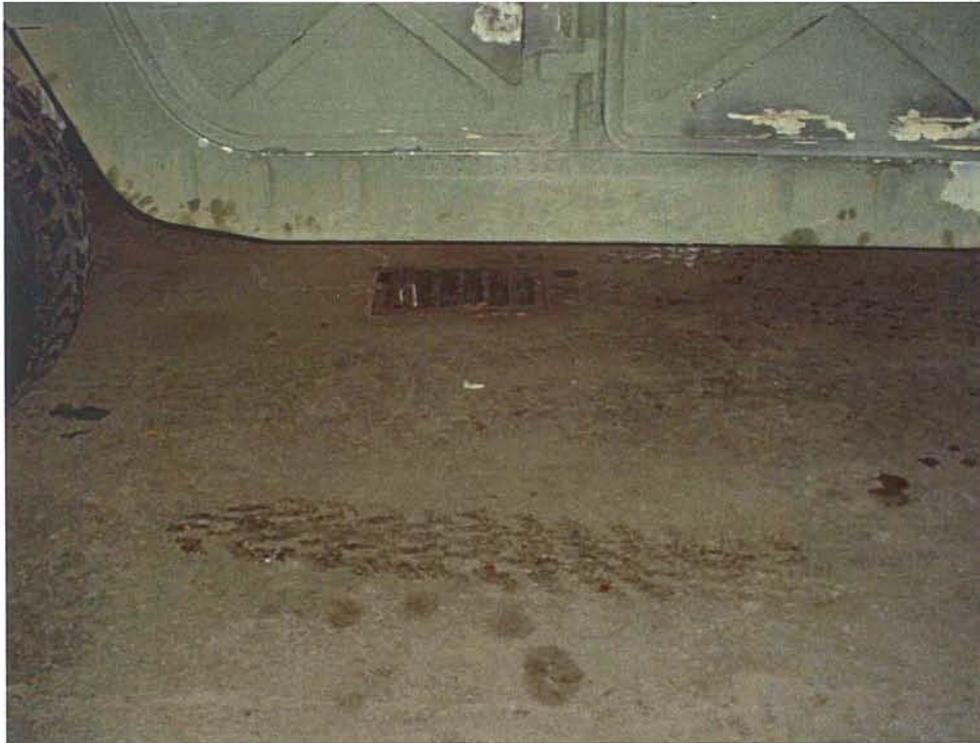
Photograph #29-40



Photograph #29-41



Photograph #29-42



Photograph #29-43

Appendix G: OCC UST Closure Report

Notification for Underground Storage Tanks	STATE USE ONLY
State agency name and address: <u>OKLAHOMA Military Department</u> <u>3501 Military Circle, Okc, Ok 73111</u>	ID NUMBER <u>3-705813</u>
TYPE OF NOTIFICATION	DATE RECEIVED
<input type="checkbox"/> A. NEW FACILITY <input type="checkbox"/> B. AMENDED <input checked="" type="checkbox"/> C. CLOSURE	A. Date Entered into Computer _____
_____ No. of tanks at facility _____ No. of continuation sheets attached	B. Data Entry Clerk Initials _____
INSTRUCTIONS	C. Owner Was Contacted to _____
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.	Clarify Responses, Comments. _____ _____ _____

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, 1986, or that are brought into use after May 8, 1986. 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—

a) 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

b) 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 discontinuation 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:

1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes,
2. tanks used for storing heating oil for consumptive 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 which is an interstate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mine-working, drift, shaft or tunnel) if the storage tank is situated upon 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 waste 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 (60 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 240
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 still in the ground; must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use. If the State requires notification of any amendments to facility send information to State agency immediately.

Penalties: Any owner who knowingly fails to notify or submit false information shall be subject to a civil penalty not to exceed \$10,000 per tank 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

OKLAHOMA CITY, OK 73111-4398
City State ZIP Code

OKLAHOMA
County

405/425-8334
Phone Number (include Area Code)

If located by State, give the geographic location of tanks by degree, minutes, and seconds.
Example Lat. 42, 34, 12 N Long 66, 34, 17 W

Latitude _____ Longitude _____

(if same as Section I, mark box)

Facility Name or Company Site Number, as appropriate
National Guard Armory

Street Address (P.O. Box not acceptable)
6th and Admire

Kingfisher Ok 73250
City State ZIP Code

County _____ Municipality _____

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

Tank Identification Number 3-705813 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>(Refer to Section E.)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Permanently Out of Use <small>(Refer to Section E.)</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>1958</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					
	Has tank been repaired?	<u>NO</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

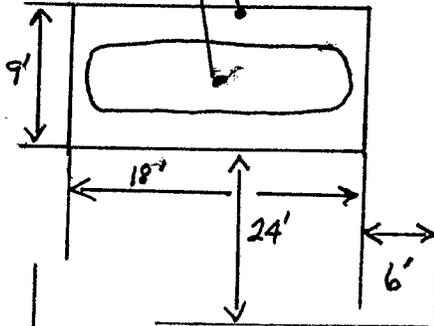
5. Piping (Material) (Mark all that apply)	Bare Steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Galvanized Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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					

