PRELIMINARY ASSESSMENT
FOR
ARKANSAS ZINC SMELTING COMPANY
EPA ID No. ARN000607488
VAN BUREN, CRAWFORD COUNTY, ARKANSAS

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TABLE OF CONTENTS

1.0 INTRODUCTION **2**
1.1 Project Objective **2**
1.2 Project Scope **2**
2.0 SITE BACKGROUND **3**
2.1 Site Location and Setting **3**
2.1.1 Environmental Justice 3
2.2 Site Description **4**
2.3 Site Ownership History **4**
2.4 Site Operations and Waste Characteristics **5**
2.4.1 Historical Waste Management Practices 5
2.4.2 Regulatory Compliance 7
2.5 Source Characterization **8**
2.5.1 Source Descriptions 8
2.5.2 Evidence of Hazardous Substance, Pollutant, or Contaminant 10
2.5.3 Source Containment Features 10
2.5.4 Waste Quantity or Source Size 10
3.0 MIGRATION/EXPOSURE PATHWAYS AND TARGETS **12**
3.1 Groundwater Migration Pathway **12**
3.1.1 Local Geology and Hydrologic Setting 12
3.1.2 Releases and Potential Releases to Groundwater 13
3.1.3 Groundwater Migration Pathway Targets 13
3.1.4 Groundwater Migration Pathway Conclusions 13
3.2 Surface Water Migration Pathway **13**
3.2.1 Hydrologic Setting 14
3.2.2 Releases and Potential Releases to Surface Water 14
3.2.3 Surface Water Migration Pathway Targets 15
3.2.4 Surface Water Migration Pathway Conclusions 16
3.3 Soil Exposure Pathway **16**
3.3.1 Physical Source Access Conditions 17
3.3.2 Actual or Potential Contamination Areas 17
3.3.3 Soil Exposure Pathway Targets 17
3.3.4 Soil Exposure Pathway Conclusions 17
3.4 Air Migration Pathway **18**
3.4.1 Climate 18
3.4.2 Releases and Potential Releases to Air 18
3.4.3 Air Migration Pathway Targets 18
3.4.4 Air Migration Pathway Conclusions 18
4.0 SUMMARY AND CONCLUSIONS **23**
5.0 REFERENCES **25**
6.0 PHOTO LOG **26**

LIST OF FIGURES

Figure 2-1 AZSC Site Map - Aerial View.....11

Figure 3-1 AZSC - Site Location.....20

Figure 3-2 AZSC - 15-Mile Radius and 15-Mile Target Distance Limit 21

Figure 3-3 AZSC - Topographic Map.....22

LIST OF TABLES

Table 2-1 Air Permit Point Sources.....09

Table 2-2 Former Storage Tank.....09

Table 3-1 AZSC Population Distances.....17

LIST OF APPENDICES

Appendix A	**Parcel Map**
Appendix B	**Sanborn Fire Insurance Maps**
Appendix C	**Real Property Information**
Appendix D	**Well Construction Database Search Results**
Appendix E	**Watershed Maps and Information**
Appendix F	**Arkansas Natural Heritage Commission File Review**
Appendix G	**Custom Soil Resource Report**

1.0 INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the 1986 Superfund Amendments and Reauthorization Act (SARA), the Arkansas Department of Environmental Quality - Hazardous Waste Division, Enforcement and Inspection Branch (ADEQ), was tasked by the United States Environmental Protection Agency (EPA) Region 6 to conduct a Preliminary Assessment (PA) at the Arkansas Zinc Smelting Company (AZSC) site.

1.1 Project Objective

The objective of this investigation was to collect information concerning conditions at the former AZSC site sufficient to assess the potential threat posed to human health and the environment and to determine the need for additional requirements promulgated under CERCLA/SARA or other appropriate action.

1.2 Project Scope

The scope of the investigation included review of available file information, a comprehensive contamination migration pathway target survey, interviews with local and State personnel familiar with the site vicinity, and both onsite and offsite reconnaissance.

Report Format

This PA Report was prepared to present the findings of the PA investigation. The PA Report contains the following Sections:

- Section 1 – Introduction
- Section 2 – Site Background
- Section 3 – Migration/Exposure Pathways and Targets
- Section 4 – Summary and Conclusions
- Section 5 – References
- Section 6 – Photo Log

Additional information is provided in the Appendices following the text of the report. The Appendices are as follows:

- Appendix A – Parcel Map
- Appendix B – Sanborn Fire Insurance Maps
- Appendix C – Real Property Information
- Appendix D – Well Construction Database Search Results
- Appendix E – Watershed Maps and Information
- Appendix F – Arkansas Natural Heritage Commission File Review
- Appendix G – Custom Soil Resource Report

2.0 SITE BACKGROUND

Sections 2.1 through 2.4 provide background information characterizing the site. ADEQ collected and reviewed available background information regarding the location, description, former operations, and potential waste sources at the site. ADEQ submitted a Potential Hazardous Waste Site Identification Form for AZSC to EPA Region 6 on October 4, 2012. A site reconnaissance visit was conducted during this PA investigation on October 18, 2012. The zinc smelter occupied the site from 1923 to 1930, and historical complaints regarding vegetation kills related to smelter emissions were recorded [Reference (Ref. 1)]. During its time as a smelter, the facility operated multiple furnaces, kilns, and a laboratory. The use of the site from 1930 through 1967 is unknown. Feed mill operations occurred at the site from approximately 1967 until 2009. Jay Gipson Crane Service bought the property in 2009 and currently owns it. The discussion in this Section of the PA Report is based on background information obtained during the PA investigation.

2.1 Site Location and Setting

The AZSC site is located at 3101 Kibler Road in Van Buren, Crawford County, Arkansas. The site is situated within a residential and industrial/commercial area. A residence is located within 340 feet to the southeast of the site. Additional residences are located 0.35 miles north, 0.27 miles west, and 0.25 miles north of the site. The geographic coordinates for the site are 35.438803 north latitude and -94.324441 west longitude. According to Google Earth, the elevation is approximately 428 feet above the national geodetic vertical datum (NGVD) (Ref. 2).

Appendix A provides a parcel map from the Crawford County Assessor that shows property boundaries for the site.

2.1.1 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs Federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of Federal projects on the health or environment of minority and low income populations. The remainder of this Section provides information for considering environmental justice within the vicinity of the AZSC site.

Van Buren has a population of 22,791 persons, and Crawford County has a population of 60,102 persons. The site's zip code is 72956. The population racial percentages for this zip code in 2009 were as follows: 78.3 percent Caucasian (Non-Hispanic); 11.6 percent Hispanic; 3.1 percent Asian-American; 2.3 percent American Indian; and 2.0 percent African-American. The estimated median household income in 2009 was $38,775, compared to an estimated median household income for Arkansas of $38,851. The percentage of Van Buren

residents with income below the 2009 poverty level was 19.8 percent, while the Arkansas average was 18.4 percent. The percentage of Van Buren residents with income below 50 percent of the 2009 poverty level was 7.5 percent, while the Arkansas average was 7.7 percent (Ref. 3; Ref. 4).

2.2 Site Description

The AZSC site is situated on approximately 24.1 acres in Van Buren, Arkansas. The site, shown in **Figure 2-1**, is bordered by Kibler Road to the south. J.R. Young's general contracting business (Photo 8) is located to the west. A shopping center is located to the north and a residence is located to the east. All photos referenced in this PA report can be found in Section 6.0.

Falcon Zinc Company:
According to Sanborn Fire Insurance Maps for Van Buren Zinc Company (Sanborn maps) dated February 1930, there was a former power house that was fed hot air by five furnaces. There were also several kiln areas, a laboratory, a crusher building, and a pottery building. Several storage areas and ore bins were also on site. There was a tank on the western edge of the property, but it appears to be a water tank since there were three water pipes leading to and from it. Three railroad spurs lead from the main line to the site.

Farmland Feed:
The railroad spurs seen in the Sanborn maps are still in place. No buildings seen in the Sanborn map are visible in any historical photos of Farmland Feed. All buildings seen in historical photos are still on site. There are two large storage bins on the western edge of the property. To the east of these bins are the eight silos (Photo 1) connected to the main building. To the north of the silos are thirteen small bins (Photo 3). Eight buildings still remain on site as well as three above ground storage tanks (Photo 6) east of the buildings. There is little to no fencing and the site is easily accessible.

Any changes in ownership after Farmland Feed did not result in any major changes to the site.

Jay Gipson Crane Service:
Once the Jay Gipson Crane Service bought the site, they increased the amount of graveled surface and started parking their cranes on the site. Other than the gravel, there were no changes to the site.

Appendix B provides a copy of the Sanborn Fire Insurance Maps for the former AZSC site.

2.3 Site Ownership History

Prior to 1967, little is known about the past industrial activities at the site.

The AZSC ownership history was established by reviewing the Crawford County property records, historical records, and ADEQ permitting records.

The Arkbauer v. Falcon Zinc Company court case states that the AZSC site began operation in March of 1923 (Ref. 1). According to Sanborn Maps for the site, the facility was no longer in operation by February of 1930. Between 1930 and 1967, when Farmland Feed began operation, nothing is known about the site.

According to the Ag Processing Inc. company history, Farmland Feed, Boone Valley, and Land O'Lakes combined their processing plants and reconfigured into Ag Processing Inc. in 1983 and the facility stopped operation in 2005 (Ref. 5).

Despite the name changes, it appears that operations associated with this facility remained substantially the same. For purposes of this PA, the single designation of Farmland Feed is used to refer to the facility during its time as a feed mill.

Jay Gipson Crane Service bought the office buildings in 2005 and the rest of the site in 2010. Currently, they use some of the offices and park their cranes on the site (Photo 5).

Appendix C provides copies of the Crawford County Assessor's Office Real Property Records and other available real property information. These records contain information regarding property parcel legal descriptions and facility structures.

2.4 Site Operations and Waste Characteristics

The remainder of this Section provides available information regarding operations and waste characteristics at the AZSC site. Information was obtained via file reviews, personal interviews, and a site reconnaissance visit.

2.4.1 Historical Waste Management Practices

Falcon Zinc/Van Buren Zinc Company:
As previously mentioned in Section 2.3, the Arkbauer v. Falcon Zinc Company court case occurred in 1929. In this case, the plaintiff alleged that the zinc smelter was killing his crops. Because of discretion in the examination and cross-examination of expert witnesses, a new trial was requested. The results of any subsequent trial are not known due to the lack of records (Ref. 1).

Since the Sanborn map shows pottery and kiln buildings, it is believed that the Van Buren zinc smelter was a horizontal retort smelter. Horizontal retort smelting is a method which distills the zinc out of ore. Raw ore is first put through preprocessing which consists of benefication, roasting, and sintering. The prepared ore is then placed in cylindrical vessels made of fire clay and silica (retorts) and placed in the furnaces. The ore is then heated to above 907° C, the boiling point of zinc, and the zinc volatilizes and is collected in condensers which are made of clay and retort fragments. Much of the waste at old smelters consists

of these used retorts and condensers, which have heavy metal residues caked on their inner surface (Ref. 6).

Farmland Feed:
Some historical information from voided permits was available in ADEQ records specific to the hazardous waste management practices for the Farmland Feed site. Farmland Feed had a National Pollution Discharge Elimination System (NPDES) storm water discharge permit (ARR00B697), a registered storage tank (17000056), and air permits (1408-A, 1408-AR-1, 1408-AR-2, 1408-AR-3, 1408-AR-4).

Farmland Feed was a feed mill. Emissions from the facility were from the various processes including boiling, mixing, receiving, and various other processes. Emissions that were produced were volatile organic compounds (VOCs), nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM and PM_{10}), and sulfur oxides (SO_2).

Farmland Feed received a variety of agricultural products (calcium, dicalcium phosphorus, cotton seed and meal, linseed, corn, midds, peanut skins, oats, milo, rapeseed, and soybean meal and hulls) by rail and truck. After receiving the materials, the grains were loaded into various ingredient bins. The grains would then pass from the bins into a weigh hopper and were fed into a mixing system. Dust from the mixing system was controlled by a cyclone with discharges to the atmosphere. After mixing, the material was transferred to load out bins for shipment to one of two pellet mills or to the bagging operation. Pellet mill #1 was equipped with a counter flow cooler with a compact separator cyclone for emission control. Pellet mill #2 used a horizontal cooler which used twin cyclones for emission control. The material from the bagging bins was discharged into one of two baggers or into the load out or dairy line bins for shipment. A natural gas fired boiler provided steam to the two pellet mills. This boiler was permitted to operate continuously. Farmland Feed reported ten point sources for air pollution (Ref. 7).

The remainder of this Section describes the review of historic aerial photographs of the AZSC site reviewed during this PA investigation.

1976 – There is an area of disturbed soil and a storage area on the northern part of the site. The businesses that currently are located north and west of the site are not present in this photograph. The residence southeast of the site is in this photograph.

1982 – The area of disturbed soil located on the northern part of the site is no longer present. There appears to be an area of raised earth, possibly used for spill protection, around the northeastern most storage tanks.

1987 – The area of disturbed soil from the 1976 photograph has returned. There is a large storage area or junk pile on the northeast part of the site. An area of standing water inside the spill protection area on the eastern part of the site can be seen in this photograph. The shopping center north of the site is now present.

1990 – The area of standing water is no longer present. The disturbed soil and storage areas are no longer present.

1994 –There is new construction west of the site.

2001– The area of standing water has returned.

2004 – The area of standing water is significantly larger.

2006 – The graveled area has increased toward the northeast above the storage tanks and the area of standing water. The Jay Gipson Crane Service is now on the northern part of the site.

2009 – The expansion of graveled area reaches its current location in this photograph. The road west of the site is now present. The spill protection area is gone and the standing water is no longer present.

2010 – All current businesses around the site are now present.

2012 – There are no major changes from the 2010 photo.

2.4.2 Regulatory Compliance

The following information was compiled of cross-referenced ADEQ files and report documentation.

The North American Industrial Classification System code for Feed Milling is 311119. The U.S. Standard Industrial Classification code is 2048 – Prepared Feed and Feed Ingredients for Animals and Fowls (Ref. 8).

Environmental regulations pertinent to Feed Milling included: the Clean Air Act (CAA), the Clean Water Act (CWA), and the Resources Conservation and Recovery Act (RCRA). Information relevant to each of these regulatory categories is provided below.

CAA

Feed milling activities can be a source of a variety of emissions. Emissions from Farmland Feed resulting from the various processes used to mill the feed materials included particulates from storing, mixing, and loading. Fugitive VOC emissions came from the boiler.

A review of the ADEQ Permit Data System (PDS) indicates that Farmland Feed was issued Air Permit 1408-A on November 17, 1992. The permit was modified approximately four times. The last modification occurred on September 17, 2002 ending with permit 1408-AR-4. All permits have since been voided. Additional air emissions information is provided in Section 3.4 Air Migration Pathway.

CWA

One NPDES Storm Water Industrial Permit was found for Farmland Feed. The permit number was ARR00B697 and was voided on December 8, 2009. Requirements established under the CWA are potentially relevant to a facility such as Farmland Feed. Such requirements include spill prevention, control and countermeasures plans and storm water pollution prevention plans.

RCRA

According to ADEQ records, Farmland Feed had not been issued an EPA Hazardous Waste ID nor were any hazardous waste permits issued.

2.5 Source Characterization

Sections 2.5.1 through 2.5.4 provide source characterization information.

2.5.1 Source Descriptions

Little is known about the waste management practices for the zinc smelting operation at AZSC. However, because site operations involved smelting at a time when emission standards did not exist, suspended particles may have been deposited on to areas surrounding the site.

According to Exhibit B in the warranty deed dated January 7th 2005, Ag Processing undertook a Phase I Environmental Site Assessment and a Limited Site Investigation of the site and identified a recognized environmental condition in 2004. An area of stressed vegetation consisting of apparent slag or coke material was observed on the northeast portion of the site. Based on the analysis, the elevated concentrations of cadmium, lead, and zinc indicate the fill material located on the north side of the site appears to have been a by-product, or associated with the former on-site zinc smelter facility. The reported lead concentrations in the samples collected from the fill material exceeded the lead human health medium specific screening levels for outdoor industrial workers of 800 milligrams per kilogram (mg/kg). Although the cadmium and zinc concentrations did not exceed their levels of 560 mg/kg and 100,000 mg/kg respectively, they were above background levels. ADEQ tried to acquire a copy of the Phase I from Ag processing. At the time of this PA, attempts had not been successful.

A restriction has been placed on the site that includes no residential or agricultural use, and no excavation, tilling, construction, or any other activity that would disturb the slag area except for the placement of a barrier such as vegetation or pavement or the excavation and removal of the contaminants. Based on visual evidence from the site visit, it appears that the slag area has been removed and a gravel layer has been put in place over the area. The Phase I summary and deed restriction can be found in Appendix C.

The following two concerns for the Farmland Feed operations were initially identified on the basis of information provided by ADEQ's records.

1. According to Air Permit 1408-A, Farmland Feed had a total of 10 point sources. Information on these sources is summarized below.

Table 2-1 Air Permit Point Sources

Source Number	Source	Pollutant
01	Rail Receiving	PM, PM_{10}
02	Truck Receiving	PM, PM_{10}
03	Flaking System	PM, PM_{10}
04	Mixing System	PM, PM_{10}
05	Bulk Loadout	PM, PM_{10}
06	Bagger #1 and #2	PM, PM_{10}
07	Pellet Cooler #1	PM, PM_{10}
08	Pellet Cooler #2	PM, PM_{10}
09	Dairy Loadout	PM, PM_{10}
10	Boiler	PM, PM_{10}, SO_2, VOC, CO, NO_X

2. Farmland Feed had one storage tank on site. Information on this tank is summarized below.

Table 2-2 Former Storage Tank

Tank number	1
Position	Underground
Capacity	20,000 gallons
Installation Date	1/1/1981
Current Status	Removed (12/5/88)
Material	Painted Steel
Substance Stored	Diesel

2.5.2 Evidence of Hazardous Substance, Pollutant, or Contaminant

Farmland Feed reported having a total of 10 point sources for air emissions. The following emissions were produced: VOCs, NO_x, CO, PM, PM_{10}, and SO_2.

During the site reconnaissance visit on October 4, 2012 visual evidence of soil staining was noted around the railroad spurs (Photos 7, 9, and 10). However, it appears that this staining is associated with the railroad and not any smelting or milling processes.

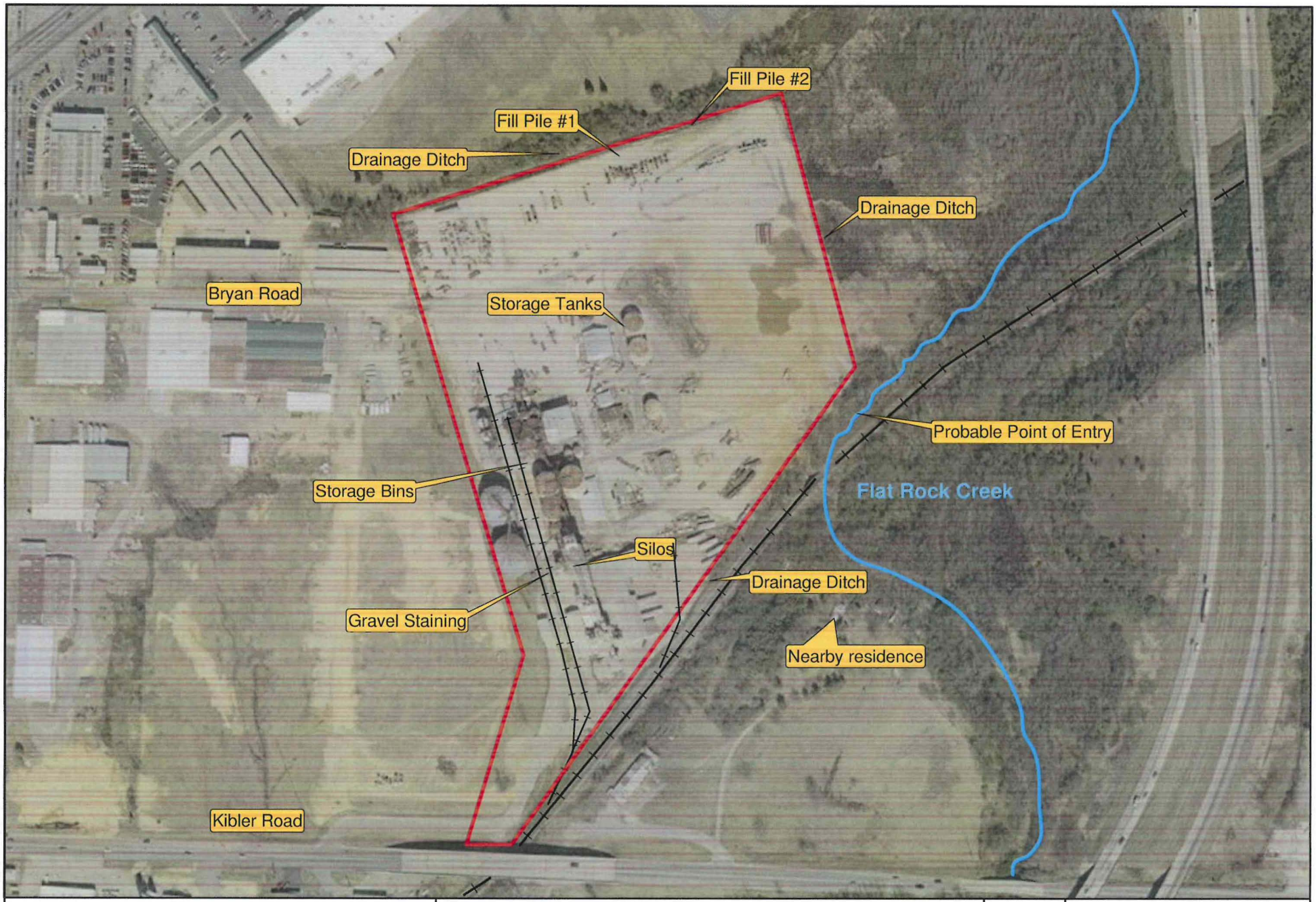
No other evidence of hazardous substance, pollutants, or contaminants were noted on the site or in the adjacent drainage ditches (Photos 2, 4, 11, and 12) during the site reconnaissance visit.

2.5.3 Source Containment Features

Currently there are no source containment features at the AZSC site. The entire facility is not confined in any way. In the event of heavy rains, storm water runoff could possibly discharge to the drainage ditches near residential areas.

2.5.4 Waste Quantity or Source Size

An area of contamination was discovered during the Phase I investigation. It appears to have been remediated. A deed restriction has been placed on the site.



