

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

for the

RICHARDS-GEBAUR MEMORIAL AIRPORT
SITE C - 55 ACRE TRACT
KANSAS CITY, MISSOURI

prepared for

THE CITY OF KANSAS CITY, MISSOURI
AVIATION DEPARTMENT
KANSAS CITY, MISSOURI

PSI PROJECT NUMBER 5985E132

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Information To Build On

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SUMMARY

Professional Service Industries has performed a Phase I Environmental Site Assessment in general accordance with the scope and limitations of ASTM E 1527-94 for the subject parcel located on the Richards-Gebaur Memorial Airport in Kansas City, Jackson County, Missouri. The 55-acre tract is located on the northeast area of the airport, south of Highway 150, west and north of Andrews Road and east of the airport east/west runway. The subject site consists of vacant grass land used for agriculture with no building improvements. Any exceptions to, or deletions from, this standard of practice are described in the report. This assessment has revealed evidence of recognized environmental conditions in connection with the site, including:

Located on the northwest area of the subject site near the low-lying drainage area were four empty 55-gallon drums. No labels were identified on the discarded drums. Also located on the west area of the subject site near the runway was one empty 55-gallon drum. The discarded drum was labeled to previously contain "034723 Soy Oil 335.5#". No stressed vegetation or stained soils were observed around the drums.

No indications of the use of pesticides, herbicides or fertilizers was observed during the on-site reconnaissance and/or interviews. However, the subject site appears to be used for agriculture for which pesticides, herbicides and fertilizers may be utilized.

The excess surface water drainage from the IRP Site FT-002 (North Burn Pit) may migrate onto the northwest portion of the subject site. A general Site Map of Site C was provided by the Aviation Department, however, specific boundaries were not indicated. The majority of surface water drainage from the FT-002 Site appears to flow northeast towards the low-lying area north of the subject site.

An aboveground storage tank was observed on the FT-002 Site. The tank contents, size or activities associated with the tank are not known. A perimeter chain-link fence hindered observations and access during the reconnaissance. Also, two monitoring wells were observed in the area of the FT-002 (North Burn Pit) Site. One monitoring well was observed within the chain-link fence and one located east of the fence. Specific boundaries of Site C were not provided by the Aviation Department to determine the proximity of the monitoring well to the subject site. According to Mr. Esch, no aboveground storage tanks are present at FT-002. The metal structure observed was used to simulate an aircraft fuselage during fire training exercises. Mr. Esch also indicated that five monitoring wells are located in this area. According to the Burns and McDonnell Engineering, Supplemental Remedial Investigation Report FINAL, for the IRP Remedial Investigation, FT002, North Burn Pit, Richards-Gebaur Air Force Base Missouri, dated April 1992, groundwater flow direction at the North Burn Pit appears to flow in a northeasterly direction. Also, the Conclusions and Recommendations indicate that no contaminants of concern have been identified for the shallow groundwater at this site. Based upon the data obtained, the North Burn Pit does not appear to be a significant groundwater contamination source for the shallow groundwater system. No further action concerning the groundwater is recommended at the North Burn Pit - Site FT-002.

This Summary is not to be used alone. The report must be read in its entirety.

INTRODUCTION

PURPOSE AND SCOPE

This Phase I Environmental Site Assessment (ESA) was performed to identify, to the extent feasible, recognized environmental conditions in connection with the site. The protocol utilized for this assessment is in general accordance with the requirements of ASTM Standard E 1527-94.

The site assessment included four components: Records Review, Site Reconnaissance, Interviews and Report Preparation. The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions in connection with the site. The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the site. The objective of the interviews is to obtain additional information indicating recognized environmental conditions in connection with the site. The report includes documentation to support the analysis, opinions and conclusions as presented.

AUTHORIZATION

Authorization to perform this assessment was given verbally by Mr. Dennis Wilmsmeyer, Airport Planner with the City of Kansas City, Missouri, Aviation Department. A proposal was prepared by PSI (Proposal No. 598148, dated November 1, 1995) and a Purchase Order was issued for the project in accordance with the Annual Environmental Services Contract, Number PA2869, dated January 4, 1994, between the City of Kansas City, Missouri, and PSI.

ACCESS

Field reconnaissance was performed on November 6, 1995. Instructions as to the location of the subject site, access, and an explanation of the subject site and facilities to be assessed were provided by Mr. Dennis Wilmsmeyer of the City of Kansas City, Missouri, Aviation Department.

INFORMATION PROVIDED BY CLIENT

The following site information was provided to PSI by Mr. Wilmsmeyer with the Aviation Department or Mr. Mark Esch with the U.S. Air Force Base Conversion Agency.

ITEM	PROVIDED BY CLIENT	NOT PROVIDED BY CLIENT	DISCUSSED BELOW	DOES NOT APPLY
Environmental Questionnaire and Disclosure Statement			X	
Site Plan	X		X	
Legal Description	X		X	
Chain of Title		X		
Identification of Key Site Manager	X		X	
Letter of Access		X		
Environmental Liens		X		
Specialized Knowledge	X		X	

Environmental Questionnaire and Disclosure Statement

A copy of the questionnaire was provided to Mr. Wilmsmeyer which was then forwarded to Mr. Mark Esch of the U.S. Air Force Base Conversion Agency. The questionnaire was not completed and returned to PSI by the date of this report. According to Mr. Esch, all information known about Air Force property is contained in the Environmental Baseline Survey. PSI has been provided a copy of the Environmental Baseline Survey report and has incorporated pertinent information into this report.

Site Plan

A Site Plan was provided to PSI by Mr. Dennis Wilmsmeyer. A copy of the map, as provided to PSI, is included in Appendix A. Exact location and boundaries of the 55-acre site were not provided.

Legal Description

A legal description for portions of the Richards-Gebaur Memorial Airport was provided to PSI. A copy of the provided document is included in Appendix B.

Identification of Key Site Manager

The Key Site Manager was identified as Mr. Dave Malecki of the City of Kansas City, Missouri, Aviation Department. The Key Site Manager's contact address is 15405 Maxwell Road, Kansas City, Missouri and the contact telephone number is (816) 322-0001. At the time of the assessment Mr. Malecki was not available, however, Mr. John McLendon with the City of Kansas City, Missouri Aviation Department located at the same office allowed access onto the subject site.

Specialized Knowledge

Additional information was provided to PSI by Mr. Dennis Wilmsmeyer and Mr. Mark Esch. This information is discussed in the Additional Local Records section of this report.

Information provided by the client has been incorporated into the body of the report and copies are included in the Appendix.

WARRANTY

Phase I Assessment

PSI warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the protocol. These methodologies are described by the standard as representing good commercial and customary practice for conducting an Environmental Site Assessment of a parcel of property for the purpose of identifying recognized environmental conditions. However, these findings and conclusions contain all of the limitations inherent in these methodologies which are referred to in the protocol and some of which are more specifically set forth below.

No other warranties are implied or expressed.

LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

Along with all the limitations set forth in various sections of the protocol, the accuracy and completeness of this report is necessarily limited by the following:

Chain Of Title

Chain of Title was not provided by the client for review by PSI. According to the Basewide Environmental Baseline Survey Richards-Gebaur Air Force Base, Missouri report, the property is known to have been owned by either the City of Kansas City, Missouri, or the U.S. Air Force since 1941.

Richards-Gebaur Memorial Airport Reports

There is a magnitude of information regarding the Richards-Gebaur Memorial Airport which exists at different governing agencies (i.e. Corps of Engineers, U.S. Air Force, U.S. EPA, MDNR, and the City of Kansas City, Missouri). This report is limited to the information made available at the time of this assessment.

Specific boundaries of the subject site (Site C) were not provided by the Aviation Department to PSI.

UNIDENTIFIABLE CONDITIONS

There is a possibility that even with proper application of these methodologies, there may exist on the subject site conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. PSI believes that the information obtained from the records review and the interviews concerning the site is reliable. However, PSI cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete.

The methodologies of this assessment are not intended to produce all inclusive or comprehensive results, but rather to provide the client with information regarding apparent suspicions of existing and potential adverse environmental conditions relating to the subject property.

USE BY THIRD PARTIES

This report was prepared pursuant to the contract PSI has with the City of Kansas City, Missouri. That contractual relationship included an exchange of information about the subject site that was unique and between PSI and its client and serves as the basis upon which this report was prepared. Because of the importance of the communication between PSI and its client, reliance or any use of this report by anyone other than the City of Kansas City, Missouri, for whom it was prepared, is prohibited and therefore not foreseeable to PSI.

Reliance or use by any such third party without explicit authorization in the report does not make said third party a third party beneficiary to PSI's contract with the City of Kansas City, Missouri.

Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

SITE DESCRIPTION

LOCATION

The subject site is located on the Richards-Gebaur Memorial Airport, in Kansas City, Jackson County, Missouri. The 55-acre tract is located south of Highway 150, west and north of Andrews Road and east of the east/west airport runway.

LEGAL DESCRIPTION

A copy of the legal description for the Richards-Gebaur Memorial Airport was provided to PSI by Mr. Wilmsmeyer. A copy of the document is included in Appendix B.

VICINITY CHARACTERISTICS

The subject site is located on the Richards-Gebaur Memorial Airport. The adjacent property to the north, across Highway 150, is wooded land. The adjacent property to the east and west is vacant grass land. Located west of the subject site is the east/west airport runway. Adjacent to the south across Andrews Road lies vacant grass land used as agriculture, the Small Arms Range, the Skeet Range, and the Northeast Landfill.

SUBJECT SITE DESCRIPTION

The subject site consists of undeveloped vacant grass land used for agriculture. The property size as defined by Mr. Wilmsmeyer is approximately 1,500' by 2,000' in size.

Utilities

The subject site is currently vacant with no active buildings or utilities being utilized on the site.

SUBJECT SITE USE

Current Use

The subject site is currently unoccupied.

Past Use

To the extent that indications of past uses of the site were visually or physically observed on the site visit, or were identified in the interviews or record review, they are identified below and described if they are likely to have involved the use, treatment, storage, disposal or generation of hazardous substances or petroleum products.

