

FINAL

**ENVIRONMENTAL CONDITION OF
PROPERTY REPORT**

**JOE A. SMALLEY
U.S. ARMY RESERVE CENTER (OK020)
1507 WEST LINDSEY STREET
NORMAN, OKLAHOMA 73069**

Prepared For:

**U.S. Army Corps of Engineers — Louisville District
Engineering Division — Environmental Branch
600 Dr. Martin Luther King, Jr. Place
Louisville, Kentucky 40202-2232**

FEBRUARY 12, 2007

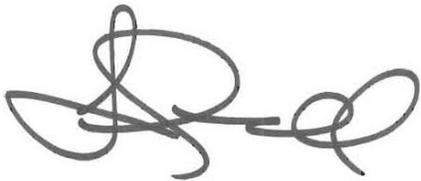
CERTIFICATION

All information/documentation provided accurately reflects the environmental condition of the property. This ECP Report is in general accordance with the U.S. Department of Defense (DoD) requirements for completion of an Environmental Condition of Property (ECP) Report.

JAMES WHEELER II
Chief, Environmental Division
90th Regional Readiness Command

DATE

The undersigned certifies the contents of this report are in general accordance with DoD policies for the completion of an ECP Report.



LENARD GUNNELL, P.G.
Project Geologist
U.S. Army Corps of Engineers

February 22, 2007
DATE

EXECUTIVE SUMMARY

The Terraine-EnSafe Joint Venture (TEJV), under contract to the U.S. Army Corps of Engineers, Louisville District, prepared this Environmental Condition of Property (ECP) Report for the Joe A. Smalley U.S. Army Reserve (USAR) Center (Facility ID OK020), hereafter referred to as the "Site" or "USAR Center." The Site is located at 1507 West Lindsey Street in Norman, Cleveland County, Oklahoma.

This ECP Report was conducted in conformance with primary Department of Defense (DoD) and Army guidance, the DoD's Base Redevelopment and Realignment Manual, DoD 4165.77-M, Army regulations and the American Society for Testing and Materials Designation D 6008-96 (2005), *Standard Practice for Conducting Environmental Baseline Surveys*, as secondary guidance when it was not inconsistent with the primary guidance.

This ECP Report details the history of the Site, including the USAR and any prior tenant uses of the Site and the resulting environmental condition of property.

The USAR Center is on 4.24 acres of land with one permanent structure: the 29,674-square-foot Training Building and the attached 2,559-square-foot organizational maintenance shop. The USAR Center is currently occupied by the following units: 3-378-2-95th Division (Information Technology), 4003rd Garrison Support Unit, 370th Chemical Company 2nd Detachment, and 332nd Chemical Company 4th Detachment.

Based on a review of aerial photographs and U.S. Geological Survey topographical maps dating back to 1936, the Site was an undeveloped lot prior to the U.S. government's construction of the USAR Center in 1960. The U.S. government leased the property from several owners until it purchased it in 1991.

Areas of potential environmental concern were reviewed and the TEJV found no significant findings relating to the environmental condition of the Site. In accordance with DoD policy defining the classifications, (see S.W. Goodman Memorandum dated October 21, 1996), the Site has been classified as Category 2. This classification does not include categorizing the property based on *de minimis* conditions that generally do not present material risk of harm to the public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Table of Contents

EXECUTIVE SUMMARY.....	i
Appendix A Figures.....	iv
List of Acronyms and Abbreviations.....	v
1.0 INTRODUCTION.....	1
1.1 Purpose of Environmental Condition of Property.....	1
1.2 Scope of Services.....	2
1.3 Assumptions and Limitations.....	3
2.0 SITE LOCATION AND PHYSICAL DESCRIPTION.....	4
2.1 Site Location.....	4
2.2 Asset Information.....	4
2.3 Physical Description.....	5
2.4 Site Hydrology and Geology.....	9
2.4.1 Surface Water Characteristics.....	9
2.4.2 Hydrogeological Characteristics.....	9
2.5 Site Utilities.....	10
2.6 Water Supply Wells and Septic Systems.....	11
3.0 SITE HISTORY.....	12
3.1 History of Ownership.....	12
3.2 Past Uses and Operations.....	12
3.3 Past Use, Storage, Disposal, and Release of Hazardous Substances.....	15
3.3.1 Past Use and Storage of Hazardous Substances.....	15
3.3.2 Past Disposal and Release of Hazardous Substances.....	16
3.4 Past Bulk Petroleum Storage Tanks.....	16
3.5 Review of Previous Environmental Reports.....	16
3.5.1 Environmental Baseline Survey.....	16
3.5.2 Architectural Assessment.....	17
3.5.3 Radon17	
3.5.4 Asbestos.....	17
3.5.5 Threatened and Endangered Species.....	17
3.5.6 Cultural Resources.....	18
3.5.7 Polychlorinated Biphenyls.....	18
3.5.8 Oil-Water Separator Evaluation.....	18
4.0 ADJACENT PROPERTIES.....	20
5.0 REVIEW OF REGULATORY INFORMATION.....	21
5.1 Federal Environmental Records.....	21
5.1.1 Federal National Priorities List Sites within One Mile.....	21
5.1.2 Federal CERCLIS Sites within One-Half Mile.....	21
5.1.3 Resource Conservation and Recovery Act Corrective Action Sites within One Mile	22

5.1.4	RCRA Transport, Treatment, Storage, and/or Disposal Facilities within One-Half Mile	22
5.1.5	Federal RCRA Small- and Large-Quantity Generators List within One-Quarter Mile	22
5.1.6	Federal Emergency Response Notification System List	23
5.2	State and Local Environmental Records	23
5.2.1	State Voluntary Cleanup and Superfund Site Status Reports within One Mile	23
5.2.2	State-Permitted Solid Waste Disposal and Processing Facilities within One-Half Mile	23
5.2.3	State-Registered Leaking UST Sites within One-Half Mile	24
5.2.4	State-Registered UST Sites within One-Quarter Mile	26
5.2.5	State-Registered UST Sites, List II Version within One-Quarter Mile	29
5.2.6	State-Registered Leaking AST Sites within One-Half Mile	29
5.2.7	State-Registered AST Sites within One-Quarter Mile	29
5.2.8	State-Registered Sites with Institutional and Engineering Controls within One-Half Mile	29
5.2.9	Voluntary Action Program Sites within One-Half Mile	29
5.2.10	State-Registered Dry-Cleaning Facilities within One-Quarter Mile	29
5.2.11	State Brownfields Program Sites within One-Half Mile	30
5.3	Tribal Environmental Records	30
5.4	Unmapped Sites	30
5.5	Summary of Properties Evaluated to Determine Risk to Site	30
6.0	SITE INVESTIGATION AND REVIEW OF HAZARDS	31
6.1	Underground and Aboveground Storage Tanks	31
6.2	Inventory of Chemicals/Hazardous Substances	31
6.3	Waste Disposal Sites	31
6.4	Pits, Sumps, Dry Wells, and Catch Basins	31
6.5	Asbestos-Containing Material	32
6.6	PCB-Containing Equipment	32
6.7	Lead-Based Paint	32
6.8	Radon	32
6.9	Unexploded Ordnance	32
6.10	Radioactive Materials	32
7.0	REVIEW OF SPECIAL RESOURCES	34
7.1	Land Use	34
7.2	Coastal Zone Management	34
7.3	Wetlands	34
7.4	100-Year Flood Plain	34
7.5	Natural Resources	34
7.6	Cultural Resources	34
7.7	Other Special Resources	34
8.0	CONCLUSIONS	35
9.0	REFERENCES	37

List of Tables

Table 1	Historical Summary of the Joe A. Smalley USAR Center	12
Table 2	List of Adjacent Properties	20
Table 3	Leaking Underground Storage Tank Sites	24
Table 4	Underground Storage Tank Sites	28

List of Appendices

Appendix A	Figures
Appendix B	Site Photographs
Appendix C	Chain-of-title Report
Appendix D	Previous Environmental Reports & Supplemental Documentation
Appendix E	Regulatory Database Search Reports

List of Acronyms and Abbreviations

ACM	asbestos-containing material
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
BRAC	Base Realignment and Closure Act
BRRM	Base Redevelopment and Realignment Manual
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	CERCLA Information System
CESQG	conditionally exempt small-quantity generator
CFR	Code of Federal Regulations
C-O	Commercial-Office
CORRACTS	Corrective Action Sites
DoD	Department of Defense
EBS	Environmental Baseline Survey
ECCI	Environmental, Compliance & Construction, Inc.
ECP	Environmental Condition of Property
EDR	Environmental Data Resources, Inc.
ERNS	Emergency Response Notification System
FDIC	Federal Deposit Insurance Corporation
FEMA	Federal Emergency Management Agency
hazmat	hazardous materials
HVAC	heating, ventilating, and air conditioning
IT	Instructional Technology
kg	kilogram
LBP	lead-based paint
LQG	large-quantity generator
LUST	leaking underground storage tank
MEP	military equipment parking
NFRAP	No Further Remedial Action Planned
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory

OCC	Oklahoma Corporation Commission
OMS	organizational maintenance shop
OWS	oil-water separator
Parsons	Parsons Engineering Science, Inc.
PCB	polychlorinated biphenyl
pCi/L	picocuries per liter
PMT	pole-mounted transformer
POL	petroleum, oils, and lubricants
POV	privately owned vehicle
PWS	Public Water Supply
RCRA	Resource Conservation and Recovery Act
RCRAInfo	RCRA Information
RQ	reportable quantity
RRC	Regional Readiness Command
SQG	small-quantity generator
TEJV	Terraine-EnSafe Joint Venture
TSD	treatment, storage, and disposal
USACE	U.S. Army Corps of Engineers
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USAR	U.S. Army Reserve
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
VWR	vehicle wash rack

1.0 INTRODUCTION

The Terraine-EnSafe Joint Venture (TEJV), under contract to the U.S. Army Corps of Engineers (USACE) Louisville District, was authorized to prepare an Environmental Condition of Property (ECP) Report for the Joe A. Smalley U.S. Army Reserve (USAR) Center (Facility ID OK020), in response to the Base Realignment and Closure Act (BRAC) 2005 legislation. The work was performed under Contract No. W912QR-04-D-0044, Delivery Order No. 0008. The facility at 1507 West Lindsey Street in Norman, Cleveland County, Oklahoma, is hereafter referred to as the "Site" or "USAR Center." In support of the ECP, a visual reconnaissance of the Site was conducted on July 26 and 27, 2006. The purpose of the reconnaissance was to visually obtain information indicating the likelihood of recognized environmental conditions in connection with the Site.