Arkansas Zinc Smelting Company

Site Map - Aerial View

Figure 2-1

Legend:

Former AZSC plant site

Railroad

Flat Rock Creek

ADEQ ARKANSAS Department of Environmental Quality

Project No. 17-00152	Aerial View
	Location: *Van Buren, Arkansas*
	County: *Crawford*
	Date: *December 2012*

3.0 MIGRATION/EXPOSURE PATHWAYS AND TARGETS

All migration/exposure targets were calculated for this PA using the MARPLOT mapping system to search selected information from the EPA, the U.S. Census Bureau, and the U.S. Geological Survey (USGS).

Sections 3.1 through 3.4 present information regarding migration/exposure pathways and targets.

3.1 Groundwater Migration Pathway

Sections 3.1.1 through 3.1.4 provide groundwater information for the AZSC site.

3.1.1 Local Geology and Hydrologic Setting

AZSC is located within the Arkansas Valley Physiographic Province. The Arkansas Valley is stratigraphically dominated by recent alluvial deposits overlying Pennsylvanian clastic sediments deposited on the margin of a continental shelf. Deposition was largely in deltaic environments, and sediments were reorganized in part by marginal marine processes. Broad synclines with relatively narrow intervening anticlines comprise the structural features. The axes of these fold features generally trend east to west. Observed faulting is mostly normal and generally trends west to east; some thrust faults associated with anticlines are present in the southern part of the province. The most conspicuous positive topographic features are synclines formed from more rapid erosion of underlying shale after capping sandstones were breached on the crests and flanks of the surrounding anticlines.

The Pennsylvanian McAlester Formation is the underlying regional bedrock; its thickness ranges from about 500 to 2,300 feet.

Groundwater in the area is generally encountered in alluvium and terrace deposits associated with the Arkansas River and its many tributaries, in addition to underlying unconsolidated and consolidated water bearing zones.

Supplies of potable groundwater accumulate in secondary porosity (fractures) of the McAlester Formation with limited amounts of non-potable groundwater occurring along the weathered soil/bedrock interface. Recharge is by direct infiltration from rainfall.

Groundwater in the area around AZSC is believed to travel southwest toward the Arkansas River; however, discontinuous and variable granular strata and bedrock features can influence the direction groundwater flows (Ref. 9).

The Arkansas Natural Resource Commission (ANRC) well construction database was searched to identify existing wells within a 4 mile radius of the site, and 64

well records were listed. The well depths ranged from 3 feet to 370 feet below ground surface (bgs). There are ten domestic wells, seventeen monitoring wells, three irrigation wells, and thirty four wells with unknown use (Ref. 10).

Appendix D contains copies of the ANRC well construction database listings.

3.1.2 Releases and Potential Releases to Groundwater

The United States Geological Survey, the ANRC, and the Arkansas Geological Survey are all entities that monitor Arkansas groundwater quality for various purposes; however, none of these entities currently monitors groundwater quality within the vicinity of the AZSC site.

No analytical information regarding the removal of the 20,000-gallon diesel underground storage tank (UST) was obtained during this PA investigation, and its location was not determined. According to the RST Division facility database, this UST was installed in 1981 and removed in 1988. Due to its short service length, it is presumed the potential for past releases associated with this UST is low.

No other analytical or other evidence of releases to groundwater have been documented.

The following Section discusses the groundwater migration pathway targets.

3.1.3 Groundwater Migration Pathway Targets

Residences within the city are supplied by City of Fort Smith Water purchased by the City of Van Buren. Therefore, consumers of the city's drinking water would not be considered potential groundwater targets because only surface water is used as the municipal supply (Ref. 11). However, there are domestic wells within a four mile radius, and the potential exists for groundwater to be used as a drinking water source.

3.1.4 Groundwater Migration Pathway Conclusions

Groundwater contamination has not been documented in the vicinity of the AZSC site. Residents on the city's drinking water would not be potential targets, but there are domestic wells nearby that could be used for drinking water.

3.2 Surface Water Migration Pathway

Sections 3.2.1 through 3.2.4 provide surface water information.

3.2.1 Hydrologic Setting

Using the geographic coordinates for the approximate center of the AZSC site, the site lies at an elevation of 426 feet above NGVD, at a slight slope to the east. The AZSC site is located within the 100-year floodplain (Ref. 12).

Available sources reviewed during this PA investigation to determine the AZSC site's hydrologic setting and surface water conditions included: USGS 7.5 Minute Topographic Quadrangle, Little Rock, Arkansas (2011); ADEQ Water Division records; USGS Arkansas Water Science Center databases; the Arkansas Natural Resources Commission; and the Arkansas Watershed Information System.

Surface drainage on the site is considered good, with the surface water draining into the ditches located on the east and north sides of the site. Water flow from this site is then directed south until it reaches Flat Rock Creek 445 feet away. The point where the ditches drain into Flat Rock Creek is the Probable Point of Entry (PPE). The Arkansas River receives water from Flat Rock Creek approximately 4.25 miles south of the site. The 15-mile Target Distance Limit (TDL) is estimated to occur in the Arkansas River.

According to the ADEQ's *Draft 2012 Integrated Water Quality Monitoring and Assessment Report*, the AZSC site is located in Segment 3H (Ref. 13). Segment 3H is located in the lower portion of the northwest quarter of Arkansas and includes most of Crawford, Franklin, and Johnson Counties as well as parts of Sebastian, Logan, Pope, Van Buren, Searcy, Newton, Madison, Yell, and Washington Counties. This segment contains a reach of the Arkansas River from the Oklahoma state line to the lower end of Lake Dardanelle. Major tributaries in this reach include the Illinois Bayou, Big Piney Creek, Lee Creek, Mulberry River, Six mile Creek, and Vache Grasse Creek.

The waters within this segment have been designated as suitable for the propagation of fish and wildlife, primary and secondary contact recreation, and public, industrial, and agricultural water supplies.

Figure 3-2 illustrates the approximate 15-mile radius delineation used by the Department of Arkansas Natural Heritage Commission (ANHC) for the database search for threatened and endangered species and significant ecological communities and indicates the 15-mile TDL downstream from the AZSC site.

3.2.2 Releases and Potential Releases to Surface Water

While doing this PA investigation, no evidence was found that the AZSC site and surrounding area has been identified with specific releases or contamination of surface waters.

As described in Section 2.4.2, a NPDES Storm Water Industrial Permit was found for AZSC. The permit number is ARR00B697 and was effective until December 8, 2009.

3.2.3 Surface Water Migration Pathway Targets

The AZSC site lies within the Upper Rock Creek watershed. The total area of this sub-watershed covers 19,618.34 acres / 30.30 square miles, and contains a surface water feature area of 1.02 square miles in the form of Lakes/Ponds and Swamp/Marsh. The surface water linear feature is 37.29 miles. The population of the Upper Rock Creek watershed was 14,714 persons in 2000, with a population density of 486 persons per square mile. The Upper Rock Creek watershed is encompassed by the Little Vache Grasse Creek-Arkansas River watershed area. The Little Vache Grasse Creek-Arkansas River watershed encompasses 99,229.35 acres / 153.25 square miles and contains a surface water feature of 8.73 square miles. Linear surface water is measured at 205.97 miles.

As described in Section 3.2.1, the waters within the site's watershed and sub-watershed are used for the propagation of fish and wildlife, as well as for recreational purposes. These waters are also suitable for public, industrial, and agricultural water supplies.

Appendix E contains Arkansas Watershed Information System watershed maps and supporting documentation for the above information (Ref. 14).

The ANHC maintains a database on the status and location of threatened or endangered species and significant ecological communities in Arkansas. An occurrence of an element of special concern represents a location providing habitat for sensitive species (threatened or endangered), is an outstanding example of a natural community, a natural or scenic river, or is a colonial bird nesting site.

According to the file review conducted by the ANHC for the ANHC site, one occurrence of an element of special concern (Western kingbird) has been recorded within a 1-mile radius of the site. Nine occurrences have been recorded within a 4-mile radius and a total of 80 occurrences have been recorded within a 15-mile radius of the site.

One aquatic species of special concern, the suckermouth minnow, has been recorded within 5 miles of the AZSC site. The ANHC notes this species as being "critically imperiled in the state due to extreme rarity (often five or fewer populations), very steep declines, or other factors making it vulnerable to extirpation" (Ref. 15).

Appendix F contains a copy of the file review provided by the ANHC and supporting documentation for the above information.

The Van Buren Municipal Utilities purchases water from the City of Fort Smith. The two sources that supply their raw water are, Lake Fort Smith and Lee Creek. Lake Fort Smith is located approximately 19 miles northeast of the AZSC site, and Lee Creek is located approximately 3.5 miles northwest of the AZSC site (Ref. 11). Both of these water bodies are upstream of the AZSC site.

3.2.4 Surface Water Migration Pathway Conclusions

There are no indications of a current release of contaminants to surface water from the AZSC site. Discharges from the site enter Flat Rock Creek by way of ditches along the north, east, and south site boundaries. Based on the research of this site, no evidence of contamination was found; however, the runoff from past operations could have potentially caused sediment contamination along ditches and to Flat Rock Creek.

3.3 Soil Exposure Pathway

According to the Natural Resources Conservation Service *Soil Resource Report for Crawford County, Arkansas*, the soil map unit composition for the AZSC site area is comprised primarily of the following soils (Ref. 16):

Muskogee silt loam, 3 to 8 percent slopes
Wrightsville silt loam

Descriptions of these soils are summarized below:

Muskogee silt loam, 3 to 8 percent slopes

The Muskogee series consists of deep, moderately well drained, slowly permeable soils that formed in stratified loamy and clayey alluvium on high terraces along the Arkansas River. The native vegetation was chiefly mixed hardwood and pine forest. Slopes are 3 to 8 percent.

Wrightsville silt loam

The Wrightsville series consists of deep, poorly drained, very slowly permeable soils on old stream terraces in broad valleys. These soils formed in loamy and clayey alluvium deposited by the Arkansas River. The native vegetation was hardwoods and tall grasses. Slopes are less than 2 percent. Wrightsville soils are geographically associated with Leadvale and Muskogee soils, on higher landscapes, are better drained and have a fine-silty control section.

Appendix G provides the Custom Soil Resource Report for Crawford County, Arkansas and the AZSC site.

Sections 3.3.1 through 3.3.4 provide additional soil information.

3.3.1 Physical Source Access Conditions

The AZSC site is not completely fenced and is easily accessible to trespassers. Four buildings remain on site and many large silos are located throughout the site. The parking area and other surface pavements are composed of concrete and loose gravel.

3.3.2 Actual or Potential Contamination Areas

Because of the nature of a zinc smelter and dispersion of heavy metals, there is the potential for a large area of contamination. However, the only known area of contamination on the northern part of the site appears to have been remediated and a restriction has been put on the site.

3.3.3 Soil Exposure Pathway Targets

A residence is located within 340 feet to the southeast of the site. Additional residences are located 0.35 miles north, 0.27 miles west, and 0.25 miles north of the site. The closest businesses are J.R. Young's general contracting business (Photo 8) (125 feet to the west) and a shopping center located 300 feet to the north. It is estimated that five to ten people work on site at Jay Gipson Crane Service. The J.J. Izard Elementary School is located 0.5 miles west of the site. The Little Blessings Preschool is located 0.15 miles northeast of the site.

The MARPLOT software, which includes U.S Census Bureau information for the year 2000, was used to calculate populations within the radii below. Using the coordinates of 35.438803 latitude and -94.324441 longitude, approximately 5,236 persons reside within a 1-mile radius of the AZSC site. **Figure 3-2** provides a map depicting the 15-mile radius around the approximate site location. **Figure 3-3** provides a topographical map of the general vicinity.

Table 3-1. Arkansas Zinc Smelting Company Site Population Distances

Distance Radius - Miles	Number of Residents
.25	5
.50	291
1.0	5,236
2.0	13,830
3.0	19,755
4.0	34,321

3.3.4 Soil Exposure Pathway Conclusions

There is the potential for large areas of contamination due to the dispersion of heavy metals during the smelting process. As discussed in in Section 2.5.1, actual contamination was found during a Phase I investigation. However, it appears that

this area of contamination has been remediated and a deed restriction has been put on the site.

3.4 Air Migration Pathway

Sections 3.4.1 through 3.4.4 provide air migration pathway information.

3.4.1 Climate

The average annual rainfall for Van Buren is 40.7 inches per year. Rainfall is fairly evenly distributed throughout the year; precipitation peaks in May with approximately 5.29 inches of rainfall. July is the warmest month with an average maximum temperature of 93 degrees Fahrenheit, while January is the coldest month with an average minimum temperature of 29.2 degrees Fahrenheit (Ref. 17; Ref. 18).

3.4.2 Releases and Potential Releases to Air

As described in Section 2.4.2, a review of the ADEQ Air Division records indicated that Farmland Feed was issued a General Air Permit #1408-A. Emissions from Farmland Feed resulted from various processes including mixing, loading, and a boiler. Additionally, Farmland Feed had 10 point sources for air emissions. Emissions that were produced were: PM, PM_{10}, SO_2, VOC, CO, and NO_X.

Other than the soil around the railroad tracks, there are no areas of visible soil contamination. As stated in Section 2.2, the site is comprised of vegetated and graveled areas. No blowing particulates were noted during the site reconnaissance visit.

It should be noted that there is a concern for historical emissions. Acidic fumes containing heavy metals were vented to the atmosphere, and the deposition of these chemicals could affect the fertility of the land, especially in the direction of the prevailing winds (Ref. 6).

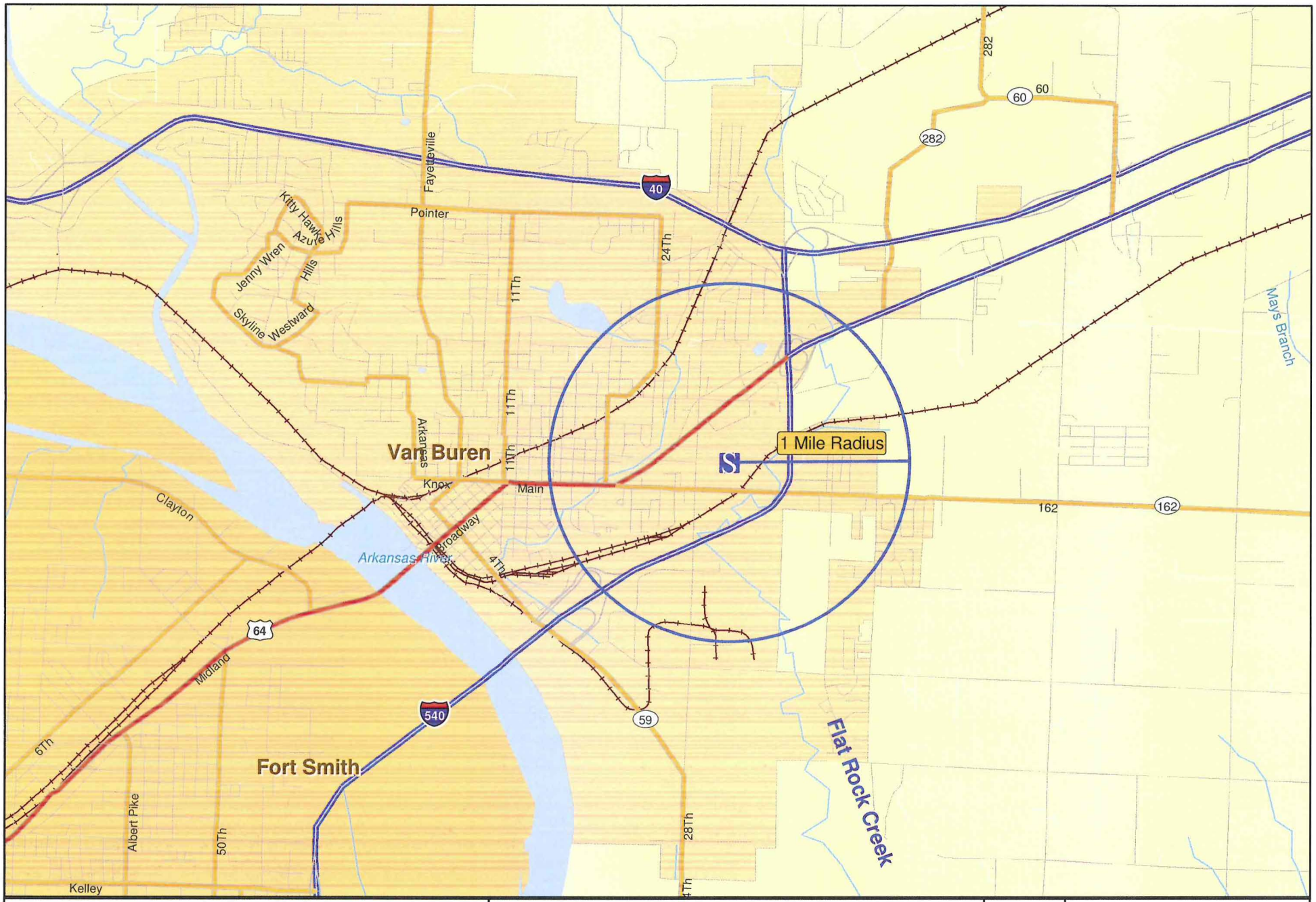
3.4.3 Air Migration Pathway Targets

Air migration pathway primary targets identified for the AZSC site include nearby residents, workers at nearby businesses, and potential trespassers.

3.4.4 Air Migration Pathway Conclusions

No actual air migration pathways, but several air migration pathway targets associated with the AZSC site were identified. As stated in Section 3.4.2, the potential for historical heavy metal deposition does exist; however, there were no

areas of exposed soil or blowing particulates and the only areas of actual contamination appear to have been removed.



Arkansas Zinc Smelting Company

Site Location
Figure 3-1

Legend:

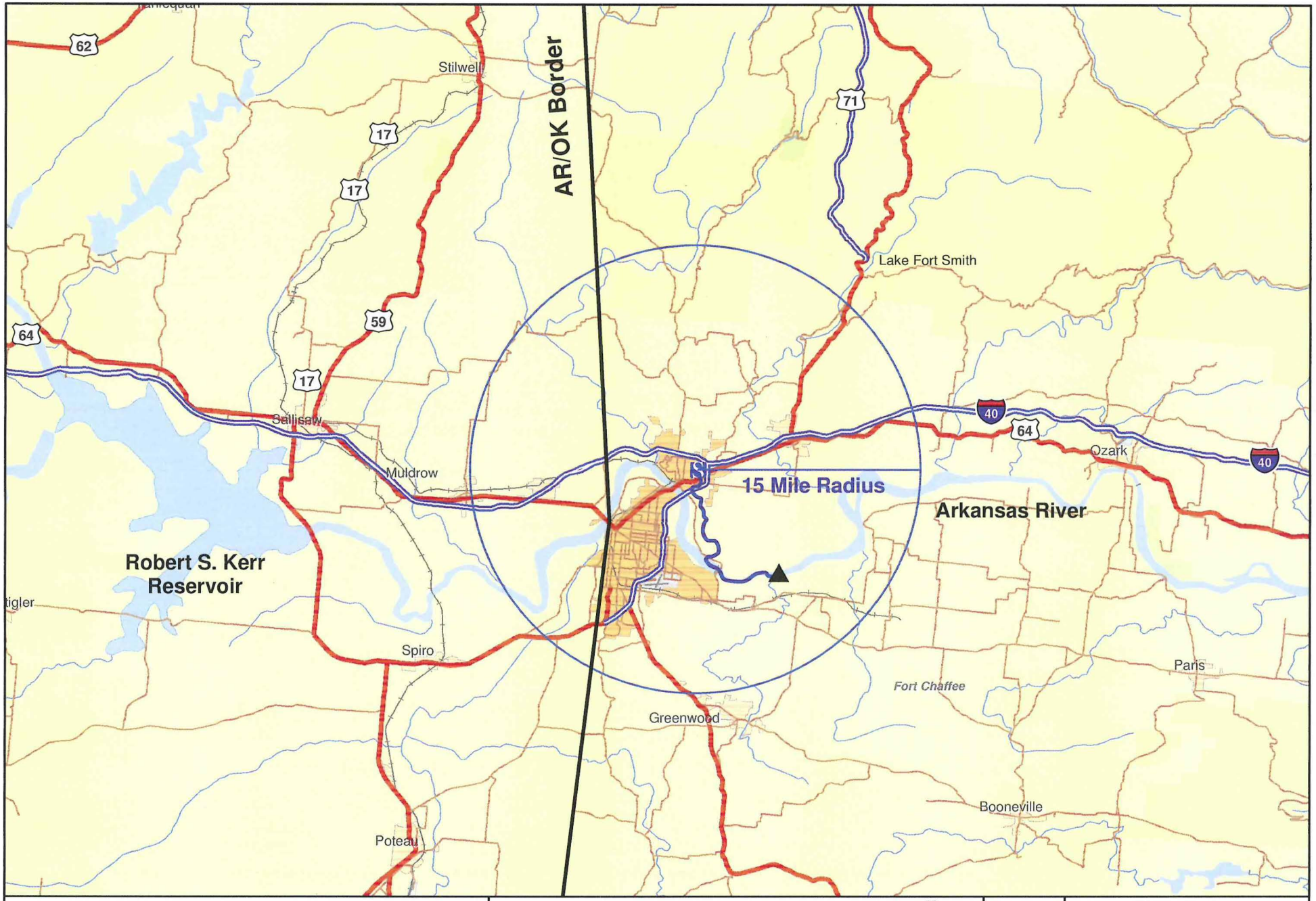
Site Location

0 0.2 0.4 0.8 Miles

ADEQ ARKANSAS Department of Environmental Quality

AFIN No. 17-00152

Site Location	
Location:	*Van Buren, Arkansas*
County:	*Crawford*
Date:	*December 2012*



Arkansas Zinc Smelting Company

15-Mile Radius and Target Distance Limit

Figure 3-2

Legend:

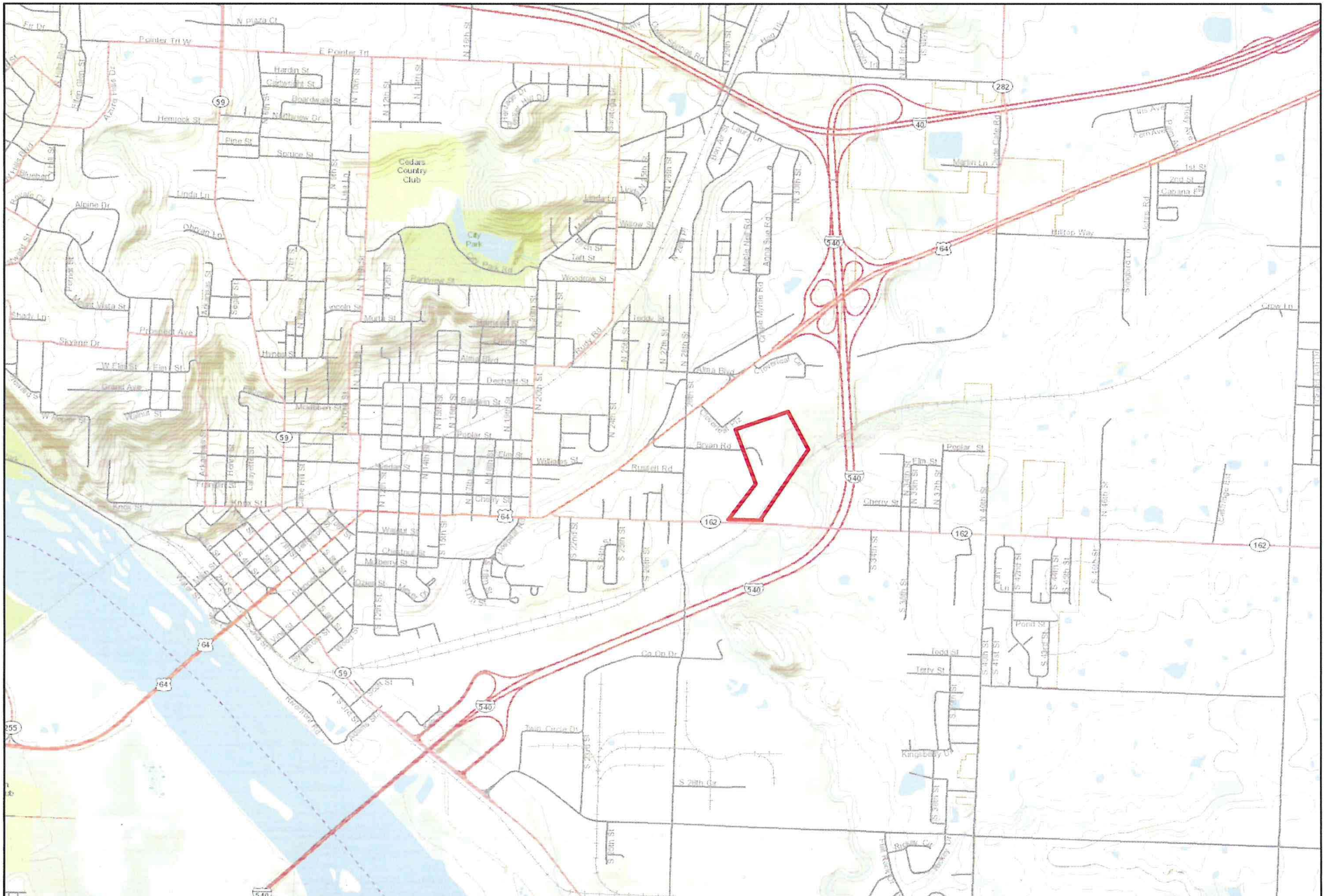
S Site Location

▲ Target Distance Limit

N

ADEQ ARKANSAS Department of Environmental Quality

	15-Mile Radius
Location:	*Van Buren Arkansas*
County:	*Crawford*
Date:	*December 2012*
Project No.	17-00152



Arkansas Zinc Smelting Company

Topographic Map
Figure 3-3

Legend:

Site Location

0 0.1 0.2 0.4 Miles

ADEQ ARKANSAS Department of Environmental Quality

AFIN No.	Topographic Map	
	Location:	Van Buren, Arkansas
17-00152	County:	Crawford
	Date:	December 2012

4.0 SUMMARY AND CONCLUSIONS

The AZSC site is located on approximately 24.1 acres in Van Buren, Arkansas. The site is bordered by Kibler Road to the south. J.R. Young's general contracting business (Photo 8) is located to the west. A shopping center is located to the north and a residence is located to the east. According to Crawford County property records, historical records, and ADEQ permitting records, the zinc smelter was in operation from 1923 until 1930. The site began operation as a feed mill in 1967 and went through changes in ownership until the mid-2000s. However, it remained a feed mill and kept the same operations through the ownership changes. It is now used for offices and a parking area for Jay Gipson Crane Service.

In addition to AZSC having an unknown history of operations in a time of limited regulation, available information reviewed during the course of this PA investigation indicated the following:

- In 1929 a nearby farmer filed a lawsuit claiming the smelter was killing vegetation on his property.

- According to Exhibit B in the 2005 warranty deed, a Phase I and a Limited Site Investigation was done on the site in 2004. An area of stressed vegetation consisting of apparent slag or coke material was observed on the northeast portion of the site. The investigation revealed that cadmium, zinc, and lead were above background levels and lead was above the human health medium specific screening levels for outdoor industrial workers of 800 mg/kg. Any additional actions taken at this site are not known but during ADEQ's site visit, it appeared that the slag and coke material had been removed and a gravel layer had been placed over it.

- Due to the findings in the 2004 Phase I Environmental Site Assessment, a deed restriction was put on the site. The restriction prohibits residential and agricultural use of the site.

- According to the ADEQ records for RSTs, there was one UST on-site that operated from 1981 until 1988.

- According to Air Permit #1408-A, Farmland Feed had a total of 10 point sources throughout the facility. Pollutants include PM, PM_{10}, SO_2, VOC, CO, and NO_X.

- An area of gravel staining exists along the railroad tracks on the western part of the site. This staining appears to be related to the railroad rather than smelting or milling operations.

Soil and surface water are the migration/exposure pathways of concern due to both the potential of releases and the existence of targets. Potential soil exposure targets include site visitors, Jay Gipson Crane Services employees, and trespassers. Potential surface water migration pathways include a series of ditches that lead to Flat Rock Creek and eventually to the Arkansas River. The Arkansas River is widely used recreationally, and is suitable for the propagation of fish and wildlife, and as public, industrial, and agricultural water supplies. The potential for exposure to the soil pathway from the slag pile appears to have been removed and covered with gravel; however, there is staining near the railroad tracks (Photos 7, 9, and 10). Since staining remains on site, a limited potential for a release to surface water exists.

Groundwater migration is not a major pathway of concern due to the low potential for releases to have occurred. No municipal drinking water wells are located within a 4-mile radius of the site. All residents served by the Van Buren Municipal Utilities would not be targets since the city relies entirely on surface water from a regional lake and creek for its drinking water supply. Although there are domestic wells within four miles that could possibly be used by some residents for drinking water, no evidence of a release to groundwater has been documented.

The air migration pathway is of indeterminate concern due to the potential for historic releases to have occurred; however, because of a limited amount of soil exposure dust dispersion is minimized.

Based upon these findings; the previous Phase I and the Limited Site Investigation; the suspected removal of the slag area and installation of a gravel layer; and the subsequent deed restriction placed on the site; ADEQ does not recommend further investigation at this time.

5.0 REFERENCES

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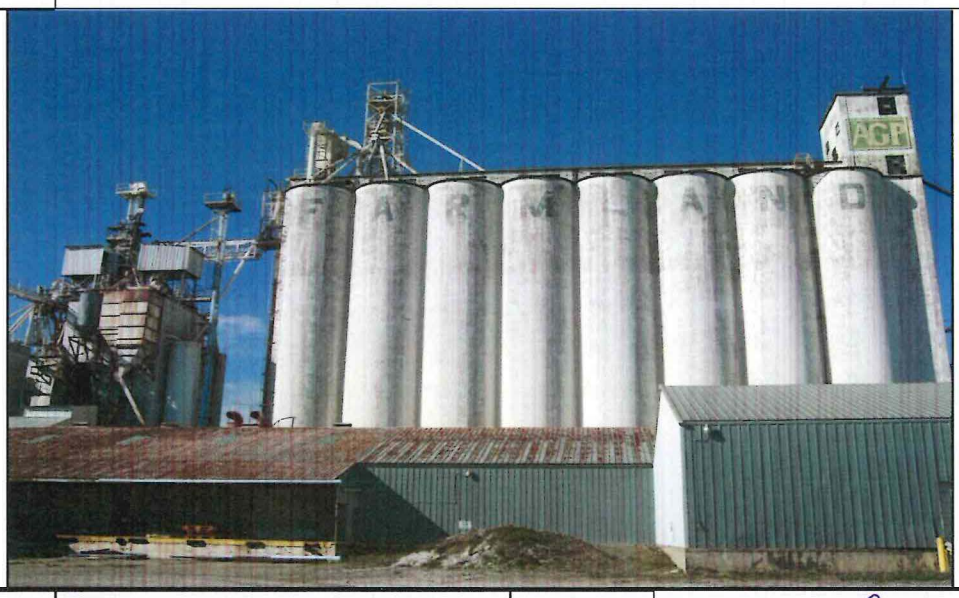
17. Van Buren, AR Weather. Available online at http://www.idcide.com/weather/ar/vanburen.htm
18. Little Rock, AR Weather. Available online at http://www.bestplaces.net/city/VanBuren-Arkansas.aspx

6.0 PHOTO LOG

This Section provides photographs taken at the AZSC site during this PA investigation.

Arkansas Department of Environmental Quality (ADEQ)
Official Photograph Sheet

Location:	Arkansas Zinc Smelting Company, Van Buren, AR.							
Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	1	**Of**	12		**Date:**	18 Oct.12	**Time:**	10:33 am
Description:	Silos on west side of property looking east							



Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	2	**Of**	12		**Date:**	18 Oct. 12	**Time:**	10:34 am
Description:	Drainage ditch on east side of property; facing southeast							

Arkansas Department of Environmental Quality (ADEQ)
Official Photograph Sheet

Location:	Arkansas Zinc Smelting Company, Van Buren, AR.							
Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	3	**Of**	12		**Date:**	18 Oct. 12	**Time:**	10:35 am
Description:	Jay Gipson Crane offices and former storage tanks; facing west							

Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	4	**Of**	12		**Date:**	18 Oct. 12	**Time:**	10:36 am
Description:	Drainage area on east side of property; facing northeast							

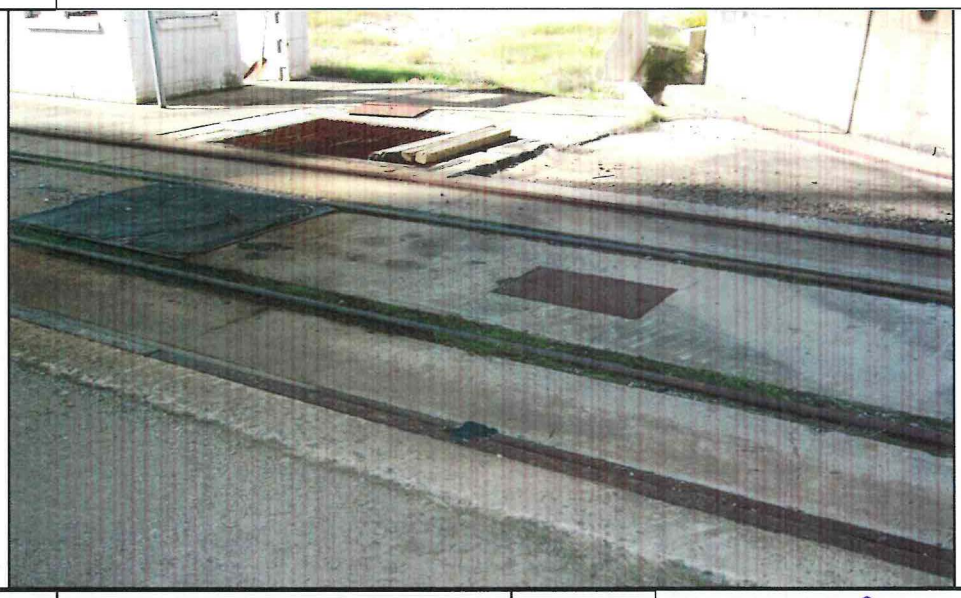
Arkansas Department of Environmental Quality (ADEQ)
Official Photograph Sheet

Location:	Arkansas Zinc Smelting Company, Van Buren, AR.							
Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	5	**Of**	12		**Date:**	18 Oct. 12	**Time:**	10:37 am
Description:	Jay Gipson Crane Service parking area; facing north							

Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	6	**Of**	12		**Date:**	18 Oct. 12	**Time:**	10:37 am
Description:	Former storage tanks; facing north							

Arkansas Department of Environmental Quality (ADEQ)
Official Photograph Sheet

Location:	Arkansas Zinc Smelting Company, Van Buren, AR.							
Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	7	**Of**	12		**Date:**	18 Oct. 12	**Time:**	10:42 am
Description:	Concrete staining near railroad tracks; facing west							



Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	8	**Of**	12		**Date:**	18 Oct. 12	**Time:**	10:43 am
Description:	J.R. Young general contracting business west of property; facing west							

Arkansas Department of Environmental Quality (ADEQ)
Official Photograph Sheet

Location:	Arkansas Zinc Smelting Company, Van Buren, AR.							
Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	9	**Of**	12		**Date:**	18 Oct. 12	**Time:**	10:45 am
Description:	Gravel staining along railroad spur; facing east							

Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	10	**Of**	12		**Date:**	18 Oct. 12	**Time:**	10:46 am
Description:	Additional gravel staining near railroad spur; facing east							

Arkansas Department of Environmental Quality (ADEQ)
Official Photograph Sheet

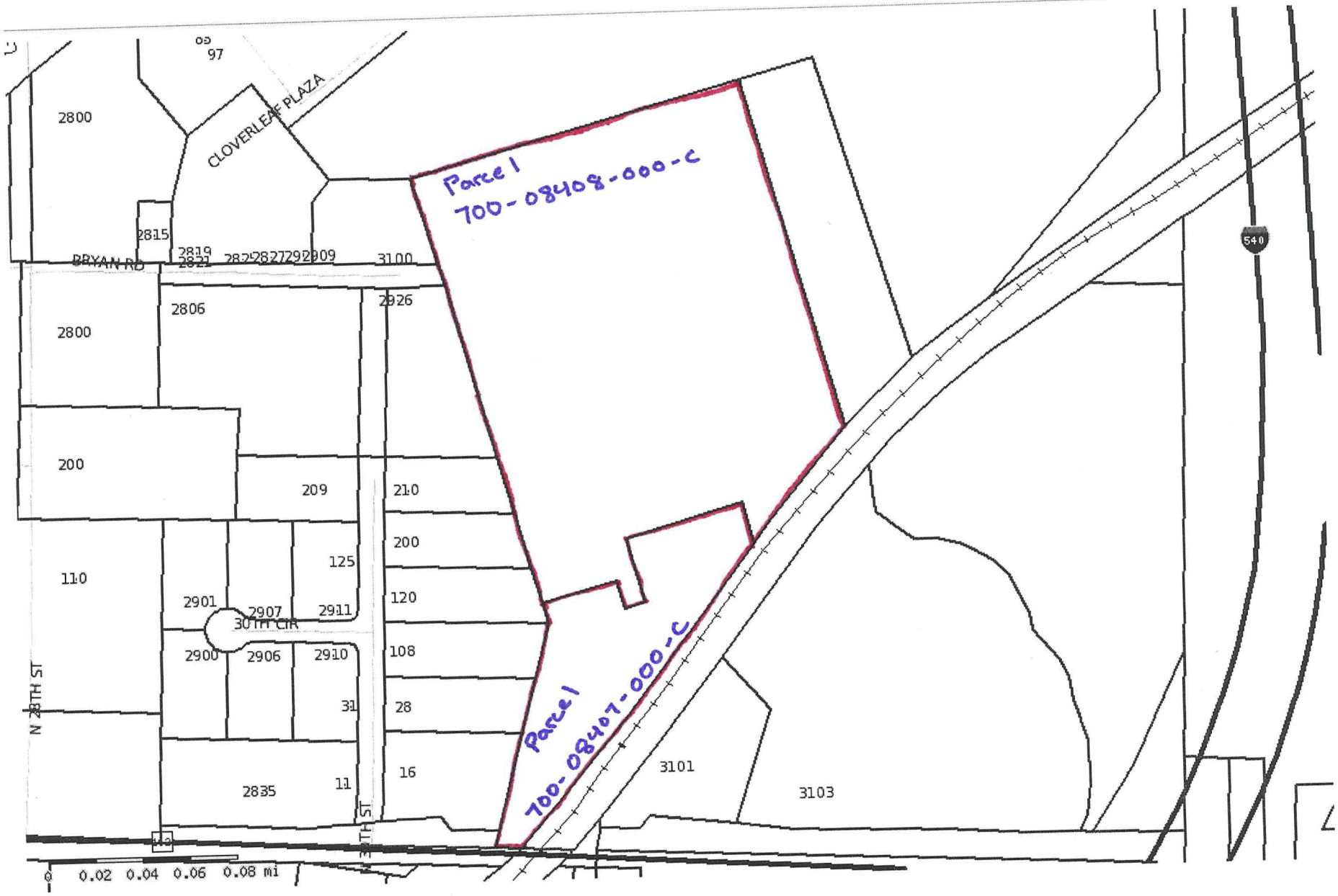
Location:	Arkansas Zinc Smelting Company, Van Buren, AR.							
Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	11	**Of**	12		**Date:**	18 Oct. 12	**Time:**	10:46 am
Description:	Drainage area on southeast part of property; facing southwest							

Photographer:	Jonathan Wells, ADEQ JW				**Witness:**	Brett Baker BB		
Photo #	12	**Of**	12		**Date:**	18 Oct. 12	**Time:**	10:54 am
Description:	Ditch line along northern border of property; facing north							

Appendix A

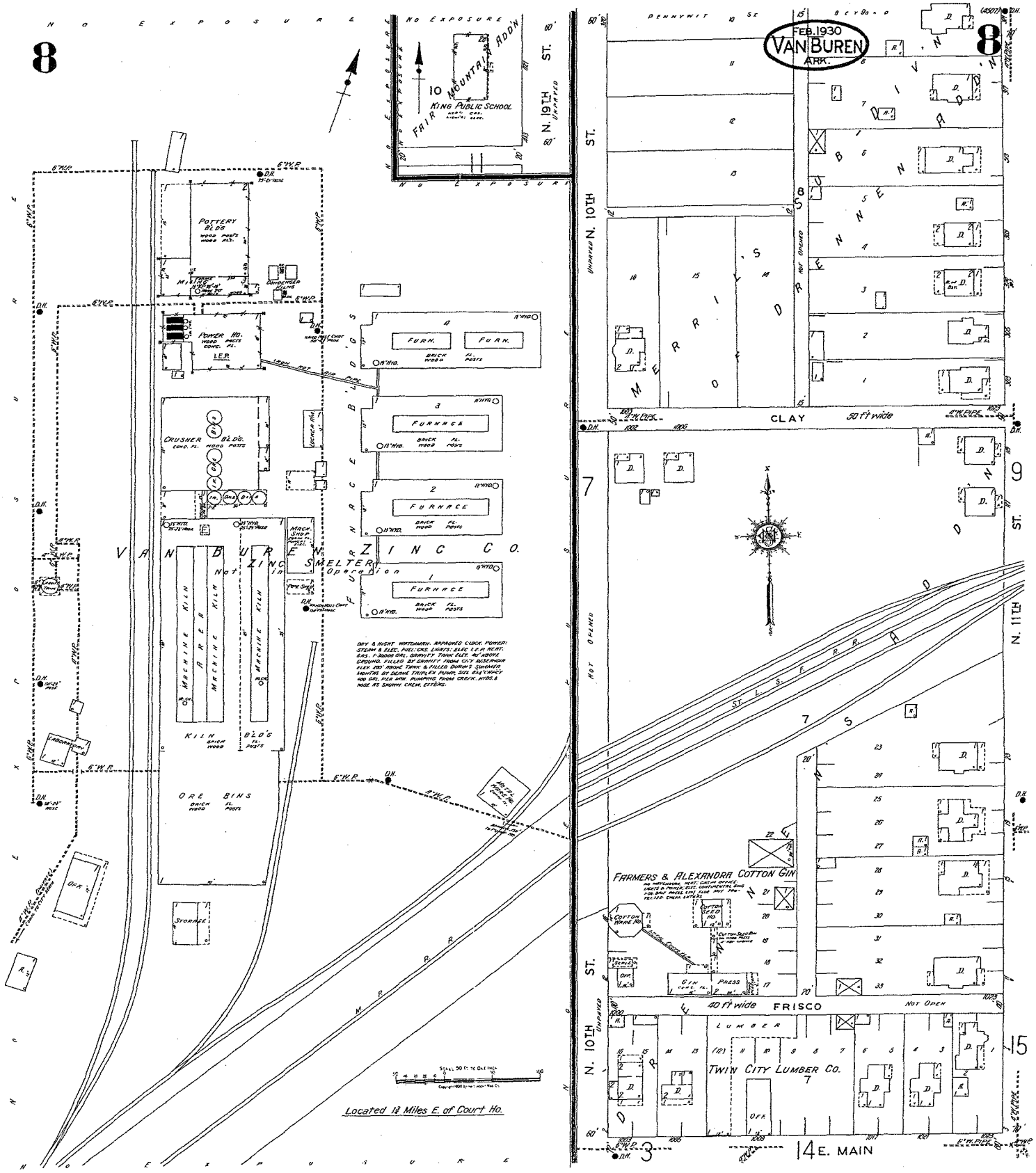
Parcel Map

County Map


97
CLOVERLEAF PLAZA
2800
2815
2819
2821
2827
2909
3100
BRYAN RD
2806
2926
2800
200
209
210
200
125
110
120
2901
2907
2911
30TH CIR
2900
2906
2910
108
N 28TH ST
31
28
16
2835
11
28TH ST
Parcel
700-08408-000-C
Parcel
700-08407-000-C
3101
3103
540
0 0.02 0.04 0.06 0.08 mi