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"/>

ROBERTS

SAMPLES

ARMORY



6th
ST

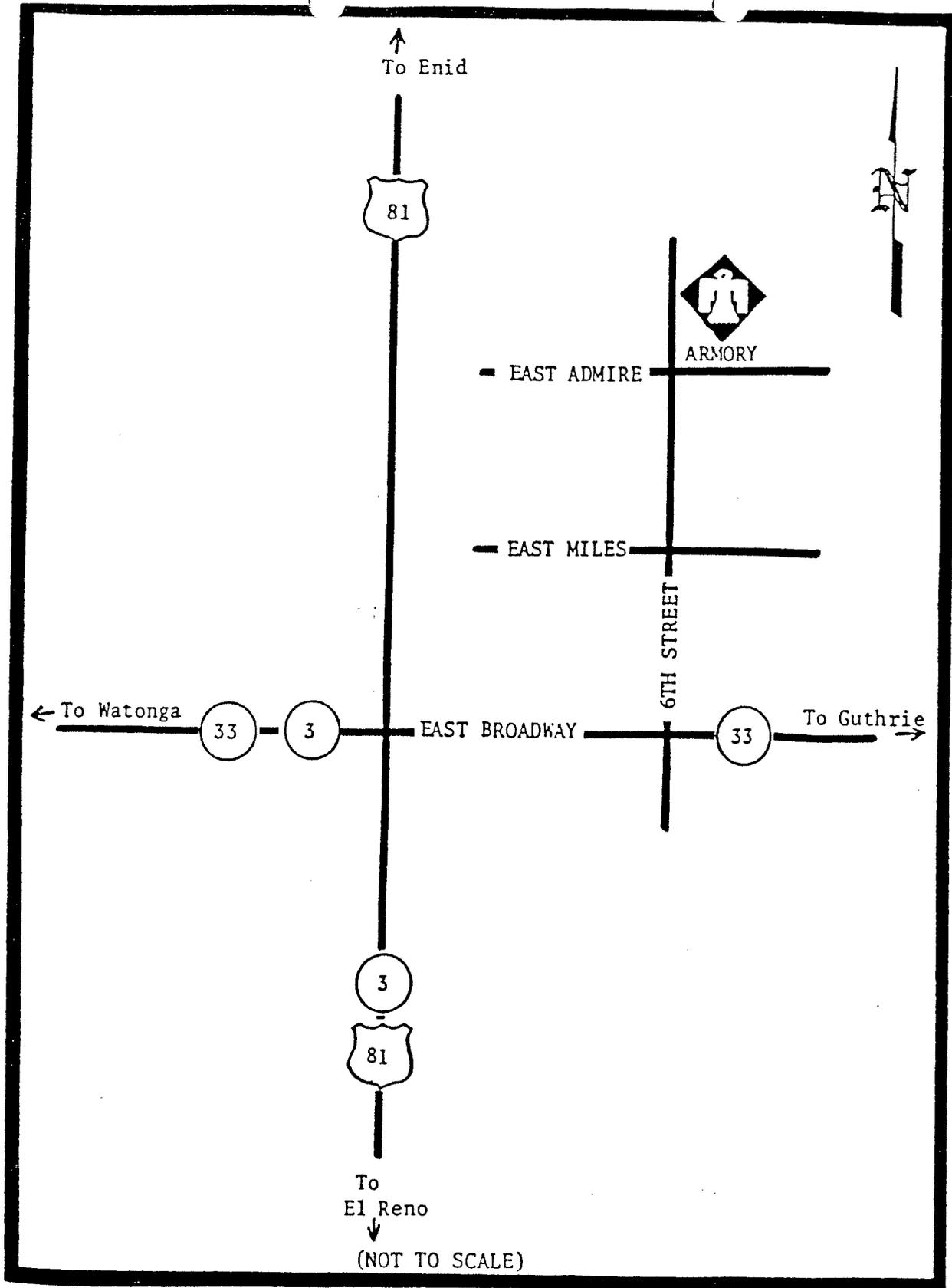
2 BLKS

Kingfisher
1,000 GAL
REMOVED 20 Sep 95

← U.S.
81

HWY 33

KINGFISHER



KINGFISHER, OKLAHOMA: 301 North 6th Street

Directions: From intersection of US Hwy 81 and State Hwy 33 travel East 1 city block to 6th St. Turn North on 6th St. and travel 2 city blocks. Armory located on NE corner of 6th and Admire Streets.

UNIT: Det 1 HHB 1st Bn 189th FA

(405) 375-3635

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	Date Collected: 9-20-95
Address: 3501 Military Circle	Date Analyzed: 9-26-95
Oklahoma City, Oklahoma 73111-4398	Analyst: Chris Hardeman
Project: Kingfisher	Received by: Penny Schmidt
Req. By: LTC Englebretson	Lab ID: 952246 through 952247

Sample ID	Parameter	Media	Method	Detection Limit	Result	Units
Kingfisher #1 Center, 952246	Benzene	soil	EPA 8020	0.0005	<0.0005	mg/ kg
	Toluene	soil	EPA 8020	0.0005	<0.0005	mg/kg
	Ethylbenzene	soil	EPA 8020	0.0005	<0.0005	mg/kg
	Xylenes	soil	EPA 8020	0.0005	<0.0005	mg/kg
	TPH	soil	EPA 8015(m)	0.1	<0.1	mg/kg
Kingfisher #2 Side, 952247	Benzene	soil	EPA 8020	0.0005	<0.0005	mg/kg
	Toluene	soil	EPA 8020	0.0005	<0.0005	mg/kg
	Ethylbenzene	soil	EPA 8020	0.0005	<0.0005	mg/kg
	Xylenes	soil	EPA 8020	0.0005	<0.0005	mg/kg
	TPH	soil	EPA 8015(m)	0.1	<0.1	mg/kg

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

Chris Hardeman

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

SEL/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.
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

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	Ethylbenzene	soil	EPA 8020	0.0005	<0.0005	mg/kg
	Xylenes	soil	EPA 8020	0.0005	<0.0005	mg/kg
	TPH	soil	EPA 8015(m)	0.1	<0.1	mg/kg
Kingfisher #2 Side, 952247	Benzene	soil	EPA 8020	0.0005	<0.0005	mg/kg
	Toluene	soil	EPA 8020	0.0005	<0.0005	mg/kg
	Ethylbenzene	soil	EPA 8020	0.0005	<0.0005	mg/kg
	Xylenes	soil	EPA 8020	0.0005	<0.0005	mg/kg
	TPH	soil	EPA 8015(m)	0.1	<0.1	mg/kg

Post-it® Fax Note	7871	Date	9/27/95	# of pages	1
To	LTC Englebretson	From	Pamela Green		
Co./Dept.	OKla. Military Dep	Co.	Alpha Labs		
Phone #		Phone #	948-1979		
Fax #	425-8571	Fax #			

Chris Hardeman

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

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

Sheet _____ of _____

Job No. _____

Date _____

Completed By _____

CERTIFICATE OF DESTRUCTION

Scrapping/Disposal Company:

NORTHERN OKIA. METALS
PO BOX 893
PERRY, OK 73077

Site of Destruction:

Tank Removal Contractor:

OKIA MILITARY DEPT.
3501 MILITARY CIRCLE
OKC, OK 73111-4398

Tank Identification:

Tank No.: 1

Size: 1000

Location: Company KINGFISHER National Guard

Address Kingfisher

City/State OK

Destruction Date: 21 SEPT 95

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 Jay Lynn

Title President

Subscribed and Sworn to before me this 21 day of 9 ion the year 95.

Notary Public _____ My Commission Expires: _____

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

CHAIN OF CUSTODY RECORD

Package Shipped From: Oklahoma Military Dept Date: 9-21-95

Address: ATTN: OKDE-D 3501 Military Circle
Oklahoma City, OK 73111-4388

Phone # 425-8339 Fax # 425-8571 Contact: LTC Englebretson

Condition of Package Upon Receipt: _____ P.O. # _____
 Number of Samples Received: 2 Person Sampling: LTC Englebretson
 Project I.D.: Kingfisher Sample Type: Soil

NUMBER	RECEIVING SAMPLE #	DESCRIPTION	AAL LOG NUMBER
1	Center	BTEX & TPH	952246
2	Side	BTEX & TPH	952247
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

* Use additional sheets as needed.

Comments: _____

Relinquished by: [Signature] Date: 9-21-95 Time: 1145 Received by: [Signature]
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____

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

CHAIN OF CUSTODY RECORD

Package Shipped From: Oklahoma Military Dept Date: 9-21-95

Address: ATTN: O&DE-D 3501 Military Circle
Oklahoma City, Ok 73111-4388

Phone # 425-8339 Fax # 425-8571 Contact: LTC Englehartson

Condition of Package Upon Receipt: _____ P.O. # _____
 Number of Samples Received: _____ Person Sampling: LTC Englehartson
 Project I.D.: Kia Fisher Sample Type: Soil

NO.	ANALYSIS	TEST METHOD	LAB. NUMBER
1	Center	BTEX & TPH	
2	Side	BTEX & TPH	
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

* Use additional sheets as needed.