1.1 PURPOSE OF ENVIRONMENTAL CONDITION OF PROPERTY

The Military Department with real property accountability shall assess, determine and document the environmental condition of all transferable property in an ECP Report. This ECP Report is based on readily available information. Pursuant to the Department of Defense's (DoD's) policy, set forth in the Base Redevelopment and Realignment Manual (DoD 4165.66-M, March 1, 2006) Section C8.3 (BRRM), the primary purposes of the ECP Report include the following:

- Provide the Army with information it may use to make disposal decisions.
- Provide the public with information relative to the environmental condition of the property.
- Assist in community planning for the reuse of BRAC property.
- Assist Federal agencies during the property screening process.
- Provide information for prospective buyers.
- Assist prospective new owners in meeting requirements under U.S. Environmental Protection Agency's (USEPA's) "All Appropriate Inquiry" regulations.
- Provide information about completed remedial and corrective actions at the property.
- Assist in determining appropriate responsibilities, asset valuation, and liabilities with other parties to a transaction.

The ECP Report contains the information required to comply with the provisions of 40 Code of Federal Regulations (CFR) Part 373, which require that a notice accompany contracts for the sale of, and deeds entered into, for the transfer of federal property on which any hazardous substance was stored, released or disposed of. The Comprehensive

Environmental Response, Compensation, and Liability Act (CERCLA), Section 120(h) stipulates that a notice is required if certain quantities of designated hazardous substances have been stored on the property for one year or more – specifically, quantities exceeding 1,000 kilograms (kg) or the reportable quantity (RQ), whichever is greater, of the substances specified in 40 CFR 302.4 or one kg of acutely hazardous waste as defined in 40 CFR 261.30. A notice is also required if hazardous substances have been disposed of or released on the property in an amount greater than or equal to the RQ. Army Regulation 200-1 requires that the ECP Report address asbestos, lead-based paint (LBP), radon and other substances potentially hazardous to human health.

This ECP Report used the American Society for Testing and Materials (ASTM) Designation D 6008-96 (2005), *Standard Practice for Conducting Environmental Baseline Surveys* as a guideline when not inconsistent with the BRRM, CERCLA § 120, Army regulations and other applicable Army guidance.

1.2 SCOPE OF SERVICES

This ECP Report covers the 4.24-acre Joe A. Smalley USAR Center at 1507 West Lindsey Street in Norman, Oklahoma. The Site is in a developed, suburban area on the west side of Norman. The property is bounded to the south by West Lindsey Street. Properties to the south, east, and west along West Lindsey Street are commercial. Properties to the north and northeast are residential. A general Site location map, a Site map, flood plain and wetlands maps, and historical topographic maps and aerial photographs are provided in Appendix A. Appendix B provides photographs taken during the visual reconnaissance. Appendix C provides chain-of-title information. Historical environmental documents and reports and supplemental site documentation are included in Appendix D. The environmental database report is provided in Appendix E.

This ECP Report classifies the property into one of seven DoD Environmental ECP categories as defined by the S.W. Goodman Memorandum dated October 21, 1996. The property classification categories are as follows:

- Category 1: Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas).
- Category 2: Areas where only release or disposal of petroleum products has occurred.
- Category 3: Areas where release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial response.

- Category 4: Areas where release, disposal, and/or migration of hazardous substances has occurred, and all removal or remedial actions to protect human health and the environment have been taken.
- Category 5: Areas where release, disposal, and/or migration of hazardous substances has occurred, and removal or remedial actions are underway, but all required remedial actions have not yet been taken.
- Category 6: Areas where release, disposal, and/or migration of hazardous substances has occurred, but required actions have not yet been implemented.
- Category 7: Areas that are not evaluated or require additional evaluation.

1.3 ASSUMPTIONS AND LIMITATIONS

This report was prepared to permit formulation of an opinion of the environmental condition of the Site. Opinions on the environmental conditions at the Site are based on information from the Site reconnaissance, interviews, and collection and review of readily available information. New information or changes in Site use could require a review and possible modification of the findings and conclusions contained in this report.

The information obtained from the USAR, the USAR's representatives, individuals interviewed and prior environmental reports was considered to be accurate unless reasonable inquiries indicated otherwise. Conditions observed were considered representative of similar areas that were not accessible unless otherwise indicated.

This ECP Report presents a summary of readily available information on the environmental conditions of, and concerns relative to, the land, facilities, and real property assets at the USAR Center. Its findings are based on a record search of readily available documents, a thorough review of the applicable and relevant documents, a visual reconnaissance conducted on July 26 and 27, 2006, and interviews with personnel knowledgeable about the Site and its history. Extensive environmental investigations, reports, and Site historical documents were reviewed in support of this ECP. Information obtained from these other studies is reflected within this report by reference. A complete list of references is provided as Section 9.0.

All Site buildings were visually inspected during the Site reconnaissance. However, a 100% visual reconnaissance of each building (e.g., attics, crawl spaces, etc.) was not practical due to accessibility restrictions. No sampling or analysis of any media was conducted during this survey.

2.0 SITE LOCATION AND PHYSICAL DESCRIPTION

The visual Site reconnaissance included a driving tour of the facility and the surrounding area, and a walking assessment of the developed area of the Site and all buildings. The visual Site reconnaissance was conducted by TEJV personnel on July 26 and 27, 2006, to field-verify information produced in the document review and to identify recognized environmental conditions of property.

A visual reconnaissance of the Site perimeter was conducted to evaluate adjacent property uses that could cause environmental contamination on the Site. TEJV personnel walked and drove on roads along the perimeter to visually identify any contiguous properties that appear, in the TEJV's professional judgment, to have contamination that could migrate to the Site. The findings of the perimeter survey are presented in Section 4.0.

2.1 SITE LOCATION

The Site address is 1507 West Lindsey Street in Norman, Cleveland County, Oklahoma (Figure 1 in Appendix A). The Site is in a developed, suburban area on the west side of Norman. Oklahoma University is located less than one mile east of the USAR Center. The property is bounded to the south by West Lindsey Street. Properties to the south, east, and west are commercial along West Lindsey Street. Properties to the north and northeast are residential.

2.2 ASSET INFORMATION

Facility Name and Address: Joe A. Smalley USAR Center (OK020)
1507 West Lindsey Street
Norman, Oklahoma 73069

Property Owner: United States of America

Date of Ownership: November 8, 1991

Current Occupants: Joe A. Smalley USAR:

- 3-378-2-95th Division (Instructional Technology [IT])
- 4003rd Garrison Support Unit
- 370th Chemical Company 2nd Detachment
- 332nd Chemical Company 4th Detachment

Zoning: commercial-office (C-O)

County, State: Cleveland County, Oklahoma

USGS Quadrangle: Norman, OK

Section/Township/Range: Section 36, Township 9 North, Range 3 West

Latitude/Longitude: 35° 12' 16.2" N; 97° 27' 50.8" W

Legal Description: All those certain pieces or parcels of land being in Block 5 of Lydick's Second Addition to Norman in Section 36, Township 9 North, Range 3 West, lying and situated in the City of Norman, County of Cleveland, State of Oklahoma.

The USAR Center is situated on the parcel of land known as Assessors Parcel No.: SD70 9 1E 30001. A copy of the chain-of-title report, which includes a complete legal description, is provided in Appendix C.

2.3 PHYSICAL DESCRIPTION

A Site layout map of the USAR Center is provided in Figure 2 in Appendix A. Photographs of the Site and surrounding area are presented in Appendix B. Photographs 1 through 8 show the general layout of the Site buildings and grounds. Photographs 9 through 34 show specific rooms and conditions at the Training Building. Photographs 35 through 56 illustrate conditions of the organizational maintenance shop (OMS), military equipment parking (MEP) area, storage sheds, drainage patterns, and facility grounds. Photographs 57 through 63 show the land use of properties adjacent to the Site.

The USAR Center is on 4.24 acres of land with one permanent structure: the 29,674-square-foot Training Building and attached 2,559-square-foot OMS. Information obtained during the ECP dates the construction of the USAR Center as 1960. The USAR Center underwent renovations in the early 1990s, when a western addition to the Training Building was constructed that connected it to the OMS.

The USAR Center currently functions as an administrative and training facility. The Site is used by reservists for drill activities on various weekends throughout the year. The USAR Center is currently occupied by:

- 3-378-2-95th Division (IT)
- 4003rd Garrison Support Unit
- 370th Chemical Company 2nd Detachment
- 332nd Chemical Company 4th Detachment

The 4003rd Garrison Support Unit provides support to Ft. Hood administration and finance. The 370th 2nd Detachment is a chemical support asset with a Headquarters element in Fort Worth, Texas. The 332nd Chemical Company 4th Detachment is a chemical support asset with a Headquarter element in Fayetteville, Arkansas. The Training Building was occupied by several USAR personnel at the time of the visual reconnaissance. The Site has primarily functioned as an administrative and training facility throughout its history.

The Training Building and attached OMS are constructed with concrete block walls covered by brick veneer, then stucco veneer. The one-story building is situated on a concrete foundation. The appearance and general layout of Site buildings are shown on Photographs 1 through 4. Photographs 1 and 2 provide front views of the exterior of the Training Building. Photograph 3 is a view of the eastern side of the Training Building. Photograph 4 shows the view of the Site from the northeast corner of the property looking southwest.