Appendix B

Sanborn Fire Insurance Maps


8
FEB. 1930
VAN BUREN
ARK.
8
NO EXPOSURE
FAIR MOUNTAIN ADD'N
KING PUBLIC SCHOOL
N. 19TH ST.
UNPAVED
POTTERY BLDG
POWER HO.
CRUSHER BLDG.
FURN.
FURNACE
FURNACE BLDGS
VAN BUREN ZINC CO.
ZINC SMELTER
Not in Operation
MACHINE KILN
AREA
KILN BLDG
ORE BINS
STORAGE
LABORATORY
OFF.
DAY & NIGHT WATCHMAN. APPROVED CLOCK. POWER: STEAM & ELEC. FUEL: GAS. LIGHTS: ELEC. L.E.P. HEAT: GAS. 1-30000 GAL. GRAVITY TANK ELEV. 40' ABOVE GROUND. FILLED BY GRAVITY FROM CITY RESERVOIR ELEV. 200' ABOVE TANK & FILLED DURING SUMMER MONTHS BY DEANE TRIPLEX PUMP. SIZE 8x4 CAP'CY 400 GAL. PER MIN. PUMPING FROM CREEK. HYDS. & HOSE AS SHOWN. CHEM. EXTGRS.
Located 1½ Miles E. of Court Ho.
N. 10TH ST.
UNPAVED
MERRILL'S SUBDIVN OF DRENNEN ADDN
NOT OPENED
CLAY
50 ft wide
7
9
N. 11TH ST.
ST. L. S. F. R. R.
FARMERS & ALEXANDRA COTTON GIN
COTTON WARE HO.
COTTON SEED HO.
GIN
PRESS
40 ft wide
FRISCO
NOT OPEN
LUMBER
TWIN CITY LUMBER CO.
15
3
14 E. MAIN

Appendix C

Real Property Information

Ownership Description

Name: GIPSON, JAY
DBA JAY GIPSON CRANE SERVICE
2903 BLAIR AVE

FORT SMITH AR 72904

Type: CG C.Agri.Imp

Neigh: VB0790
Owner: 147115

Subd.: 140006 VB ACREAGE 20-9-31
S-T-R: 20-09-31 **Acres:** 16.81
Tax Unit: 421 VAN BUREN CITY
Location: 3101 KIBLER RD
Legal: PT SW

Block: **Lot:**

City: VAN BUREN CITY
Map:
Old PID:

Assessment Summary

Year	2011	20 %	2010	20 %
Land	85,600	17,120	85,600	17,120
Bldgs	323,300	64,660	495,200	99,040
Total	408,900	81,780	580,800	116,160

Review Record

Date	By	Reason	Land	Buildings	Total
4/25/2011	DLT	IN	85,600	323,300	408,90
CORRECTED PER CAMA					
6/30/2010	DKB	RV	85,600	495,200	580,80
2010 REAPPRAISAL VALUATION					
7/5/2007	DLS	RV	99,200	512,600	611,80
7/7/2004	DLS	RV	148,750	411,900	560,65
1/1/1996			82,000	1,676,500	1,758,50
1/1/1995			82,000	1,676,500	1,758,50

Trend	Street	Utilities	Topography	Landscaping
☐ Improving	☐ Concrete	☐ No Water	☐ High	☐ Excellent
☒ Static	☐ Asphalt	☐ No Sewer	☐ Low	☐ Good
☐ Declining	☐ ChatSeal	☐ No Gas	☐ Rough	☐ Average
☐ New	☐ Gravel	☐ No Electric	☒ Flat	☐ Poor
☐ Old	☒ Dirt	☐ No Telephone	☐ Sloping	☒ None

Building Permit Record

Date	Amount	Purpose	Note

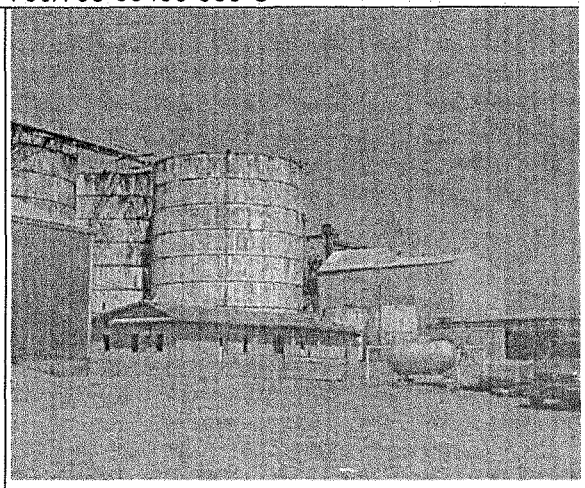
Ownership Record

Date	Book	Page	Amount	Type	Grantee	Remarks
1/7/2005	2005	260	150,000	WD	AG PROCESSING-GIPSON	
7/8/2004	2004	8237		CP	BOONE VALLEY-AG	
8/31/1983	516	213	286,000	CO		CORP

Land Record

Use	Location	Soil	Acres	Rate	O	Adj	%	Value	AC	HS
H	SW		8.000	30000.00		E	-65	84,000		
P	SW	13	8.810	180.00				1,586		

700/700-08408-000-C



Adjoins 08407-001 (same ownership) & 08407

Total: 85,600

Arkansas CAMA Technology, Inc.

Property Description

Building:	1	2	3	4	5	6
Business Name:	AG PROCESSING INC	AG PROCESSING INC	AG PROCESSING INC	AG PROCESSING INC	AG PROCESSING INC	AG PROCESSING INC
Location						
Occu/%/CQ/SH:	OFFC 100 C4 40	WHSE 100 S4 10	WHSE 100 S4 12	WHSE 100 S4 14	WHSE 100 S4 40	WHSE 100 S4 14
2:						
3:						
Occu P C%/MF:				-10	-10	-10
Stories:	1	1	1	1	1	1
Age / YC:	1968	1968	1968	1968	1968	1968
Condition:	A	A	A	L	L	L
Effective Age:	35	30	30	30	30	30
Avg Floor Area:	3492	1600	720	3600	9540	2621
Avg Perimeter:	280	164	108	240	454	220
Common Wall/%:						
Eff. Perimeter:	280	164	108	240	454	220
Total Height:	40	10	12	14	40	14
No. Floors:	1	1	1	1	1	1
Heat-Cool/%:	00 100	00 100	00 100	00 100	00 100	00 100
Sprinklers/%:						
AC:						

Structural Elements

Site Work
- [x] 0 Excavate
- [x] 1 Fill
- [x] 2 Prep

Foundation
- [ ] 0 None
- [x] 1 Concrete
- [ ] 2 Conc Block
- [ ] 3 Piers M
- [ ] 4 Piers W
- [ ] 5 Other

Floor Structure
- [ ] 0 None
- [x] 1 Elev Slab
- [ ] 2 Lift Slab
- [ ] 3 Slab Grade
- [ ] 4 SJ Conc
- [ ] 5 SJ Sheath
- [ ] 6 WJ Sheath
- [ ] 7 Other

Floor Covering
- [x] 00 None
- [ ] 01 Asp Tile
- [ ] 02 Brick M
- [ ] 03 Carpet
- [ ] 04 Cer Tile
- [ ] 05 Comp Floor
- [ ] 06 Gym Floor
- [ ] 07 Hardwood
- [ ] 08 Hwd Conc
- [ ] 09 Marble
- [ ] 10 Terrazzo
- [ ] 11 Vin Asb T
- [ ] 12 Vin Tile S
- [ ] 13 Other

Structural Frame
- [ ] 0 Steel
- [ ] 1 Rein Conc
- [x] 2 Conc Block
- [ ] 3 Wood
- [ ] 4 Mason Pil
- [ ] 5 Rigid Fr
- [ ] 6 Other

Exterior Walls
- [x] 00 Load Bear
- [ ] 01 Non Load B
- [ ] 02 Brick Sol
- [ ] 03 Brick Ven
- [x] 04 Conc Block
- [ ] 05 Conc Bl Br
- [ ] 06 Conc Bl St
- [ ] 07 Conc Bl Wd
- [ ] 08 Conc Rein
- [ ] 09 Glass
- [ ] 10 Pilaster
- [ ] 11 PreF Metal
- [ ] 12 Stone Ven
- [ ] 13 Tiltup P
- [ ] 14 Wd Siding
- [ ] 15 Wd Stucco
- [ ] 16 Dryv Tile
- [ ] 17 Other

Roof Structure
- [ ] A Slope A
- [ ] B Slope B
- [x] C Slope C
- [ ] F Slope F
- [ ] 1 Conc J&S
- [ ] 2 Steel JC
- [ ] 3 Steel JS
- [x] 4 Wood J&D
- [ ] 5 Other

Roof Covering
- [ ] 00 Asb Shing
- [ ] 01Clay Tile
- [x] 02 Comp Shing
- [ ] 03 Conc Tile
- [ ] 04 Corr Metal
- [ ] 05 Mtl Shing
- [ ] 06 Roll Roof
- [ ] 07 Slate
- [ ] 08 Wd Shake
- [ ] 09 Wd Shing
- [ ] 10 Tar&Gravel
- [ ] 11 Asp Shing
- [ ] 12 Other

Ceilings
- [ ] 00 None
- [x] 01 Acoust
- [ ] 02 Fiberbd
- [ ] 03 Gunite SR
- [ ] 04 Metal
- [ ] 05 Paint DW
- [ ] 06 Plaster
- [ ] 07 Plywood
- [ ] 08 Furring
- [x] 09 Susp Sys
- [ ] 10 Other

Interior Finish
- [ ] 00 None
- [ ] 01 Drywall
- [ ] 02 Gypsum Bd
- [ ] 03 Masonry
- [x] 04 Paneling
- [ ] 05 Plaster
- [ ] 06 Pref Metal
- [ ] 07 Steel Fr
- [ ] 08 Wood Fr
- [ ] 09 Cer Tile
- [ ] 10 Other

Plumbing
- [ ] 0 None
- [ ] 1 Bathtub
- [ ] 2 Drink F El
- [ ] 3 Lavatory
- [ ] 4 Shower St
- [x] 5 Sink
- [ ] 6 Solar HW
- [ ] 7 Urinal
- [x] 8 Water Cl
- [x] 9 Water Htr

Electrical
- [ ] 0 None
- [ ] 1 High A
- [x] 2 Avg B
- [ ] 3 Min C
- [ ] 4 Unfin D
- [ ] 5 Qual 1
- [ ] 6 Qual 2
- [ ] 7 Qual 3
- [ ] 8 Qual 4

Appliances
- [x] 00 None
- [ ] 01 Combo O/T
- [ ] 02 Dishwasher
- [ ] 03 Freezer
- [ ] 04 Garb Disp
- [ ] 05 Oven
- [ ] 06 Radio Int
- [ ] 07 Range Top
- [ ] 08 Refrig
- [ ] 09 Cooler
- [ ] 10 Other

Insulation
- [ ] 0 None
- [ ] 1 Floors
- [ ] 2 Walls
- [x] 3 Ceilings
- [ ] 4 Roof
- [ ] 5 EnergySC
- [ ] 6 Other

Miscellaneous
- [ ] 00 Doors MC
- [ ] 01 Doors OH
- [ ] 02 Doors PG
- [ ] 03 Escalator
- [ ] 04 Frght Elev
- [ ] 05 Gut&Down
- [ ] 06 Kit Area
- [ ] 07 Pass Elev
- [ ] 08 Plt Glass
- [ ] 09 Signs
- [ ] 10 Sprinkler
- [ ] 11 TV Secu
- [ ] 12 Other

Heat/Cool
- 00 None
- 01 Cool Only
- 02 Elec Heat
- 03 Force Air
- 04 Heat Pump
- 05 Thru Wall
- 06 Susp Htrs
- 07 W/Fl Furn
- 08 H/A-NZ
- 09 W&C Air
- 10 Evap

Sprinklers
- 1 Open Dry
- 2 Open Wet
- 3 Part Dry
- 4 Part Wet

Outbuildings and Yard Improvements

Code	Type	B/S	Qty1	Qty2	UM	QR	Age	Rate	REL%	Value	AC
GRNBSC			133739		3			1.00	5.0N	20,061	
GRNBSC			371374		2			.98	5.0N	36,395	
TANKBS			7540		3			1298.75	10.0N	390	
GRNBSC			25905		2			1.05	10.0N	5,440	
CANOPY	METAL		20	112				13.34	10.0N	2,988	
GRNBSC			10362					1.59	10.0N	1,648	
GRNBSC			20724					1.13	10.0N	2,342	
TANKBS			38485					42838.25	10.0N	4,284	
TANKBS			86859		2			42838.25	10.0N	8,568	
MLTP	SHED		26	48				4.00R	40.0	4,992	
MLTP	SHED		14	24				5.00R	40.0	1,680	
MLTP	SHED		11	15				5.00R	40.0	825	
MLTP	STG		10	20				2.00R	40.0	400	
MLTP	STG		10	14				2.00R	40.0	280	
MLTP	STG		8	12				2.00R	40.0	192	
FENCEL	#9WIRE		6	200				13.91	10.0N	278	
PAVING	CONC4R		16240					4.01	5.0N	3,256	
AS3ON2	NCV							.00N	40.0		
RAILSP			40	870				66.13	10.0N	5,753	
RAILSP			40	390				66.13	10.0N	2,579	
SCALTR			100					63550.00	10.0N	6,355	

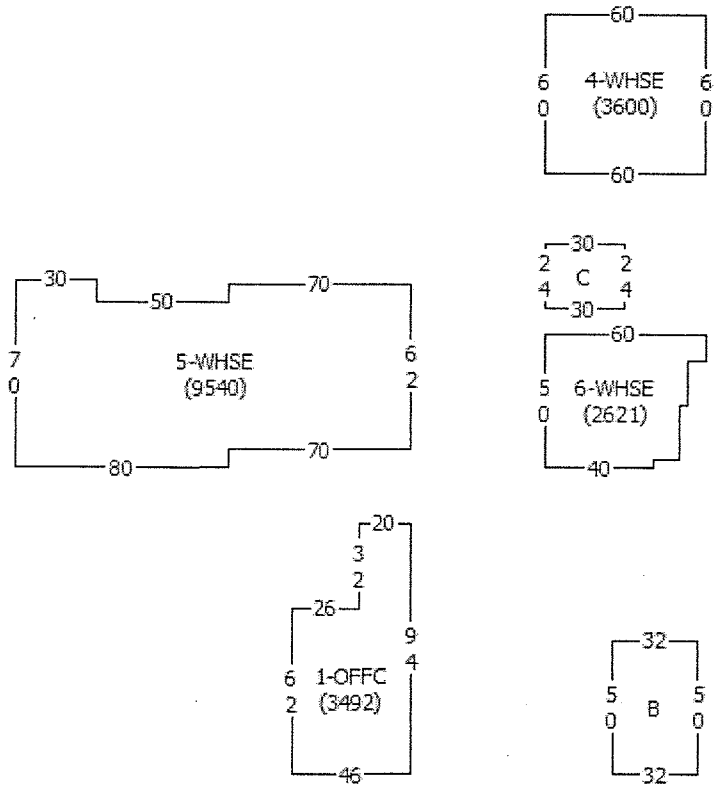
Total: 118,740

Calculator Pricing

Building/Section	1	2	3	4	5	6
Base Cost per SF	88.26	20.31	24.74	17.43	26.66	18.62
Heat & Cool Systems	.00	.00	.00	.00	.00	.00
Sprinkler Systems	.00	.00	.00	.00	.00	.00
Unadj Base Rate per SF	88.26	20.31	24.74	17.43	26.66	18.62
Story Multiplier	1.000	1.000	1.000	1.000	1.000	1.000
Current Multiplier	1.000	1.000	1.000	1.000	1.000	1.000
Local Multiplier	1.100	1.100	1.100	1.100	1.100	1.100
Wall Height Modifier	1.000	1.000	1.000	1.000	1.000	1.000
Area-Perimeter Multiplier	1.000	1.000	1.000	1.000	1.000	1.000
Total Adjustment Factor	1.100	1.100	1.100	1.100	1.100	1.100
Adj Base Rate per SF	97.09	22.34	27.21	19.17	29.33	20.48
Total Floor Area	3,492	1,600	720	3,600	9,540	2,621
Unit Multiplier						
R.C.N.	339,038	35,744	19,591	69,012	279,808	53,678
Physical % Good	40.0O	30.0O	30.0O	28.0	28.0	28.0
Functional %				15I	15I	15I
External %						
REL %	40.0	30.0	30.0	13.0	13.0	13.0
R.C.N.L.D.	135,615	10,723	5,877	8,972	36,375	6,978
O.B./Y.I.	118,740					
Total Cost	254,355	10,723	5,877	8,972	36,375	6,978

Total of all Sections: 323,300

Sketch



B/S	Occupancy	Area	Perim	Vector
1	OFFC	3,492	280	AACU94L20D32L26D62R46 ABR75CU50*32 ACR50U175CU24*30
2	WHSE	1,600	164	ADR50U225CU60*60 AEU115L150CU70R30D8R50U7R70D62L70D7L80
3	WHSE	720	108	AFU115R50CU50R60D10L7D17L3D20L10D3L40
4	WHSE	3,600	240	
5	WHSE	9,540	454	
6	WHSE	2,621	220	

Comments

2010: OSR GATE LOCKED OFF BRYAN, BRENDA FROM LAND O LAKES SAYS STILL VACANT, OCCASIONALLY SHE SEES SOMEONE OVER THERE NO CHANGES, CHECKED MEASUREMENTS ON AIREALS

Inspected: CES 8/27/2008 Contact: VA
Revisited: DLS 7/5/2007 Int.Est?:
Entered: TLR 8/28/2009 Sk. File:
Printed: 10/18/2012 Status:

Crawford County Assessor's Office Real Property Records

brought to you by Ronnie Dale, assessor
Last Updated: 9/5/2012

actDataScout

Property ID: 30313
Parcel: 700-08408-000-C
Location: 3101 KIBLER RD
Owner: GIPSON, JAY
DBA JAY GIPSON CRANE SERVICE
2903 BLAIR AVE
FORT SMITH, AR 72904
Property Type: (CG) Comm/Agri Impr.
Tax District: (421) VAN BUREN CITY
Tax District Millage Rate: 47.90
2011 Market Value: Land: $85,600 Bldg: $323,300 Total: $408,900
Assessed Value: Land: $17,120 Bldg: $64,660 Total: $81,780
Homestead Status: N/A | Credit: No | Amount: $0.00
Estimated A.V. Tax
S-T-R: 20-09-31
Subdivison: VB ACREAGE 20-9-31
Acres: 16.810

Legal:
PT SW

Transfers

Deed Date	Book	Page	Deed Type	Deed Stamps	Est. Sale Price	Grantee
1/7/2005	2005	260	Warr. Deed	495.00	150,000	AG PROCESSING-GIPSON
7/8/2004	2004	8237	CorpWD	0.00	0	BOONE VALLEY-AG
8/31/1983	516	213	CO	314.60	286,000	

Land

Size	Units	Use/Dimensions
8.000	Acres	Homesite
8.810	Acres	Pasture(13)

Buildings

Card	Occupancy	Story	Finish	Liv Area	Grade	Built	Age	Condition	Beds	Baths	Half
View Card 1	Commercial	1				1968	35	Average			
View Card 1	Commercial	1				1968	30	Average			
View Card 1	Commercial	1				1968	30	Average			
View Card 1	Commercial	1				1968	30	L			
View Card 1	Commercial	1				1968	30	L			
View Card 1	Commercial	1				1968	30	L			

Card	Building	Code	Description	Size/Dim.	Size/Dim.	Grade
1		GRNBSC	Grain Bin, Steel Cor	133739		
1		GRNBSC	Grain Bin, Steel Cor	371374		
1		TANKBS	Tanks, Bolted Steel	7540		
1		GRNBSC	Grain Bin, Steel Cor	25905		
1		CANOPY	Canopies	20	112	
1		GRNBSC	Grain Bin, Steel Cor	10362		
1		GRNBSC	Grain Bin, Steel Cor	20724		
1		TANKBS	Tanks, Bolted Steel	38485		
1		TANKBS	Tanks, Bolted Steel	86859		
1		MLTP	Multi-Purpose	26	48	

1	MLTP	Multi-Purpose	14	24
1	MLTP	Multi-Purpose	11	15
1	MLTP	Multi-Purpose	10	20
1	MLTP	Multi-Purpose	10	14
1	MLTP	Multi-Purpose	8	12
1	FENCEL	Fence, Chain Link	6	200
1	PAVING	Paving	16240	
1	AS3ON2	AS3ON2		
1	RAILSP	Railroad Spurs	40	870
1	RAILSP	Railroad Spurs	40	390
1	SCALTR	Scales, Truck	100	

Sketch for Card 1

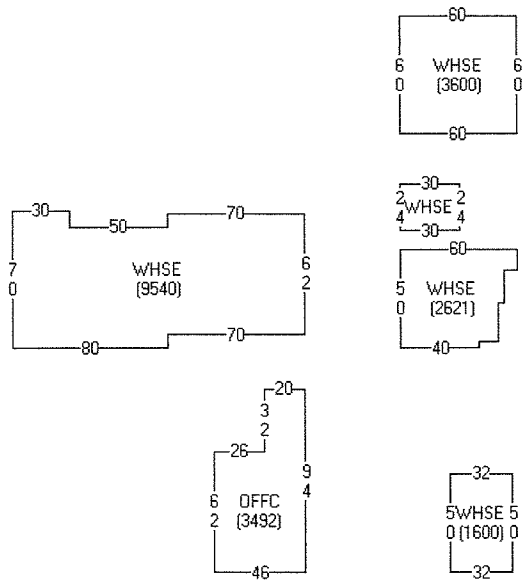
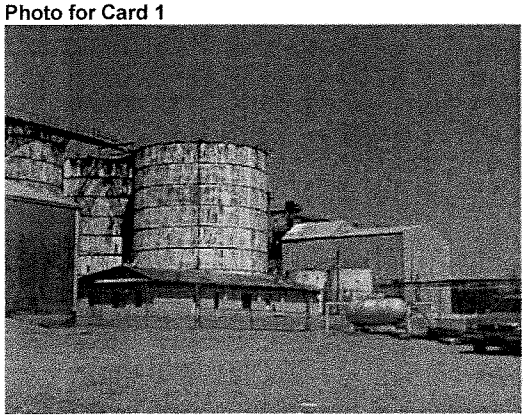
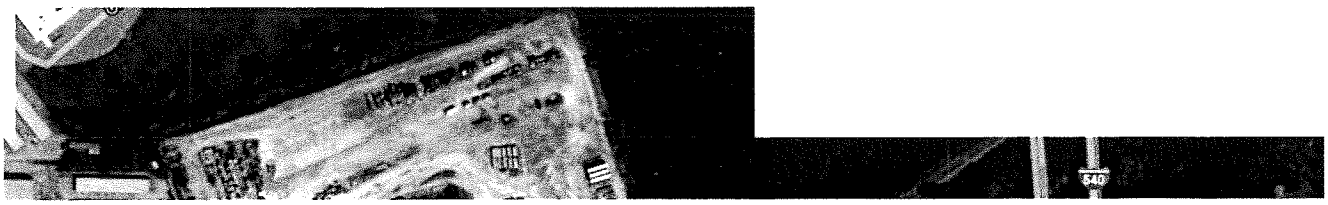


Photo for Card 1



Map



Bryant Rd
Kibler Rd
162
Kibler Rd
162
162
Kibler Rd
162
71
540
71
540
71
540
S 34th St
S 34th St

RPID: 30312 **Parcel:** 700-08407-001-C

Crawford County C/I Property Record Card - 2012

Ownership Description

Name: GIPSON, JAY
DBA JAY GIPSON CRANE SERVICE
2903 BLAIR AVE

FORT SMITH AR 72904

Subd.: 140006 VB ACREAGE 20-9-31
S-T-R: 20-09-31 **Acres:**
Tax Unit: 421 VAN BUREN CITY
Location: 3101 KIBLER RD
Legal: IMP ONLY

Type: CB C.Bldg
Neigh: VB0790
Owner: 147115
Block: **Lot:**
City: VAN BUREN CITY
Map:
Old PID:

Assessment Summary

Year	2011	20 %	2010	20 %
Land				
Bldgs	144,950	28,990	362,300	72,460
Total	144,950	28,990	362,300	72,460

Review Record

Date	By	Reason	Land	Buildings	Total
4/21/2011	DKB	IN		362,300	362,30
FOR 2011: VALUE REVIEWED AT RD'S REQUEST					
6/30/2010	DKB	RV		362,300	362,30
2010 REAPPRAISAL VALUATION					
7/5/2007	DLS	RV		368,900	368,90
7/7/2004	DLS	RV		449,200	449,20
8/20/2001				1,023,000	1,023,00

Trend	Street	Utilities	Topography	Landscaping
☐ Improving	☐ Concrete	☐ No Water	☐ High	☐ Excellent
☒ Static	☒ Asphalt	☐ No Sewer	☐ Low	☐ Good
☐ Declining	☐ ChatSeal	☐ No Gas	☒ Rough	☐ Average
☐ New	☐ Gravel	☐ No Electric	☐ Flat	☐ Poor
☐ Old	☐ Dirt	☐ No Telephone	☐ Sloping	☒ None

Building Permit Record

Date	Amount	Purpose	Note

Ownership Record

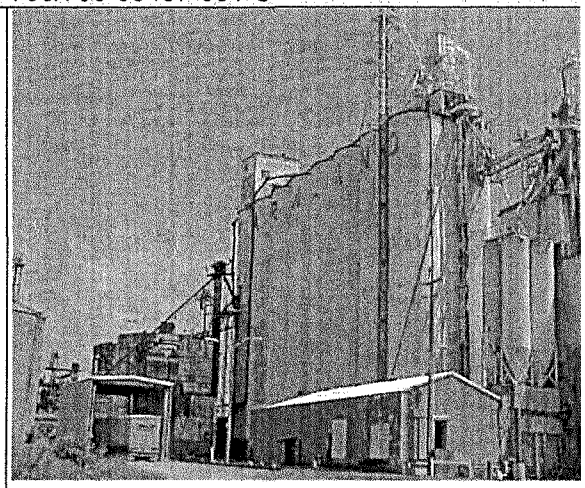
Date	Book	Page	Amount	Type	Grantee	Remarks
1/7/2005	2005	260	150,000	WD	AG PROCESSING - GIPSON	

Land Record

Sub	PT	Size/Front	Size Pri/Sec	Depth	Adj	Rate Pri/Sec	O	Adj1	%	Adj2	%	Value	AC	HS

Total:

700/700-08407-001-C



Arkansas CAMA Technology, Inc.