Review of aerial photographs revealed that the subject site appeared similar to current conditions since 1967. A soil excavation near the north central portion of the site was identified in the 1995 aerial and during the on-site reconnaissance.

ADJOINING PROPERTY USE

Current Use

The current use of adjoining properties was observed from the subject site as follows:

North - North of the subject site is Highway 150 across which is undeveloped wooded land.

East - East of the subject site is vacant grass land used for agriculture. Farther east is Andrews Road and the St. Louis-San Francisco Railroad.

South - South of the subject site is Andrews Road across which is vacant grass land used for agriculture. Farther south is the Small Arms Range, the Skeet Range, and the Northeast Landfill.

West - West of the subject site is vacant grass land used for agriculture. Also located adjacent to the west is the airport's east/west runway.

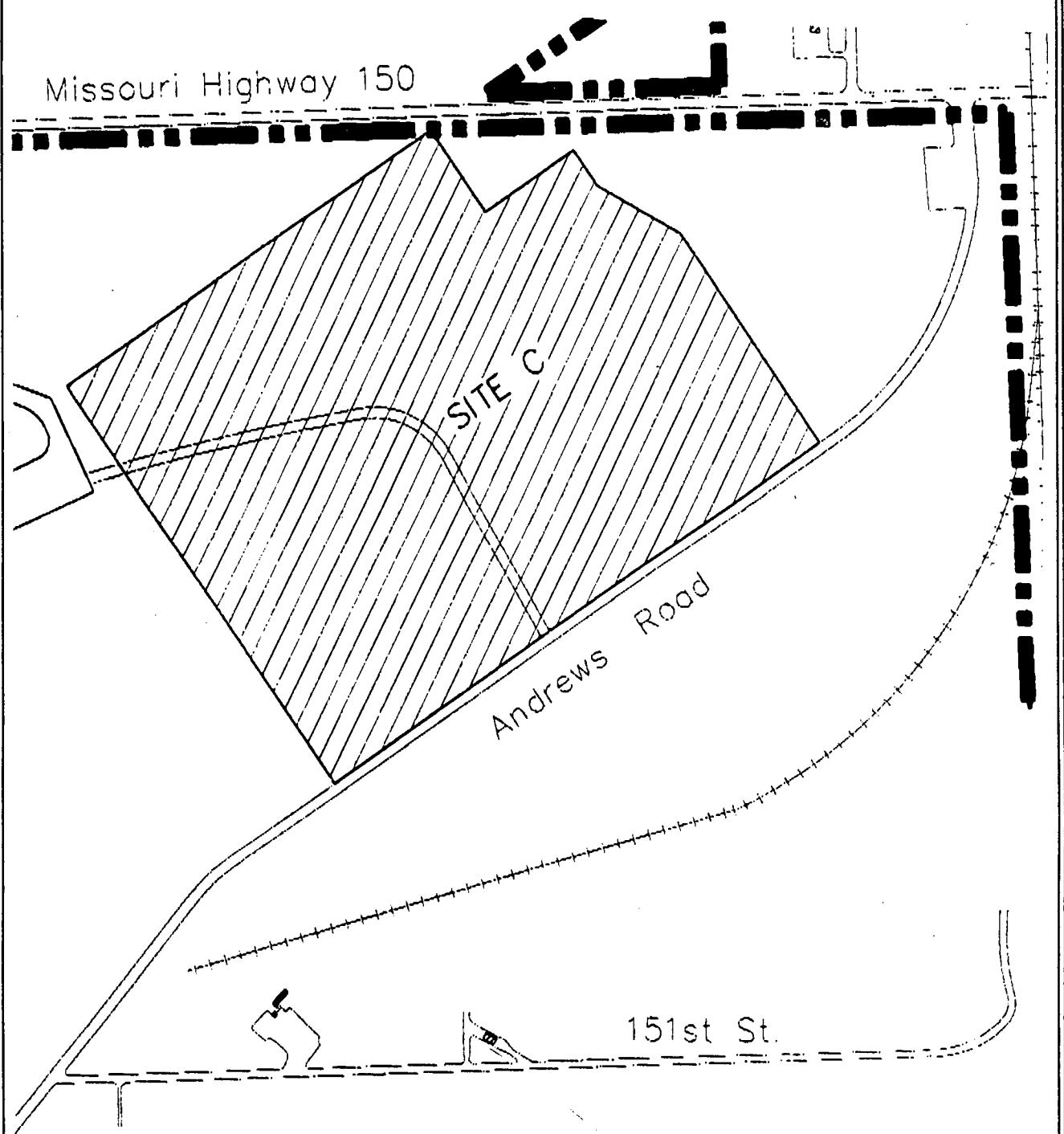
Past Use

To the extent that indications of past uses of the adjoining sites were visually or physically observed on the site visit, or were identified in the interviews or record review, they are identified below and described if they are likely to have involved the use, treatment, storage, disposal or generation of hazardous substances or petroleum products.

No past usage of adjoining sites could be determined from visual observations.

SITE MAP

A Client provided Site Map is included on the following page.



Site Name: Site C (55-Acres)
Richards-Gebaur Memorial Airport
Kansas City, Missouri

CLIENT PROVIDED MAP

No Scale

Project No.: 5985E132

Date: 11/95

RECORDS REVIEW

STANDARD FEDERAL AND STATE ENVIRONMENTAL RECORD SOURCES

Information from standard federal and state environmental record sources is provided through Environmental Data Resources, Inc. (EDR). The EDR reports were provided to PSI for use and inclusion in this report. Regulatory information from the following sources regarding possible recognized environmental conditions within the noted distance from the subject site was reviewed. Refer to Appendix C for a complete listing.

Federal

<u>List</u>	<u>Approximate Search Distance, Miles</u>
Federal NPL List	1.0
Federal CERCLIS List	0.5
Federal RCRA TSD Facilities List	1.0
Federal RCRA Generators List	Site and adjoining properties
Federal ERNS List	Site only

State

<u>List</u>	<u>Approximate Search Distance, Miles</u>
Missouri State SCL List	1.0
Missouri State SWLF List	0.5
Missouri State LUST List	0.5
Missouri State UST List	Property and adjoining properties

FINDINGS FROM LISTS

Federal NPL Listing

The National Priorities (Superfund) List is the EPA database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund Program.

No NPL sites were listed within one mile of the subject site.

Federal CERCLIS Listing

This list is a compilation of sites which the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances.

The Richards-Gebaur Air Force Base is listed as a CERCLIS site. No additional information was obtainable from EDR.

Federal RCRA TSD Facilities Listing

The EPA Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA TSD database is a compilation by the EPA of reporting facilities that transport, treat, store or dispose of hazardous waste.

No RCRA TSD facilities were listed within one mile of the subject site.

Federal RCRA Generators Listing

The EPA Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Generators database is a compilation by the EPA of reporting facilities that generate hazardous waste.

No RCRA generators were listed on or adjacent to the subject site.

Federal Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil or hazardous substances.

No ERNS listings were reported for the subject site.

State Contaminated Sites Listings

The State of Missouri Department of Natural Resources (MDNR) maintains a listing of identified contaminated sites in the State of Missouri.

No SPL sites were listed within one mile of the subject site.

Solid Waste Landfill Listings

The MDNR maintains a directory of Sanitary Landfills and Refuse Collectors in the State of Missouri.

No Sanitary Landfills or Refuse Collector facilities were listed for Richards-Gebaur Memorial Airport.

Registered Underground Storage Tanks

The MDNR maintains a listing of registered USTs in the State of Missouri. Two UST facilities were listed without street addresses.

Richards-Gebaur Airport
No Street Address
Kansas City, MO
Facility ID: UT0012634
Total Tanks: 1
Status: Permanently Closed In Place
Capacity: 2,000
Substance: Diesel

Richards-Gebaur Airport
No Street Address
Kansas City, MO
Facility ID: UT0012623
Total Tanks: 6
Status: All Permanently Closed In Place
Capacity: 4 x 3,000-gallons, 1 x 4,000-gallon, and 1 x 500-gallon
Substance: Five contained gasoline and one contained used oil
Note: According to Mr. Malecki, this site is the former gasoline station. Mr. Malecki's records indicate that the site and tanks were removed in 1988. The site is currently the location of a new USMC Building. With the above information, this facility would be located approximately 2,600 feet southwest of the subject site. With this distance and surface topography the USTs would not likely affect the subject site. Surface topography appears to slope in a northeasterly direction into Scope Creek which flows east away from the subject site.

Leaking Underground Storage Tanks

The MDNR maintains a listing of reported leaking USTs (LUSTs) in the State of Missouri.

One LUST facility was identified within the compounds of the Richards-Gebaur Memorial Airport. However, the LUST facility was identified greater than one-half mile south of the subject site.

ADDITIONAL LOCAL RECORDS

The following additional local records were reviewed, and the findings are presented below.

Fire Department

The Richards-Gebaur Memorial Airport Fire Department was contacted for information on environmental incidents or reported USTs at the subject site. According to Mr. Matney, the Fire Department Captain, no known on-site USTs exist or responses to the subject site have occurred.

PHYSICAL SETTING SOURCES

Topographic Map Review

The USGS Belton, Missouri-Kansas Quadrangle, 7.5 minute topographic map was reviewed for this ESA. According to the contour lines on the topographic map, the subject site ranges in elevations from approximately 1000 to 1040 feet above Mean Sea Level. The contour lines in the area of the subject site indicate that the majority of the property slopes down towards the southeast. No building improvements, streams or roadways were observed on the subject site.

Soil Conservation Service Map

The USDA, Soil Conservation Service, Soil Survey of Jackson County, Missouri, was reviewed for this ESA. According to this survey the soils located on the northwestern and southeastern areas of the subject site are classified as Macksburg silt loam complex with 2 to 5 percent slopes. The central area of the subject site are classified as Greenton silty clay loam complex with 5 to 9 percent slopes. The southwest area of the subject site are classified as Sampsel silty clay loam complex with 5 to 9 percent slopes.