Comments: _____

Relinquished by: [Signature] Date: 9-21-95 Time: 1145 Received by: [Signature]
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____

OK PLUMBING
 PO Box 833
 205 W. Miles
 Kingfisher, OK. 73750
 (405) 375-4908

INVOICE

INVOICE #	3079
DATE	9/25/95

Bill To:
 NATIONAL GAURD ARMORY
 6th. & ADMIRE
 KINGFISHER OK 73750

Ship To:

P.O. NUMBER	TERMS
NET RECT. REPAIRS TO SEWER LINE	

DESCRIPTION	AMOUNT
8" NO HUB	20.93
BAG OF CONCRETE	6.99
8" SDR. 35 PIPE. 3ft. @ 1.85ft.	5.55
LABOR ON REPAIRING SEWER LINE	65.00

RECEIVED
 REGENED
 OK FAC
 10 OCT 95 11 01
 10 OCT 95 11 01

Okay to Pay
 10 OCT 95
 B&

Amount Paid \$0
 Amount Due \$100.81

STATEMENT	SUBTOTAL	98.47
0 - 30 31 - 60 61 - 90 over 90	TAX @ 7%	2.34
	TOTAL	\$100.81

INVOICE

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

INVOICE NUMBER: 2286
INVOICE DATE: 9/27/95
PAGE: 1

Voice:
Fax:

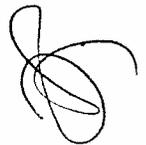
SOLD TO: Ship To:
OKLAHOMA Military Department
3511 Military Circle
Oklahoma City, OK 73111-4398

CUSTOMER ID	CUSTOMER PO	PAYMENT TERMS		
OKLAHOMA Military De	Englebreton	NET DUE		
SALES REP ID	SHIPPING METHOD	SHIP DATE	DUE DATE	
	Mail	9/27/95	9/27/95	
QUANTITY	ITEM NUMBER	DESCRIPTION	UNIT PRICE	EXTENSION
2.00	BTEX	BTEX Analysis	40.00	80.00
2.00	TPH	TPH Analysis Log# 952246-7	40.00	80.00

RECEIVED

OCT 2 1995

OKSA



*May to Pay
6 Oct 95
AK*

Subtotal 160.00
Sales Tax
Total Invoice Amount \$160.00
Payment Received 0.00
Check No: TOTAL DUE \$160.00

73-027#0501
 FEE #
 73-07705-01

WOLF READY-MIX, INC.

517 N. 3rd Street
 KINGFISHER, OK 73750
 (405) 375-4745

NAME <i>Oklahoma Military Dept</i>		DATE <i>9-21-95</i>
ADDRESS <i>ATTN OKDE-D 3501 MIL Circle</i>		<input type="checkbox"/> C.O.D. <input type="checkbox"/> CHARGE
CITY <i>OKC, OK</i>	PHONE <i>73111-4388</i>	<i>425-8334</i>
MAKE	SERIAL NO.	
NATURE OF SERVICE		
PROMISED <i>/ /</i>		
QUAN.	DESCRIPTION	AMOUNT
	<i>697 bill sent @ 6.00 per yd</i>	<i>36.00</i>
	<i>John to pay 21 SP 55 BE</i>	
	<i>Alvin [Signature]</i>	
COMMENTS		TOTAL MATERIALS
		TECHNICAL SERVICE TIME
TECHNICIAN		TAX
DATE COMPLETED	CASH ON COMPLETION OF WORK	TOTAL <i>36.00</i>

INVOICE Signature below constitutes acceptance of above service performed as being satisfactory - and that equipment has been left in good condition. *Thank You*

10848

See reverse side for guaranty

*30
8.00
240.00*

*160
36
21
196
240
75
511
100 91
611.91*

Notification for Underground Storage Tanks

FOR INK IN OK

COMPLETED FORM TO

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

STATE USE ONLY
I.D. Number 370 5813
Date Received APR 28 1986

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, 1986, or that are brought into use after May 8, 1986. 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 —

- (A) 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
- (B) 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 discontinuation of its use.

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 fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:
1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive 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 which is an intrastate pipeline facility regulated under State law;
- 5. surface impoundments, pits, ponds, or lagoons;
- 6. storm water or waste water collection systems;
- 7. flow-through process tanks;
- 8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
- 9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon 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 waste 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 (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

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 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached

6789146

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)
Oklahoma Military Department

Street Address
3501 Military Circle, N.E.

County
Oklahoma City, Oklahoma 73111

City
405 State
427-8371 ZIP Code

Area Code Phone Number

II. LOCATION OF TANK(S)

(If same as Section I, mark box here)

Facility Name or Company Site Identifier, as applicable

Co B (-) 2/180 Inf

Street Address or State Road, as applicable

301 W. Main

County

Kingfisher, Ok 73750-0096

City (nearest) State ZIP Code

Type of Owner (Mark all that apply)

Current State or Local Gov't Private or Corporate

Former Federal Gov't (GSA facility I.D. no. _____) Ownership uncertain

Indicate number of tanks at this location

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here) Job Title Area Code Phone Number

CPT Richard L. Harwell Environmental Engr (405) 427-8371 X333

IV. TYPE OF NOTIFICATION

Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section VI.)

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 Title of Owner or Owner's Authorized Representative _____ Signature _____ Date Signed _____

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

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
1. Status of Tank (Mark all that apply <input checked="" type="checkbox"/>) Currently in Use <input checked="" type="checkbox"/> Temporarily Out of Use <input type="checkbox"/> Permanently Out of Use <input type="checkbox"/> Brought into Use after 5/8/86 <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Estimated Age (Years)	15				
3. Estimated Total Capacity (Gallons)	1000				
4. Material of Construction (Mark one <input checked="" type="checkbox"/>) Steel <input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Internal Protection (Mark all that apply <input checked="" type="checkbox"/>) Cathodic Protection <input type="checkbox"/> Interior Lining (e.g., epoxy resins) <input type="checkbox"/> None <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. External Protection (Mark all that apply <input checked="" type="checkbox"/>) Cathodic Protection <input type="checkbox"/> Painted (e.g., asphaltic) <input type="checkbox"/> Fiberglass Reinforced Plastic Coated <input type="checkbox"/> None <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Piping (Mark all that apply <input checked="" type="checkbox"/>) Bare Steel <input type="checkbox"/> Galvanized Steel <input checked="" type="checkbox"/> Fiberglass Reinforced Plastic <input type="checkbox"/> Cathodically Protected <input type="checkbox"/> Unknown <input type="checkbox"/> Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply <input checked="" type="checkbox"/>) a. Empty <input type="checkbox"/> b. Petroleum <input type="checkbox"/> Diesel <input type="checkbox"/> Kerosene <input type="checkbox"/> Gasoline (including alcohol blends) <input checked="" type="checkbox"/> Used Oil <input type="checkbox"/> Other, Please Specify _____ c. Hazardous Substance <input type="checkbox"/> Please Indicate Name of Principal CERCLA Substance _____ OR Chemical Abstract Service (CAS) No. _____ Mark box <input checked="" type="checkbox"/> if tank stores a mixture of substances d. Unknown <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional Information (for tanks permanently taken out of service) a. Estimated date last used (mo/yr) _____ b. Estimated quantity of substance remaining (gal.) _____ c. Mark box <input type="checkbox"/> if tank was filled with inert material (e.g., sand, concrete) _____	/	/	/	/	/