A Site map of the USAR Center is provided as Figure 2 in Appendix A. Vehicle access to the Training Building is via a driveway from West Lindsey Street (Photograph 1). A privately owned vehicle (POV) parking lot is shown south of the western portion of the Training Building in Photograph 2. Another POV lot is east of the Training Building. Access to the eastern POV lot is from West Lindsey Street. Photograph 3 shows Wylie Road, the eastern POV lot, and the east side of the Training Building. The rear of the facility and the MEP is accessible via a driveway from Wylie Road, as shown in Photograph 4. The OMS and MEP area are situated within the northwestern portion of the property. A paved driveway extends from the eastern lot to the MEP area north of the Training Building. The OMS and MEP area are enclosed by a gated chain-link security fence topped with barbed wire. Photograph 5 shows the gated entrance to the MEP area. Photographs 6 and 7 both show the north side of the Training Building and OMS within the MEP area. Photograph 8 provides a view of the MEP area and west side of the OMS. A vehicle wash rack (VWR), a vehicle maintenance ramp, and portable storage units are shown within the MEP area. Approximately two-thirds of the Site is covered by impervious surface features (e.g., asphalt parking areas, driveways, concrete walkways, building footprints, etc.). The remaining ground surface is covered by a landscaped lawn area. Several ornamental trees are present along the front of the Training Building. Trees are also present along West Lindsey Street and Wylie Road.

Topographically, the Site is relatively flat. No signs of erosion, excavation, or fill were observed on the Site. Historical information suggests that some minor grading work was probably performed at the property during the original construction of the building and again during the early 1990s when the addition was constructed. It is unlikely that introduction of soil or fill material from an offsite source occurred during building activities.

The original Training Building, constructed in 1960, consisted of a one-story, offset L-shaped structure with administrative offices in the main part and a two-story Drill Hall in the north wing. In the early 1990s, the Training Building was extended to the west with the construction of a one and a half-story addition. That addition connected the OMS with the Training Building. The facility is currently an irregular-shaped multiple-level structure with two administration sections and a two-story Drill Hall connected by a one-story enclosed corridor. Figure 3 in Appendix A provides a layout of the interior of the Training Building.

The newer, west portion of the Training Building includes administrative offices, classrooms and restrooms (Photographs 9 through 11). The Drill Hall in the northeast wing of the Training Building includes the kitchen, exercise areas, and storage areas. The inactive

kitchen area consists of three rooms containing kitchen appliances and stored items (Photographs 12 and 13). Floor drains were noted in the kitchen area (Photographs 14 and 15). According to USAR personnel, the drains discharge to the sanitary sewer. Although the kitchen reportedly has not been used since at least 2001, cleaning chemicals were observed stored in it during the Site reconnaissance.

The Drill Hall was formerly used for dining when the attached kitchen was in service. The Drill Hall opening to the kitchen/scullery area is shown in Photograph 16. The Drill Hall shown in Photograph 16 is currently used for storage, training exercises, recreation, and social events. Cleaning chemicals were stored in the custodial closet located in the east wing of the Training Building (Photograph 17).

Many of the rooms in the older section of the Training Building are used for storage. These areas are equipped with storage cages containing training equipment for the various units. Photograph 18 provides a view of a typical storage room. An electric forklift is available for loading and unloading stored supplies. The Training Building has an arms storage vault located west of the Drill Hall (Photograph 19).

Two storage rooms within the Training Building have signs on their doors indicating that the rooms store radioactive material (Photograph 20). Keys to these rooms were not available during the visual reconnaissance; therefore the contents were not viewed. According to USAR personnel, these rooms contain special chemical agent sensing devices and equipment used by the 332nd Chemical Company. Storage rooms also contained general office supplies for the 4003rd Garrison Support Unit (Photograph 21).

A mechanical room is located within the older section of the Training Building. The room contained heating, ventilating, and air-conditioning (HVAC) systems, water heaters, chillers, and fire prevention system equipment (Photograph 22). The room is equipped with floor drains to convey the condensate/leakage from the various pieces of mechanical equipment to the public sanitary sewer system that serves the Site (Photograph 23 and 24). The condensate is piped directly from each piece of equipment to the closest floor drain to prevent water from accumulating on the floor.

A newer mechanical room is also located in the newer section of the Training Building, west of the Drill Hall. This newer mechanical room and the communication room are accessible from a door along the north wall of the Training Building (Photograph 25). The newer mechanical room contained HVAC system equipment and a water heater (Photographs 26 and 27). The room is equipped with floor drains to convey the condensate/leakage from the various pieces of mechanical equipment to the public sanitary sewer system that serves the Site. Photograph 28 shows a small stain near a floor drain from a past indoor oil leak from a water circulation pump. This staining is considered to be *de minimus*. The pump did not appear to be leaking at the time of TEJV's Site reconnaissance. The Training Building appeared to be well maintained. No evidence of significant chemical or petroleum releases was observed inside the building.

A chiller unit is located outside of the northeast corner of the building (Photograph 29). A grease trap associated with the kitchen is located outside the eastern wall of the Drill Hall (Photograph 30). A concrete wash basin with a drain is located adjacent to the grease trap (Photograph 31).

Electric power is provided to the Site by overhead utility lines from Oklahoma Gas and Electric. During the Site reconnaissance, electrical transformers were observed on the Site at three locations. One pad-mounted transformer was northeast of the Training Building (Photograph 32). Two pole-mounted transformers (PMTs) were observed along West Lindsey Street south of the Training Building (Photograph 33), and one PMT was west of the Training Building (Photograph 34). All the transformers appeared to be in good condition, with no evidence of leaks or corrosion.

The OMS is a one-story, rectangular structure connected to the northwest portion of the Training Building within the fenced MEP area. Two roll-up garage bay doors on the north side of the OMS open to the MEP area. Photograph 35 is a general view of the interior of the OMS showing bare concrete floor and concrete block walls. The OMS currently contains equipment, such as air compressors, and field training supplies (Photograph 36). Shelves contained miscellaneous maintenance supplies (Photograph 37). The OMS also contained empty drums and empty oily rag waste cans (Photographs 38 and 39). Observations indicate that limited vehicle maintenance was historically performed within the OMS. No vehicle maintenance is currently being conducted within the OMS.

One outdoor hazardous materials (hazmat) storage unit is located in the eastern portion of the MEP area as shown in Photograph 40. Photograph 41 shows the interior of the hazmat storage unit. A flammable materials storage locker is located within the hazmat storage unit. The hazmat storage unit contained paint, cleaning fluids, and lubricants (Photographs 42 through 45). An inventory of the contents of the hazmat storage unit, prepared during the visual Site reconnaissance, is included in Appendix D.

A yellow plastic portable storage container was located outside of the OMS (Photograph 46). This unit was labeled "used anti-freeze" and "used oil" and contained two empty 55-gallon drums.

A maintenance ramp, VWR, and associated oil-water separator (OWS) are located in the northwestern portion of the MEP area. Photograph 8 provides a view of the MEP area from the southwest looking across the lot to the northwestern portion of the MEP area. The VWR is a steel post and frame structure with a metal canopy. The foundation is a concrete pad with a speed reducer at the VWR entrance and a perimeter of 6-inch curbing along three sides of the VWR to limit storm water intrusion. The VWR has an associated OWS that receives wash/rinse water (Photographs 47 and 48). During the visual Site reconnaissance, the OWS appeared to contain some water, but sludge, petroleum slicks, and sheens were not observed. The OWS did not emit a petroleum odor.

Six portable storage containers are located in the northern portion of the MEP area (Photographs 49 and 50). The units were locked and not accessible at the time of the visual Site reconnaissance. According to USAR personnel, the containers likely contain equipment and supplies for the various units of the USAR Center. Only one military vehicle - a Humvee - was located within the MEP area during the visual Site reconnaissance.

An open concrete culvert is located adjacent to and west of the MEP area (Photograph 51). This culvert is associated with the residential neighborhood to the north of the Site. The culvert runs underneath the adjacent church parking lot and empties into the drainage ditch along West Lindsey Street. Storm water from the Site does not enter this drainage feature.

2.4 SITE HYDROLOGY AND GEOLOGY

2.4.1 Surface Water Characteristics

Figure 1 in Appendix A provides a topographic map of the Site and surrounding area. As shown on the map, the Site is approximately 1,150 feet above mean sea level. The site slopes to the south. Runoff from the northern MEP area flows to a trench drain along the north side of the Training Building and OMS (Photograph 6). The trench drain empties into an open concrete culvert located along the western side of the Training Building (Photograph 52). An open ditch extends from the southwest corner of the Training Building to a ditch along West Lindsey Street (Photograph 53). An open ditch drains runoff from the eastern POV lot toward the ditch along West Lindsey Street (Photograph 54).

The Site drains south toward an open road ditch along West Lindsey Street, the Site's southern boundary (Photographs 55 and 56). Once runoff reaches the road ditch, it flows toward Imhoff Creek, located one-third mile east of the Site. Imhoff Creek flows south and ultimately discharges into the Canadian River, located 2 miles south of the Site. No surface water bodies are on or adjacent to the Site.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the City of Norman, Oklahoma, the Site is in Zone X. Zone X is defined by FEMA as "areas determined to be outside 500-year flood plain." Figure 4 in Appendix A is a map depicting the extents of the nearest 100-year and 500-year flood plains in the Site area.

2.4.2 Hydrogeological Characteristics

Information concerning area soils was obtained from the Cleveland County U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) office. Figure 5 is a soils map for the Site and surrounding areas. The predominant soil type on the Site is Vanoss-Urban land-Norge complex, 0 to 3% slopes

The parent material for this soil complex consists of loamy alluvium. The runoff class for the Vanoss soil is low and it is well drained. The runoff class for the Urban land component of this complex is very high. The runoff class for Norge soil is medium and it is well drained.

Site soils are classified as Hydrologic Group Class B, which is categorized as having soils that are deep and moderately deep, moderately well- and well-drained soils, with moderately coarse textures. Site soils are not flooded or ponded. Site soils are not included on the national hydric soils list. There are no wetlands on or near the Site according to Figure 6 in Appendix A, which is a copy of the National Wetlands Inventory (NWI) Map of the Site area, obtained from the Oklahoma Water Resources Board.

No wells or springs were observed on the Site, nor were any wells identified on the Site during a search of the U.S. Geological Survey (USGS), Federal Reporting Data System Public Water Supply (PWS) System, and state databases. A database search was also conducted for wells within one mile of the Site (see the Environmental Data Resources, Inc. [EDR] environmental database report in Appendix E).

One PWS well was identified within one mile of the Site according to the databases researched by EDR. The identified PWS well was reported to be between one-half and one mile west of the Site. However, based on the address information provided, the PWS well is located 15 miles south of Norman at the Blue Jay Mobile Home Park in Purcell, Oklahoma.