The Macksburg silt loam complex is gently sloping, somewhat poorly drained soil which is on moderately wide to wide ridgetops. Permeability is moderately slow and surface runoff is slow. Available water capacity is high and organic matter content is moderate. A seasonal high water table is at a depth of 2 to 4 feet. The shrink-swell potential is high in the subsoil.

The Greenton silty clay loam complex is deep, moderately sloping, somewhat poorly drained soil which is on upland side slopes. This soil commonly is below areas that usually have outcrops of limestone. Permeability is slow and surface runoff from cultivated areas is medium. Available water capacity is high with a seasonal high water table at a depth of 1 foot to 3 feet. The shrink-swell potential is high in the subsoil.

The Sampsel silty clay loam complex is moderately sloping, poorly drained soil and is located on slightly concave side slopes and foot slopes along drainageways. Permeability is slow and surface runoff is medium. The available water capacity is moderate. A seasonal high water table ranges from near the surface to a depth of 1.5 feet. The shrink-swell potential is moderate in the surface soil and high in the subsoil.

Flood Insurance Rate Map

The US Department of Housing, Federal Insurance Administration, National Flood Insurance Program, Flood Insurance Rate Map of the City of Kansas City, Missouri (Community Panel Number 290173 0140 B) was reviewed for this assessment. According to the map, the subject site is located within Zone C. Zone C is located within an area of minimal flooding.

CLIENT PROVIDED INFORMATION

The following information provided to PSI includes data for the entire Richards-Gebaur Memorial Airport. No specific details or information regarding the subject site were identified, however, adjacent property concerns and pertinent information are listed below.

Mr. Wilmsmeyer provided to PSI a copy of the Department of the Air Force, Basewide Environmental Baseline Survey Richards-Gebaur Air Force Base, Missouri, report dated December 1993. PSI has reviewed this document and included excerpts from the report into the body of this report. The following information was obtained from the report.

- There are no active landfills at Richards-Gebaur AFB, and no known historical landfills (page S-4).
- Drainage Patterns. The airfield and on-base storm drainage facilities consist of a combination of open channels and closed drainage systems. All base stormwater drains into Scope Creek, which flows into the Little Blue River (page 3-7).
- A No Further Action With Deed Restriction Decision Document was filed for Site FT-002 in 1990, but it was rejected by MDNR and U.S. EPA. A 1992 RI detected no groundwater contamination, and no further action for groundwater is recommended at FT-002 (page 3-13). A remedial investigation for soils is in progress at FT-002. The AST at the Fire Training Area has been identified, but not confirmed, as a possible source of contamination at IRP Site FT-002 (page 3-15).
- IRP Site FT-002 (also known as the North Burn Pit) is known or suspected of disposing of materials consisting of waste oils, solvents, and fuels. The site was in operation from 1965 until 1988 (Table 3-2).
- Facility 1033 located on IRP Site FT-002 is listed as having a 5,000-gallon aboveground storage tank containing Waste JP-4. The tank was in operation from 1961 and was removed (Table 3-3).
- Building 1033 is listed as having two oil/water separator systems. A 425-gallon and 565-gallon systems were in operation from 1972 until 1989. The 425-gallon system was closed in place and the 565-gallon system was removed.
- Building 1033 is listed as a Hazardous Waste Generator. JP-4, engine oil and solvents were documented from 1969 until 1982 generating 25,000 gallons/year. JP-4 was also documented from 1983 until 1988 generating 5,520 gallons/year (Table F-1).
- West Burn Pit located west of the Richards-Gebaur Airport runway is a CERCLIS Site. The site was used from 1954 to 1955 for fire training. Waste oils, solvents, and fuels were deposited in an open pit and burned. The site was classified No Further Action on 12/18/89.
- The Northeast landfill located east of the Small Arms Range is listed as a Formerly Used Defense Site and was used for the disposal of miscellaneous wastes including building rubble, yard debris and wastes from some industrial shop area. The wastes

were typically burned and buried in trenches. Dates of operation were 1961 through 1972. Current Status: Records Search and Site Inspection.

- There are no grenade or skeet ranges at Richards-Gebaur AFB. Facilities 1049 and 1050 comprise the Small Arms Range. This range will be cleared of unexploded ordnance. The Small Arms Range was studied in a Phase II project (Firing Range Site Phase II, 1993). The report concluded that lead levels in site soils are above background levels but below levels requiring remedial action. Facilities 1049 and 1050 have not been surveyed for unexploded ordnance, and are therefore considered Category 7 (page 3-18).
- Prior to 1941, the Richards-Gebaur Air Force Base property consisted of farmland.

Mr. Dennis Wilmsmeyer provided to PSI a copy of the U.S. Army Corps of Engineers, CDM Federal Programs Corporation (Project Number 6107-ODB, dated August 1995) report. PSI has reviewed this document and included excerpts from the report into the body of this report. The following information was obtained from the CDM report.

- CDM Federal Programs Corporation (CDM Federal) has been tasked with conducting a field investigation of potential contamination associated with waste disposal at Formerly Used Defense (FUD) Sites associated with operations of the USAF at the former Richards Gebaur Air Force Base in Belton, Missouri. CDM Federal has conducted a records review and evaluation, performed a visual site inspection, and prepared a Work Plan and a Site Health and Safety Plan for Richards Gebaur in accordance with the Scope of Work dated September 8, 1994 (page 2-1).
- The Northeast Landfill area is listed as a Formerly Used Defense Site (FUDS) (page 2-13).
- The Northeast Landfill is located in the Northeastern Quadrant of the Airport facility between Andrews Road and 155th Street. The area is bounded on the north by an abandoned spur of the St. Louis - San Francisco Railroad, on the east by the St. Louis - San Francisco Rail Line, on the south by Scope Creek, and on the west by a drainage swale just east of the Trap and Skeet Range. This site was used as a demolition and industrial waste landfill between 1961 and 1972. The eastern half of the Northeast Landfill was used for waste storage. Empty drums, fuel tanks, mower and maintenance parts, and some demolition debris were observed during a site visit conducted by CDM Federal in October 1994. The west half of the landfill was a trench and fill operation. Waste paints, thinners, strippers, oils, and fuels were reportedly poured into the trenches along with shop waste and demolition debris from base operations and burned for disposal (pages 2-18 through 2-19).
- Five monitoring wells were installed by E & E, Inc., during a 1986 investigation. Soil and groundwater samples collected and analyzed revealed that fluoride, chloride, nitrate, bromide, and sulfate, were reported above detectable limits.

Sulfate was reported at 280 mg/L which exceeds the EPA secondary drinking water standard of 250 mg/L. Total dissolved solid values for the monitoring wells ranged from 380 to 940 mg/L which is up to two times greater than the background range (250 to 470 mg/L). One of E & E's soil samples contained petroleum hydrocarbons at 440 mg/kg (pages 2-19 through 2-20).

Mr. Mark Esch provided to PSI a copy of Burns and McDonnell Engineering, Final Report for the Contract No: F23608-91-D0020-5016 RG 93-0024, Firing Range Site Phase II, Richards-Gebaur Air Force Base Missouri, dated August 1993. PSI has reviewed this document and included excerpts from the report into the body of this report. The following information was obtained from the report.

- Section 1.1 Scope of Work. The objective of this report is to present the results of the remedial investigation and provide a feasibility study detailing possible remediation and the cost of any remediation options at the Site (page 1).
- Section 1.3 Site History. The Site is a moderately sized firing range currently used for small arms practice and is thought to have been a building in the 1950's. Modifications to the original construction were made in 1988 (page 1).
- Section 2.1.1 Site Activities Scope. Field activities conducted at the Site included collecting subsurface soil samples from the soil berm, surface soil samples from the firing range and area behind the berm, and surface water/sediment samples from the Site's storm water drainage system and drainage ditch to the west and south of the Site. All samples collected were analyzed for copper, lead, and zinc-contaminants commonly found at firing ranges (page 4).
- Section 6.1 Because of physical characteristics, the potential for Site contaminant migration of lead, copper, and zinc through the air and groundwater pathways is low. Review of Site data suggests that limited migration of lead and zinc in surface water may be occurring. However, the rate of migration is low and is apparently not impacting sediment or surface water at off-site locations (page 37).
- Section 7.2.1 Data Collection and Evaluation. Copper, lead, and zinc were detected at varying concentrations in most of the samples. Only lead appears to significantly exceed typical levels commonly found in soils compared to the mean values for Missouri agricultural soils (page 42).
- Section 7.7 Summary. This baseline risk assessment was conducted to determine the risk being posed by chemicals detected in soils, sediment, and surface water at the firing range at RGAFB. The potential for risk was then conservatively evaluated assuming a future residential land use, even though the most likely land use is industrial. An exposure scenario was developed to evaluate ingestion of surface soil by a child, in order to assess a reasonable maximum exposure. Risk to a future child resident was determined to be below levels of concern. Since the child resident scenario is considered the most conservative approach, the Site is very unlikely to pose a health risk under any other use situation (page 55).

- Section 8.1 Conclusion. Concentrations of lead in many of the soil samples exceeded the range that is considered normal for soils in Jackson and Cass Counties (page 57).
- Section 8.2 Recommendations. The concentrations of lead, copper, and zinc at the Firing Range Site are below levels of concern and do not require any remedial action. However, the levels of lead detected on the site are apparently elevated above background levels. The highest concentrations of lead were encountered in soils behind the impact berm. Lead contamination detected in this area is primarily due to over shot from a nearby skeet range not associated with the RGAFB. Therefore, the contamination in the area behind the berm could continue to increase in the future if the skeet range remains in operation. (page 57).

Mr. Mark Esch provided to PSI a copy of Burns and McDonnell Engineering, Supplemental Work Plan for the IRP Remedial Investigation, FT002, North Burn Pit, Richards-Gebaur Air Force Base Missouri, dated October 1991. PSI has reviewed this document and included excerpts from the report into the body of this report. The following information was obtained from the report.