DETACHMENT 1 HEADQUARTERS BATTERY 1ST BATTALION 189TH FIELD ARTILLERY
Oklahoma Army National Guard
301 N 6th, Kingfisher, Oklahoma 73750-2716

31-05813

22 October 1990

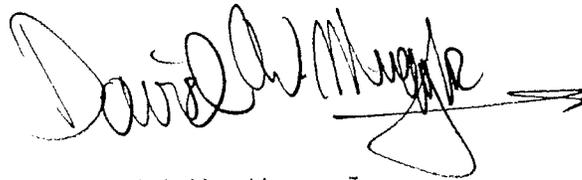
MEMORANDUM FOR: State Environmental Officer

OCT 30 1990

SUBJECT: Long Unused Fuel Storage Tank

1. The underground fuel storage tank at this location, Det 1 HHB 1Bn 189 FA, Kingfisher, OK, is not and has not been in use since at least Mar 1985.
2. No fuel has been purchased for or pumped into or out of this tank in the last five years, possibly longer.
4. POC for any questions is SSG Mugg, 375-3635 during duty hours or 237-1991 evenings and weekends.

FOR THE COMMANDER:



David W. Mugg Jr
SSG, OKARNG
Readiness NCO

10-31-90
JLB

Notification for Underground Storage Tanks	STATE USE ONLY
State agency name and address: <u>OKLAHOMA Military Department</u> <u>3501 Military Circle, Okc, Ok 73111</u>	ID NUMBER <u>3-705813</u>
TYPE OF NOTIFICATION	DATE RECEIVED
<input type="checkbox"/> A. NEW FACILITY <input type="checkbox"/> B. AMENDED <input checked="" type="checkbox"/> C. CLOSURE	A. Date Entered into Computer _____
_____ No. of tanks at facility _____ No. of continuation sheets attached	B. Data Entry Clerk Initials _____
INSTRUCTIONS	C. Owner Was Contacted to _____
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.	Clarify Responses, Comments.
_____	_____
_____	_____

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—

- a) 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
- b) 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 discontinuation 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:

- 1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes.
- 2. 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 which is an interstate pipeline facility regulated under State laws;
- 5. surface impoundments, gas ponds, or lagoons;
- 6. storm water or waste water collection systems;
- 7. flow-through process tanks;
- 8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
- 9. storage tanks situated in an underground area (such as caverns, coal-mining, drift, shaft, or tunnel) if the storage tank is situated upon 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 waste under Subsection 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 240
 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 still in the ground, must notify by May 8, 1985. 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 send information to State agency immediately.

Penalties: Any owner who knowingly fails to notify or submit false information shall be subject to a civil penalty not to exceed \$7500 for each tank for which notification is not given or for which false information is submitted.

I. OWNERSHIP OF TANK(S)

II. LOCATION OF TANK(S)

If required by State, give the geographical location by degree, minutes and seconds: Easting Lat. 42, 34, 12 N Long. 66, 34, 17 W

Owner Name (Corporation, Individual, Public Agency, or Other Entity)
OKLAHOMA MILITARY DEPARTMENT

Street Address
3501 MILITARY CIRCLE

OKLAHOMA CITY, OK 73111-4398
 City State ZIP Code

OKLAHOMA
 County

405/425-8334
 Phone Number (include Area Code)

Latitude _____ Longitude _____

(If same as Section I, mark the box)

Full Name or Company Name (Print, as appropriate)
National Guard Armory

Street Address (Print, as appropriate)
6th and Adair

Kingfisher Ok 73250
 City State ZIP Code

County _____ Municipality _____

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

Tank Identification Number 3-705813 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>(Refer to Section 2.1)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Permanently Out of Use <small>(Refer to Section 2.1)</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) 1958

3. Estimated Total Capacity (gallons) 1,000

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"/>

Oklahoma Army National Guard
301 N 6th, Kingfisher, Oklahoma 73750-2716

Kingfisher/RURA
UST

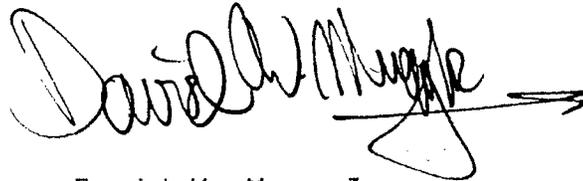
22 October 1990

MEMORANDUM FOR: State Environmental Officer

SUBJECT: Long Unused Fuel Storage Tank

1. The underground fuel storage tank at this location, Det 1 HHB 1Bn 189 FA, Kingfisher, OK, is not and has not been in use since at least Mar 1985.
2. No fuel has been purchased for or pumped into or out of this tank in the last five years, possibly longer.
4. POC for any questions is SSG Mugg, 375-3635 during duty hours or 237-1991 evenings and weekends.

FOR THE COMMANDER:



David W. Mugg Jr
SSG, OKARNG
Readiness NCO

Appendix H: National Register of Historic Places Documentation

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

=====

1. Name of Property

=====

historic name Kingfisher Armory

other names/site number Kingfisher National Guard Armory

=====

2. Location

=====

street & number 301 N. 6th St. not for publication N/A
city or town Kingfisher vicinity N/A
state Oklahoma code OK county Kingfisher code 073
zip code 73750

=====

5. Classification

=====

Ownership of Property (Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property (Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

Contributing	Noncontributing	
<u>1</u>	<u>0</u>	buildings
<u>0</u>	<u>0</u>	sites
<u>0</u>	<u>0</u>	structures
<u>0</u>	<u>0</u>	objects
<u>1</u>	<u>0</u>	Total

Number of contributing resources previously listed in the National Register N/A

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.) N/A

=====

6. Function or Use

=====

Historic Functions (Enter categories from instructions)

Cat: DEFENSE Sub: arms storage

Current Functions (Enter categories from instructions)

Cat: DEFENSE Sub: arms storage

=====

7. Description

=====

Architectural Classification (Enter categories from instructions)

OTHER/Works Progress Administration

Materials (Enter categories from instructions)

foundation CONCRETE

roof ASPHALT

walls BRICK

other _____

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

=====

8. Statement of Significance

=====

Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations (Mark "X" in all the boxes that apply.)