Property Description

Building:
Business Name:
Location
Occu/%/CQ/SH:
2:
3:
Occu P C%/MF:
Stories:
Age / YC:
Condition:
Effective Age:
Avg Floor Area:
Avg Perimeter:
Common Wall/%:
Eff. Perimeter:
Total Height:
No. Floors:
Heat-Cool/%:
Sprinklers/%:
AC:

Structural Elements

Site Work
- [ ] 0 Excavate
- [ ] 1 Fill
- [ ] 2 Prep

Foundation
- [ ] 0 None
- [ ] 1 Concrete
- [ ] 2 Conc Block
- [ ] 3 Piers M
- [ ] 4 Piers W
- [ ] 5 Other

Floor Structure
- [ ] 0 None
- [ ] 1 Elev Slab
- [ ] 2 Lift Slab
- [ ] 3 Slab Grade
- [ ] 4 SJ Conc
- [ ] 5 SJ Sheath
- [ ] 6 WJ Sheath
- [ ] 7 Other

Floor Covering
- [ ] 00 None
- [ ] 01 Asp Tile
- [ ] 02 Brick M
- [ ] 03 Carpet
- [ ] 04 Cer Tile
- [ ] 05 Comp Floor
- [ ] 06 Gym Floor
- [ ] 07 Hardwood
- [ ] 08 Hwd Conc
- [ ] 09 Marble
- [ ] 10 Terrazzo
- [ ] 11 Vin Asb T
- [ ] 12 Vin Tile S
- [ ] 13 Other

Structural Frame
- [ ] 0 Steel
- [ ] 1 Rein Conc
- [ ] 2 Conc Block
- [ ] 3 Wood
- [ ] 4 Mason Pil
- [ ] 5 Rigid Fr
- [ ] 6 Other

Exterior Walls
- [ ] 00 Load Bear
- [ ] 01 Non Load B
- [ ] 02 Brick Sol
- [ ] 03 Brick Ven
- [ ] 04 Conc Block
- [ ] 05 Conc Bl Br
- [ ] 06 Conc Bl St
- [ ] 07 Conc Bl Wd
- [ ] 08 Conc Rein
- [ ] 09 Glass
- [ ] 10 Pilaster
- [ ] 11 PreF Metal
- [ ] 12 Stone Ven
- [ ] 13 Tiltup P
- [ ] 14 Wd Siding
- [ ] 15 Wd Stucco
- [ ] 16 Dryv Tile
- [ ] 17 Other

Roof Structure
- [ ] A Slope A
- [ ] B Slope B
- [ ] C Slope C
- [ ] F Slope F
- [ ] 1 Conc J&S
- [ ] 2 Steel JC
- [ ] 3 Steel JS
- [ ] 4 Wood J&D
- [ ] 5 Other

Roof Covering
- [ ] 00 Asb Shing
- [ ] 01Clay Tile
- [ ] 02 Comp Shing
- [ ] 03 Conc Tile
- [ ] 04 Corr Metal
- [ ] 05 Mtl Shing
- [ ] 06 Roll Roof
- [ ] 07 Slate
- [ ] 08 Wd Shake
- [ ] 09 Wd Shing
- [ ] 10 Tar&Gravel
- [ ] 11 Asp Shing
- [ ] 12 Other

Ceilings
- [ ] 00 None
- [ ] 01 Acoust
- [ ] 02 Fiberbd
- [ ] 03 Gunite SR
- [ ] 04 Metal
- [ ] 05 Paint DW
- [ ] 06 Plaster
- [ ] 07 Plywood
- [ ] 08 Furring
- [ ] 09 Susp Sys
- [ ] 10 Other

Interior Finish
- [ ] 00 None
- [ ] 01 Drywall
- [ ] 02 Gypsum Bd
- [ ] 03 Masonry
- [ ] 04 Paneling
- [ ] 05 Plaster
- [ ] 06 Pref Metal
- [ ] 07 Steel Fr
- [ ] 08 Wood Fr
- [ ] 09 Cer Tile
- [ ] 10 Other

Plumbing
- [ ] 0 None
- [ ] 1 Bathtub
- [ ] 2 Drink F El
- [ ] 3 Lavatory
- [ ] 4 Shower St
- [ ] 5 Sink
- [ ] 6 Solar HW
- [ ] 7 Urinal
- [ ] 8 Water Cl
- [ ] 9 Water Htr

Electrical
- [ ] 0 None
- [ ] 1 High A
- [ ] 2 Avg B
- [ ] 3 Min C
- [ ] 4 Unfin D
- [ ] 5 Qual 1
- [ ] 6 Qual 2
- [ ] 7 Qual 3
- [ ] 8 Qual 4

Appliances
- [ ] 00 None
- [ ] 01 Combo O/T
- [ ] 02 Dishwasher
- [ ] 03 Freezer
- [ ] 04 Garb Disp
- [ ] 05 Oven
- [ ] 06 Radio Int
- [ ] 07 Range Top
- [ ] 08 Refrig
- [ ] 09 Cooler
- [ ] 10 Other

Insulation
- [ ] 0 None
- [ ] 1 Floors
- [ ] 2 Walls
- [ ] 3 Ceilings
- [ ] 4 Roof
- [ ] 5 EnergySC
- [ ] 6 Other

Miscellaneous
- [ ] 00 Doors MC
- [ ] 01 Doors OH
- [ ] 02 Doors PG
- [ ] 03 Escalator
- [ ] 04 Frght Elev
- [ ] 05 Gut&Down
- [ ] 06 Kit Area
- [ ] 07 Pass Elev
- [ ] 08 Plt Glass
- [ ] 09 Signs
- [ ] 10 Sprinkler
- [ ] 11 TV Secu
- [ ] 12 Other

Heat/Cool
00 None
01 Cool Only
02 Elec Heat
03 Force Air
04 Heat Pump
05 Thru Wall
06 Susp Htrs
07 W/Fl Furn
08 H/A-NZ
09 W&C Air
10 Evap

Sprinklers
1 Open Dry
2 Open Wet
3 Part Dry
4 Part Wet

Outbuildings and Yard Improvements

Code	Type	B/S	Qty1	Qty2	UM	QR	Age	Rate	REL%	Value	AC
GRNBSC			27632		16			1.05	10.0N	46,422	
GRNBEE			27632		16			1.93	10.0N	85,328	

Total: 144,925

Calculator Pricing

Building/Section
Base Cost per SF
Heat & Cool Systems
Sprinkler Systems
Unadj Base Rate per SF

Story Multiplier
Current Multiplier
Local Multiplier
Wall Height Modifier
Area-Perimeter Multiplier
Total Adjustment Factor

Adj Base Rate per SF
Total Floor Area
Unit Multiplier
R.C.N.
Physical % Good
Functional %
External %
REL %
R.C.N.L.D.
O.B./Y.I.
Total Cost

Total of all Sections: 144,950

Sketch

B/S	Occupancy	Area	Perim	Vector

Comments

2010: OSR, GRAIN BINS NOT BEING USED, HAVEN'T FOR AWHILE

Inspected:	CES 8/27/2008	Contact:	VA
Revisited:	DLS 7/5/2007	Int.Est?:	
Entered:	TLR 8/28/2009	Sk. File:	
Printed:	10/18/2012	Status:	

Crawford County Assessor's Office Real Property Records

brought to you by Ronnie Dale, assessor
Last Updated: 9/5/2012

actDataScout

Property ID: 30312
Parcel: 700-08407-001-C
Location: 3101 KIBLER RD
Owner: GIPSON, JAY
DBA JAY GIPSON CRANE SERVICE
2903 BLAIR AVE
FORT SMITH, AR 72904
Property Type: (CB) Comm. Bldg Only
Tax District: (421) VAN BUREN CITY
Tax District Millage Rate: 47.90
2011 Market Value: Land: $0 Bldg: $144,950 Total: $144,950
Assessed Value: Land: $0 Bldg: $28,990 Total: $28,990
Homestead Status: N/A | Credit: No | Amount: $0.00
Estimated A.V. Tax
S-T-R: 20-09-31
Subdivison: VB ACREAGE 20-9-31
Acres:

Legal:
IMP ONLY

Transfers

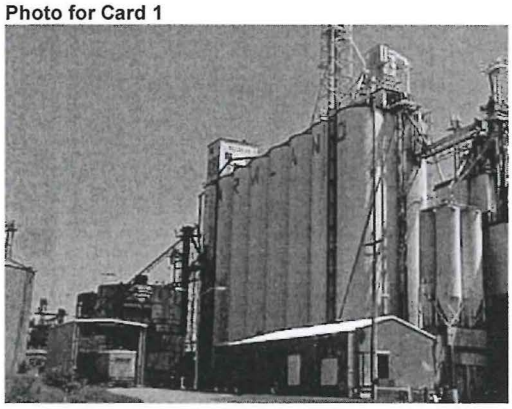
Deed Date	Book	Page	Deed Type	Deed Stamps	Est. Sale Price	Grantee
1/7/2005	2005	260	Warr. Deed	495.00	150,000	AG PROCESSING - GIPSON DBA JAY GIPSON CRANE SERVICE

This parcel contains buildings only.

Card	Occupancy	Story	Finish	Liv Area	Grade	Built	Age	Condition	Beds	Baths	Half
View Card 1	Commercial										

Card	Building	Code	Description	Size/Dim.	Size/Dim.	Grade
1		GRNBSC	Grain Bin, Steel Cor	27632		
1		GRNBEE	Grain Bin, Elev. Eq.	27632		

Photo for Card 1



Map

N 24th St
N 28th St
Alma Hwy
64
71
Gracelawn Cemetery
Rudy Rd
Alma Blvd
540
Kibler Rd
162
Crow Hill Cemetery
Riggs Drive
S 28th St
Industrial Park Rd
S 4th St
Co Rd 13
S 28th St
59
Co Rd 2
Shibley Rd
Gill Cemetery
40th St
Co Rd 6
S 40th St
Oak Grove Rd
Springhill Park
Catcher Rd
Co Rd 6
Pleasant Valley

RPID: 30311 **Parcel:** 700-08407-000-C

Crawford County C/I Property Record Card - 2012

Ownership Description

Name: GIPSON, JAMES RAY
GIPSON, GARY WAYNE
2903 BLAIR AVE

FORT SMITH AR 72904

Type: CI C.Impr

Neigh: VB0790
Owner: 206483

Subd.: 140006 VB ACREAGE 20-9-31
Block: **Lot:**
S-T-R: 20-09-31 **Acres:** 3.82
Tax Unit: 421 VAN BUREN CITY
City: VAN BUREN CITY
Location: 3101 KIBLER RD
Map:
Legal: PT S/2 SW
Old PID:

Assessment Summary

Year	2011	20 %	2010	20 %
Land	33,600	6,720	33,600	6,720
Bldgs	248,350	49,670	295,700	59,140
Total	281,950	56,390	329,300	65,860

Review Record

Date	By	Reason	Land	Buildings	Total
4/22/2011	DLT	IN	33,600	248,350	281,95(
FOR 2011: CORRECT PER CAMA					
4/21/2011	DKB	IN	33,600	295,700	329,30(
VALUE REVIEWED AT RD'S REQUEST					
9/15/2011	DLT	IN	33,600	248,350	281,95(
FOR 2010: ADJUST OB/YI FOR SCALTR, RAILSP, FENCEL.					
6/30/2010	DKB	RV	33,600	295,700	329,30(
2010 REAPPRAISAL VALUATION					
7/5/2007	DLS	RV	11,450	294,500	305,95(
7/7/2004	DLS	RV	57,300	186,900	244,20(

Trend	Street	Utilities	Topography	Landscaping
☐ Improving	☐ Concrete	☐ No Water	☐ High	☐ Excellent
☒ Static	☒ Asphalt	☐ No Sewer	☐ Low	☐ Good
☐ Declining	☐ ChatSeal	☐ No Gas	☐ Rough	☐ Average
☐ New	☐ Gravel	☐ No Electric	☒ Flat	☐ Poor
☐ Old	☐ Dirt	☐ No Telephone	☐ Sloping	☒ None

Building Permit Record

Date	Amount	Purpose	Note

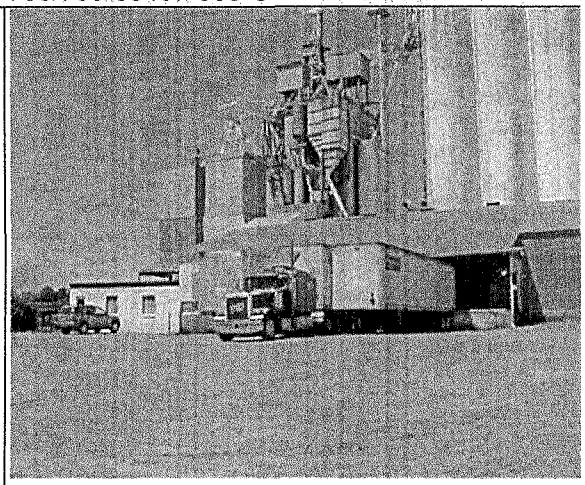
Ownership Record

Date	Book	Page	Amount	Type	Grantee	Remarks
10/5/2010	2010	9606	1,000	QC	LAND OLAKES-GIPSON/GIPSON	
3/18/2005	2005	3235		QC	LAND O'LAKES FARMLAND/PURINA-LAND	
10/19/2000	2000	35704	196,000	WD	FARMLAND-LAND	WD
8/31/1983	516	212		CO		CORP

Land Record

700/700-08407-000-C

Sub	PT	Size/Front	Size Pri/Sec	Depth	Adj	Rate Pri/Sec O	Adj1	%	Adj2	%	Value	AC	HS
1	AC	3.820	1.000		.000	30000.00	E		L	-35	33,600		
			2.820			5000.00							



Adjoins 08407-001 & 08408. Diff ownership.

Total: 33,600

Arkansas CAMA Technology, Inc.

Property Description

Building:	1	2
Business Name:	FARMLAND INDUSTR	FARMLAND INDUSTR
Location		
Occu/%/CQ/SH:	WHSE 100 S4 16	OFFC 100 C4 10
2:		
3:		
Occu P C%/MF:		
Stories:	1	1
Age / YC:	1968	1968
Condition:	A	A
Effective Age:	28	30
Avg Floor Area:	21607	1260
Avg Perimeter:	932	142
Common Wall/%:		
Eff. Perimeter:	932	142
Total Height:	16	10
No. Floors:	1	1
Heat-Cool/%:	00 100	08 100
Sprinklers/%:		
AC:		

Structural Elements

Site Work
- [x] 0 Excavate
- [x] 1 Fill
- [x] 2 Prep

Foundation
- [ ] 0 None
- [x] 1 Concrete
- [ ] 2 Conc Block
- [ ] 3 Piers M
- [ ] 4 Piers W
- [ ] 5 Other

Floor Structure
- [ ] 0 None
- [x] 1 Elev Slab
- [ ] 2 Lift Slab
- [ ] 3 Slab Grade
- [ ] 4 SJ Conc
- [ ] 5 SJ Sheath
- [ ] 6 WJ Sheath
- [ ] 7 Other

Floor Covering
- [x] 00 None
- [ ] 01 Asp Tile
- [ ] 02 Brick M
- [ ] 03 Carpet
- [ ] 04 Cer Tile
- [ ] 05 Comp Floor
- [ ] 06 Gym Floor
- [ ] 07 Hardwood
- [ ] 08 Hwd Conc
- [ ] 09 Marble
- [ ] 10 Terrazzo
- [ ] 11 Vin Asb T
- [x] 12 Vin Tile S
- [ ] 13 Other

Structural Frame
- [x] 0 Steel
- [ ] 1 Rein Conc
- [ ] 2 Conc Block
- [ ] 3 Wood
- [ ] 4 Mason Pil
- [ ] 5 Rigid Fr
- [ ] 6 Other

Exterior Walls
- [x] 00 Load Bear
- [ ] 01 Non Load B
- [ ] 02 Brick Sol
- [ ] 03 Brick Ven
- [x] 04 Conc Block
- [ ] 05 Conc Bl Br
- [ ] 06 Conc Bl St
- [ ] 07 Conc Bl Wd
- [ ] 08 Conc Rein
- [ ] 09 Glass
- [ ] 10 Pilaster
- [x] 11 PreF Metal
- [ ] 12 Stone Ven
- [ ] 13 Tiltup P
- [ ] 14 Wd Siding
- [ ] 15 Wd Stucco
- [ ] 16 Dryv Tile
- [ ] 17 Other

Roof Structure
- [ ] A Slope A
- [x] B Slope B
- [ ] C Slope C
- [ ] F Slope F
- [ ] 1 Conc J&S
- [ ] 2 Steel JC
- [ ] 3 Steel JS
- [x] 4 Wood J&D
- [ ] 5 Other

Roof Covering
- [ ] 00 Asb Shing
- [ ] 01Clay Tile
- [ ] 02 Comp Shing
- [ ] 03 Conc Tile
- [x] 04 Corr Metal
- [ ] 05 Mtl Shing
- [ ] 06 Roll Roof
- [ ] 07 Slate
- [ ] 08 Wd Shake
- [ ] 09 Wd Shing
- [ ] 10 Tar&Gravel
- [ ] 11 Asp Shing
- [ ] 12 Other

Ceilings
- [x] 00 None
- [x] 01 Acoust
- [ ] 02 Fiberbd
- [ ] 03 Gunite SR
- [ ] 04 Metal
- [ ] 05 Paint DW
- [ ] 06 Plaster
- [ ] 07 Plywood
- [ ] 08 Furring
- [x] 09 Susp Sys
- [ ] 10 Other

Interior Finish
- [x] 00 None
- [ ] 01 Drywall
- [ ] 02 Gypsum Bd
- [ ] 03 Masonry
- [x] 04 Paneling
- [ ] 05 Plaster
- [ ] 06 Pref Metal
- [ ] 07 Steel Fr
- [ ] 08 Wood Fr
- [ ] 09 Cer Tile
- [ ] 10 Other

Plumbing
- [ ] 0 None
- [ ] 1 Bathtub
- [ ] 2 Drink F El
- [ ] 3 Lavatory
- [ ] 4 Shower St
- [x] 5 Sink
- [ ] 6 Solar HW
- [ ] 7 Urinal
- [x] 8 Water Cl
- [x] 9 Water Htr

Electrical
- [ ] 0 None
- [ ] 1 High A
- [x] 2 Avg B
- [ ] 3 Min C
- [ ] 4 Unfin D
- [ ] 5 Qual 1
- [ ] 6 Qual 2
- [ ] 7 Qual 3
- [ ] 8 Qual 4

Appliances
- [x] 00 None
- [ ] 01 Combo O/T
- [ ] 02 Dishwasher
- [ ] 03 Freezer
- [ ] 04 Garb Disp
- [ ] 05 Oven
- [ ] 06 Radio Int
- [ ] 07 Range Top
- [ ] 08 Refrig
- [ ] 09 Cooler
- [ ] 10 Other

Insulation
- [x] 0 None
- [ ] 1 Floors
- [x] 2 Walls
- [x] 3 Ceilings
- [ ] 4 Roof
- [ ] 5 EnergySC
- [ ] 6 Other