- Included in this Work Plan are a Field Work Plan, a Sampling and Analysis Plan, a Quality Assurance Project Plan, and a Site Health and Safety Plan.
- The North Burn Pit site was used for fire protection training by the Base Fire Department from 1965 until 1988. During the first four years of operation, waste oils, fuels, and solvents were stored near and burned in an unlined pit. In 1969, the fire training area was upgraded to a concrete-lined pit which drained through an oil-water separator. After the pit was upgraded, jet fuel (JP-4) was the only flammable liquid burned during fire training exercises. In 1988, the fire training area and oil-water separator were deactivated and training exercises were discontinued.
- The data provided from samples obtained during the Remedial Investigation indicate that lead and petroleum hydrocarbons are present in the soil and that lead, chromium, and possibly bis (2-ethylhexyl) phthalate are present in the groundwater.

Mr. Mark Esch provided to PSI a copy of O'Brien & Gere Engineers, Inc., Remedial Investigation for the FT-002 - North Burn Pit, SS003 - Oil Saturated Area, SS004 - Hazardous Waste Drum Storage, and ST005 - POL Storage Yard, Richards-Gebaur Air Force Base Missouri, dated October 1991. PSI has reviewed this document and included excerpts from the report into the body of this report. The following information was obtained from the report.

- Low concentrations of lead and total petroleum hydrocarbons exist in the surface soil. Under current conditions, this site poses negligible risk to human health and the environment.
- The general horizontal groundwater flow direction in the vicinity of FT-002 is primarily towards the northeast.

- Groundwater results showed that no volatile compounds were detected, while a base/neutral compound, bis (2-ethylhexyl) phthalate was detected in three of the samples. However, this compound was determined to be a laboratory contaminant. Total lead and chromium concentrations from turbid unfiltered groundwater samples were found to exceed the National Drinking Water Standard.
- The Summary and Conclusions for FT-002 - North Burn Pit indicate that soils are contaminated with low concentrations of TPH's and lead. There is little potential for the significant migration of on-site chemicals via surface runoff, dust generation, volatilization, or leaching to groundwater. The baseline risk assessment indicates that, under current conditions, the site poses negligible risk to human health or the environment since access to the site is restricted, use of the site by human receptors is very infrequent, and the site does not provide a favorable habitat or feeding area for potential wildlife receptors.

Mr. Mark Esch provided to PSI a copy of Burns and McDonnell Engineering, Supplemental Remedial Investigation Report FINAL, for the IRP Remedial Investigation, FT002, North Burn Pit, Richards-Gebaur Air Force Base Missouri, dated April 1992. PSI has reviewed this document and included excerpts from the report into the body of this report. The following information was obtained from the report.

- Groundwater flow direction at the North Burn Pit appears to flow in a northeasterly direction.
- Conclusions and recommendations indicate that no contaminants of concern have been identified for the shallow groundwater at this site. Based upon the data obtained, the North Burn Pit does not appear to be a significant groundwater contamination source for the shallow groundwater system. No further action concerning the groundwater is recommended at the North Burn Pit - Site FT-002.

HISTORICAL USE INFORMATION

To obtain information regarding the past uses of the subject site and immediately adjacent properties, available historical data was researched.

AERIAL PHOTOGRAPH REVIEW

Available aerial photographs from 1995, 1980 and 1967 were obtained from the Kansas City, Missouri, City Hall, Mapping Department, and were reviewed for this ESA. Copies of the photographs are included in Appendix B.

Date: February 1995

Scale: 1" = 400'

Photo ID: Sheet 23-1

The subject site and most of the surrounding area appear to be developed similar to present conditions in this photograph. The subject site appears to be vacant undeveloped grass land used as agriculture. A paved access road leads across the subject site from Andrews Road to the east end of the airport runway. An unknown square pattern encompassing approximately 120,000 square feet is located on the north area of the subject site just south of Highway 150. The adjacent property to the north is a low-lying vegetative area which appears to drain surface water under Highway 150 across to the north which is wooded undeveloped land. Adjacent to the east is more agricultural land and Andrews Road. Adjacent to the south is Andrews Road across which is vacant agricultural land. Farther south is the Small Arms Range, the Skeet Range, and the Northeast Landfill. Adjacent to the west is agricultural land and the airport's east/west runway. Located adjacent to the northwest is the FT-002 Facility also known as the North Burn Pit.

Date: 1980

Scale: 1" = 400'

Photo ID: Sheet 22-1

The subject site and most of the nearby surrounding area appear to be developed similar to present conditions in this photograph. The access road from Andrews Road to the runway does not appear to be paved.

Date: 1967

Scale: 1" = 400'

Photo ID: Sheet 139

The subject site and the surrounding area appear to be developed similar to present conditions in this photograph. The access road from Andrews Road appears to extend to the central portion of the site and does not appear to connect to the runway. A dark

area located north, east and west of the FT-002 (North Burn Pit) site is evident. The dark area appears to be a burned area or spill which leads north to Highway 150.

CITY DIRECTORY

Available City Directories for the Kansas City, Missouri, Harrisonville, Missouri, Belton, Missouri, and Grandview, Missouri areas were reviewed at the Kansas City, Missouri, Public Library. No listings for Richards-Gebaur Memorial Airport, Richards-Gebaur Air-Force Base, or Andrews Road, were identified in any of the directories reviewed.

RECONNAISSANCE AND INTERVIEWS

Where possible, photographs were taken during the reconnaissance to document the features observed and recognized environmental conditions. The photographic locations are shown on the site sketch included in the report section "Site Description". Interviews were conducted with persons as noted in the following table. Photographs and records of communication from interviews are included in the Appendix.

INTERVIEWS

Interviews were conducted with the following:

NAME	FUNCTION	EMPLOYER	DATE	PHONE
Mr. John McLendon	Key Site Manager	City of Kansas City, Missouri, Aviation Department	11/06/95	(816) 322- 0001
Mr. Dennis Wilmsmeyer	Airport Planner	City of Kansas City, Missouri, Aviation Department	11/06/95	(816) 243- 3044
Captain Matney	Fire Department	Richards-Gebaur Memorial Airport Fire Department	11/16/95	(816) 331- 8529
Mr. Mark Esch	Environmental Coordinator	U.S. Air Force Base Conversion Agency	10/10/95	(816) 348- 2511

ON-SITE RECONNAISSANCE

On-site visual reconnaissance of the subject site and improvements for indications of recognized environmental conditions was conducted on November 6, 1995, by Richard N. Leines, Environmental Project Manager for PSI.

Reconnaissance consisted of systematically walking the perimeter boundary of the site and crossing the interior to provide an overlapping field of view. The adjacent sites were not entered. Where possible, photographs were taken to document the features observed during the reconnaissance and environmental conditions of concern and the photographs are included in Appendix E.

A copy of the author's credentials may be found in Appendix F.

Drums, Containers and Storage Tanks

The on-site reconnaissance addressed containers, drums, above ground storage tanks, and other storage units containing materials which may pose an environmental threat.

Located on the northwest area of the subject site near the low-lying drainage area were four empty 55-gallon drums. No labels were identified on the discarded drums. No stressed vegetation or stained soils were observed around the drums.

Located on the west area of the subject site near the runway was one empty 55-gallon drum. The discarded drum was labeled to previously contain "034723 Soy Oil 335.5#". No stressed vegetation or stained soils were observed around the drum.

Evidence of Waste Disposal

The on-site reconnaissance addressed dumps, pits, ponds, landfills, borrow pits, and lagoons which may have been used for disposal purposes.

No dumps, pits, ponds, landfills, borrow pits, or lagoons were observed on-site at the time of the reconnaissance.

Surface Fill

The on-site reconnaissance included observation for visible indications of fill soils.

No indications of fill soil were observed on the property, however, evidence of soil excavation was observed on the northern area of the subject site. The area appears to have been cleared of 3 to 6 feet of surface soils for future building development, however, no evidence of building materials or related equipment was observed.

Surface Staining and Stressed Vegetation

The on-site reconnaissance addressed indications of environmental conditions as evidenced by surface stains and/or stressed vegetation.

No evidence of surface staining or stressed vegetation was observed on the subject site at the time of the reconnaissance.

Transformers

The on-site reconnaissance also addressed indoor or outdoor transformers which may contain polychlorinated biphenyls (PCBs). No transformers were observed on the subject site.

Suspect Asbestos-Containing Building Materials (ACBM)

The on-site reconnaissance addressed suspect materials which may contain asbestos.

No suspect asbestos-containing materials were observed on the subject site at the time of the reconnaissance.

Air Stacks, Vents, and Odors

The on-site reconnaissance addressed air stacks, vents and strong, pungent or noxious odors.

No air stacks, vents, or odors were noticed at the time of the assessment.

Surface Drainage

The on-site reconnaissance addressed the apparent drainage to and from the subject site. Specific elements are as follows:

Excess surface water drainage on the north area of the subject site leads northwest into a low-lying area. This area then drains north under Highway 150. The excess surface water drainage for the remaining portion of the site generally leads towards the southeast. Storm drains allow surface water to flow under Andrews Road into an intermittent creek which eventually flows into Scope Creek.

Evidence of Underground Storage Tanks

None of the following indications of underground storage tanks (USTs) were found on the subject site.

- Pumps, pipes or vents
- Tank related manholes
- Tank related concrete pads or surface depressions

Conduits to Groundwater

No evidence of man-made conduits which lead to groundwater were observed on the subject site.

Evidence of Improper Waste Discharge

Pipes and/or vents, indicating improper release of waste discharge, were not found.

On-Site Environmental Management Practices

The on-site reconnaissance addressed the following environmental management practices.

Solid Waste

The subject site is currently unoccupied, therefore, no evidence of solid waste disposal was observed on the subject site.

Hazardous Waste

The subject site is currently unoccupied, therefore, no indications of hazardous waste generation, storage or disposal were observed on the subject site.

Treatment Facilities

No indications of wastewater disposal or treatment facilities were observed during the on-site reconnaissance.

Application of Pesticides, Herbicides or Fertilizers

No indications of the use of pesticides, herbicides or fertilizers was observed during the on-site reconnaissance and/or interviews. However, the subject site appears to be used for agriculture for which pesticides, herbicides and fertilizers may be utilized.

General Environmental Practices

No indications of adverse environmental practices were observed during the site reconnaissance, however, five empty 55-gallon drums were observed to be discarded on the northern and western areas of the subject site.