Twenty-five federal USGS wells and 96 other wells within one mile of the Site were also listed on databases researched. The identified federal USGS wells were reported to be between one-eighth and one mile from the Site. Well depths range from 10 to 521 feet, with an average depth of 80 to 100 feet. Shallower wells are installed into terrace deposits and alluvium, while deeper wells extend into the Garber Sandstone aquifer. The remaining 96 wells within one mile of the Site are predominantly shallow (typically 15 to 30 feet deep) monitoring wells installed for site assessment purposes at underground storage tank (UST) sites.

Six domestic water wells are located within one mile of the Site. Those wells range in depth from 40 to 180 feet. Physical observations in the field and additional report research indicate that the presence of these listed wells do not identify other sites or conditions that present a potential risk to the Site.

Based on the information presented above, the depth to groundwater is presumed to be 15 to 30 feet at the site. Groundwater flow for the water table aquifer is likely east toward Imhoff Creek located one-third mile from the Site. The flow of deeper aquifers would be southwest toward the Canadian River located 2 miles from the site.

2.5 SITE UTILITIES

The Site and surrounding area are served by public utilities. The City of Norman provides potable water and sanitary sewer service. Oklahoma Gas and Electric provides natural gas and electricity to the Site. The City of Norman provides municipal solid waste service.

2.6 WATER SUPPLY WELLS AND SEPTIC SYSTEMS

As described in Section 2.4.2, there are no PWS wells within one mile of the Site. Because the Site is served by a public sanitary sewer system, there are no septic systems on the Site, and no known systems were identified in the area.

3.0 SITE HISTORY

3.1 HISTORY OF OWNERSHIP

Land titles for the Site were reviewed back to 1907. Appendix C contains a historical chain-of-title report completed for the Site. Key historical deed transfers of the Site for the past 60 years are as follows:

- February 20, 1957 — C.S. Lydick to Lydick's Second Addition, Inc.
- February 1, 1959 — Lydick's Second Addition, Inc. to R.E. Barbour
- January 15, 1963 — R.E. Barbour to Juel Sweatte
- February 20, 1988 — Juel Sweatte to American Exchange Bank
- March 4, 1988 — Federal Deposit Insurance Corporation (FDIC) — American Exchange Bank to FDIC
- March 4, 1988 — FDIC to Odis Partners
- April 6, 1989 — Odis Partners to the Bethel Baptist Church
- November 8, 1991 — Bethel Baptist Church to United States of America

According to the chain-of-title report, the United States of America purchased the property from the Bethel Baptist Church on November 8, 1991. According to USAR personnel, the USAR Center owns the property and the Site building. Information obtained during this ECP dates the construction in 1960. The United States of America leased the property from several owners until it was purchased in 1991 by the U.S. government. No environmental liens, institutional controls, or engineering controls were found on record.

3.2 PAST USES AND OPERATIONS

Based on available information, important events in the facility's development, administration, and mission are summarized in Table 1.

Table 1 Historical Summary of the Joe A. Smalley USAR Center	
Year	Description
1960	United States of America began leasing the Site property
1960	Training Building and OMS constructed
Early 1990s	Addition constructed joining Training Building with OMS
1991	United States of America purchased Site property
2006	Site currently an active USAR Center

The OMS was unoccupied at the time of the Site reconnaissance, but has historically been used for vehicle maintenance. The USAR Center is equipped with a VWR, vehicle maintenance ramp, and OWS in the northwest portion of the MEP area. According to USAR personnel, the wash rack and maintenance ramp have not been used since 2001. A 1989 map of the USAR Center included in the *Historic Architectural Resources Assessment* for the facility shows that a VWR and associated OWS were once located east of the OMS building. However, the VWR, OWS, and all associated piping were removed prior to the construction of an addition to the Training Building in the early 1990s. The *Historical Architectural Resources Assessment* included in Appendix D.

Historical topographic maps and aerial photographs provide information about the Site and surrounding area. The Site and surrounding area are located on the Norman USGS topographic quadrangle map. Figures 7 through 13 are topographic maps dated 1936, 1948, 1951, 1965, 1975, 1983, and 1995, respectively. Figures 14 through 20 are aerial photographs of the Site and surrounding areas dated 1943, 1963, 1969, 1984, 1990, 1995, and 2004, respectively.

Pertinent observations on the historical USGS maps are summarized below.

- **1936 (Figure 7).** The Site is located southwest of the developed area of Norman. The road bounding the property to the south is not labeled, but appears to be where West Lindsey Street is now located. The Site appears to be part of a large tract of undeveloped land in the southeast section 36. No structures are shown on the property and only one structure is shown to the south across West Lindsey Street.
- **1948 (Figure 8).** The Site property and surrounding properties appear to be similar to 1936 topographic map.
- **1951 (Figure 9).** The Site property remains undeveloped. The road bounding the property to the south (West Lindsey Street) is now labeled 74A. Southeast section 36 remains undeveloped. More development is shown east of the Site within Norman. Additional structures are shown along Boyd Street to the north and west along West Lindsey Street and what is now McGee Street. Two structures are shown across West Lindsey Street south of the Site.
- **1965 (Figure 10).** The Site property is developed and is shown to be within the city limits of Norman, at the intersection of West Lindsey Street and Wylie Road. The Site appears to be within a mixed residential-commercial area of west Norman. Developed suburban streets are shown north and east of the Site; these areas are denoted as densely developed. The map shows both the Training Building and OMS. Commercial buildings are shown west of the Site. A church is located to the south across West Lindsey Street. A manmade waterway is shown along the south side of West Lindsey Street. A strip mall across West Lindsey Street to the southwest of the Site is also evident.

- **1975 (Figure 11).** The Site and surrounding properties appear to be similar to that shown in the 1965 topographic map, but the surrounding area has undergone intense development. West Lindsey Street appears to have become a commercial corridor with multiple new buildings on both sides of the street and along connecting side streets. The strip mall to the southwest has been expanded and several new buildings are present to the southeast.
- **1983 (Figure 12).** The Site and surrounding properties appear similar to those shown in the 1975 topographic map, but further development of properties within the surrounding area is shown.
- **1995 (Figure 13).** The Site and surrounding properties are shown to be within a densely developed area. Details regarding the Site are not shown.

Pertinent observations on the historical aerial photographs are summarized below.

- **1943 (Figure 14).** The Site appears to be part of a farm field situated west of Norman. Surrounding properties also appear to be agricultural fields. A farm and associated buildings are located south of the Site. An orchard is located northeast of the Site along Berry Road, 0.25 miles east of the Site. Residential development within Norman is visible east of Berry Road.
- **1963 (Figure 15).** The Site appears to be developed. The USAR Training Building, OMS, the MEP area, and POV parking lots are visible. New development along West Lindsey Street is apparent. Two buildings are shown west of the Site. The property to the east across Wylie Road is developed. The property to the south remains agricultural. Property directly north of the Site appears to be undeveloped, maintained yard areas associated with the housing development to the north. New residential roads and structures are located further north and east of the Site.
- **1969 (Figure 16).** The USAR Center appears as it did in the 1963 aerial photograph. Increased residential and commercial development has occurred in the surrounding area. A strip mall is shown developed to the southwest across West Lindsey Street.
- **1984 (Figure 17).** The USAR Center appears as it did in the 1969 aerial photograph, but surrounding areas are now fully developed. The residential area to the north has been expanded south to the Site's northern property line. The Site is within a densely developed mixed commercial and industrial part of Norman. Commercial properties are along West Lindsey Street, and residential developments are on smaller, connecting streets.
- **1990 (Figure 18).** The USAR Center and surrounding areas appear as they did in the 1984 aerial photograph. The Training Building, OMS, MEP area, and POV lots are discernible. Land use in the surrounding area appears to be unchanged.

- **1995 (Figure 19).** The USAR Center appears to have undergone major renovations. A western addition to the Training Building connects it to the OMS. A disturbed area northwest of the OMS is present, but is likely the result of the construction activities associated with the addition. Land use in the surrounding area appears to be unchanged.
- **2004 (Figure 20).** The USAR Center appears similar to the current conditions. The Training Building, attached OMS, MEP area, and POV lots are visible. Land use in the surrounding area remains mixed commercial and residential.

Historical Sanborn fire insurance maps were not available for this Site. Available business directories including city, cross-reference, and telephone directories were reviewed, if available. TEJV personnel visited the Norman Public Library to research available historical information regarding the Site. Available business and telephone directories were reviewed back to 1960. The Smalley USAR Center at 1507 West Lindsey Street is listed in the 1960 and 1967 *Norman Cross Index* directories and the 1979 and 1994 telephone directories. Information pre-dating 1960 was not available through EDR or at the Norman Public Library.

The 1960 and 1967 *Norman Cross Index* directories indicate that the Site was located in a commercial area during that time. Various retail stores, service stations, churches, restaurants, and banks were listed in the vicinity of the Site address. Copies of library source information are included in Appendix D. *The EDR-City Directory Abstract* is included in Appendix E.

3.3 PAST USE, STORAGE, DISPOSAL, AND RELEASE OF HAZARDOUS SUBSTANCES

Information related to the past use and storage of hazardous substances at the Site was compiled through review of available Site records, search of federal and state environmental databases, and interviews with USAR personnel.

3.3.1 Past Use and Storage of Hazardous Substances

Chemicals formerly used and stored at the Site were associated with vehicle and facility maintenance activities and janitorial services. Janitorial chemicals and building maintenance-related products would have historically been stored in the designated storage area within the janitorial closet in the Training Building. Organizational level maintenance of tactical vehicles has occurred at the Site for the majority of its developed use. Documentation concerning practices for the past use and storage of petroleum products associated with vehicle maintenance is not available. Vehicle maintenance products and petroleum, oil, and lubricants (POL) were likely stored in the designated areas within the OMS.

Certain types of chemical products used and stored at the Site would have contained CERCLA hazardous substances and would have been stored on a rotational basis in amounts necessary to support the unit through direct support level maintenance. However, there is no indication that CERCLA hazardous substances were stored at the Site for one year or more in excess of corresponding RQs.