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or a grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance (Enter categories from instructions)

ECONOMIC
MILITARY
ARCHITECTURE

Period of Significance 1936

Significant Dates 1936

=====

8. Statement of Significance (Continued)
=====

Significant Person (Complete if Criterion B is marked above)

N/A

Cultural Affiliation N/A

Architect/Builder Nolen, Bryan W., Supervising Architect
Works Progress Administration, Builder

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)
=====

9. Major Bibliographical References
=====

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS)

preliminary determination of individual listing (36 CFR 67) has been requested.

previously listed in the National Register

previously determined eligible by the National Register

designated a National Historic Landmark

recorded by Historic American Buildings Survey # _____

recorded by Historic American Engineering Record # _____

Primary Location of Additional Data

State Historic Preservation Office

Other State agency

Federal agency

Local government

University

Other

Name of repository: N/A

=====
10. Geographical Data
=====

Acreage of Property Less than one (1) acre

UTM References (Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing	Zone	Easting	Northing
1	<u>14</u>	<u>596560</u>	<u>3969110</u>	3	—	—
2	—	—	—	4	—	—
	<u>N/A See continuation sheet.</u>					

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)

=====
11. Form Prepared By
=====

name/title Dianna Everett, Research Associate
organization State Historic Preservation Office date December 17, 1992
street & number 621 N. Robinson, Suite 375 telephone (405) 521-6249
city or town Oklahoma City state OK zip code 73102

=====
Additional Documentation
=====

Submit the following items with the completed form:

Continuation Sheets

Maps

A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional items (Check with the SHPO or FPO for any additional items.)

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Property Owner
=====

(Complete this item at the request of the SHPO or FPO.)

name State of Oklahoma/Oklahoma Military Department
street & number 3501 Military Circle Northeast telephone 405-425-8000
city or town Oklahoma City state OK zip code 73111

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SUMMARY:

The Kingfisher Armory (Kingfisher National Guard Armory) is a self-contained, horizontal, two-story building constructed of red brick with cast concrete detailing. The building measures 138 feet (east to west) by 125 feet (north to south). A local project of the Works Progress Administration in Oklahoma, it was constructed in 1936. The armory property is located at 301 N. 6th Street. The surrounding area is commercial. The armory's main entrance faces west. The floor plan typical of WPA-built armories, in that the building comprises two distinct sections: An east section, with barrel roof, contains the drill area, while a flat-roofed west section comprises offices, supply and arms rooms, and a garage area. The building exhibits decorative brickwork and cast concrete detailing, all exemplifying the best of WPA architecture and construction philosophy in Oklahoma. Though the massing is strongly horizontal, several architectural details give the building a vertical emphasis: the stepped entrance bay; stepped parapet on all four sides; corner and pilasters topped with stepped concrete caps; a panel of vertically laid brick over each second-floor window on the south wall in the drill hall section; and narrow, vertical steel-framed, multiple-light windows (all original) in all facades. Other decorative brickwork includes four-row header pattern segmental arches over each garage door on the west and south facades and in the recessed entry. The interior garage doors and most office doors are original. Alterations: In 1988-1991 five exterior overhead garage doors, originally wood, were replaced with steel doors, and five pedestrian doors were replaced with steel doors. Interior alterations are minimal: two second-floor offices have been divided with wood-framed walls. The Kingfisher Armory retains appropriate integrity of location, setting, design, materials, and workmanship to enable it exemplify WPA-type military architecture in Oklahoma.

EXTERIOR DESCRIPTION:

The Kingfisher Armory is a self-contained, horizontal, two-story building constructed of red brick with cast concrete detailing. The square plan measures 138 feet (east to west) by 125 feet (north to south). A local project of the Works Progress Administration in Oklahoma, it was constructed in 1936 of red brick manufactured in McAlester, Oklahoma, at the state penitentiary. The armory property is located at 301 North 6th Street in a commercial district. It is bordered by Sixth on the west, by Admire on

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the south, by an alley on the east, and by a parking lot and commercial building on the north.

As with many WPA armories in Oklahoma, the building is designed to have two principal facades that each give pedestrian and/or vehicular access to a street. The Kingfisher Armory has two principal facades, one accessing Sixth Street (the west, or main entry) and one accessing Admire. These walls are characterized by outwardly projecting pilasters that enframe window/door bays. The west facade's main focus is an elaborate door surround consisting of markedly stepped and castellated parapet; tall, shallow pilasters that enframe second-story strip windows; and a first-floor entry consisting of a compound segmental arch. The south facade is divided by shallow pilasters into two parts, one being the administrative section, characterized by its fenestration--tall, vertical metal-framed windows--and the drill hall section, characterized by stepped castellated parapet and first-floor window/door arrangement. Cast concrete detailing is an important visual aspect of the two primary facades. The secondary facades, on the north and east, have almost no decoration, though the administrative section (west side) of the north facade is characterized by fenestration similar to that of the primary facades.

The roofline of the Kingfisher Armory indicates that the building comprises two distinct sections: An east section, with barrel roof, comprises the drill area, while a flat-roofed two-story west section comprises offices, supply and arms rooms, and garages. (Historically and presently), the drill hall roof is roll roofing, and the west section's roof is tar and gravel overlaid in spots with black foam sealer. The roofline of the Kingfisher Armory gives the building a fortress-like aspect. In both sections the generally horizontal roofline is distinguished by stepped parapets on all four sides. The southeast parapet over the drill hall section exhibits castellations. On the south and west (street sides) the parapets are complicated, with upward projections or steps at the corners and in the center of the roofline. The steps are particularly exaggerated in the eastern end of the south facade, where they serve to conceal the arc of the barrel roof. The east side roofline is marked by very high projections in the corners, and the north side roofline is a less complicated version of that of the south side.

Windows and doors are character-defining elements of the Kingfisher Armory. Each facade exhibits regular openings that indicate the dual nature of the building and the functions of interior spaces. All of the steel-framed windows are original. Glazing patterns include combinations of two or three

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lights set in four, five, or six rows (2/4/2, 4/4/2, 4/2/4/2, 3/6/3, 3/6/3/3, and 6/3/6/3, with one or two sets of vertical center-pivot windows and a bottom row that opens in hopper fashion). The WEST facade (offices and garage) consists in three bays: On the ground floor, the central bay contains the compound-arched, recessed entrance, with new steel door; while on the second floor, recessed and under a brick segmental arch, there are three six-light vertical strip windows (these do not open but only provide light for the stairwell). A concrete slab functions as a ground-level porch. The northernmost bay, between a corner pilaster and the central bay, contains two vehicle doors, on the ground floor, and, in the second story, triplets of 2/4/2 windows flanking a single 2/4/2 window. The southernmost bay replicates this pattern. In each corner pilaster, in the second story, there is a 4/2/4/2 window. Openings in the SOUTH facade also indicate the building's various functions. Concrete-capped, shallow but very broad pilasters enframe two bays. The western bay exhibits matched triplets of windows, three identical sets in the second story (2/4/2, 3/6/3, 2/4/2) and two sets (4/4/2, 3/6/3/3, 4/4/2) in the first story. The eastern (drill hall) bay has windows on the first story only: A central (new, steel) overhead vehicle door is flanked by a sets of three windows (4/2/4/2, 6/3/6/3, 4/2/4/2). The central and eastern pilasters each contain a steel pedestrian door (new) topped by a 3/6/3 transom. The EAST facade (drill room) has a central pair of (permanently sealed) door openings, each topped with a 3/6/3 transom; the doors are flanked by two regularly spaced pairs of 6/3/6/3 windows. The NORTH facade is divided into two bays: the eastern bay (drill hall) has windows on the ground floor only: a small two-foot-square window in the center, and a single 3/6/3 window near each corner. The western bay (office section) has two triplets of 3/6/3 windows on each floor. In the corner pilaster, in the second story, is a 4/2/4/2 window. Several dozen window lights are missing, and a few others are painted over to block sunlight.