OFF-SITE RECONNAISSANCE

Off-site visual reconnaissance of adjacent properties from the subject site was conducted on November 13, 1995, by Richard N. Leines of PSI. The off-site reconnaissance was limited to areas and facilities that were readily accessible for visual observation, immediately adjacent to and visible from the subject site. The adjacent properties were not entered. Off-site visual reconnaissance addressed the same issues considered on-site. The adjacent properties were not entered.

ITEM	NOT OBSERVED	OBSERVED	DISCUSSED BELOW
Drums, Containers & Storage Tanks	X		
Dumps, Pits & Lagoons	X		
Surface Soil Staining or Stressed Vegetation	X		
Transformers	X		
Air Stacks, Vents & Odors	X		
Off-Site Drainage		X	X
Underground Storage Tanks	X		
Aboveground Storage Tanks		X	X
Shafts & Wells		X	X
Off-Site Environmental Management Practices	X		

Off-Site Drainage

The excess surface water drainage from the IRP Site FT-002 (North Burn Pit) may migrate onto the northwest portion of the subject site. Specific boundaries of Site C were not provided by the Aviation Department to PSI. The majority of surface water drainage from the FT-002 Site appears to flow towards the low-lying area north of the subject site.

Aboveground Storage Tanks

An aboveground storage tank was observed on the FT-002 Site. The tank contents, size or activities associated with the tank are not known. A perimeter chain-link fence hindered observations and access during the reconnaissance. According to Mr. Esch, no aboveground storage tanks are located at FT-002. The metal structure observed was a cut-up underground storage tank that simulated an aircraft fuselage during fire protection training exercises.

Shafts and Wells

Two monitoring wells were observed in the area of the FT-002 (North Burn Pit) Site. One monitoring well was observed within the chain-link fence and one located east of the fence.

FINDINGS AND CONCLUSIONS

PHASE I ESA

PSI has performed a Phase I ESA on the subject site in general conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report. This assessment has revealed evidence of recognized environmental conditions in connection with the site, including:

Located on the northwest area of the subject site near the low-lying drainage area were four empty 55-gallon drums. No labels were identified on the discarded drums. Also located on the west area of the subject site near the runway was one empty 55-gallon drum. The discarded drum was labeled to previously contain "034723 Soy Oil 335.5#". No stressed vegetation or stained soils were observed around the drums.

No indications of the use of pesticides, herbicides or fertilizers was observed during the on-site reconnaissance and/or interviews. However, the subject site appears to be used for agriculture for which pesticides, herbicides and fertilizers may be utilized.

The excess surface water drainage from the IRP Site FT-002 (North Burn Pit) may migrate onto the northwest portion of the subject site. A general Site Map of Site C was provided by the Aviation Department, however, specific boundaries were not indicated. The majority of surface water drainage from the FT-002 Site appears to flow northeast towards the low-lying area north of the subject site.

An aboveground storage tank was observed on the FT-002 Site. The tank contents, size or activities associated with the tank are not known. A perimeter chain-link fence hindered observations and access during the reconnaissance. Also, two monitoring wells were observed in the area of the FT-002 (North Burn Pit) Site. One monitoring well was observed within the chain-link fence and one located east of the fence. Specific boundaries of Site C were not provided by the Aviation Department to determine the proximity of the monitoring well to the subject site. According to Mr. Esch, no aboveground storage tanks are present at FT-002. The metal structure observed was used to simulate an aircraft fuselage during fire training exercises. Mr. Esch also indicated that five monitoring wells are located in this area. According to the Burns and McDonnell Engineering, Supplemental Remedial Investigation Report FINAL, for the IRP Remedial Investigation, FT002, North Burn Pit, Richards-Gebaur Air Force Base Missouri, dated April 1992, groundwater flow direction at the North Burn Pit appears to flow in a northeasterly direction. Also, the Conclusions and Recommendations indicate that no contaminants of concern have been identified for the shallow groundwater at this site. Based upon the data obtained, the North Burn Pit does not appear to be a significant groundwater contamination source for the shallow groundwater system. No further action concerning the groundwater is recommended at the North Burn Pit - Site FT-002.

RECOMMENDATIONS

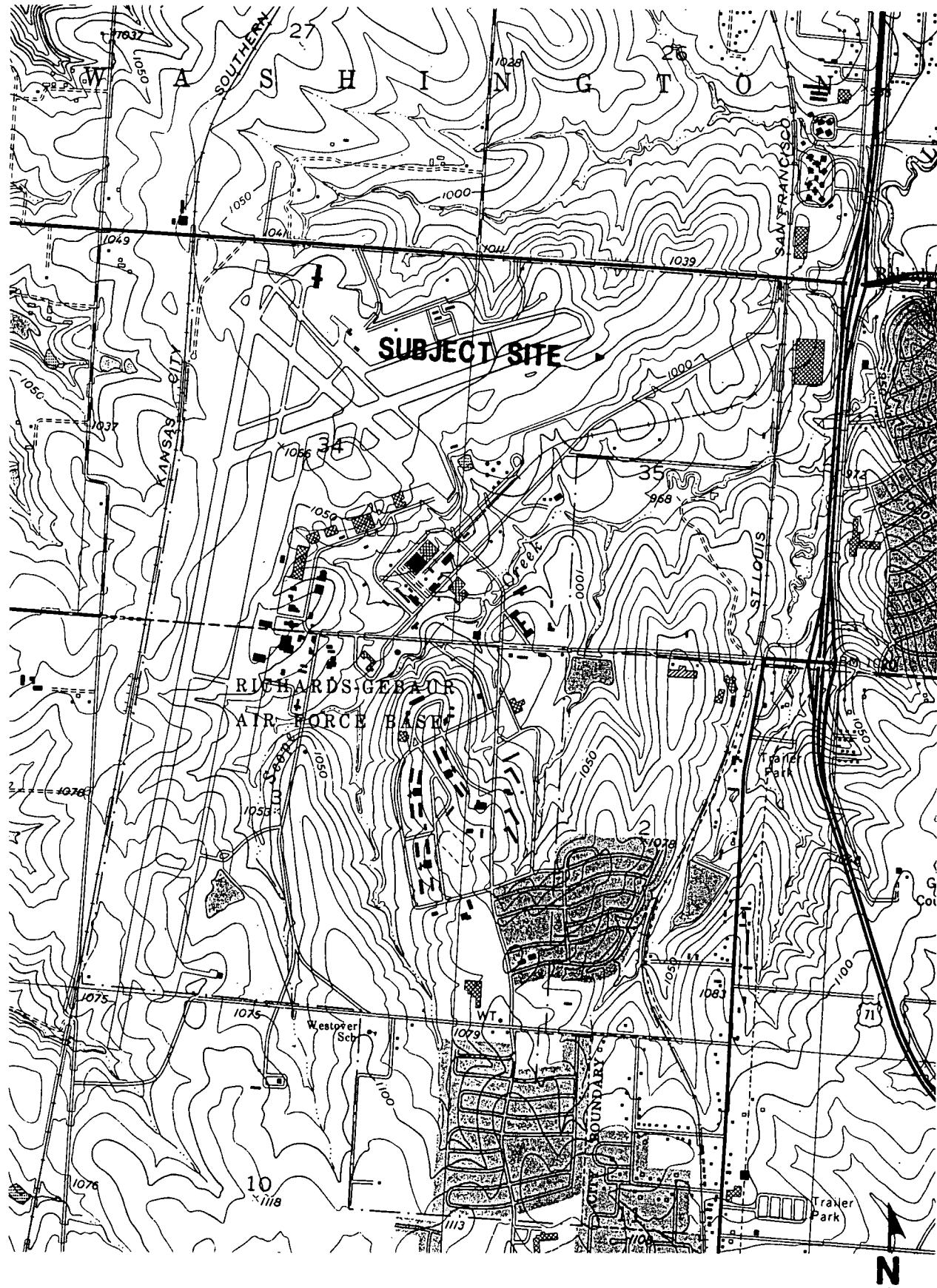
This assessment has not revealed evidence of potential subsurface contamination at the subject site.