3.3.2 Past Disposal and Release of Hazardous Substances

Information related to past disposal and potential release of hazardous substances at the Site was compiled through review of available Site records, search of federal and state environmental databases, and interviews with USAR personnel. According to USAR personnel and Site records, onsite disposal of hazardous materials or wastes has not occurred at the Site. No stained soil or stressed vegetation as a result of waste disposal was observed during the visual Site reconnaissance. Additionally, the MEP area and POV parking area did not show any signs of staining. Organizational level maintenance of tactical vehicles has occurred at the Site for the majority of its developed use. Documentation concerning past practices for the disposal of petroleum products associated with vehicle maintenance is not available.

3.4 PAST BULK PETROLEUM STORAGE TANKS

Based upon a review of available Site records, a search of federal and state environmental databases, and interviews with USAR personnel, it does not appear that bulk petroleum aboveground storage tanks (ASTs) and/or USTs have been used by the USAR at this location.

3.5 REVIEW OF PREVIOUS ENVIRONMENTAL REPORTS

A review of Site records produced several reports pertaining to the Site. The following subsections provide a brief summary of these reports. Pertinent sections of the reports that addressed multiple sites, unless otherwise noted, are presented in Appendix D.

3.5.1 Environmental Baseline Survey

An Environmental Baseline Survey (EBS) was completed for the Site in October 2004. Environmental, Compliance & Construction, Inc. (ECCI) issued an *Environmental Baseline Survey for Joe A. Smalley United States Army Reserve Center* in February 2006. The EBS was performed for the USAR, 90th Regional Readiness Command (RRC), and provides summary and general information about the Site. "In accordance with the ASTM Standard D 5746-98 for *Standard Classification of Environmental Condition of Property Area Types for Defense Base Closure and Realignment Facilities*," ECCI classified the Site as an ECP Area Type 1 Property.

3.5.2 Architectural Assessment

Parsons Engineering Science, Inc. (Parsons) performed a *Historic Architectural Resources Assessment of the 90th Regional Support Command Facilities in Oklahoma* for the Department of the Army, 90th RRC. The findings of the assessment were compiled in a report issued February 1998. The report concluded that, although the original Training Building met the 50-year age consideration, it had been extensively altered and had “lost its integrity of design, materials, workmanship, and feeling.” Therefore, it was not eligible for placement on the National Register of Historic Places. No further architectural surveys were recommended for this Site. The Oklahoma State Historic Preservation Officer concurred with the report recommendations in a letter dated February 2, 1998.

3.5.3 Radon

The TEJV was provided a one-page document listing radon screening results. According to the document, radon screening tests were performed in June 1990 at six locations within the Training Building. Results ranged from 0.40 to 1.0 picocuries per liter (pCi/L).

3.5.4 Asbestos

An asbestos inspection was performed at the Site in September 1997 by the USAR. The results were summarized in a report titled *Asbestos Building Inspection, Joe A. Smalley U.S. Army Reserve Center, Norman, Oklahoma*, issued September 1997. As part of the inspection, 13 samples were collected for asbestos analysis. Four of the 13 samples collected contained asbestos. Samples of the older floor tile and mastic in the Training Building and OMS tested positive for asbestos. According to the report, none of the asbestos-containing material (ACM) identified was classified as friable, and the non-friable ACM was determined to be in damaged condition with a moderate potential for disturbance. An estimate of the amount of ACM present within the USAR Center was not provided in the report.

3.5.5 Threatened and Endangered Species

No reports or information were discovered or made available concerning any threatened and endangered species habitat analysis for the USAR Center. A search of the U.S. Fish and Wildlife Service (USFWS) Web site and the USEPA Endangered Species Protection Program database indicated the following federal and state-listed threatened and endangered species with occurrences in Cleveland County:

- American peregrine falcon (*Falco peregrinus anatum*)
- Arkansas River shiner (*Notropis girardi*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Black-capped vireo (*Vireo atricapilla*)
- Least tern (*Sterna antillarum*)
- Piping plover (*Charadrius melodus*)
- Whooping crane (*Grus americana*)

The Arkansas River shiner is an aquatic species; consequently, there is little potential for this species to be on the USAR Center property. The other species are transient bird species, which could potentially land on the property. However, the highly developed nature of the Site and the adjacent areas does not represent suitable habitat for any of these species. Consequently, there is little potential for these species to exist on the property or adjacent properties.

3.5.6 Cultural Resources

Parsons performed assessments and prepared a report entitled *Management Summary, Cultural Resources Assessment of 90th Regional Support Command, Facilities in Arkansas, Louisiana, New Mexico, Oklahoma and Texas* for the Department of the Army. The assessments were compiled and issued in February 1998. The assessments concluded that there were no architectural issues at the Site, which is not eligible for the National Register of Historical Places due to extensive remodeling. The Site was listed as having "low" archeological potential. An archeological survey was not recommended for the Site.

3.5.7 Polychlorinated Biphenyls

The U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) performed a *Polychlorinated Biphenyls (PCB) Assessment No. 37-08-5615-97* for USAR facilities in Arkansas, Louisiana, Oklahoma, New Mexico, and Texas. The assessments were compiled and issued September 30, 1997. The assessment addressed a pad-mounted transformer and PMTs west of the Training Building, as well as fluorescent lights in the Training Building. The PMTs are owned by Oklahoma Gas and Electric and their condition was listed as good with no leaks. All transformers were reported as non-PCB-containing. The fluorescent lighting fixtures were identified as non-PCB-containing units in the USACHPPM report.

3.5.8 Oil-Water Separator Evaluation

EnSafe Inc. performed an OWS evaluation at the Site in January 2000 and prepared a report entitled *Oil/Water Separator Evaluation* for the USAR 90th RRC. The assessments were compiled and issued in May 2000. The report indicated the presence of an OWS and associated VWR located in the northwest portion of the property. That OWS received wash/rinse water from the washing of military vehicles and equipment. The report indicates that the VWR had not been used regularly since 1998. The OWS was a 5,600-gallon, open-top, concrete rectangular structure, with a series of concrete weirs and baffles that create several separation zones. Fluid entered the OWS through an 8-inch pipe and flowed over two concrete weirs before flowing under a concrete oil retention baffle. Fluid flowed over one additional weir before exiting to the sanitary sewer system through an 8-inch outlet pipe. At the time of the evaluation, no records or manifests documenting OWS cleaning/servicing were available. The report indicates that the effluent discharged to the City of Norman sanitary sewer system. Discharge was covered under the City's pretreatment ordinance, which limited the concentration of specific pollutants that may be

discharged into its system. However, no reporting or monitoring was required. The report included recommendations regarding OWS maintenance and inspection.

4.0 ADJACENT PROPERTIES

Figure 21 is a plat map of the area which shows the Site and adjacent properties. The Site is bounded to the south by West Lindsey Street. Cocina de Mino Mexican Restaurant is located directly across West Lindsey Street. The Site is bounded to the east by Wylie Road, beyond which is the Arvest Bank Plaza. A residential development is located north of the Site. The backyards of houses along Lindale Circle are adjacent to the Site's northern property boundary. The original Bethel Baptist Church was located on the adjacent western property. The original church building was recently torn down to create a parking lot for a new church. A Sonic restaurant is located beyond the parking lot to the west. The new Bethel Baptist Church is located west of the Sonic restaurant.

The Site is zoned C-O, as shown on the Land Use Map (Figure 22). Surrounding properties to the west, south, and southeast are zoned commercial. Properties to the north and northeast are zoned residential. Figure 22 also provides a 2005 detailed aerial view of the Site and surrounding area. Table 2 provides a list of adjacent properties with their directional location from the Site and zoning. Photographs 57 through 63 in Appendix B present views of adjacent properties and surrounding land use.

Table 2 List of Adjacent Properties			
Direction From Site	Name/Type of Property	Addresses	Zoning
North	Residential Development	Lindale Circle	Residential (R-1)
West	Bethel Baptist Church Lot	West Lindsey	Commercial (C-2)
South	Cocina de Mino Restaurant (S) First State National Bank (SW) Pizza Hut (SE)	West Lindsey	Commercial (C-2)
East	Arvest Bank Apartments Elroy House	West Lindsey Wylie Road Wylie Road	Commercial (C-2) Residential (R-3) Residential (R-1)

Appendix A provides historical aerial photographs and topographic maps. Appendix E presents an environmental database report that was used to evaluate potential environmental impacts from adjacent and nearby properties that may have also impacted the environmental conditions at the Site. Development of adjacent properties does not appear to have impacted the environmental conditions of the USAR Center.

5.0 REVIEW OF REGULATORY INFORMATION

A component of the ECP is the review of all reasonably obtainable federal, state, and local government records for the Site and surrounding properties where there has been a release or likely release of a hazardous substance or petroleum product that is likely to cause or contribute to a release or threatened release of any hazardous substance or petroleum product on the federal real property. An environmental database summary was obtained from EDR on July 18, 2006. The environmental database summary consolidates standard federal, state, local, and tribal environmental record sources based on ASTM D 6008-recommended minimum search distances from the Site. A copy of the complete environmental database report is included in Appendix E.

There were no environmental permits issued for the Site; therefore, there were no permit applications or associated permit documentation available for review. There were no known contamination events on the Site that required an environmental cleanup; therefore, the Site did not participate in the Installation Restoration Program, Military Munitions Response Program, or a Compliance Cleanup program.

TEJV interviewed local authorities and reviewed reasonably accessible USAR environmental documents, Oklahoma Corporation Commission (OCC) files, City of Norman records, and historical aerial photographs and maps to investigate environmental conditions at the Site and surrounding areas. Available information on potential impacts of environmental conditions on the Site was assessed. TEJV interviewed USAR, USDA NRCS, and City of Norman Geographical Information System Department personnel about the Site.

The interviews included topics of general environmental interest and specific areas of interest identified during the records review and visual reconnaissance. Copies of the interview reports are included in Appendix D. Pertinent information from these interviews is incorporated into this report.

5.1 FEDERAL ENVIRONMENTAL RECORDS

5.1.1 Federal National Priorities List Sites within One Mile

The National Priorities List (NPL) is a USEPA list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the U.S. and its territories. NPL sites are targeted for long-term remedial action under CERCLA. According to the environmental database report, the USAR Center is not a NPL site and there are no such sites located within one mile of the Site.