Miscellaneous
- [ ] 00 Doors MC
- [ ] 01 Doors OH
- [x] 02 Doors PG
- [ ] 03 Escalator
- [ ] 04 Frght Elev
- [x] 05 Gut&Down
- [ ] 06 Kit Area
- [ ] 07 Pass Elev
- [ ] 08 Plt Glass
- [ ] 09 Signs
- [ ] 10 Sprinkler
- [ ] 11 TV Secu
- [ ] 12 Other

Heat/Cool
- 00 None
- 01 Cool Only
- 02 Elec Heat
- 03 Force Air
- 04 Heat Pump
- 05 Thru Wall
- 06 Susp Htrs
- 07 W/Fl Furn
- 08 H/A-NZ
- 09 W&C Air
- 10 Evap

Sprinklers
- 1 Open Dry
- 2 Open Wet
- 3 Part Dry
- 4 Part Wet

Outbuildings and Yard Improvements

Code	Type	B/S	Qty1	Qty2	UM	QR	Age	Rate	REL%	Value	AC
DOCKLW			792					11.97	40.0	3,792	
SCALTR			100					63550.00	10.0N	6,355	
CANOPY	METAL		24	40				13.34	40.0	5,123	
RAILSP			40	568	2			66.13	10.0N	7,512	
FENCEL	#9WIRE		6	340				13.91	10.0N	473	

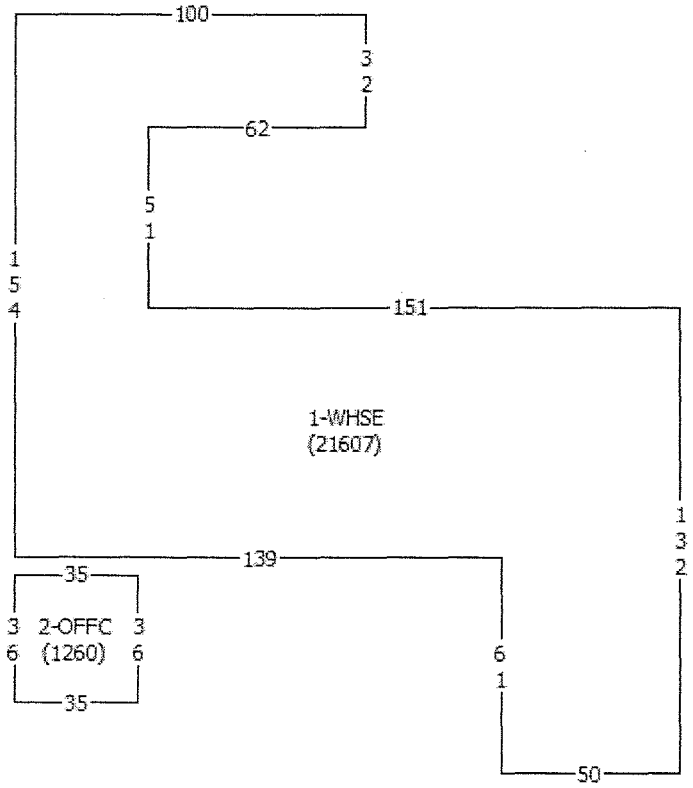
Total: 25,581

Calculator Pricing

Building/Section	1	2
Base Cost per SF	18.33	55.29
Heat & Cool Systems	.00	8.38
Sprinkler Systems	.00	.00
Unadj Base Rate per SF	18.33	63.67
Story Multiplier	1.000	1.000
Current Multiplier	1.000	1.000
Local Multiplier	1.100	1.100
Wall Height Modifier	1.000	1.000
Area-Perimeter Multiplier	1.000	1.000
Total Adjustment Factor	1.100	1.100
Adj Base Rate per SF	20.16	70.04
Total Floor Area	21,607	1,260
Unit Multiplier		
R.C.N.	435,597	88,250
Physical % Good	40.0O	55.0
Functional %		
External %		
REL %	40.0	55.0
R.C.N.L.D.	174,239	48,538
O.B./Y.I.	25,581	
Total Cost	199,820	48,538

Total of all Sections: 248,350

Sketch



B/S	Occupancy	Area	Perim	Vector
1	WHSE	21,607	932	AACU154R100D32L62D51R151D132L50U61L139
2	OFFC	1,260	142	ABD5R35CD36*35

Comments

2010: OSR, SPOKE W/BRENDA SANDERS, PLANT MANAGER, NO CHANGES

Inspected: CES 8/27/2008 Contact: MG
Revisited: DLS 7/5/2007 Int.Est?:
Entered: TLR 8/28/2009 Sk. File:
Printed: 10/18/2012 Status:

Doc Num2005000260
$29.00
01/07/2005 01:17:32 PM
Filed & Recorded in the Official Records of
LINDA HOWARD, CIRCUIT CLERK
By _____ D.C.

Prepared by: Larry J. Steier, Ag Processing Inc a cooperative, 12700 W. Dodge Rd., Omaha, NE 68154; Phone: (402) 498-5592
Mail Tax Statement To: Jay Gipson d/b/a Jay Gipson Crane Service, 2903 Blair Avenue, Fort Smith, AR 72904

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS: That **Ag Processing Inc a cooperative** (herein designated as the Party of the First Part), a cooperative corporation organized under the laws of the State of Iowa, with its principal place of business at 12700 W. Dodge Road, Omaha, Nebraska 68154, for and in consideration of the sum of One Dollar ($1.00) to it in hand paid by **Jay Gipson d/b/a Jay Gipson Crane Service** (herein designated as Party of the Second Part), receipt whereof is hereby acknowledged, has granted, bargained and sold, and by these presents does hereby grant, bargain, sell and convey unto the said Party of the Second Part and unto its successors and assigns forever, the following lands and real estate situated in the County of Crawford and State of Arkansas, to-wit:

See Exhibit "A" attached hereto,

subject, however, to easements, restrictions and reservations of record and further subject to the Restrictive Covenants set forth on the attached Exhibit "B".

TO HAVE AND TO HOLD the same unto the said Party of the Second Part, Ag Processing Inc a cooperative, and unto its successors and assigns forever, with all the privileges and appurtenances thereto belonging.

And the said Party of the First Part hereby covenants with the said Party of the Second Part, its successors and assigns, that it is lawfully seized in fee of the aforegranted premises; that they are free from all encumbrances except as above stated; that it has a good right to sell and convey the same to the said Party of the Second Part as aforesaid, and that it will forever warrant and defend the title to the said real estate against all lawful claims and demands whatsoever, except as above stated.

29

8

IN TESTIMONY WHEREOF, the said Party of the First Part has, by order of its Board of Directors, hereunto caused these presents to be signed by Martin P. Reagan, its CEO, and attested by Larry J. Steier, its Assistant Secretary, this 16th day of August, 2004.

AG PROCESSING INC A COOPERATIVE

By: Martin P. Reagan

Martin P. Reagan, CEO

Attest:

Larry J. Steier, Assistant Secretary

STATE OF NEBRASKA)
) ss.
COUNTY OF DOUGLAS)

On this the 16th day of August, 2004, before me, Ann Mann, the undersigned officer, personally appeared Martin P. Reagan, who acknowledged himself to be the CEO of Ag Processing Inc a cooperative, an Iowa cooperative corporation, and that he, as such CEO, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as CEO.

In witness whereof, I hereunto set my hand and official seal.

GENERAL NOTARY - State of Nebraska
ANN M. MANN
My Comm. Exp. Nov. 7, 2005

Ann M. Mann
Notary Public
Printed Name: Ann M. Mann
My commission expires: 11-7-2005

AFFIDAVIT

I certify under penalty of false swearing that the legally correct amount of documentary stamps have been placed on this instrument.

AG PROCESSING INC
A COOPERATIVE, Party of the First Part

By: _____
Martin P. Reagan, CEO

Address:

12700 W. Dodge Rd., Omaha, NE 68154

Exhibit "A"

TRACT 1:

PART OF THE SOUTHWEST QUARTER OF SECTION 20, TOWNSHIP 9 NORTH, RANGE 31 WEST, CRAWFORD COUNTY, ARKANSAS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER; THENCE NORTH 88 DEGREES 20 MINUTES EAST, 1094.4 FEET ALONG THE SOUTH LINE OF SAID SOUTHWEST QUARTER; THENCE NORTH 10 DEGREES 48 MINUTES EAST, 529.0 FEET TO AN EXISTING CONCRETE MONUMENT; THENCE NORTH 19 DEGREES 40 MINUTES WEST 56.8 FEET TO THE POINT OF BEGINNING; THENCE NORTH 19 DEGREES 40 MINUTES WEST, 1002.2 FEET TO AN EXISTING FENCE CORNER; THENCE NORTH 70 DEGREES 20 MINUTES EAST, 775.0 FEET ALONG AN EXISTING FENCE; THENCE SOUTH 19 DEGREES 40 MINUTES EAST, 819.9 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF THE MISSOURI-PACIFIC RAILROAD; THENCE SOUTH 35 DEGREES 47 MINUTES WEST, 287.2 FEET ALONG A CHORD OF AN ARC ALONG SAID NORTHERLY RIGHT OF WAY LINE; THENCE SOUTH 33 DEGREES 18 MINUTES WEST, 51.5 FEET ALONG SAID NORTHERLY RIGHT OF WAY LINE; THENCE NORTH 19 DEGREES 40 MINUTES WEST, 97.2 FEET; THENCE SOUTH 70 DEGREES 05 MINUTES WEST, 276.3 FEET; THENCE SOUTH 19 DEGREES 48 MINUTES EAST, 151.3 FEET; THENCE SOUTH 70 DEGREES 25 MINUTES WEST, 48.3 FEET; THENCE NORTH 19 DEGREES 05 MINUTES WEST, 66.7 FEET; THENCE SOUTH 70 DEGREES 23 MINUTES WEST, 173.8 FEET TO THE POINT OF BEGINNING.

Exhibit "B"

Restrictive Covenants

1. Ag Processing Inc a cooperative ("Party of the First Part") undertook a Phase I Environmental Site Assessment ("Assessment") and a Limited Site Investigation ("Investigation") of the real property dated January 15, 2004 and June 28, 2004, respectively.

2. The Assessment identified a recognized environmental condition on the real property which it described as follows:

> An area of stressed vegetation consisting of apparent slag or coke material was observed on the northeast portion of the site.

3. The Investigation in relevant part contains a summary of certain sampling activities undertaken from this area of the real property. The Investigation stated in relevant part:

> Based on the analyses, the elevated concentrations of cadmium, lead and zinc indicate the fill material located on the north side of the site appears to have been a by-product, or associated with the former on-site zinc smelter facility. The reported lead concentrations in the samples collected from the fill material exceed the lead HHMSSL (outdoor industrial worker) of 800 mg/kg. Although the cadmium and zinc concentrations in the samples collected from the fill material are elevated relative to background levels, the cadmium and zinc concentrations do not exceed the cadmium and zinc HHMSSLs (outdoor industrial worker) of 560 mg/kg and 100,000 mg/kg respectively.

4. An Investigation drawing depicting the location of the area of slag material (hereinafter referenced as "slag area") on the real property is appended as Exhibit "C".

5. Party of the First Part deems it desirable and in the best interest of all present and future owners of the real property that certain conditions and restrictions be imposed on the slag area, all of which are more particularly hereinafter set forth. The purpose of such conditions and restrictions are to better protect human health and the environment by reducing the potential for exposure to the materials found in the slag area. The conditions and restrictions will accomplish this by prohibiting those activities that would disturb the ground surface, require the maintenance of vegetative cover to reduce erosion, and otherwise minimize unnecessary exposure to the relevant materials referenced in the Assessment and Investigation reports.

6. NOW, THEREFORE, Party of the First Part hereby imposes, only in or on the slag area in the real property, these conditions and restrictions:

   (a) No residential use, including single-family homes, apartments, condominiums or dwellings of any type; hotels or

lodging; recreational uses, such as parks and campgrounds; educational uses or daycare services shall be permitted.

(b) No grazing, animal husbandry, food or crop production or other agricultural activities shall be permitted.

(c) No excavation, tilling, construction, or any other activity that disturbs the slag area's ground surface is permitted, subject to the following exceptions:

(i) maintenance of the vegetative cover described in paragraph "3";

(ii) the placement and/or the maintenance of pavement or other barrier in lieu of the vegetative cover described in paragraph "3"; and

(iii) the excavation and removal of the contaminants identified in the Investigation in the slag area in compliance with applicable federal, state, and local statutes and regulations.

3. Party of the Second Part, its successors and assigns, agree to provide a vegetative cap (like a native grass resistant to drought) over the entirety of the ground surface of the slag area.

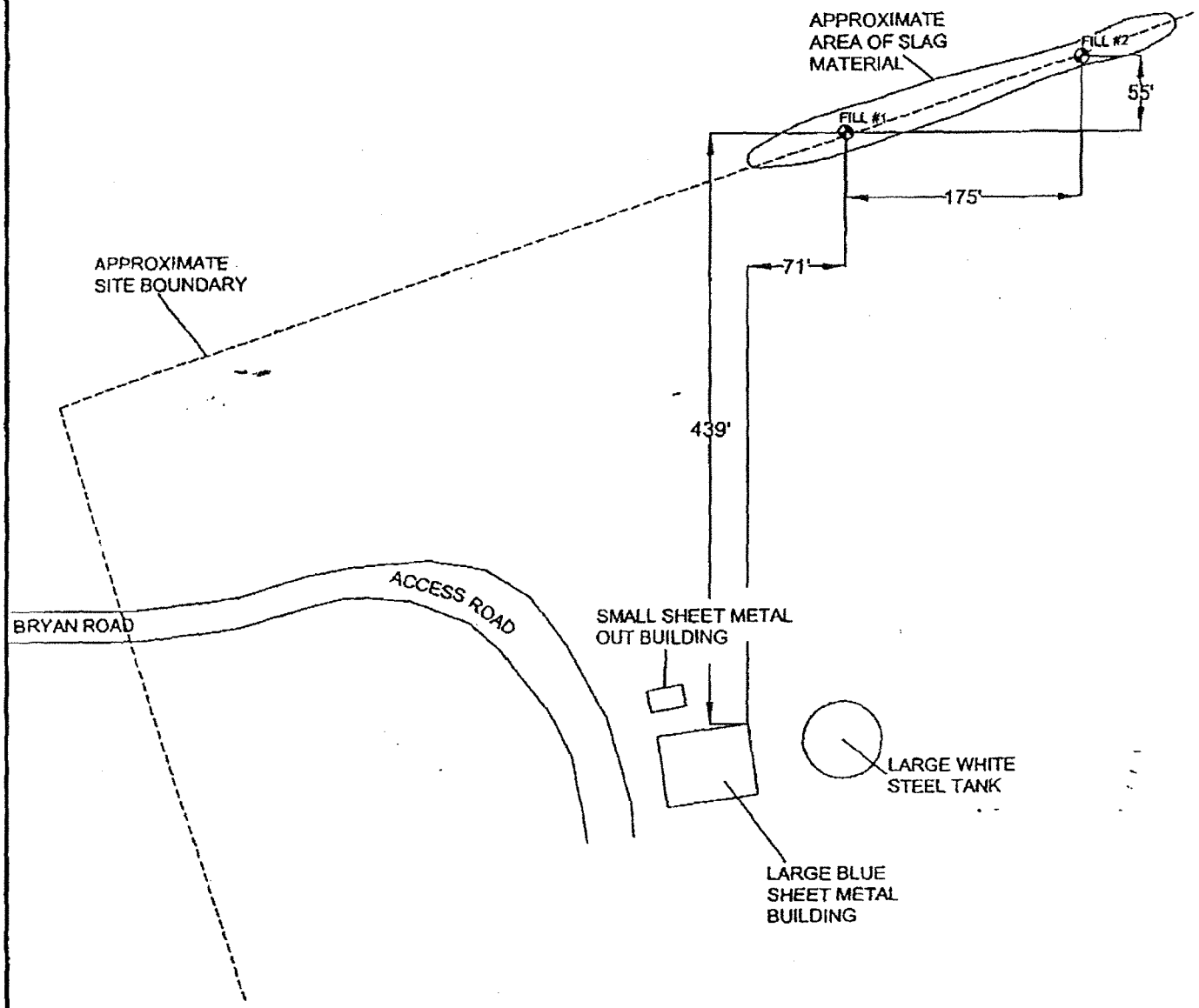
4. The Conditions and restrictions in this Warranty Deed do not constitute a representation or warranty by Party of the First Part as to the suitability of the real property for any particular use or purpose.

6. The Conditions and restrictions contained in this Warranty Deed shall not be construed as an admission by Party of the First Part with respect to any liability or responsibility for the environmental conditions on the real property.

7. The Conditions and restrictions in this Warranty Deed shall be perpetual. In order to ensure the perpetual nature of these restrictions, Party of the Second Part, its successors and assigns, shall reference these restrictions in any subsequent deed of conveyance, including the recording book and page of record.

8. It is the intention of Party of the First Part that the Conditions and restrictions contained in this Warranty Deed shall touch and concern the real property, run with the land and with the title to the real property and shall apply to and be binding upon and inure to the benefit of the successors and assigns of Party of the Second Part, and to any and all parties having any right, title or interest in the real property or any part thereof.

Exhibit "C"



0 100 200 FEET

N

DIAGRAM IS FOR GENERAL LOCATION ONLY,
AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

BORING LOCATION DIAGRAM
FORMER AGP FACILITY
3100 BRYAN ROAD
VAN BUREN, CRAWFORD COUNTY, ARKANSAS
FOR: AGP

Project Mngr:	TDK	Terracon	Project No.	04047048
Designed By:			Scale:	SEE BARSCALE
Checked By:	TDK	10930 East 56th Street	Date:	6/15/04
Approved By:	TDK	Tulsa, Oklahoma 74146	Drawn By:	JRD
File Name:	04047048 L(1)		Figure No.	2b

CERTIFICATE OF RECORD
STATE OF ARKANSAS, COUNTY OF CRAWFORD
I hereby certify that this instrument was
Filed and Recorded in the Official Records
in Doc Num 2005000260
01/07/2005 01:17:32 PM
Linda Howard
Crawford County Circuit Clerk & Recorder
By: Pam Weel D.C.

Appendix D

Well Construction Database Search Results

There are 64 records found listed below within 4 miles of -94.324441 35.438803.

Well ID	Date Well Completed	Contractor Name	Driller Name	Pump Installer Name	Well Depth	Longitude	Latitude	Yield	Use Type
940024352450	04/15/2004	KENNETH MUSGROVE DRILLING	KENNETH MUSGROVE		165.00	94-22-24	35-24-50	60.000000	
940220342843	01/06/1997	GILBERTS HARD ROCK DRILLING	DAVID GILBERT	DAVID GILBERT	147.00	940220	342843	4.000000	DO
941545352757	09/11/1996	THOMAS DRILLING	CLINTON THOMAS		140.00	94-15-45	35-27-57	40.000000	DO
941613352535	06/21/2001	CLEAR WATER DRILLING CO.	JOHN BATES		300.00	94-16-13	35-25-35	2.000000	IR
941726352614	04/30/1996	T. H. MUSGROVE & SONS DRILLING	KENNETH MUSGROVE		185.00	94-17-26	35-26-14	150.000000	DO
941742352656	09/23/2002	THOMAS DRILLING	CLINTON THOMAS		220.00	94-17-42	35-26-56	10.000000	
941749352654	09/27/2002	THOMAS DRILLING	CLINTON THOMAS		120.00	94-17-49	35-26-54	8.000000	
941846352920	09/04/1995	TAYLOR WELL DRILLING CO., INC	BILL KING		206.00	94-18-46	35-29-20	3.000000	DO
941915352717	09/11/2001	CLEAR WATER DRILLING CO.	JOHN BATES		205.00	94-19-15	35-27-17	1.000000	DO
941937352511	08/28/2003	THOMAS DRILLING	CLINTON THOMAS		120.00	94-19-37	35-25-11	0.000000	
941946352543	01/19/2001	DAVIS ENVIRONMENTAL DRILLING,	BOBBY D. THOMPSON		25.00	94-19-46	35-25-43	0.000000	
941946352543A	01/19/2001	DAVIS ENVIRONMENTAL DRILLING,	BOBBY D. THOMPSON		25.00	94-19-46	35-25-43	0.000000	
941946352543B	01/19/2001	DAVIS ENVIRONMENTAL DRILLING,	BOBBY D. THOMPSON		3.00	94-19-46	35-25-43	0.000000	
941946352543C	01/19/2001	DAVIS ENVIRONMENTAL DRILLING,	BOBBY D. THOMPSON		3.00	94-19-46	35-25-43	0.000000	
941946352543D	01/19/2001	DAVIS ENVIRONMENTAL DRILLING,	BOBBY D. THOMPSON		3.00	94-19-46	35-25-43	0.000000	
941946352543E	01/19/2001	DAVIS ENVIRONMENTAL DRILLING,	BOBBY D. THOMPSON		25.00	94-19-46	35-25-43	0.000000	
941946352543F	01/19/2001	DAVIS ENVIRONMENTAL DRILLING,	BOBBY D. THOMPSON		25.00	94-19-46	35-25-43	0.000000	
941949352439	05/27/2002	THOMAS DRILLING	CLINTON THOMAS		95.00	94-19-49	35-24-39	1800.000000	
941951352852	06/28/2007	BUCKMAN WELL DRILLING, INC.	CHRIS BUCKMAN		300.00	94-19-51	35-28-52	2.000000	
942003035291201	06/22/2006	T. H. MUSGROVE & SONS DRILLING	GARY MUSGROVE		220.00	94-20-03	35-29-12	8.000000	
942004352549	03/10/1993	LAYNE CHRISTENSEN COMPANY	LONNIE YOUNGER	J.D. ANTHONY	46.00	94-20-04	35-25-49	700.000000	IR