APPENDIX

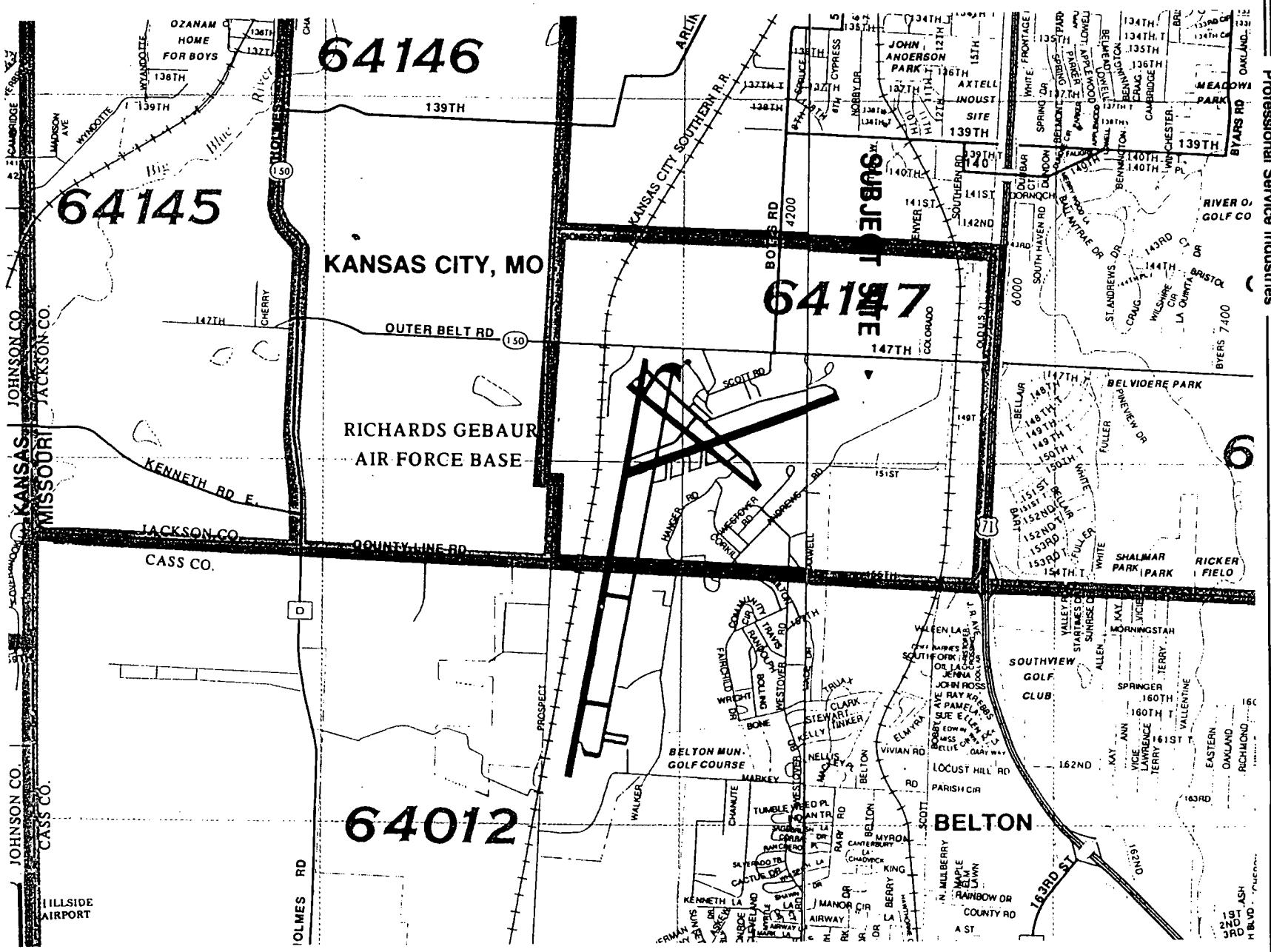
APPENDIX A

MAPS

Professional Service Industries



Site Name: Site C (55-Acres) Richards-Gebaur Memorial Airport Kansas City, Missouri	TOPOGRAPHIC MAP	Scale: 1" = 2,000'
	Project No.: 5985E132	Date: 11/95



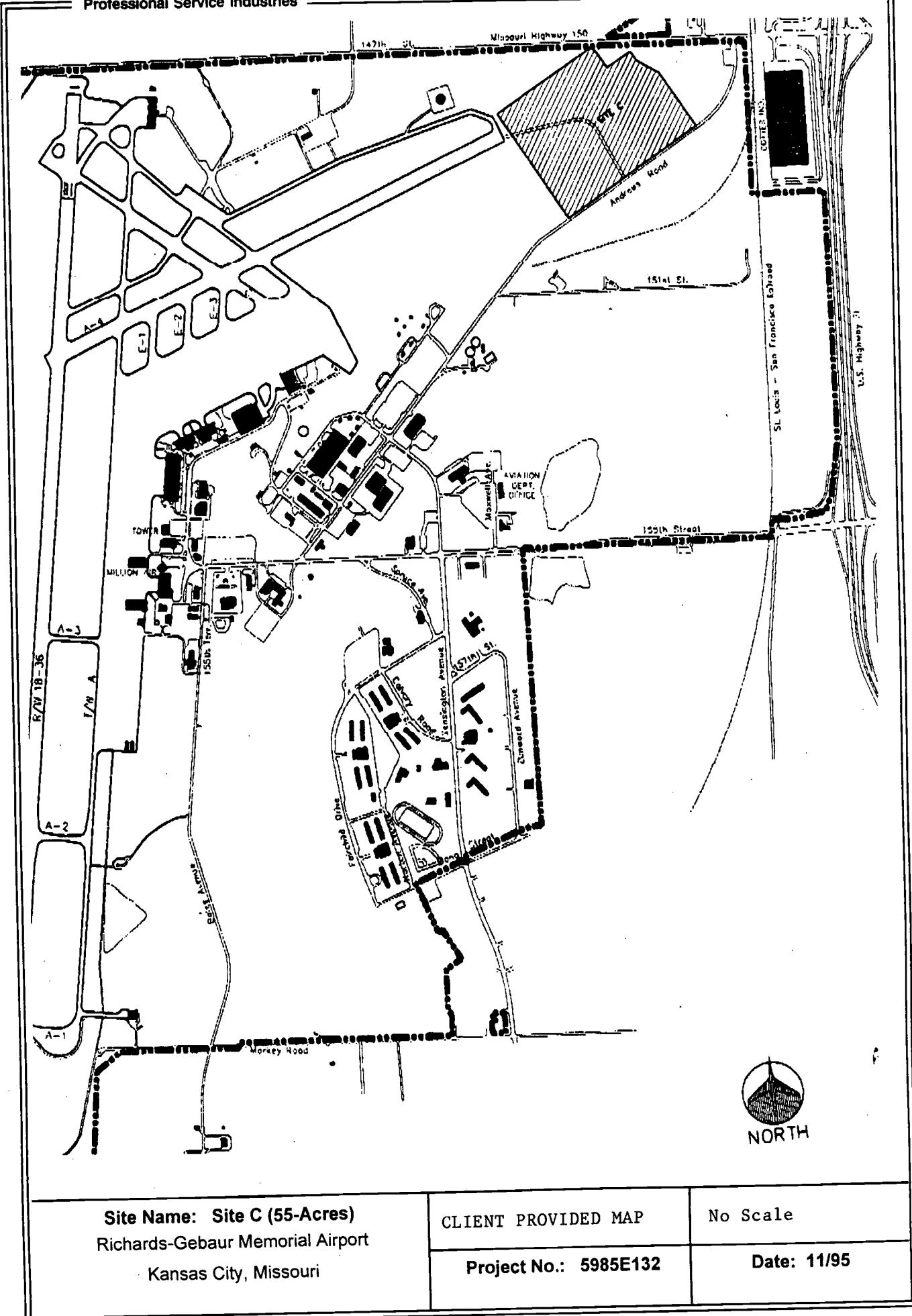
Site Name: Site C (55-Acres)	STREET MAP	Scale: 1.5"=1 mile
Richards-Gebaur Memorial Airport		