5.1.2 Federal CERCLIS Sites within One-Half Mile

The CERCLA Information System (CERCLIS) contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies, and private persons, pursuant to Section 103 of CERCLA. CERCLIS contains sites that

are either proposed to be or are on the NPL, and sites that are in the screening and assessment phase for possible inclusion on the NPL.

CERCLIS No Further Remedial Action Planned (NFRAP) sites have been removed and archived from CERCLIS sites. NFRAP status indicates that, to the best of USEPA's knowledge, assessment at a site has been completed and no further steps will be taken to list this site on the NPL unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with the site; it means that, based on available information, the location is not judged to be a potential NPL site.

According to the environmental database report, the USAR is not a CERCLIS site and there are no CERCLIS or CERCLIS NFRAP sites located within one-half mile of the Site.

5.1.3 Resource Conservation and Recovery Act Corrective Action Sites within One Mile

Resource Conservation and Recovery Act (RCRA) Corrective Action Sites (CORRACTS) represent facilities that have generated or managed hazardous wastes and require corrective action. According to the environmental database report, the USAR Center is not a CORRACTS. No CORRACTS were identified within one mile of the Site.

5.1.4 RCRA Transport, Treatment, Storage, and/or Disposal Facilities within One-Half Mile

The RCRA Information Database (RCRAInfo) includes selective information on sites that generate, transport, and treat, store, and/or dispose of hazardous waste, as defined by RCRA. According to the environmental database report, the USAR Center is not a RCRA treatment, storage, and disposal (TSD) site and there are no TSD sites located within one-half mile of the USAR Center.

5.1.5 Federal RCRA Small- and Large-Quantity Generators List within One-Quarter Mile

Conditionally exempt small-quantity generators (CESQGs) generate less than 100 kg of hazardous waste, and less than 1 kg of acutely hazardous waste, per month. RCRA small quantity generators (SQGs) are defined as facilities generating between 100 kg and 1,000 kg of hazardous waste per month and less than 1 kg of acute hazardous waste, while a large-quantity generator (LQG) is defined as a facility generating more than 1,000 kg of hazardous waste, or over 1 kg of acutely hazardous waste, per month or less than 1 kg of acute hazardous waste.

The USAR Center is listed as a CESQG on RCRAInfo. According to USAR personnel, USAR Centers obtained the classification as a matter of administrative policy rather than

need. No waste-generating activities were conducted on the Site. No violations were reported in the environmental database report.

According to the environmental database report, Sharps Cleaners is located 457 feet west of the USAR Center. This drycleaner business is listed as a SQG. No violations were reported for the site on the environmental database report. During the visual reconnaissance, the actual location of this business was determined to be within the strip mall southwest of the Site. Sharps Cleaners is located on the western end of the strip mall; therefore, the actual distance from the USAR Center is approximately 1,000 feet. TEJV personnel contacted Sharps Cleaners via telephone on September 18, 2006, to obtain additional information regarding the SQG listing. Sharps Cleaners personnel stated that the business has not performed dry cleaning at this store for almost two years. The store serves only as a drop-off and pick-up point for laundry. All dry cleaning is performed at its main store near downtown Norman, located over one mile from the USAR Center. Therefore, this SQG site is considered to present a low risk to the USAR Center due its current use, regulatory status (no violations), location with regards to distance from the Site, site topography, and receptors (i.e., stream, storm sewers, drainage ditches, etc.) located between the SQG site and the USAR Center.

No other RCRA SQGs or LQGs were identified in the environmental database search within one-quarter mile of the Site.

5.1.6 Federal Emergency Response Notification System List

The federal Emergency Response Notification System (ERNS) provides information on reported oil and hazardous substance releases. According to the environmental database report, the USAR Center is not listed on ERNS.

5.2 STATE AND LOCAL ENVIRONMENTAL RECORDS

The regulatory information presented in the following sections was obtained from the environmental database search report. Supplemental information was also provided from research at the OCC.

5.2.1 State Voluntary Cleanup and Superfund Site Status Reports within One Mile

There are no State Voluntary Cleanup and Superfund Sites within one mile of the USAR Center.

5.2.2 State-Permitted Solid Waste Disposal and Processing Facilities within One-Half Mile

According to the environmental database report, no solid waste landfills, incinerators, or transfer stations are located within one-half mile of the USAR Center. There is no solid waste landfill, incinerator, or transfer station on the Site.

5.2.3 State-Registered Leaking UST Sites within One-Half Mile

According to the environmental database report, the USAR Center is not listed in the state Leaking UST (LUST) database. However, six LUST sites were identified within one-half mile of the Site. The sites are located east and west of the Site, along West Lindsey Street. Based on information provided in the environmental database report, Table 3 lists the sites along with their addresses and elevations relative to the Site.

Table 3 Leaking Underground Storage Tank Sites				
Site Name/ OCC Facility No.	Address	Distance and Direction from Site	Regulatory Status	Elevation Relation to Site
Kerr McGee #8488 #1400163 064-0575	1445 West Lindsey Norman, OK	Approximately 245 feet east of Site	Risk-based closure approved via OCC letter on February 25, 1999	Lower
Texaco 43-013-0061 #1408152 064-2350	1730 West Lindsey Norman, OK	Approximately 573 feet west of Site	Risk-based closure approved via OCC letters on October 27, 2000 and March 29, 1994	Higher
Andrews Phillips 66 #1404577 064-0500	1209 West Lindsey Norman, OK	Approximately 1,280 feet east of Site	Risk-based closure approved via OCC letters on June 30, 2003 and March 2, 1999	Lower
Texaco 43-013-0029 #1408230 064-2462	1200 West Lindsey Norman, OK	Approximately 1,315 feet east of Site	Risk-based closure approved via OCC letter on November 21, 2002	Lower
Circle K #3767 #1406692 064-1052	1150 West Lindsey Norman, OK	Approximately 1,445 feet east of Site	Risk-based closure approved via OCC letter on February 5, 1996	Higher
Mister Short Stop #1 #1400936 064-2254	2007 West Lindsey Norman, OK	Approximately 1,745 west of Site	Confirmed Release Opened	Equal Elevation

Based on the above address information, TEJV attempted to locate active LUST sites during the Site reconnaissance. TEJV also researched and reviewed files at the OCC in Oklahoma City. As shown in Table 3, five of the six LUST sites have received closure approval from the OCC, indicating that no further remedial action is required and that residual petroleum contamination does not pose a concern for human health or the environment. OCC closure letters for those sites are included in Appendix D.

The former Kerr McGee site is located at the intersection of West Lindsey Street and Wylie Road. The property is now occupied by the Arvest Bank Plaza (Photograph 60 in Appendix B). The property has been redeveloped and no evidence of a former gasoline UST system was observed during TEJV's Site reconnaissance. All USTs are listed as permanently out of use. The tanks were likely removed in 1992, at which time the release was reported. In a letter dated February 25, 1999, OCC approved risk-based closure of the Former Kerr McGee facility. Therefore, this LUST site is considered to pose a low risk to the USAR Center due its regulatory status (case closure), site topography (downgradient of the Site), and receptors (i.e., stream, storm sewers, drainage ditches, etc.) located between the LUST site and the USAR Center.

The Texaco Service Station 43-013-0061 is an active gasoline station located 573 feet west of Site. Based on information provided in the environmental database report, five USTs are currently in use at the facility. Two separate releases have occurred at the site for which risk-based closures were approved by OCC in letters dated March 29, 1994, and October 27, 2000. Therefore, this LUST site is considered to pose a low risk to the USAR Center due its regulatory status (case closure), location with regards to distance from the Site, site topography, and receptors (i.e., stream, storm sewers, drainage ditches, etc.) located between the LUST site and the USAR Center.

Limited information about the Mister Short Stop #1 site was available in OCC files. Therefore, the regulatory status for this site is considered to be open. Mister Short Stop #1 is an active gas station located 1,745 feet west of the Site. The environmental database search report indicates that the facility status is "confirmed release opened." Two monitoring wells are listed for Mister Shortstop #1 in the state database well information section of the environmental database report. It is unclear whether a site assessment has been conducted at the facility. The information provided indicates the monitoring wells are 35 feet deep. Based on the topography of the area and water table depth at the site, groundwater would likely flow southwest toward Merkle Creek and the Canadian River. Groundwater contamination, if present, most likely would have followed the topography and migrated to the southwest instead of east toward the Site. Thus, the Mister Short Stop #1 LUST site is considered to pose a low risk to the USAR Center due its location with regards to distance from the Site, site topography, and receptors (i.e., stream, storm sewers, drainage ditches, etc.) located between the LUST site and the USAR Center.

The remaining three LUST sites are considered to pose a low risk to the USAR Center due to their regulatory status (case closure), location with regards to distance from the Site, site

topography, and receptors (i.e., stream, storm sewers, drainage ditches, etc.) located between the LUST sites and the USAR Center.

5.2.4 State-Registered UST Sites within One-Quarter Mile

USTs are regulated under RCRA Subtitle I and must be registered with the state department responsible for administering the UST program. The environmental database report identified seven UST/historical UST sites. Table 4 lists the sites along with their address and elevation relative to the Site. Four sites showing the tank status as "permanently out of use" are historical UST sites. Three sites are active with USTs "currently in use."

Based on the above address information, TEJV attempted to locate the UST sites during the Site reconnaissance. TEJV personnel researched and reviewed files retained at the OCC regarding the above UST sites.

As discussed in Section 5.2.3, the former Kerr McGee site is located just east of the Site across Wylie Road. Based on information provided in the environmental database search report, two gasoline USTs were installed in 1966 and ranged in capacity from 6,000 gallons to 10,000 gallons. A 300-gallon used oil tank was also installed in 1966. A 6,000-gallon diesel UST was installed in 1976. All USTs are listed as permanently out of use. The tanks were likely removed in 1992, at which time the release discussed previously was reported. In a letter dated February 25, 1999, OCC approved risk-based closure of the Former Kerr McGee facility.