Though the massing is strongly horizontal, architectural details and trim influenced by Art Deco style give the building a vertical emphasis: the stepped parapet on all facades; two-story pilasters divided into three vertical parts, with stepped concrete caps and vertical concrete panels; vertically-laid strips of brickwork over each window on the ground floor of the south facade in the drill hall section; and narrow, vertical, steel-framed multiple-light hopper-opening windows in all facades. Original metal downspouts are in place on the north and east facades.

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One of the distinguishing architectural features of the Kingfisher Armory is its decorative brickwork. On the west and southeast facades (street sides), "layered" or multi-level pilasters enframe the bays. At the northwest and south corners of the west section, and at the southwest and southeast corners of the drill hall section, there are "compound" pilasters: That is, three vertical "shafts" of brick actually make up the corners of the building. Other decorative brickwork includes four-row rowlock-pattern segmental arches over each garage door on the west and south facades and over the recessed entry. In addition, on the south wall, over each ground-floor window and pedestrian door in the drill hall section, there is a wide panel of brick in which the bond runs vertically from the window header to the top of the parapet. In addition, in every pilaster there are long, narrow, rectangular-shaped "incisions" flanking the second-story window.

Cast-concrete details are another significant feature of the building: These consist of the compound segmental-arched portal (main entrance) on the west side, the coping of the parapet, all pilaster caps, all window sills, and the drip-mould just above ground level on the south and west facades. The corner pilasters and the central pilasters at the entrances are tripartite, each having a central window topped with a concrete panel and flanked by a stepped concrete cap that give the pilaster a strong vertical emphasis, even making it appear to have defensive "towers."

WPA markers identify the building. Over the front door is a small metal shield with the legend: "USA/1936/WPA." In the southwest corner of the west wall is a cornerstone bearing the inscription: "State Armory/Built by Works Progress Administration/1936/W. S. Key/State Administrator."

Alterations include the replacement of all exterior doors, both pedestrian and vehicle, with steel doors. All of the steel-framed multi-light hopper-style windows are original. Stove vents are visible in second-story windows on the north facade. A window-type air conditioner has been installed in an upstairs window in the north facade. The building retains its original metal downspouts on all facades. On the west wall near the southwest corner of the building is affixed a diamond-shaped red and gold metal sign, symbol of the 45th Infantry Division. A gasoline pump, a tall air vent pipe, and an air conditioner condenser sit to the south of the main entrance; a communications antenna is visible on the roof in the northwest corner, and a flagpole rises above the main entrance bay. Attached to the east wall and to the north wall is a chain-link fence separating armory property from a parking lot belonging

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to a neighboring business. At streetside is a modern wooden sign identifying the property as a National Guard facility.

INTERIOR DESCRIPTION/ALTERATIONS:

The Kingfisher Armory exhibits a rectangular plan that was standard for WPA armories. The building is divided into two functional sections, a drill hall area on the east, and a two-story administrative/garage section on the west. The first-floor garage extends the width of the building, north to south, as does the second-floor office section.

The 86' by 125' east, or drill hall section, was and is characterized by a very high vaulted ceiling. In the 1980s a drop ceiling was added, but the lower portion of the steel trusses are exposed. The stage and dressing rooms, in the west end, are intact; under the stage, a basement area rifle range is still accessible but has been condemned; doors to backstage dressing rooms and rifle range are original wood panel type. The interior wall between the drill room and the garage section is brick (load-bearing), and original wood-panel overhead garage doors and pedestrian doors are still in place. The interior walls exhibit multiple pilasters of brick. The entire drill room, from ceiling to floor, has been painted silver. The original 1936 wood-block floor in the drill room was removed in the 1960s, leaving the original 1936 concrete subfloor exposed.¹ Still visible is residue of the asphalt used in the process of installing the flooring. In the west section, ground floor, the original floor plan remains, with one large garage on either side of the central hallway/stairwell. Each garage has two small storerooms. All interior walls are brick.

On the second floor, the original floor plan remains. All interior walls are also brick. The Kingfisher Armory was designed to house two separate National Guard units. Thus the second-floor is divided into two sections by a central east-west hallway/stairwell. A long north-south hallway bisects each section. Each "half" still retains the original five-rooms-per-guard-unit plan: Each unit had a locker room and supply room (with arms vault) on the east side of the hallway, and a shower/latrine, an office, and a classroom on the west side. One locker room (in the northeast corner), plus part of the hallway (walled off), and the original shower room now serves as a kitchen/mess hall. A wood-framed wall has been added to the office in the southwest section to divide it into two rooms, and a drop ceiling conceals the original concrete ceiling. No original walls were removed in this process.² The original

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concrete ceilings are visible in all rooms except the remodeled office.

The Kingfisher National Guard Armory is essentially intact and unaltered, retaining more than adequate integrity of location, setting, exterior design, materials, and workmanship to convey its significance as the embodiment of WPA-type military architecture in Oklahoma.

ENDNOTES

1. Sgt. David Mugg, HHB-189th Field Artillery, interview by Dianna Everett, Kingfisher, Oklahoma, December 16, 1992.
2. Ibid.

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SUMMARY:

The Kingfisher Armory (Kingfisher National Guard Armory) is significant within the economic context of Works Progress Administration projects in Kingfisher, Oklahoma, 1936, within the military context of national defense requirements of the Oklahoma National Guard's local unit in the era between the two world wars, and within the architectural context of WPA building style and methodology locally and in Oklahoma. The armory was constructed in 1936 by local men who were qualified for work relief under WPA guidelines. The project brought \$34,000 into the economy of Kingfisher, Oklahoma, by employing an average of 40 previously unemployed, unskilled workers for more than ten months. The armory also filled a longstanding military need for an adequate, secure drill hall and arms storage building for use by two Oklahoma National Guard units, Headquarters Battery and Combat Train, 2nd Battalion, 158th Field Artillery, and Battery F, 158th Field Artillery, of the 45th Infantry Division. These two units previously had no permanent armory. The Kingfisher Armory is significant architecturally as an excellent, intact example of WPA architecture. The materials, brick, with cast concrete ornamental Art Deco-style detailing, and the workmanship, evident in the masonry and detailing, reflect both the goals of the WPA Building Program in Oklahoma and the practical considerations of using unskilled labor to construct large public buildings. As it is essentially intact, the Kingfisher Armory is able to convey appropriate feeling and association within these three contexts.

HISTORICAL SIGNIFICANCE:

Oklahoma suffered severely during the initial years of the Great Depression, 1929-1933, but in a predominantly rural state, where in 1930, 65.7 percent of the population lived in rural areas, and twenty-seven of the state's seventy-seven counties had no towns of more than 2,500 persons, drought and general agricultural failure from 1932 through 1938 exacerbated the general economic depression. Rural communities, towns, and cities, which functioned as agricultural service centers, consequently foundered.