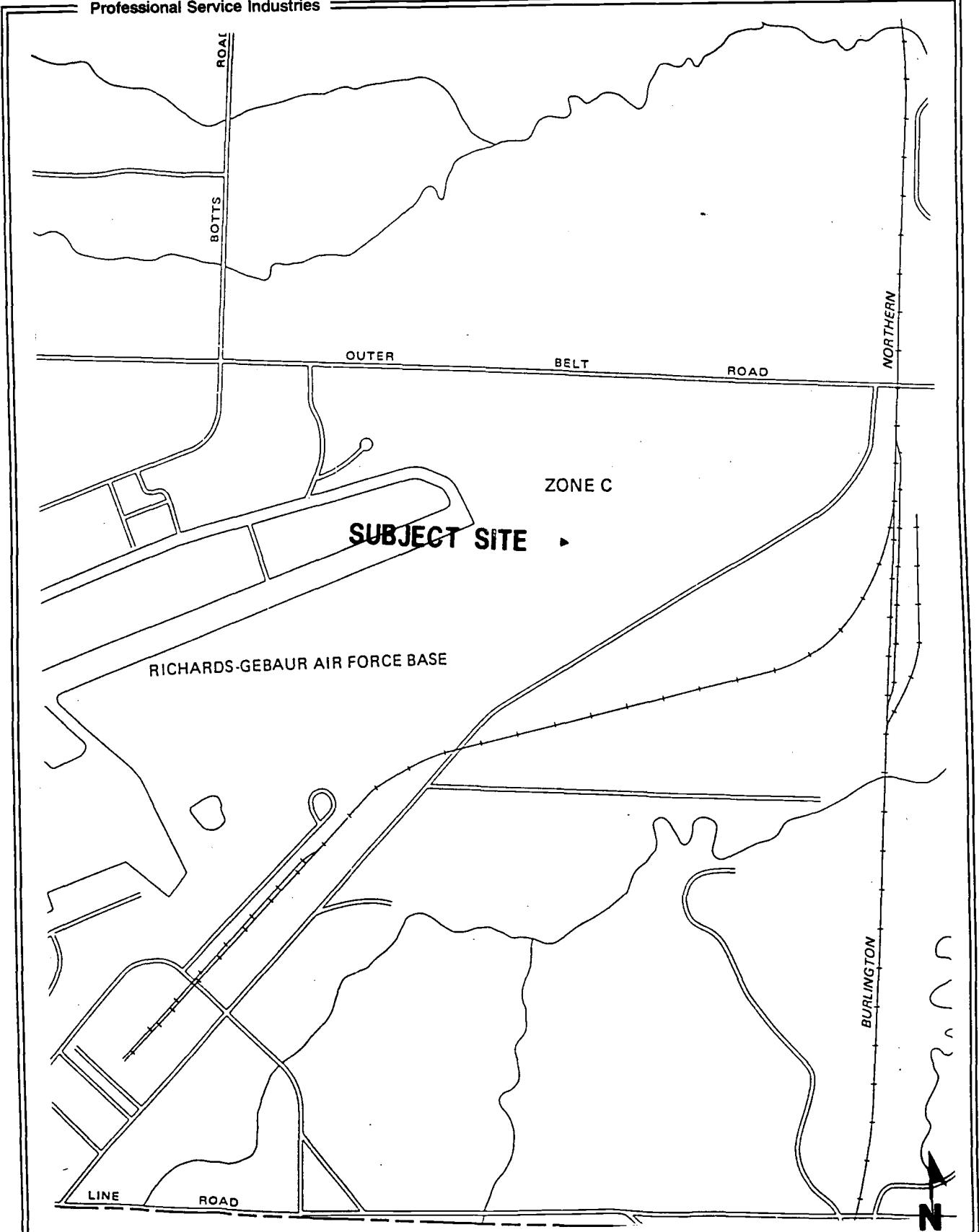
Kansas City, Missouri

Project No.: 5985E132

Date: 1/195

Professional Service Industries





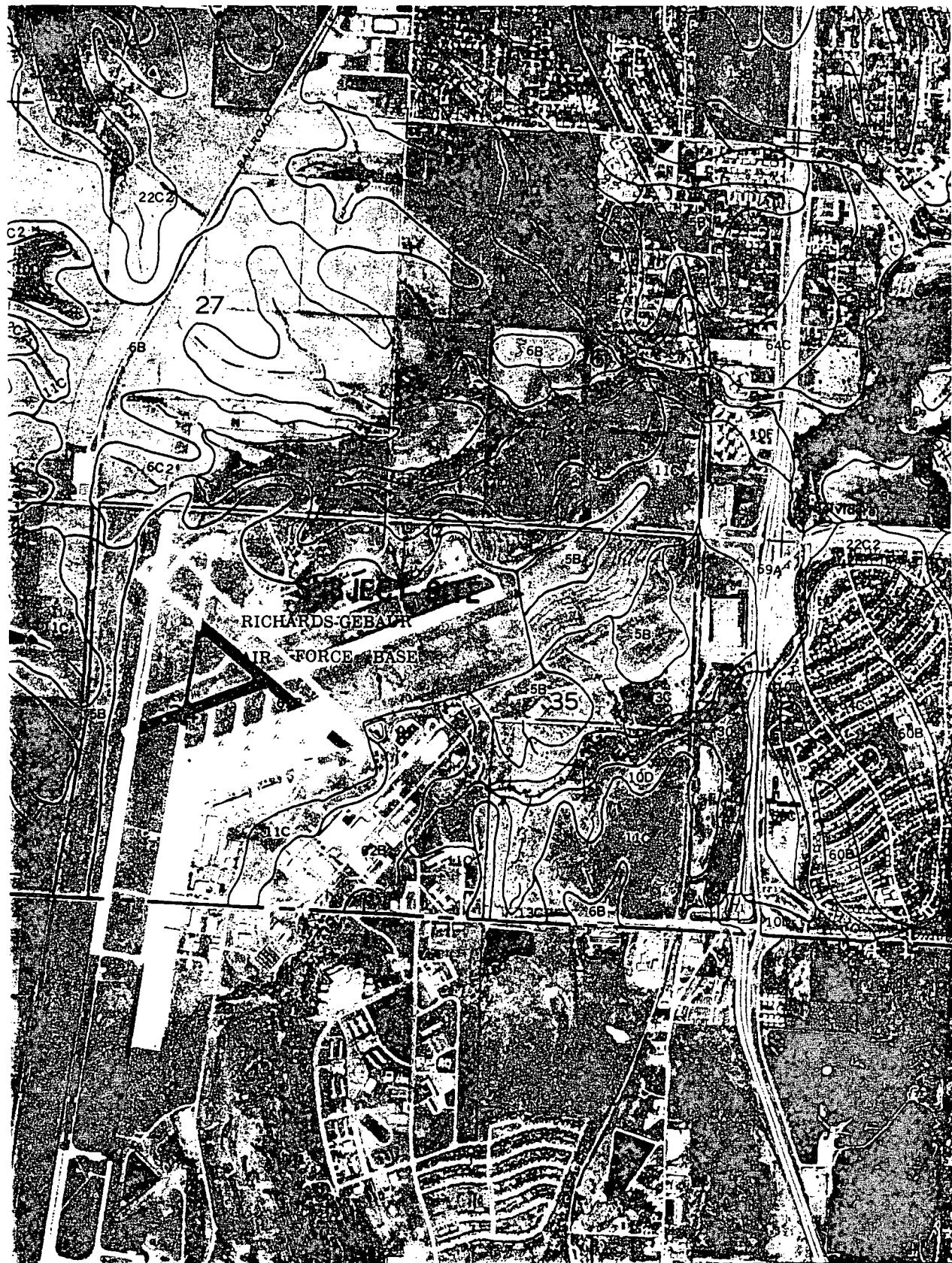
Site Name: Site C (55-Acres)
Richards-Gebaur Memorial Airport
Kansas City, Missouri

FLOOD MAP

No Scale

Project No.: 5985E132

Date: 11/95



Site Name: Site C (55-Acres) Richards-Gebaur Memorial Airport Kansas City, Missouri	SOILS MAP	Scale: 1" = 2,000'
	Project No.: 5985E132	Date: 11/95

regular addition of other organic material helps to improve fertility, reduce crusting, and increase water infiltration.

The use of this soil for pasture or hay is also an effective means of controlling erosion. The soil is best suited to shallow-rooted legumes and cool-season bunch grasses or to native warm-season grasses. Overgrazing or grazing when the soil is wet, however, causes surface compaction, excessive runoff, and poor tilth. Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods help to keep the pasture and soil in good condition.

This soil is suitable for building site development. Septic tank absorption fields generally are unsuitable because of wetness. Sewage lagoons function adequately if the area can be leveled and the lagoon sealed to prevent contamination of the ground water. As an alternative, the waste can be piped to a more suitable area. Concrete for footings, foundations, and basement walls of dwellings and small commercial buildings should be reinforced with steel and a backfill of sand and gravel placed around the foundation or basement wall to prevent damage caused by shrinking and swelling of the soil. Drainage tile installed at the base of the sand and gravel helps to prevent damage caused by excessive wetness around the foundation and basement walls and wet basements. Local roads and streets should be graded to shed water, and adequate side ditches and culverts should be installed to prevent damage caused by frost action, shrinking and swelling of the soil, and wetness. Adding crushed rock or other suitable material helps to prevent damage caused by low strength.

This Higginsville soil is in capability subclass IIIe.

5B—Macksburg silt loam, 2 to 5 percent slopes. This gently sloping, somewhat poorly drained soil is on moderately wide to wide ridgetops. Individual areas are irregular in shape and range from 5 to 100 acres.

Typically, the surface layer is black, friable silt loam about 10 inches thick. The subsurface layer is black, friable silty clay loam about 6 inches thick. The subsoil is about 38 inches thick. The upper part is dark grayish brown, mottled, firm silty clay loam, and the lower part is grayish brown, mottled, firm silty clay loam. The substratum to a depth of 60 inches is grayish brown, mottled, firm silty clay loam. In places the substratum is silty clay.

Included with this soil in mapping are small areas of Sharpsburg and Sibley soils. The moderately well drained Sharpsburg soils are on narrower ridgetops than the Macksburg soils. The well drained Sibley soils are adjacent to the Macksburg soils but on slightly higher positions. The included soils make up 5 to 10 percent of the map unit.

Permeability is moderately slow in this Macksburg soil, and surface runoff is slow. Reaction ranges from neutral to strongly acid in the surface layer. Natural fertility and



Figure 11.—Cattle grazing on bromegrass on Macksburg silt loam, 2 to 5 percent slopes.

available water capacity are high, and organic matter content is moderate. A seasonal high water table is at a depth of 2 to 4 feet. The surface layer is friable but has a narrow moisture range for tillage operations. It has a tendency to clod when tilled at a high moisture content. The shrink-swell potential is high in the subsoil.

Most areas of this soil are used for cultivated crops. This soil is well suited to corn, soybeans, small grains, and grasses and legumes for hay and pasture. If the soil is used for cultivated crops, erosion is a hazard. The use of minimum tillage and winter cover crops helps to prevent excessive soil loss. Returning crop residue or the regular addition of other organic material helps to improve fertility, reduce crusting, and increase water infiltration.

The use of this soil for pasture or hay is also an effective means of controlling erosion. The soil is best suited to shallow-rooted legumes and cool-season bunch grasses or to native warm-season grasses (fig. 11). Overgrazing or grazing when the soil is wet causes surface compaction, excessive runoff, and poor tilth. Proper stocking rates, pasture rotation, and restricted use during wet periods help to keep the pasture and soil in good condition.

This soil is suited to building site development and onsite waste disposal (fig. 12). Septic tanks generally are not suitable in this soil. Sewage lagoons should be sealed with slowly permeable material to prevent contamination of the ground water. Concrete for footings, foundations, and basement walls should be adequately reinforced with steel and a backfill of sand

and gravel placed around the foundation and basement walls to prevent damage caused by shrinking and swelling of the soil. Drainage tile installed at the base of the sand and gravel helps to prevent wet basements. Local roads and streets should be graded to shed water, and adequate side ditches and culverts should be installed to prevent damage caused by frost action and shrinking and swelling of the soil. Adding crushed rock or other suitable material helps to prevent damage caused by low strength.

This Macksburg soil is in capability subclass IIe.

6B—Sharpsburg silt loam, 2 to 5 percent slopes. This deep, gently sloping, moderately well drained soil is on convex ridgetops. Individual areas are long and narrow and range from 5 to 90 acres.

Typically, the surface layer is very dark grayish brown, friable silt loam about 6 inches thick. The subsurface layers are very dark grayish brown, friable silt loam and silty clay loam about 15 inches thick. The subsoil is about 26 inches thick. The upper part is dark brown, firm silty clay loam, and the lower part is dark brown and dark yellowish brown, mottled, firm silty clay loam. The substratum to a depth of about 60 inches is dark yellowish brown, mottled, firm silty clay loam. In places the dark soil in the upper part of the profile is more than 24 inches thick and grayish brown mottles are at a depth of more than 36 inches.

Included with this soil in mapping are small areas of somewhat poorly drained Macksburg soils and well drained Menfro soils. Macksburg soils are on broader ridgetops than Sharpsburg soils. Menfro soils are at the ends of ridges closer to the drainageways. The included soils make up about 5 percent of the map unit.

Permeability is moderately slow in this Sharpsburg soil, and surface runoff is medium. Reaction ranges from slightly acid to strongly acid in the surface layer. Natural fertility and available water capacity are high. The organic matter content is moderate. The surface layer is friable and easily tilled through a fairly wide range in moisture content. It does, however, have a tendency to crust or puddle after hard rains. The shrink-swell potential is moderate.

Most areas of this soil are used for cultivated crops. This soil is suited to corn, soybeans, small grains, and grasses and legumes for pasture and hay. If the soil is used for cultivated crops, erosion is a hazard. The use of minimum tillage, winter cover crops, and grassed waterways helps to prevent excessive soil loss. Most areas can be terraced and farmed on the contour. Returning crop residue or the regular addition of other organic material helps to improve fertility, reduce crusting, and increase water infiltration.