The Texaco Service Station 43-013-0061 is an active gasoline station located west of Site. Based on information provided in the environmental database report, five USTs are currently in use at the facility. Two 10,000-gallon and one 12,000-gallon gasoline USTs were installed in 1984. One 550-gallon used oil UST was installed in 1984. A 10,000-gallon diesel UST was installed in 1983. This site was also included on the LUST list and was discussed in Section 5.2.3.

The former Big Red (Masters) UST site now appears to be the location of a KFC restaurant. No evidence (e.g., pumps, UST fill ports) of a gasoline UST system was observed. Based on information provided in the environmental database report, four gasoline USTs and one used oil UST were formerly located at the site. The USTs are listed as permanently out of use. According to OCC documents, the USTs were removed prior to August 1999. The OCC granted permanent closure in a letter dated August 9, 1999. The former Big Red (Masters) UST site is not considered to be a potential environmental risk to the USAR Center due to its distance from the USAR Center and current closed status.

The former Waller (Party Keg) UST site now appears to be the location of a Goodyear Tire store. No evidence (e.g., pumps, UST fill ports) of a gasoline UST system was observed. Based on information provided in the environmental database report, four gasoline USTs

were formerly located at the site. The USTs are listed as permanently out of use and, according to OCC documents, were removed prior to May 1996. The OCC granted permanent closure in a letter dated May 23, 1996. The former Waller (Party Keg) UST site is not considered to be a potential environmental risk to the USAR Center due to its distance from the USAR Center and current closed status.

Table 4 Underground Storage Tank Sites				
Site Name/ OCC Facility No.	Address	Distance and Direction from Site	Tank Status	Elevation Relation to Site
Kerr McGee #8488 #1400163 064-0575	1445 West Lindsey Norman, OK	Approximately 245 feet east of Site	Permanently Out of Use Historical UST Site	Lower
Texaco 43-013-0061 #1408152 064-2350	1730 West Lindsey Norman, OK	Approximately 573 feet west of Site	Currently In Use Active and Historical UST Site	Higher
Big Red/Masters #1407755	1801 West Lindsey Norman, OK	Approximately 876 feet west of Site	Permanently Out of Use Historical UST Site	Higher
K.M. Waller (Party Keg) #1405384	1802 West Lindsey Norman, OK	Approximately 884 feet west of Site	Permanently Out of Use Historical UST Site	Higher
Andrews Phillips 66 #1404577 064-0500	1209 West Lindsey Norman, OK	Approximately 1,280 feet east of Site	Currently In Use Active and Historical UST Site	Lower
Star Fuel #1017 #1408230	1200 West Lindsey Norman, OK	Approximately 1,315 feet east of Site	Currently In Use Active and Historical UST Site	Lower
Circle K #3767 #1406692 064-1052	1150 West Lindsey Norman, OK	Approximately 1,445 feet east of Site (greater than one-quarter mile of Site)	Permanently Out of Use Historical UST Site	Higher

The remaining three UST sites are not considered to present a potential environmental risk to the USAR Center due their regulatory status (case closure), location with regards to distance, site topography, and receptors (i.e., stream, storm sewers, drainage ditches, etc.) located between the UST sites and the USAR Center.

5.2.5 State-Registered UST Sites, List II Version within One-Quarter Mile

The historical UST listing includes tank information through March 2003 from the OCC. The environmental database report identified six historical UST sites within one-quarter mile of the USAR Center. The six listed sites were included with the UST sites presented in Table 4. Three of these sites have tanks currently in use, but are also listed as historical UST sites within the environmental database report.

5.2.6 State-Registered Leaking AST Sites within One-Half Mile

According to the environmental database report there are no state-registered leaking ASTs within one-half mile of the USAR Center.

5.2.7 State-Registered AST Sites within One-Quarter Mile

According to the environmental database report there are no state-registered ASTs within one-quarter mile of the USAR Center.

5.2.8 State-Registered Sites with Institutional and Engineering Controls within One-Half Mile

Institutional controls include administrative procedures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining onsite. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or affect human health. According to the environmental database report, no state-registered sites with institutional or engineering controls are located within one-half mile of the USAR Center.

5.2.9 Voluntary Action Program Sites within One-Half Mile

Brownfields sites are included on the Superfund Voluntary Cleanup, Oversight, and Assistance Program listing. According to the environmental database report, no state-registered Voluntary Action Program Sites are located within one-half mile of the USAR Center.

5.2.10 State-Registered Dry-Cleaning Facilities within One-Quarter Mile

According to the environmental database report, there is one active state-registered dry-cleaning facility within one-quarter mile of the USAR Center. Sharps Cleaners is

located 457 feet west of the USAR Center within the strip mall southwest of the Site. The site is listed as a RCRA SQG. No violations were reported on the environmental database report for this site. Hollywood Cleaners is also listed as a permanently closed dry-cleaning facility which is now the location of the Hollywood Coin Laundromat.

5.2.11 State Brownfields Program Sites within One-Half Mile

Included in the State Brownfields Program Listing are brownfields properties addressed by Cooperative Agreement Recipients and brownfields properties targeted by Targeted Brownfields Assessments. According to the environmental database report, no state-registered Brownfield Program sites are located within one-half mile of the USAR Center.

5.3 TRIBAL ENVIRONMENTAL RECORDS

According to the environmental database report, no designated Indian Reservations are located within one mile of the USAR Center.

5.4 UNMAPPED SITES

The environmental database search yielded 19 unmapped sites. Unmapped sites are those with insufficient address information such that they can only be identified within the zip code of the target Site. With the assistance of USAR personnel, TEJV personnel identified and/or estimated the location of each site. Most unmapped sites were determined to be outside the corresponding ASTM D 6008-recommended minimum search distances for the databases on which they were listed.

Two of the unmapped sites were determined to be within the recommended search distance of one-quarter mile for dry-cleaning facilities: Sharps Cleaners, discussed in Section 5.2.10, and Band Box Cleaners. Band Box Cleaners is currently Today Cleaners at 1404 West Lindsey Street, an active business located approximately 500 feet southwest and downgradient of the USAR Center. The elevation of this dry-cleaning facility is lower than the Site. No other information is available regarding this business.

5.5 SUMMARY OF PROPERTIES EVALUATED TO DETERMINE RISK TO SITE

During review of environmental information summarized in this section, multiple databases and sites were reviewed to evaluate potential risks to the Site. Six LUST sites were identified as potential risks to the Site, as detailed in Section 5.2.3. Based on an evaluation of available information and details concerning the identified sites, all sites are considered low risks to the Site. No "High Risk" sites were identified. "High Risk" properties are those that exhibit significant environmental conditions that have the probability of adversely affecting the environmental conditions at the Site.

6.0 SITE INVESTIGATION AND REVIEW OF HAZARDS

Findings documented in the following subsections are based on the July 26 and 27, 2006, Site and area reconnaissance, review of available Site records, and information obtained from USAR personnel.

6.1 UNDERGROUND AND ABOVEGROUND STORAGE TANKS

TEJV did not observe evidence of USTs or ASTs on the Site.

6.2 INVENTORY OF CHEMICALS/HAZARDOUS SUBSTANCES

During the Site reconnaissance, no hazardous substances were observed in the Training Building. The OMS is currently used for storing training materials and equipment.

One outdoor hazmat storage unit is located in the eastern portion of the MEP area. The unit contained paint, cleaning fluids, and POL. A flammable materials storage locker is located within the hazmat storage unit. An inventory of the contents of the hazmat storage unit, prepared during the Site reconnaissance, is included in Appendix D. The storage unit was neat and orderly with chemicals stored in their original labeled containers. No signs of leakage or corrosion were evident; however, temperatures were above 100 degrees Fahrenheit during the Site reconnaissance and a strong chemical odor was present inside the storage unit. USAR personnel indicated that chemicals stored inside the hazmat storage unit were no longer used by the USAR Center. According to USAR personnel, these chemicals will be properly disposed in the near future.

6.3 WASTE DISPOSAL SITES

No signs of landfilling or illegal waste disposal activities were observed on the Site during the visual reconnaissance.

6.4 PITS, SUMPS, DRY WELLS, AND CATCH BASINS

The Site is served by a sanitary sewer system from the City of Norman. All wastewater generated within the buildings discharges into the sanitary sewer system. Training Building floor drains are located within the kitchen, mechanical rooms, and restrooms. There is a grease trap and pot wash basin outside the kitchen; however the kitchen has not been used since approximately 2001.

Runoff from the northern MEP area flows to a trench drain along the north side of the Training Building and OMS. The trench drain empties into an open concrete culvert located along the western side of the Training Building. An open ditch extends from the southwest corner of the Training Building to the ditch along West Lindsey Street. An open ditch drains runoff from the eastern POV lot toward the ditch along West Lindsey Street. The Site drains south toward an open road ditch along West Lindsey Street along the Site's

southern boundary. No other storm drains were identified during TEJV's Site reconnaissance.

6.5 ASBESTOS-CONTAINING MATERIAL

As described in Section 3.5.4, ACM was identified in the USAR Center buildings in 1997. According to USAR personnel, ACM has not been abated at the USAR Center.

6.6 PCB-CONTAINING EQUIPMENT

As described in Section 3.5.7, there are no known PCB-containing transformers or PCB-containing equipment on the Site, based on a 1997 assessment.

During TEJV's Site reconnaissance, two newer PMTs observed south of the Training Building had been installed after the 1997 report was issued. All PMTs were observed to be in good condition with no evidence of leaks, and were labeled as non-PCB-containing.

6.7 LEAD-BASED PAINT

A LBP survey has not been conducted at the USAR Center. During TEJV's Site reconnaissance, all painted surfaces generally appeared in good condition with little signs of flaking.

6.8 RADON

As described in Section 3.5.3, radon screening tests were performed at six locations within the Training Building in June 1990. Results were ranged from 0.40 to 1.0 pCi/L.

The Site is in the USEPA Radon Zone 3. Zone 3 has "low potential" for radon. The average short-term radon measurement that can be expected in a building without the implementation of radon controls is less than 2.0 pCi/L. The state radon database, referenced in the environmental database report, lists the average indoor radon reading as 1.805 pCi/L, and the federal database indicates that the average first floor living space radon reading is 2.200 pCi/L. This information is consistent with the actual readings previously described for the Site.

6.9 UNEXPLODED ORDNANCE

No indications were found during the Site reconnaissance or review of records to indicate the presence of munitions or explosives of concern at the Site.