Oklahoma's state and local governments were unable to provide much help for citizens, whether urban or rural. Limited relief offered by counties did not alleviate the suffering, nor did meager annual appropriations by the state legislature. No public funding was available to maintain the existing infrastructure, and private charity failed to create or to support relief initiatives. The Federal Emergency Relief Administration, established in May

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of 1934 by the Roosevelt administration, provided some direct relief, in terms of food, clothing, and small stipends, but until the inception of the Works Progress Administration in 1935 only a few Oklahomans received adequate assistance. The urban unemployed and displaced farm families combined to create a situation in which 33 percent of all Oklahoma families were on the direct relief rolls by the time President Roosevelt created the WPA by executive order in May 1935. By July 1935 there were 127,416 jobless men certified in Oklahoma.¹

The inauguration of the Works Progress Administration in 1935 stands as one of the benchmarks of Franklin D. Roosevelt's "New Deal" for the United States. Administered nationally by Harry Hopkins, the program was designed to assist in lifting the nation from the depths of severe economic depression. Make-work projects provided work-relief for literally millions of individual citizens whose lives had been devastated by the near-collapse of the American economy. After the inception of the WPA in 1935, the infusion of cash into projects all over the state made a significant economic impact on hundreds of communities. During the seven-and-one-half-year life of the WPA, more than \$10.75 billion were expended nationally; of this amount, Oklahoma received more than \$185 million for projects ranging from school lunch programs, flood control, and archeological excavations, to major construction projects such as armories, highways, bridges, schools, athletic stadia, and museums.²

Localities competed for WPA funds from the outset. Chambers of Commerce and planning committees drew up specifications to meet three major criteria established by the administration: 1) projects must meet a well-defined community need; 2) each project must be sponsored by a public body, such as a city or county government or school district, which was required to provide from 10 to 25 percent of the project cost in cash and/or materials; and 3) 90 percent of those hired must be unemployed employable workers who were carried on the relief rolls. Compensation was to be based on 130 hours of work for \$21 (later \$23) per month for unskilled labor.³ In June of 1935 Oklahoma WPA Director (Gen.) William S. Key estimated that there were already "70,000 employable unemployed" ready to work on his agency's projects throughout the state; by November of that year, 67,973 Oklahomans were at work for the WPA, and by January of 1936 WPA rolls reached an all-time high of 94,281.⁴

Armory construction was the first major thrust of the WPA Building Program in Oklahoma. By mid-1937, 126 armories had been constructed throughout the United States, and 51 of these projects were located in Oklahoma. When the WPA

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ended its program in 1943, 54 armories had been built and 53 others "reconstructed" in the state. The new construction had infused \$3.5 million into local economies.⁵

Kingfisher, in north-central Oklahoma, had been established in April of 1889, following the Land Run of 1889 which opened central Oklahoma's Unassigned Lands. By 1910 Kingfisher (city) had grown to 2,538, and by 1930 its population stood at 2,726. Kingfisher was the primary service and shipping center for Kingfisher County, an agricultural region in which wheat was the major crop. In the 1920s a drop in the market price of wheat seriously depressed agriculture in western Oklahoma.⁶

As with most rural Oklahoma counties, Kingfisher County was further devastated by drought and depression in the early 1930s. By September of 1934, 1,445 families, comprising 37.2 percent of the county population, were on direct relief. In mid-1935, 187 heads of families in Kingfisher (city) were certified as "employable unemployed," ready to work. WPA projects allowed them to use their energy, and by September of 1935 the number of county families on direct relief had been reduced to 618, or 17.6 percent of the population. By September of 1936 the WPA employed 316 persons in Kingfisher County on various projects, including the armory.⁷

Kingfisher's city council submitted its bid for a new armory in August of 1935. WPA officials approved the projects, and blueprints arrived in Kingfisher in September. The city provided a vacant site (six city lots) at the northeast corner of 6th and Admire, where sales had been held on weekends.⁸ Red tape in Washington, D.C. delayed the project for several months, but finally on January 23, 1936, twenty WPA workers began clearing ground. The project's supervisors estimated that it would employ twenty to forty-four men on one eight-hour shift for six months, but in true WPA fashion, a short project expanded into a long one.⁹ By April, supervisors decided to work two six-hour shifts, each requiring forty men, in order to provide more employment opportunity and in order to finish the project by July 1. The exterior was completed in the summer, but interior work continued through October 29, the day of dedication.¹⁰ The two Guard units actually moved into the building on October 15, two weeks before it was completed. A dedicatory celebration was held on October 29, 1936, with General Key, state WPA director, and other state and local dignitaries participating, and the day-long program concluded with a dance in the new armory.¹¹

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WPA projects in 1935-1937 propped up the sagging rural economy of Kingfisher County. The WPA's cost on the armory project was \$34,000 (with the city contributing only the land and the cost of hooking up electrical, sewer, and water connections). The federal government invested more in the armory than in any other building project in the county.¹² In human terms, thousands of person-hours of labor went into the armory's construction. Most significantly, a monthly average of forty-four men were employed on the project, a number that grew to eighty as the building neared completion. These figures testify to the labor-intensive nature of WPA projects, which were designed to provide as much work as possible for those on relief rolls. Most of the hours were consumed in hand labor--in laying brick, pouring and finishing concrete for the foundation, window sills, and decorative detailing, for the roof of the one-story section, and in installing a maple-block floor in the 86' by 125' drill hall (more than 100,000 maple blocks were cut, primed, set in asphalt, sanded, oiled, and polished). A concrete floor would have sufficed, but ample time and labor allowed for a complicated design.¹³

Upon completion, the Kingfisher Armory became the home of the Headquarters Battery and Combat Train 2nd Battalion, 158th Field Artillery, and Battery F, 158th Field Artillery, of the 45th Infantry Division, Oklahoma National Guard.¹⁴ Reorganized under the National Defense Act of 1920, the Guard was an integral part of United States military preparedness. Since 1920, approximately five-sixths of America's military strength lay with "citizen soldiers"--National Guard divisions and Reserve divisions in nine corps areas across the nation. Each corps area had one Regular Army division, two National Guard Divisions, and three Reserve divisions. Oklahoma, along with New Mexico, Colorado, and Arizona, formed one division of the Eighth Corps. Despite inadequate training facilities, the Oklahoma National Guard provided service during numerous natural disasters and civil disturbances during the 1920s and 1930s.¹⁵ Because the Guard paid its members a monthly fee, which they spent locally to feed and clothe their families, Oklahoma communities actively competed to secure local Guard units during these years. In 1921 Kingfisher received a unit of the Field Artillery; by 1923 the unit had been reorganized into two batteries. By 1936 the units included nine officers and one hundred enlisted men.¹⁶

The National Guard received only one-tenth of the War Department's budget in the interwar years, and equipment was surplus from World War I. Many units needed permanent training, drilling, and storage facilities, as Guard members were required to meet 48 drills per year. Units without permanent armories

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usually rented space in warehouses that often lacked proper security. Four hundred new armories created by the cooperative effort of the federal and local governments helped correct this serious deficiency.¹⁷

The new Kingfisher Armory provided permanent housing for the unit, which formerly had rented space around town. The new facility was more than adequate for the detachment's needs. The building was divided into areas serving specific functions. On the ground floor, the entire one-story east section housed the drill hall, comprising the stage and the drill floor. The two-story front, or west, section, housed the arms vault, the supply room, and the locker room, the garage, offices, and classroom. Underground, beneath the stage, was a rifle range. Thus the building provided for virtually every training need, except for field exercises.