942031352604	04/17/2002	THOMAS DRILLING	CLINTON THOMAS		120.00	94-20-31	35-26-04	90.000000	
942035352931	10/23/1998	T. H. MUSGROVE & SONS DRILLING	GARY MUSGROVE		115.00	94-20-35	35-29-31	12.000000	DO
942064352878	09/12/2001	CLEAR WATER DRILLING CO.	JOHN BATES	RYAN GILBERT	208.00	94-21-06	35-29-30	15.000000	IR
942108352825	04/29/2002	THOMAS DRILLING	CLINTON THOMAS		195.00	94-21-08	35-28-25	13.000000	
942121352752	04/25/2003	CM2,INC	WALTER CRABB		10.00	94-21-21	35-27-52	0.000000	
942149352720	10/12/1999	THOMAS DRILLING	CLINTON THOMAS		221.00	94-21-49	35-27-20	10.000000	DO
942200352600	06/26/2002	STRATA CORE, SCI, LLC.	RODDY QUALLS		15.00	94-22-00	35-26-00	0.000000	
942200352600	05/01/2003	STRATA CORE, SCI, LLC.	RODDY QUALLS		37.50	94-22-00	35-26-00	0.000000	
942201352413	06/12/2001	CM2,INC	WALTER CRABB		15.00	94-22-01	35-24-13	0.000000	
942208352421	11/03/2003	DAVIS ENVIRONMENTAL DRILLING,	KODI ROBERTS		20.00	94-22-08	35-24-21	0.000000	
942208352421	11/04/2003	DAVIS ENVIRONMENTAL DRILLING,	KODI ROBERTS		18.00	94-22-08	35-24-21	0.000000	
942211352514	10/20/2003	TOTAL SUPPORT SERVICES INC.	DANIEL SPAUST		43.00	94-22-11	35-25-14	0.000000	
942211352514	10/21/2003	TOTAL SUPPORT SERVICES INC.	DANIEL SPAUST		15.00	94-22-11	35-25-14	0.000000	
942227352756	08/12/1991	T. H. MUSGROVE & SONS DRILLING	BOBBY MUSGROVE		130.00	94-22-27	35-27-56	0.000000	
942231352433	09/07/2000	DAVIS ENVIRONMENTAL DRILLING,	JODY JARMAN		25.00	94-22-31	35-24-33	0.000000	
942231352551	03/18/2003	STRATA CORE, SCI, LLC.			40.00	94-22-31	35-25-51	0.000000	
942232352433	09/07/2000	DAVIS ENVIRONMENTAL DRILLING,	JODY JARMAN		15.00	94-22-32	35-24-33	8.000000	MO
942232352433A	09/07/2000	DAVIS ENVIRONMENTAL DRILLING,	JODY JARMAN		15.00	94-22-32	35-24-33	0.000000	MO
942232352727	05/24/1999	THOMAS DRILLING	CLINTON THOMAS		170.00	94-22-32	35-27-27	4.000000	DO
942259352659	09/11/1995	T. H. MUSGROVE & SONS DRILLING	KENNETH MUSGROVE		205.00	94-22-59	35-26-59	480.000000	DO
942310352513	03/23/2001	DAVIS ENVIRONMENTAL DRILLING,	ERIC HALEY		15.00	94-23-10	35-25-13	0.000000	
942310352513B	03/23/2001	DAVIS ENVIRONMENTAL DRILLING,	ERIC HALEY		15.00	94-23-10	35-25-13	0.000000	
942310352513C	03/23/2001	DAVIS ENVIRONMENTAL DRILLING,	ERIC HALEY		15.00	94-23-10	35-25-13	0.000000	
942310352513D	03/23/2001	DAVIS ENVIRONMENTAL	ERIC HALEY		15.00	94-23-10	35-25-13	0.000000	

		DRILLING,							
942329352514A	08/22/2001	DAVIS ENVIRONMENTAL DRILLING,	ERIC HALEY		18.00	94-23-29	35-25-14	0.000000	MO
942329352514B	08/22/2001	DAVIS ENVIRONMENTAL DRILLING,	ERIC HALEY		18.00	94-23-29	35-25-14	0.000000	MO
942329352514C	08/22/2001	DAVIS ENVIRONMENTAL DRILLING,	ERIC HALEY		18.00	94-23-29	35-25-14	0.000000	MO
942329352514D	08/22/2001	DAVIS ENVIRONMENTAL DRILLING,	ERIC HALEY		18.00	94-23-29	35-25-14	0.000000	MO
942329352514E	08/22/2001	DAVIS ENVIRONMENTAL DRILLING,	ERIC HALEY		18.00	94-23-29	35-25-14	0.000000	MO
942207352402	11/12/2007	ACCURATE DRILLING SERVICES	JUAN BAZAN		20.00	94-22-07	35-24-02	0.000000	MO
942207352426	11/03/2007	ACCURATE DRILLING SERVICES	JUAN BAZAN		20.00	94-22-07	35-24-26	0.000000	MO
942207352403	11/03/2007	ACCURATE DRILLING SERVICES	JUAN BAZAN		25.00	94-22-07	35-24-03	0.000000	MO
942123352751	05/15/2008	ANDERSON ENGINEERING CONSULTAN	DONALD SYLVIA		27.00	94-21-23	35-27-51	0.000000	MO
942101352607	07/13/2010	ABLE ENVIRONMENTAL DRILLING, L	ERIC HALEY		35.00	94-21-01	35-26-07	0.000000	MO
942101352607	07/14/2010	ABLE ENVIRONMENTAL DRILLING, L	ERIC HALEY		35.00	94-21-01	35-26-07	0.000000	MO
942101352607	07/12/2010	ABLE ENVIRONMENTAL DRILLING, L	ERIC HALEY		20.00	94-21-01	35-26-07	0.000000	MO
942054352550	08/12/2010	T. H. MUSGROVE & SONS DRILLING	T MUSGROVE		47.00	94-20-54	35-25-50	24.000000	
942059352594	01/28/2011	ABLE ENVIRONMENTAL DRILLING, L	ERIC HALEY		0.00	94-20-59	35-25-94	0.000000	
942302352458	03/08/2011	ABLE ENVIRONMENTAL DRILLING, L	ERIC HALEY		25.00	94-23-02	35-24-58	0.000000	MO
942302352458	03/07/2011	ABLE ENVIRONMENTAL DRILLING, L	ERIC HALEY		20.00	94-23-02	35-24-58	0.000000	MO
942104352606	04/07/2011	ABLE ENVIRONMENTAL DRILLING, L	ERIC HALEY		20.00	94-21-04	35-26-06	0.000000	MO
941747352658	06/21/2011	T. H. MUSGROVE & SONS DRILLING	GARY MUSGROVE		370.00	94-17-47	35-26-58	10.000000	DO
942004352757	06/29/2011	BUCKMAN WELL DRILLING, INC.	CHRIS BUCKMAN		200.00	94-20-04	35-27-57	5.000000	

HOME PAGE

Appendix E

Watershed Maps and information

Arkansas Watershed Information System

a module of the Arkansas Automated Reporting and Mapping System

Arkansas Watersheds > > 8-Digit: 11110201 > > 10-Digit: 1111020101 Home • Links • About

Click in the map below to get information about a specific 12-digit sub-watershed.

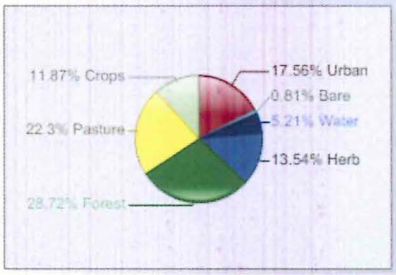
Little Vache Grasse Creek-Arkansas River

Huc Id	1111020101
Total Area	153.25 mi^2
Total Acres	99229.35
Population 1990	19963
Population 2000	22893
Density 1990	130.26 persons/mi^2
Density 2000	149.38 persons/mi^2

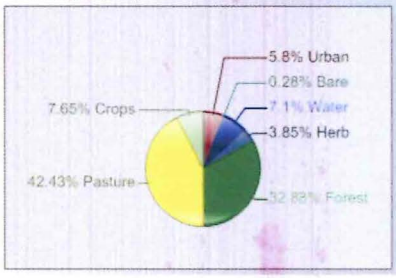
Watershed Information

(Click a chart below to see the full selection of informative charts for this watershed.)

2006 Land Cover



1999 Land Cover



Category	Maps		Watershed Reports		Sub-Watershed Reports	
Hydrography	8.5x11	17x22	HTML	PDF	HTML	PDF
Hydrography with Shaded Relief	8.5x11	17x22	HTML	PDF	HTML	PDF
Land Use / Land Cover, 1999	8.5x11	17x22	HTML	PDF	HTML	PDF
Land Use / Land Cover, 2004	8.5x11	17x22	HTML	PDF	HTML	PDF
Land Use / Land Cover, 2006	8.5x11	17x22	HTML	PDF	HTML	PDF
Land Use Change, 1999-2004	8.5x11	17x22	HTML	PDF	HTML	PDF
Population Change, 1990-2000	8.5x11	17x22	HTML	PDF	HTML	PDF
Population Density, 2000	8.5x11	17x22	HTML	PDF	HTML	PDF
Roads	8.5x11	17x22	HTML	PDF	HTML	PDF
Slope	8.5x11	17x22				
Soils - Hydric Soils	8.5x11	17x22	HTML	PDF	HTML	PDF
Soils - Productivity	8.5x11	17x22	HTML	PDF	HTML	PDF
Soils - Septic Suitability	8.5x11	17x22	HTML	PDF	HTML	PDF
Sub-Watersheds	8.5x11	17x22				

Click here to use the "Find Your Watershed" tool.

Click here for a cross-reference list of the 8-digit HUC names and codes.

Click here for a cross-reference list of the 10-digit HUC names and codes.

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Arkansas Watershed Information System
a module of the Arkansas Automated Reporting and Mapping System

Arkansas Watersheds > > 8-Digit: **11110201** > > 10-Digit: **1111020101** >> Charts **Home ∘ Links ∘ About**

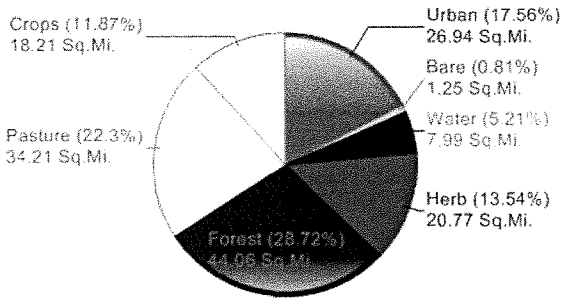
Little Vache Grasse Creek-Arkansas River Watershed Statistics

Hydrologic Unit Code: 1111020101

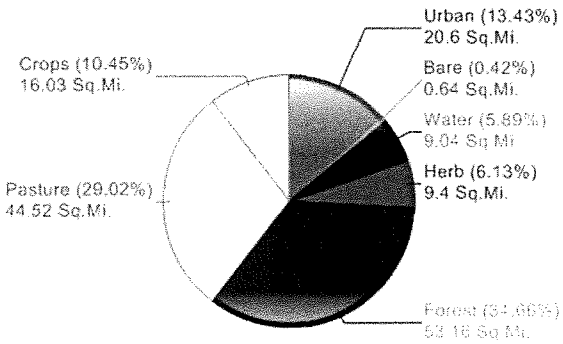
Land Cover Statistics

Land Use/Land Cover statistics from 1999, 2004 and 2006 are derived from datasets provided by the Center for Advanced Spatial Technologies (publication dates June 2001, October 2005, and March 2007). The LULC datasets are based on 28.5 meter resolution Landsat imagery provided by the United States Geological Survey.

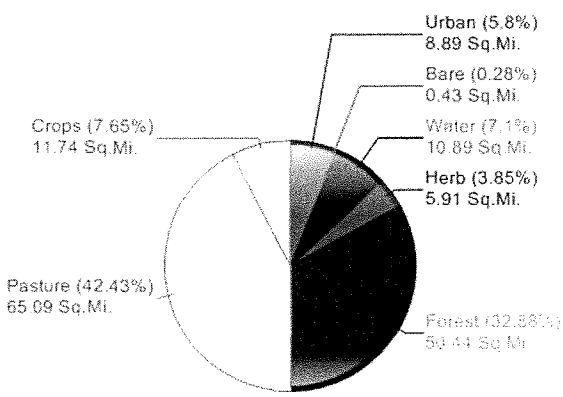
2006 Land Cover



2004 Land Cover

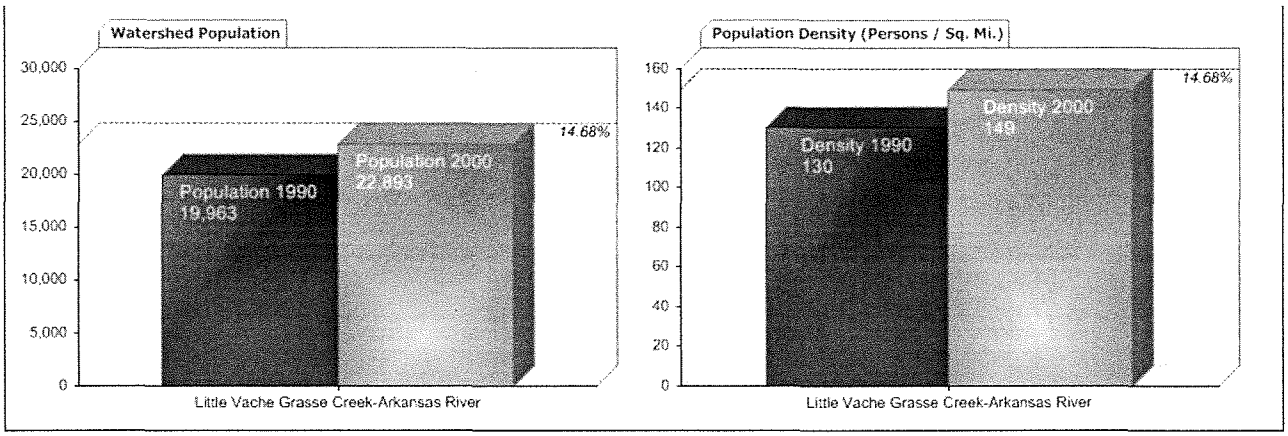


1999 Land Cover



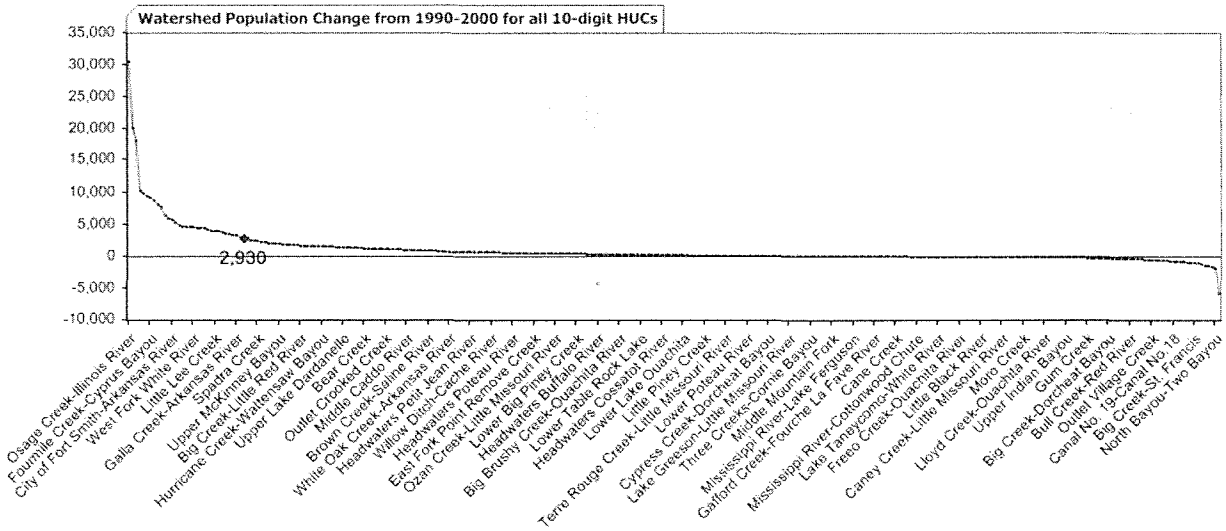
Population and Population Density Change

Population and Population Density Change data derived from 1990 and 2000 TIGER/Line files and Summary Tape File 1 data provided by the United States Census Bureau. Population data were summarized at the Census Block level.



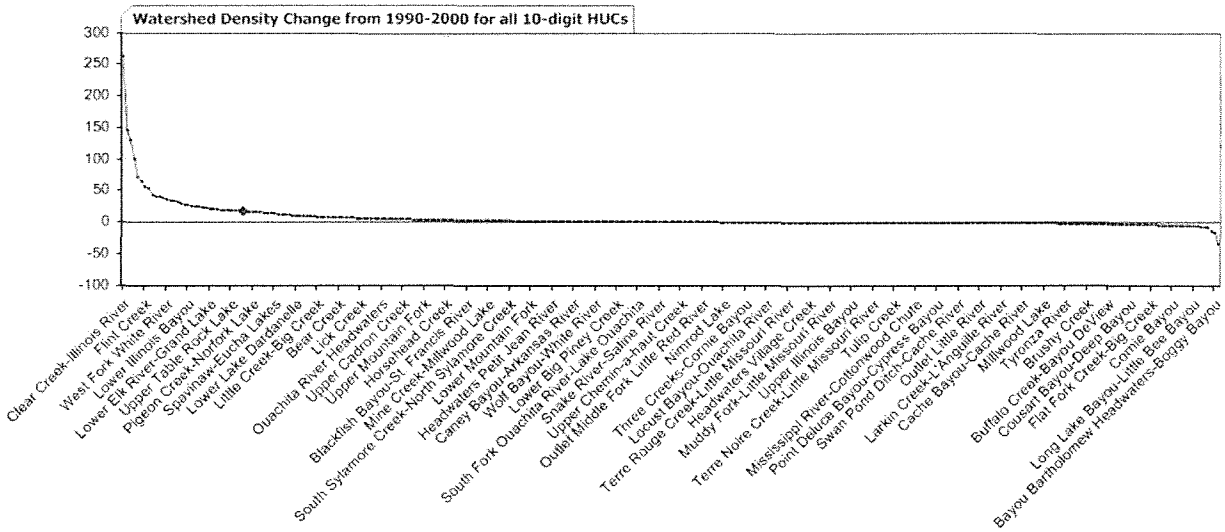
Population Change Comparison by Watershed

Population Change data derived from 1990 and 2000 TIGER/Line files and Summary Tape File 1 data provided by the United States Census Bureau. Population data were summarized at the Census Block level.



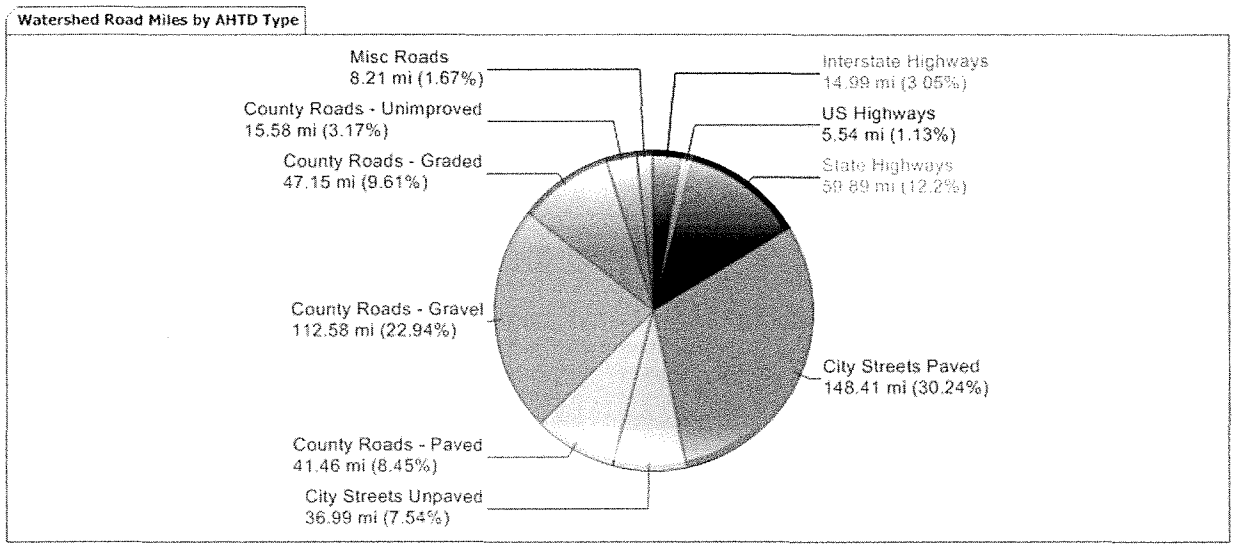
Density Change Comparison by Watershed

Population Density Change data derived from 1990 and 2000 TIGER/Line files and Summary Tape File 1 data provided by the United States Census Bureau. Population data were summarized at the Census Block level.



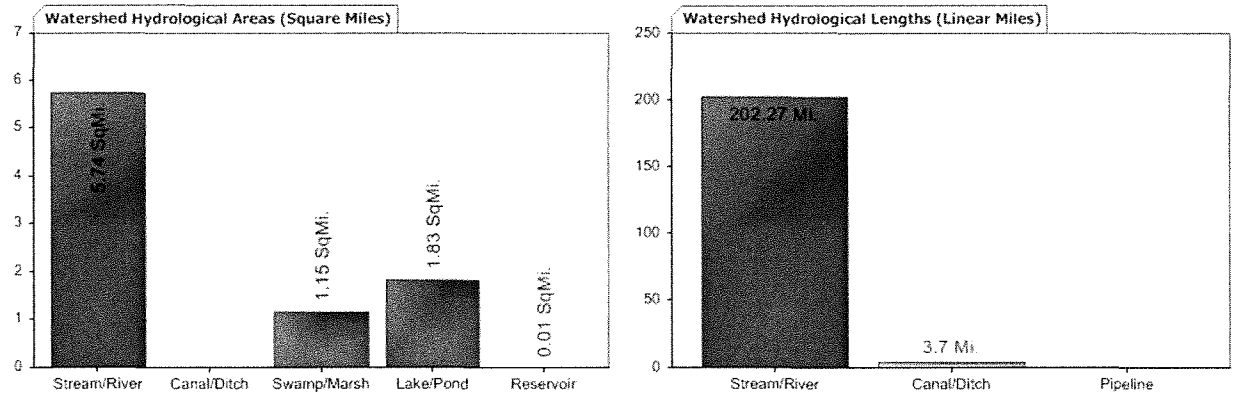
Roads by Type

Detailed highway and road statistics derived from data provided by the Arkansas State Highway and Transportation Department (publication date August 2006).



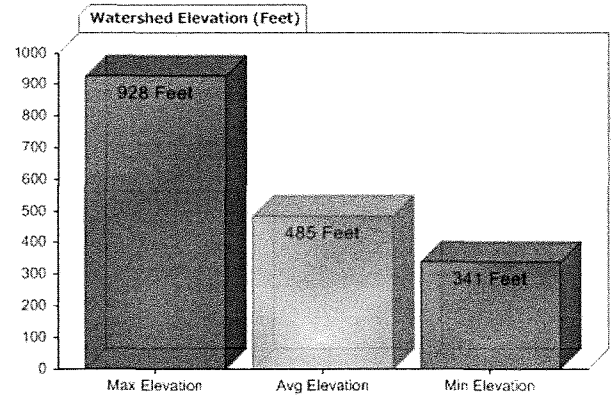
Surface Water Areas and Lengths in Miles

Stream and waterbody statistics dervied from data provided by the United States Geological Survey, National Hydrography Dataset (publication date 1999).