6.10 RADIOACTIVE MATERIALS

During TEJV's Site reconnaissance of the Training Building, two storage rooms were identified as having radioactive materials. According to USAR personnel, the rooms contain special chemical agent sensing devices and equipment used by the

332nd Chemical Company. The equipment was stored in lockers within locked storage cages. There is no evidence to suggest that any radiological commodities were ever improperly managed at the Site, or that any radionuclides were ever released.

7.0 REVIEW OF SPECIAL RESOURCES

7.1 LAND USE

The Site is zoned C-O, as shown on the Land Use Map (Figure 22). Surrounding properties to the west, south, and southeast are zoned commercial. Properties to the north and northeast are zoned residential. Figure 22 also provides a 2005 detailed aerial view of the USAR Center and surrounding properties and depicts current land use.

7.2 COASTAL ZONE MANAGEMENT

There is no coastal zone management plan for Oklahoma.

7.3 WETLANDS

The Site is upland and well drained. According to the USFWS NWI map, no jurisdictional wetland areas are identified on the Site or any surrounding properties. Figure 6 in Appendix A provides a map of wetlands in the Site area.

7.4 100-YEAR FLOOD PLAIN

The FEMA Flood Rate Insurance Map indicates that the Site lies outside the 500-year flood plain (Figure 4 in Appendix A). As shown on the figure, the Site is in Zone X, which denotes "areas outside the 500-year flood plain" and, therefore, outside of the 100-year flood plain.

7.5 NATURAL RESOURCES

As described in Section 3.5.5, the Site does not contain habitat for threatened and endangered species. Except for potential incidental use by migrants, threatened and endangered species are unlikely to occur at the Site. The USAR Center does not contain any key natural resources, including wetlands, surface waters, or flood plains.

7.6 CULTURAL RESOURCES

As described in Section 3.5.6, a cultural resource assessment was performed for the Site. The assessments concluded that there were no architectural issues at the USAR Site, which is not eligible for the National Register of Historic Places due to extensive remodeling. The Site was listed as having "low" archeological potential. An archeological survey was not recommended for the Site.

7.7 OTHER SPECIAL RESOURCES

There are no other known resources that could affect the Site.

8.0 CONCLUSIONS

TEJV, under contract to the USACE Louisville District, has prepared this ECP Report for the Joe A. Smalley USAR Center (Facility ID OK020) at 1507 West Lindsey Street in Norman, Cleveland County, Oklahoma. The USAR Center is on 4.24 acres of land with one permanent structure, a 29,674-square-foot Training Building and the attached 2,559-square-foot OMS. The Site has primarily functioned as an administrative and training facility. The USAR Center is currently occupied by the 3-378-2-95th Division (IT), 4003rd Garrison Support Unit, 370th Chemical Company 2nd Detachment, and 332nd Chemical Company 4th Detachment.

Findings of this ECP are based on existing environmental information, including visual observations, Site records, and federal, state, and local database and file information related to the storage, release, treatment, or disposal of hazardous substances or petroleum products or derivatives on the property. The following presents the findings related to areas of potential environmental concern that were evaluated during the ECP process.

- **Hazardous Substances.** Chemicals containing CERCLA hazardous substances would have been used and stored at the Site in amounts necessary to support unit-level vehicle and building maintenance activities. However, the quantities stored for one year or more would not have exceeded 1,000 kg or the RQ of designated hazardous substances, or 1 kg of acutely hazardous waste. There is no evidence that the chemicals used or stored were ever improperly handled, released, or disposed of at the Site. Organizational level maintenance of tactical vehicles has occurred at the Site for the majority of its developed use. Documentation concerning past practices for the use, storage, and disposal of petroleum products, associated with vehicle maintenance, is not available.
- **USTs/ASTs.** No petroleum ASTs or USTs are currently present on the Site, nor have ASTs or USTs been located on the Site since the late 1950s when the USAR Center was constructed.
- **VWR.** A VWR and associated OWS are located on the Site within the MEP fenced area. The OWS discharges to the sanitary sewer. The VWR and OWS have not been used since 1998. A VWR and OWS were historically located east of the OMS. That system was removed in the early 1990s. There is no evidence of a release from the historical or current OWSs.
- **Non-UST/AST Petroleum Storage.** Petroleum storage would have occurred in designated areas within the OMS and hazmat storage unit located in the MEP area. There is no evidence that non-UST/AST petroleum products in excess of 55 gallons were stored for one year or more on Site.

- **PCBs.** A PCB assessment was performed in 1997 addressing a pad-mounted electric transformer, a PMT, and fluorescent lighting fixtures on the Site. Based on that assessment, the transformers and fluorescent lighting fixtures were determined to be non-PCB containing. Two newer PMTs south of the Training Building were not included in the 1997 assessment. Those PMTs were observed to be in good condition at the time of TEJV's Site reconnaissance with no evidence of leaks, and were labeled as non-PCB-containing.
- **Asbestos.** A 1997 asbestos survey identified non-friable ACM within the older floor tile and mastic in the Training Building and OMS. The non-friable ACM are in damaged condition and have a moderate potential for disturbance. No friable ACM was found. Based on the review of available records, interviews, and the visual reconnaissance, ACM has not been abated at the USAR Center.
- **LBP.** A LBP survey has not been conducted at the Site. During TEJV's visual reconnaissance, painted surfaces in the buildings were observed to be in good condition.
- **Radiological Materials.** There is no evidence of any release of radiological materials at the Site.
- **Radon.** In 1990, radon tests were performed at six locations in the Training Building and OMS. Sample results were below the USEPA-recommended action level of 4.0 pCi/L; therefore, radon is not an environmental concern at the Site.
- **Munitions and Explosives.** No evidence of the current or past presence of munitions and explosives of concern at the Site was found during the visual reconnaissance or records review process.
- **Surrounding Properties.** Potential environmental properties of concern, located within corresponding ASTM D 6008-recommended minimum search distances from the Site, were evaluated. There is no evidence of significant environmental conditions relating to surrounding properties that would impact the environmental condition of the Site.

Areas of potential environmental concern were reviewed and the TEJV found no significant concerns relating to the environmental condition of the Site. In accordance with DoD policy defining the classifications, (see S.W. Goodman Memorandum dated October 21, 1996), the Property has been classified as Category 2. This classification does not include categorizing the property based on *de minimis* conditions that generally do not present material risk of harm to the public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

9.0 REFERENCES

Persons Contacted

- Mr. Chuck Potts, Oklahoma Water Resources Board, 3800 N. Classen Blvd., Oklahoma City, OK 73118, (405) 530-8800. Provided NWI map.
- Ms. Dean Wakeland, Employee, Sharps Cleaners, Norman, Oklahoma. (405)-329-3434. Telecommunications on September 18, 2006.
- Mr. Scott Woodruff, Planning Technician, City of Norman Geographical Information System Department, Norman, Oklahoma. (405) 366-5436. Meeting on July 27, 2006.
- Mr. Tim Bartee, District Conservationist, USDA-NRCS, Cleveland County Office, Norman, Oklahoma. (405) 321-7766. Meeting on July 26, 2006.
- Sergeant Houston Denham, Facility Manager, Joe A. Smalley USAR Center, Norman, Oklahoma. (405) 360-4811. Meeting on July 26, 2006.
- Sergeant Karin Moten, Environmental Coordinator, Joe A. Smalley USAR Center, Norman, Oklahoma. (405) 360-4811. Meeting on July 26, 2006.

Resources Consulted

- Aerial Photographs dated 1943 (Oklahoma Department of Libraries), 1963, 1969, 1984, 1990, 1995 and 2004 (NRCS).
- City of Norman — Zoning Map, Plat Map and Flood Map.
- ECCI. *Environmental Baseline Survey for Joe A. Smalley U.S. Army Reserve Center*. March 2006.
- Ensafe, Inc. *Oil/Water Separator Evaluation, U.S. Army Reserve 90th RSC*. May 2000.
- Environmental Data Resources Inc. *The EDR Radius Map with GeoCheck, 440 Wheelers Farms Road, Milford, Connecticut 06461*. Inquiry No. 1716974.2s. July 18, 2006.
- Federal Emergency Management Agency. *Flood Insurance Rate Map, City of Norman, Oklahoma*. 1997.
- Goodman, S.W. *Memorandum: Clarification of "Uncontaminated" Environmental Condition of Property at Base Realignment and Closure (BRAC) Installations*. October 21, 1996.

- NETR-Real Estate Research & Information, 2055 East Rio Salado Parkway, Tempe, Arizona, 85281 (Chain-of-title Report). Project No. N06-4912. August 1, 2006.
- Oklahoma Corporation Commission, Petroleum Storage Tank Division. File reviews of UST and LUST sites.
- Parsons Engineering Science, Inc. *Historic Architectural Resources Assessment of the 90th Regional Support Command Facilities in Oklahoma*. February 1998.
- Parsons Engineering Science, Inc. *Management Summary, Cultural Resources Assessment of 90th Regional Support Command, Facilities in Arkansas, Louisiana, New Mexico, Oklahoma and Texas*. February 1998.
- Topographic Maps dated 1936, 1948, 1951, 1965, 1975, 1983 and 1995 (Oklahoma University-Geology Library).
- U.S. Army 90th RRC. *Asbestos Building Inspection, Joe A. Smalley U.S. Army Reserve Center, Norman, Oklahoma*. September 1997.
- U.S. Army Center for Health Promotion and Preventive Medicine. *Polychlorinated Biphenyls (PCB) Assessment No. 37-08-5615-97*. September 1997.
- U.S. Army Reserve Command. *Radon Results for Smalley USARC*. June 1990.
- U.S. Fish & Wildlife Services, Branch of Habitat Assessment, *National Wetlands Inventory Map, Norman quadrangle*.
- U.S. Fish & Wildlife Services, Endangered Species List — Cleveland County, Oklahoma. July 25, 2006.

Agencies Contacted

- City of Norman Planning Department
- Norman Library
- Oklahoma Corporation Commission, Petroleum Storage Tank Division
- Oklahoma Department of Libraries
- Oklahoma Geological Survey
- Oklahoma University – Geology Library
- Oklahoma Water Resources Board