Due in large measure to the WPA armory-building program, the 45th Infantry Division was able to achieve a level of military efficiency and readiness that prepared it to be among the first four National Guard divisions federalized in late 1940 by President Roosevelt. After the United States entered World War II, the 45th saw action in North Africa, Sicily, and Italy.¹⁸

ARCHITECTURAL SIGNIFICANCE:

The Kingfisher Armory typifies WPA armory architecture in Oklahoma. In the mid-1930s two armory plans were developed by Major Bryan W. Nolen, an Oklahoma City architect and National Guard officer selected in 1935 to serve on the staff of WPA administrator Gen. William S. Key. Nolen's exterior design indicates the building's functions. He planned for every armory to have a drill hall section, usually having a high ceiling and either a barrel or a flat roof, and also a flat-roofed, single-story extension on one or both sides, the number of extensions depending on the number of units (one, two, or four) to be housed in the building.¹⁹ Design was flexible, allowing for the orientation of the building to various avenues of egress or accommodating the dimensions of the site. In Kingfisher's case, the chosen site was too small to hold a two-unit armory constructed according to a standard, one-story, two-wing plan. The plans were redrawn in 1935 to provide for a second story in the administrative/garage section.²⁰ The WPA preferred to use locally purchased building materials, and therefore armories were constructed either of native stone, usually quarried locally, or brick, manufactured locally or within the state. The Kingfisher Armory was constructed of brick manufactured at the state prison in McAlester.²¹

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WPA architectural philosophy prohibited ornate features, intricate design, and elaborate trim; therefore, WPA armories tend to be straightforwardly utilitarian. They have a strong horizontal massing, a fortresslike quality, which is often relieved only by vertical Art Deco detailing, as evident in the Kingfisher Armory, or by virtue of being a provincial interpretation of a romantic high style, such as Tudor.²² The Kingfisher Armory is strongly Art Deco in detailing, this being apparent in the stepped parapet on the north side and in the cast concrete "pyramid" design that adorns the pilasters at the corners and around the entrances. Armory architecture and construction methodology reflect the skills of designers and supervisors and the minimal funding for design and materials, as well as the use of unskilled labor as bricklayers, stonecutters, and so forth. These buildings may not be architectural masterpieces, but they served the WPA's purpose--to make work, and to provide secure space for national defense units. WPA armories exemplify the New Deal's practical determination to "do something--and do something now." As David Baird notes in his survey of WPA structures of Oklahoma, WPA buildings are "the architecture of the poor," "mute reminders of the emotional distress and physical pain many Oklahomans suffered during the 1930s and of the enlightened relief effort by the federal government that alleviated much of the suffering."²³ In type, style, scale, materials, and workmanship, WPA armories, of which the Kingfisher Armory is an excellent example, are unique when compared to the rest of the built environment, both in Kingfisher and across the state.

ENDNOTES

1. C. Roger Lambert, "Dust, Farmers, and the Federal Government," Hard Times in Oklahoma: The Depression Years, ed. K. E. Hendrickson, Jr. (Oklahoma City: Oklahoma Historical Society, 1983), pp. 71-72, 78-79, 81; W. David Baird, "Final Report: WPA Structures Thematic Survey (Phase III)," (Stillwater, Okla.: Oklahoma State University, 1987), 5; Guthrie (Oklahoma) Daily Leader, July 9, 1935.

2. Baird, "Final Report," 10; "Final Report of the Oklahoma Work Projects Administration, February 27, 1943," Archives of the Work Projects Administration and Predecessors, 1933-1943, Series One: The Final State Reports, 1943 (Washington, D.C.: National Archives, 1987), 1; "Building Construction Report, February, 1943," *ibid.*, 5-6; Daily Oklahoman, March 12, 1943.

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3. "Questions and Answers on the WPA [brochure]," (Washington, D.C.: Work Projects Administration, December 1, 1939), Vertical File, Oklahoma Historical Society; Baird, "Final Report," 11; Kingfisher Times, July 9, 1936.
4. Guthrie (Oklahoma) Daily Leader, June 23, 1935; *ibid.*, November 13, 1935; Daily Oklahoman, September 12, 1937.
5. "Accomplishments: Works Progress Administration for Oklahoma, July 1, 1935-March 1, 1937," (Oklahoma City: Works Progress Administration, 1937), 38; "Building Construction Report," 5-6.
6. John W. Morris, "The Smaller Cities," Cities of Oklahoma, ed. John W. Morris (Oklahoma City: Oklahoma Historical Society, 1979), 11; Pioneers of Kingfisher County (n.p.: Kingfisher County Historical Society, 1976), 6; Donald E. Green, "The Beginnings of Wheat Culture in Oklahoma," Rural Oklahoma, ed. Donald E. Green (Oklahoma City: Oklahoma Historical Society, 1977), 56, 59, 62-65.
7. Daily Oklahoman, September 29, 1935; Kingfisher Times, August 29, 1935; Daily Oklahoman, September 12, 1937.
8. Kingfisher Times, October 31, 1935.
9. *Ibid.*, November 14, 1935; *ibid.*, January 16, 1936; *ibid.*, January 23, 1936; WPA Project No. 230, "Index to Reference Cards for Work Projects Administration Project Files, 1935-1942," (Washington, D.C.: WPA, c. 1942), Micro T-935, reel 55.
10. Kingfisher Times, April 30, 1936; *ibid.*, June 25, 1936; *ibid.*, August 6, 1936; *ibid.*, September 26, 1936.
11. *Ibid.*, October 15, 1936; *ibid.*, October 22, 1936; *ibid.*, October 29, 1936.
12. Kingfisher Times, March 26, 1936; *ibid.*, May 14, 1936.
13. *Ibid.*, March 21, 1935; *ibid.*, March 19, 1936; *ibid.*, April 2, 1936; *ibid.*, *ibid.*, August 6, 1936; WPA Project No. 230, "Index to Reference Cards."
14. "Accomplishments," 44.

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VERBAL BOUNDARY DESCRIPTION:

Lots 13 (thirteen), 14 (fourteen), 15 (fifteen), 16 (sixteen), 17 (seventeen), and 18 (eighteen) of Block 6, original city of Kingfisher, Kingfisher County, a property measuring approximately 150 feet north-south by 140 feet east-west.

BOUNDARY JUSTIFICATION:

These are the property's legal boundaries as recorded in Book 77, pages 119-120, Deed Records, Kingfisher County.



Kingfisher Armory



Appendix I: Qualifications of Environmental Professionals

Environmental Professional Qualifications

Travis Estes is currently working on a Masters Degree in Regional and City Planning at the University of Oklahoma. As an environmental intern, he has been involved with DEQ's Brownfield Program working to update and revise Brownfield's regulatory rules, the ARRA grant process, and Targeted Brownfield Assessments.

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 seventeen years, working in the Superfund and Brownfields Programs. She has over seventeen 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 Oklahoma's Brownfield Cleanup Revolving Loan.