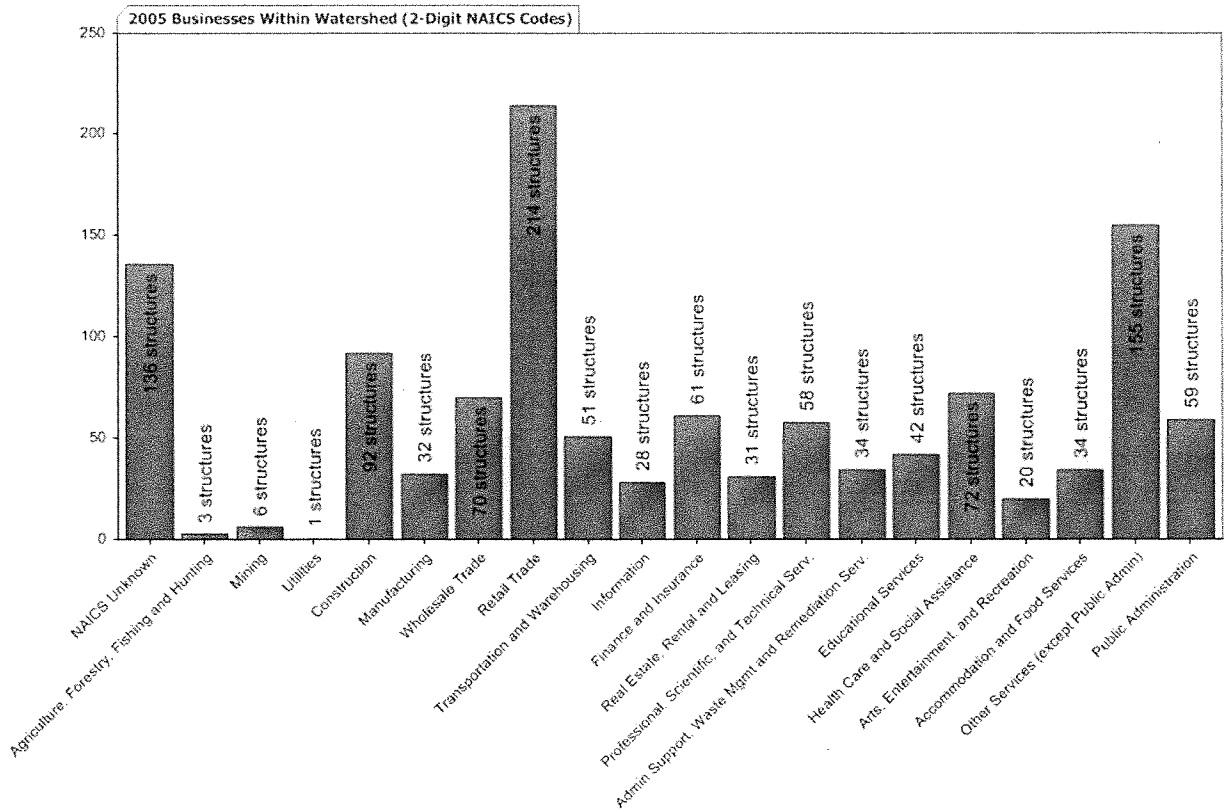
Watershed Elevation in Feet

Elevation information derived from data provided by the United States Geological Survey, National Elevation Dataset (30 meter resoltuion, publication date 2001).



Businesses by Category

Aggregated business data derived from the InfoBase® List data product provided by Acxiom® Corporation (snapshot date 2006).



NAICS 2 Digit	NAICS 4 Digit	Description	Records
00	0000	NAICS Code Unknown	136
81	8131	Religious Organizations	46
92	9211	Executive, Legislative, and Other General Government Support	46
62	6211	Offices of Physicians	34
81	8121	Personal Care Services	33
61	6111	Elementary and Secondary Schools	33
72	7221	Full-Service Restaurants	31
44	4411	Automobile Dealers	28
45	4533	Used Merchandise Stores	28
81	8111	Automotive Repair and Maintenance	26
52	5241	Insurance Carriers	26
23	2382	Construction - 23	24
53	5311	Lessors of Real Estate	24
23	2361	Construction - 23	21
54	5411	Legal Services	21
45	4539	Other Miscellaneous Store Retailers	19
44	4413	Automotive Parts, Accessories, and Tire Stores	18
51	5191	Information, Entertainment - 51	17
44	4431	Electronics and Appliance Stores	16
42	4238	Wholesale Trade - 42	15
52	5221	Depository Credit Intermediation	15
23	2381	Construction - 23	14
48	4841	General Freight Trucking	14
56	5614	Business Support Services	13
23	2383	Construction - 23	13
45	4532	Office Supplies, Stationery, and Gift Stores	13
23	2389	Construction - 23	12
44	4451	Grocery Stores	11
56	5617	Services to Buildings and Dwellings	11
54	5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	10
81	8129	Other Personal Services	10
49	4931	Warehousing and Storage	10
44	4441	Building Material and Supplies Dealers	10
62	6213	Offices of Other Health Practitioners	9
54	5416	Management, Scientific, and Technical Consulting Services	9
81	8114	Personal and Household Goods Repair and Maintenance	9
42	4239	Wholesale Trade - 42	9
48	4884	Support Activities for Road Transportation	9
42	4231	Wholesale Trade - 42	8

71	7139	Other Amusement and Recreation Industries	8
42	4234	Wholesale Trade - 42	8
62	6244	Child Day Care Services	8
51	5151	Information, Entertainment - 51	8
52	5223	Activities Related to Credit Intermediation	7
48	4842	Specialized Freight Trucking	7
44	4452	Specialty Food Stores	7
54	5413	Architectural, Engineering, and Related Services	7
45	4531	Florists	7
62	6212	Offices of Dentists	7
52	5222	Nondepository Credit Intermediation	7
42	4233	Wholesale Trade - 42	7
81	8123	Drycleaning and Laundry Services	7
62	6241	Individual and Family Services	6
81	8112	Electronic and Precision Equipment Repair and Maintenance	6
44	4461	Health and Personal Care Stores	6
45	4511	Sporting Goods, Hobby, and Musical Instrument Stores	6
44	4412	Other Motor Vehicle Dealers	6
21	2131	Support Activities for Mining	6
81	8139	Business, Professional, Labor, Political, and Similar Organizations	6
54	5419	Other Professional, Scientific, and Technical Services	6
45	4512	Book, Periodical, and Music Stores	5
92	9221	Justice, Public Order, and Safety Activities	5
44	4422	Home Furnishings Stores	5
44	4421	Furniture Stores	5
53	5321	Automotive Equipment Rental and Leasing	5
81	8122	Death Care Services	5
71	7121	Museums, Historical Sites, and Similar Institutions	5
62	6214	Outpatient Care Centers	5
48	4859	Other Transit and Ground Passenger Transportation	5
54	5418	Advertising and Related Services	5
56	5613	Employment Services	5
44	4442	Lawn and Garden Equipment and Supplies Stores	4
92	9281	National Security and International Affairs	4
71	7111	Performing Arts Companies	4
44	4481	Clothing Stores	4
42	4241	Wholesale Trade - 42	4
42	4247	Wholesale Trade - 42	4
52	5231	Securities and Commodity Contracts Intermediation and Brokerage	4
42	4244	Wholesale Trade - 42	4
42	4249	Wholesale Trade - 42	3
81	8113	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair	3
32	3231	Printing and Related Support Activities	3
61	6116	Other Schools and Instruction	3
33	3329	Other Fabricated Metal Product Manufacturing	3
11	1114	Greenhouse, Nursery, and Floriculture Production	3
44	4483	Jewelry, Luggage, and Leather Goods Stores	3
33	3328	Coating, Engraving, Heat Treating, and Allied Activities	3
61	6114	Business Schools and Computer and Management Training	3
33	3351	Electric Lighting Equipment Manufacturing	3
45	4521	Department Stores	3
45	4529	Other General Merchandise Stores	3
32	3273	Cement and Concrete Product Manufacturing	3
71	7115	Independent Artists, Writers, and Performers	3
44	4482	Shoe Stores	2
53	5324	Commercial and Industrial Machinery and Equipment Rental and Leasing	2
23	2372	Construction - 23	2
31	3116	Animal Slaughtering and Processing	2
56	5621	Waste Collection	2
61	6113	Colleges, Universities, and Professional Schools	2
33	3379	Other Furniture Related Product Manufacturing	2
23	2379	Construction - 23	2
33	3323	Architectural and Structural Metals Manufacturing	2
33	3353	Electrical Equipment Manufacturing	2
42	4246	Wholesale Trade - 42	2
72	7211	Traveler Accommodation	2
33	3335	Metalworking Machinery Manufacturing	2
33	3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing	2
23	2356	NAICS Code Unknown	2
45	4543	Direct Selling Establishments	2
49	4922	Local Messengers and Local Delivery	2
44	4471	Gasoline Stations	2
92	9251	Administration of Housing Programs, Urban Planning, and Community Development	2
92	9231	Administration of Human Resource Programs	2

49	4911	Postal Service	2
42	4232	Wholesale Trade - 42	2
31	3119	Other Food Manufacturing	1
42	4236	Wholesale Trade - 42	1
51	5181	Information, Entertainment - 51	1
42	4237	Wholesale Trade - 42	1
33	3344	Semiconductor and Other Electronic Component Manufacturing	1
62	6231	Nursing Care Facilities	1
51	5111	Newspaper, Periodical, Book, and Database Publishers	1
31	3111	Animal Food Manufacturing	1
23	2362	Construction - 23	1
22	2212	Natural Gas Distribution	1
81	8121	NAICS Code Unknown	1
23	2371	Construction - 23	1
62	6219	Other Ambulatory Health Care Services	1
81	8134	Civic and Social Organizations	1
81	8133	Social Advocacy Organizations	1
81	8131	NAICS Code Unknown	1
45	4542	Vending Machine Operators	1
48	4883	Support Activities for Water Transportation	1
56	5611	Office Administrative Services	1
31	3118	Bakeries and Tortilla Manufacturing	1
52	5242	Agencies, Brokerages, and Other Insurance Related Activities	1
48	4871	Scenic and Sightseeing Transportation, Land	1
52	5239	Other Financial Investment Activities	1
56	5629	Remediation and Other Waste Management Services	1
62	6216	Home Health Care Services	1
61	6117	Educational Support Services	1
42	4245	Wholesale Trade - 42	1
72	7223	Special Food Services	1
51	5121	Motion Picture and Video Industries	1
31	3141	Textile Furnishings Mills	1
56	5619	Other Support Services	1
42	4235	Wholesale Trade - 42	1

Click here for a cross-reference list of the 8-digit HUC names and codes.

Click here for a cross-reference list of the 10-digit HUC names and codes.

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Appendix F

Natural Heritage Commission File Review

THE DEPARTMENT OF ARKANSAS
HERITAGE

Mike Beebe
Governor

Cathie Matthews
Director

Arkansas Arts Council
*
Arkansas Historic Preservation Program
*
Delta Cultural Center
*
Mosaic Templars Cultural Center
*
Old State House Museum
*
Historic Arkansas Museum

Arkansas Natural Heritage Commission
1500 Tower Building
323 Center Street
Little Rock, AR 72201
(501) 324-9619
fax: (501) 324-9618
tdd: (501) 324-9811
e-mail:
arkansas@naturalheritage..com
website:
www.naturalheritage.com

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Date: November 14, 2012
Subject: Elements of Special Concern
Crawford County, Arkansas
ANHC No.: S-ADEQ-12-315

Jonathan Wells
Hazardous Waste Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

Dear Mr. Wells:

Staff members of the Arkansas Natural Heritage Commission (ANHC) have reviewed our files for records indicating the occurrence of rare plants and animals, outstanding natural communities, natural or scenic rivers, or other elements of special concern within or near a site located at 35.438803° latitude and -94,324441° longitude in Crawford County, Arkansas. We find no records at present time at or in the immediate vicinity of the listed coordinates.

Attached is a list of Elements of Special Concern known to occur within a fifteen-mile radius of the Crawford County site. The list has been annotated to indicate those elements falling within a one and a four mile radius of the site. The following numbers of occurrences have been recorded within each review range:

One mile search area – 1 occurrence
Four mile search area – 9 occurrences
Fifteen mile search area – 80 occurrences

An occurrence represents a location which provides habitat for sensitive species (both state and federal species), is an outstanding example of a natural community, or is a colonial bird nesting site. A legend is provided to help you interpret the codes used on this list.

Please keep in mind that the study area may contain important natural features of which we are unaware. Staff members of the Arkansas Natural Heritage Commission have not conducted a field survey of the study site. Our review is based on data available to the program at the time of the request. It should not be regarded as a final statement on the elements or areas under consideration. If you have questions or need additional information, please feel free to contact me.

Thank you for consulting us. It has been a pleasure to work with you on this study.

Sincerely,

Cindy Osborne

Cindy Osborne
Data Manager/Environmental Review Coordinator
Enclosure: Element list, legend

LEGEND

STATUS CODES

FEDERAL STATUS CODES

C = Candidate species. The U.S. Fish and Wildlife Service has enough scientific information to warrant proposing this species for listing as endangered or threatened under the Endangered Species Act.

LE = Listed Endangered; the U.S. Fish and Wildlife Service has listed this species as endangered under the Endangered Species Act.

LT = Listed Threatened; the U.S. Fish and Wildlife Service has listed this species as threatened under the Endangered Species Act.

-PD = Proposed for Delisting; the U.S. Fish and Wildlife Service has proposed that this species be removed from the list of Endangered or Threatened Species.

PE = Proposed Endangered; the U.S. Fish and Wildlife Service has proposed this species for listing as endangered.

PT = Proposed Threatened; the U.S. Fish and Wildlife Service has proposed this species for listing as threatened.

T/SA = E/SA Threatened (or Endangered) because of similarity of appearance.

STATE STATUS CODES

INV = Inventory Element; The Arkansas Natural Heritage Commission is currently conducting active inventory work on these elements. Available data suggests these elements are of conservation concern. These elements may include outstanding examples of Natural Communities, colonial bird nesting sites, outstanding scenic and geologic features as well as plants and animals, which, according to current information, may be rare, peripheral, or of an undetermined status in the state. The ANHC is gathering detailed location information on these elements.

WAT = Watch List Species; The Arkansas Natural Heritage Commission is not conducting active inventory work on these species, however, available information suggests they may be of conservation concern. The ANHC is gathering general information on status and trends of these elements. An "*" indicates the status of the species will be changed to "INV" if the species is verified as occurring in the state (this typically means the agency has received a verified breeding record for the species).

MON = Monitored Species; The Arkansas Natural Heritage Commission is currently monitoring information on these species. These species do not have conservation concerns at present. They may be new species to the state, or species on which additional information is needed. The ANHC is gathering detailed location information on these elememts

SE = State Endangered; this term is applied differently for plants and animals.

Animals – These species are afforded protection under Arkansas Game and Fish Commission (AGFC) Regulation. The AGFC states that it is unlawful to import, transport, sell, purchase, hunt, harass or possess any threatened or endangered species of wildlife or parts. The AGFC lists as endangered any wildlife species or subspecies endangered or threatened with extinction, listed or proposed as a candidate for listing by the U.S. Fish and Wildlife Service or any native species or subspecies listed as endangered by the Commission.

Plants – These species have been recognized by the Arkansas Natural Heritage Commission as being in danger of being extirpated from the state. This is an administrative designation with no regulatory authority.

ST = State Threatened; These species have been recognized by the Arkansas Natural Heritage Commission as being likely to become endangered in Arkansas in the foreseeable future, based on current inventory information. This is an administrative designation with no regulatory authority.

DEFINITION OF RANKS

Global Ranks

G1 = Critically imperiled globally. At a very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2	=	Imperiled globally. At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
G3	=	Vulnerable globally. At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
G4	=	Apparently secure globally. Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5	=	Secure globally. Common, widespread and abundant.
GH	=	Of historical occurrence, possibly extinct globally. Missing; known from only historical occurrences, but still some hope of rediscovery.
GU	=	Unrankable. Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
GX	=	Presumed extinct globally. Not located despite intensive searches and virtually no likelihood of rediscovery.
GNR	=	Unranked. The global rank not yet assessed.
GNA	=	Not Applicable. A conservation status rank is not applicable.
T-RANKS=		T subranks are given to global ranks when a subspecies, variety, or race is considered at the state level. The subrank is made up of a "T" plus a number or letter (1, 2, 3, 4, 5, H, U, X) with the same ranking rules as a full species.

State Ranks

S1	=	Critically imperiled in the state due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors making it vulnerable to extirpation.
S2	=	Imperiled in the state due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it vulnerable to extirpation.
S3	=	Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4	=	Apparently secure in the state. Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5	=	Secure in the state. Common, widespread and abundant.
SH	=	Of historical occurrence, with some possibility of rediscovery. Its presence may not have been verified in the past 20-40 years. A species may be assigned this rank without the 20-40 year delay if the only known occurrences were destroyed or if it had been extensively and unsuccessfully sought.
SU	=	Unrankable. Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
SX	=	Presumed extirpated from the state. Not located despite intensive searches and virtually no likelihood of rediscovery.
SNR	=	Unranked. The state rank not yet assessed.
SNA	=	Not Applicable. A conservation status rank is not applicable.

General Ranking Notes

Q	=	A "Q" in the global rank indicates the element's taxonomic classification as a species is a matter of conjecture among scientists.
RANGES=		Ranges are used to indicate a range of uncertainty about the status of the element.
?	=	A question mark is used to denote an inexact numeric rank.
B	=	Refers to the breeding population of a species in the state.
N	=	Refers to the non-breeding population of a species in the state.

11/15/2012

Arkansas Natural Heritage Commission
Department of Arkansas Heritage
Elements of Special Concern
Within 15-mile Radius of Crawford County Site
(35.438803°, -94,324441°)

	Scientific Name	Common Name	Federal Status	State Status	Global Rank	State Rank
	Animals-Invertebrates					
	Alasmidonta marginata	elktoe	-	INV	G4	S3
	Cicindela hirticollis	beach-dune tiger beetle	-	INV	G5	S2S3
	Lasmigona costata	flutedshell	-	INV	G5	S3
	Leptodea leptodon	scaleshell	LE	SE	G1G2	S1
	Nicrophorus americanus	American burying beetle	LE	SE	G2G3	S1
	Orconectes nana	a crayfish	-	INV	G3	S3
	Toxolasma lividus	purple lilliput	-	INV	G3	S2
	Villosa lienosa	little spectaclecase	-	INV	G5	S3
	Animals-Vertebrates					
	Cemophora coccinea copei	northern scarlet snake	-	INV	G5T5	S3
	Etheostoma mihileze	sunburst darter	-	INV	GNR	S3
	Haliaeetus leucocephalus	Bald Eagle	-	INV	G5	S2B,S4N
	Hiodon alosoides	goldeye	-	INV	G5	S2?
	Hybognathus placitus	plains minnow	-	INV	G4	SX
	Limnothlypis swainsonii	Swainson's Warbler	-	INV	G4	S3B
	Ophisaurus attenuatus attenuatus	western slender glass lizard	-	INV	G5T5	S3
	Percina nasuta	longnose darter	-	INV	G3	S2
	Percina phoxocephala	slenderhead darter	-	INV	G5	S2
✓	*Phenacobius mirabilis*	suckermouth minnow	-	INV	G5	S1
	Polyodon spathula	paddlefish	-	INV	G4	S2?
	Regina rigida sinicola	gulf crayfish snake	-	INV	G5T5	S3
	Reithrodontomys humulis	eastern harvest mouse	-	INV	G5	S2
	Sternula antillarum athalassos	Interior Least Tern	LE	SE	G4T2Q	S2B
	Terrapene ornata ornata	ornate box turtle	-	INV	G5T5	S2
✓*	*Tyrannus verticalis*	Western Kingbird	-	INV	G5	S1B,S1N
	Plants-Vascular					
	Calopogon oklahomensis	Oklahoma grass-pink	-	INV	G3	S2
✓	*Castilleja indivisa*	entire-leaf Indian-paintbrush	-	INV	G5	SH
	Cooperia drummondii	rain-lily	-	INV	G5	S1S2
✓	*Dalea lanata var. lanata*	woolly prairie-clover	-	INV	G5TNR	S2S3
	Equisetum laevigatum	smooth scouring-rush	-	INV	G5	S1
✓	*Fuirena simplex var. aristulata*	western umbrella sedge	-	INV	G5T4	S1
	Heliotropium convolvulaceum	phlox heliotrope	-	INV	G5	S2
	Iva angustifolia	slender marsh-elder	-	INV	G5?	S1
	Koeleria macrantha	prairie June grass	-	INV	G5	S2
	Lithospermum incisum	fringed puccoon	-	INV	G5	S2S3
	Minuartia drummondii	Drummond's sandwort	-	INV	G5	S2S3
	Physalis pumila	prairie ground-cherry	-	INV	G5	S1
	Plantago patagonica	woolly plantain	-	INV	G5	S2
	Prenanthes aspera	prairie rattlesnake-root	-	INV	G4?	S2S3
	Rhynchospora macrostachya	prairie horned beaksedge	-	INV	G4	S2
	Solidago speciosa var. rigidiuscula	narrow-leaf showy goldenrod	-	INV	G5T4	S2S3
	Valerianella nuttallii	Nuttall's cornsalad	-	INV	G2?	S2

Scientific Name	Common Name	Federal Status	State Status	Global Rank	State Rank
Special Elements-Natural Communities					
Arkansas Valley Prairie and Woodland		-	INV	GNR	SNR
Ozark-Ouachita Dry Oak Woodland		-	INV	GNR	SNR
Special Elements-Other					
✓ Colonial nesting site, water birds		-	INV	GNR	SNR

* - This elements of special concern has been recorded within one mile of the Crawford County study site.

✓ - These elements of special concern have been recorded within five miles of the Crawford County study site.

Appendix G

Custom Soil Resource Report

Map Scale: 1:2,780 if printed on A size (8.5" x 11") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 100 200 400 600

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Units

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features

- Gully
- Short Steep Slope
- Other

Political Features

- Cities

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:2,780 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Crawford County, Arkansas
Survey Area Data: Version 14, Sep 28, 2012

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Crawford County, Arkansas (AR033)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
19	Muskogee silt loam, 3 to 8 percent slopes	16.0	66.5%
30	Wrightsville silt loam	8.1	33.5%
Totals for Area of Interest		**24.1**	**100.0%**