The use of this soil for pasture or hay is also an effective means of controlling erosion. This soil is suited to alfalfa and smooth bromegrass. Overgrazing or



Figure 12.—Urban encroachment on Macksburg silt loam, 2 to 5 percent slopes.

grazing when the soil is wet causes surface compaction, excessive runoff, and poor tilth. Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods help to keep the pasture and soil in good condition.

This soil is suited to building site development and onsite waste disposal. Septic tank filter fields need to be larger than those commonly constructed because of moderate permeability in the lower part of the subsoil. Sewage lagoons should be sealed with slowly permeable material to prevent seepage. Concrete for footings, foundations, and basement walls of dwellings and small commercial buildings should be reinforced with steel and a backfill of sand and gravel placed around the foundation and basement walls to help prevent damage caused by shrinking and swelling of the soil. Local roads and streets should be graded to shed water, and adequate side ditches and culverts should be installed to prevent damage caused by frost action and shrinking and swelling of the soil. Adding crushed rock or other suitable material helps to prevent damage caused by low strength.

This Sharpsburg soil is in capability subclass IIe.

6C2—Sharpsburg silt loam, 5 to 9 percent slopes, eroded. This moderately sloping, moderately well drained soil is on convex side slopes and narrow, convex ridgetops. Areas are irregular in shape and range from 5 to 60 acres.

Typically, the surface layer is very dark grayish brown, friable silt loam about 7 inches thick. The subsoil is

matter content is moderate. The available water capacity is low. The seasonal high water table is at a depth of 2 to 3 feet. The shrink-swell potential is high in the subsoil. Root development generally is restricted by shale bedrock below a depth of 20 to 40 inches.

Most areas of this complex are in trees or brush. The complex is not suited to cultivated crops, pasture, or hay. Because of the rocks and stones, cultivation is not practical, and the establishment of grasses and legumes would be very difficult.

This Snead soil is suited to trees, and most areas remain in native hardwoods. Restricted use of equipment, seedling mortality, windthrow, and plant competition are management concerns. Roads and skid trails should be placed on the contour. Planting special stock of larger size than usual or using container-grown stock may be necessary to achieve better survival rates. Lighter, less intensive but more frequent thinnings to reduce the stand density may be needed to lessen the damage from windthrow. Plant competition for seedlings can be reduced by careful and thorough site preparation, including spraying or cutting. Release treatments may be necessary to ensure development.

This Snead soil generally is unsuited to building site development and onsite waste disposal because of the high shrink-swell potential, stones in the soil, and depth to bedrock.

This Snead-Rock outcrop complex is in capability subclass VIIs.

10F—Snead-Rock outcrop complex, 14 to 30 percent slopes. This complex consists of moderately deep, moderately steep to steep, moderately well drained Snead soils on convex side slopes and narrow bands of limestone Rock outcrop. Individual areas range from 15 to 255 acres. This complex is about 60 to 70 percent Snead soil and 15 to 25 percent Rock outcrop. The Rock outcrop occurs in such narrow bands that it is not practical to separate it from the Snead soils in mapping.

Typically, the Snead soil has a surface layer of black, friable flaggy silty clay loam about 7 inches thick. The subsurface layer is very dark gray, firm flaggy silty clay loam about 5 inches thick. The subsoil is about 19 inches thick. The upper part is dark grayish brown, firm silty clay, and the lower part is olive gray, mottled, firm clay. The substratum to a depth of about 40 inches is olive, firm silty clay.

Included with this complex in mapping are small areas of Kennebec and Oska soils. The deep Kennebec soils are in small bottoms along the drainageways, and the well drained Oska soils are along the upper edge of the complex. The included soils make up about 5 to 10 percent of the map unit.

Permeability is slow in this Snead soil, and surface runoff is rapid. Reaction is slightly acid or neutral in the surface layer and ranges from neutral to moderately

alkaline in the subsoil. Natural fertility is low, and organic matter content is moderate. The available water capacity is low. The seasonal water table is at a depth of 2 to 3 feet. The shrink-swell potential is high in the subsoil.

Nearly all areas of this complex are in woodland. The complex is generally not suited to cultivated crops and pasture or hay because of the rocks and stones on the surface and in the soil.

This Snead soil is suited to trees, and most areas remain in native hardwoods. The hazard of erosion, restricted use of equipment, seedling mortality, windthrow, and plant competition are concerns in management. Special measures for the control of erosion are needed. Roads and skid trails should be carefully designed and constructed to minimize the steepness and length of slope and avoid the concentration of water. The steep slopes are a hazard for the safe use of equipment. Roads and skid trails should be placed on the contour. Seeding disturbed areas may be necessary after harvest. Direct seeding can be used or seedlings can be planted by hand. Planting special stock of larger size than usual or using container-grown stock may be needed to achieve better survival rates. Lighter, less intensive but more frequent thinnings to reduce the stand density may be necessary to lessen the damage from windthrow. Plant competition for seedlings can be reduced by careful and thorough site preparation, including spraying or cutting. Release treatments may be necessary to ensure development.

This Snead soil generally is unsuited to building site development and onsite waste disposal because of the high shrink-swell potential, stones in the soil, and depth to bedrock.

This Snead-Rock outcrop complex is in capability subclass VIIs.

11C—Greentown silty clay loam, 5 to 9 percent slopes. This deep, moderately sloping, somewhat poorly drained soil is on upland side slopes. This soil commonly is below areas that usually have outcrops of limestone. Individual areas are irregular in shape and range from 5 to 80 acres.

Typically, the surface layer is very dark brown, friable silty clay loam about 5 inches thick. The subsurface layer is also very dark brown, friable silty clay loam about 11 inches thick. The subsoil extends to a depth of 60 inches or more. The upper part is very dark grayish brown and dark grayish brown, mottled, firm silty clay loam; the middle part is dark grayish brown, mottled, firm silty clay; and the lower part is mixed dark grayish brown and grayish brown, firm silty clay. In places the combined surface and subsurface layers are less than 10 inches thick.

Included with this soil in mapping are small areas of Oska, Sampsel, and Sharpsburg soils. Oska soils are moderately deep. They are in narrow bands on the lower side slopes. Sampsel soils are grayer than Greentown

soils. They are in small drainageways and are at a lower elevation than Greentown soils. Sharpsburg soils are not so gray and have less clay in the subsoil. They are upslope from Greentown soils. The included soils make up 10 to 15 percent of the map unit.

Permeability is slow in this Greentown soil, and surface runoff from cultivated areas is medium. Reaction ranges from medium acid to neutral in the surface layer. The available water capacity is high. Natural fertility is high, and organic matter content is moderate. A seasonal high water table is at a depth of 1 foot to 3 feet. The surface layer is friable but has a narrow moisture range for tillage operations. It tends to become cloddy if plowed when wet, especially in areas where the plow layer contains subsoil material. The shrink-swell potential is high in the subsoil.

Most areas of this soil are used for cultivated crops. This soil is suited to corn, soybeans, small grains, and grasses and legumes for hay and pasture. If the soil is used for cultivated crops, erosion is a hazard. The use of minimum tillage, winter cover crops, and grassed waterways helps to prevent excessive soil loss. Most areas can be terraced and farmed on the contour. Returning crop residue or the regular addition of other organic material helps to improve fertility, reduce crusting, and increase water infiltration.

This soil is suited to pasture or hay. The use of the soil for pasture or hay is also an effective means of controlling erosion. This soil is best suited to shallow-rooted legumes and cool-season bunch grasses or to native warm-season grasses. Overgrazing or grazing when the soil is wet, however, causes surface compaction, excessive runoff, and poor tilth. Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods help to keep the pasture and soil in good condition.

This soil is suited to building site development and to onsite waste disposal. Septic tanks, however, generally are not suitable for this soil. Areas for sewage lagoons should be leveled by grading and the bottoms of the lagoons sealed to prevent contamination of the ground water. Concrete for footings, foundations, and basement walls for dwellings and small commercial buildings should be adequately reinforced with steel and a backfill of sand and gravel placed around the foundation and basement walls to prevent damage caused by shrinking and swelling of the soil. Drainage tile installed at the base of the sand and gravel helps to prevent wet basements. Unless small commerical buildings are designed to fit the slope, some land shaping usually is necessary. Local roads and streets should be graded to shed water, and adequate side ditches and culverts should be installed to prevent damage caused by frost action and shrinking and swelling of the soil. Adding crushed rock or other suitable material helps to prevent damage caused by low strength.

This Greentown soil is in capability subclass IIIe.

13B—Sampsel silty clay loam, 2 to 5 percent slopes. This gently sloping, poorly drained soil is on slightly concave foot slopes along drainageways. Individual areas are irregular in shape and range from 10 to about 150 acres.

Typically, the surface layer is black, firm silty clay loam about 7 inches thick. The subsoil extends to a depth of 60 inches or more. The upper part is very dark gray, firm silty clay; the middle part is dark grayish brown, mottled, firm silty clay; and the lower part is gray, mottled, firm silty clay.

Included with this soil in mapping are small areas of Greentown and Snead soils. The somewhat poorly drained Greentown soils are on side slopes at a higher elevation than Sampsel soils, and the moderately deep Snead soils are on side slopes along the upper edge of the unit. The included soils make up about 10 percent of the map unit.

Permeability is slow in this Sampsel soil, and surface runoff is medium. Reaction ranges from medium acid to moderately alkaline. Natural fertility is high, and organic matter content is moderate. The available water capacity is moderate. The seasonal high water table ranges from near the surface to a depth of 1.5 feet. The shrink-swell potential is moderate in the surface soil and high in the subsoil. The surface layer is firm and difficult to till. It has a narrow moisture range for tillage operations and tends to become cloddy if tilled when dry and compacted and cloddy if tilled when wet. In addition, this soil may have seepy areas that stay wet most of the year.

Most areas of this soil are used for cultivated crops. The soil is suited to corn, soybeans, and grain sorghums. If this soil is used for cultivated crops, erosion is a hazard and the surface soil may become compacted in seepy areas. The use of minimum tillage, winter cover crops, and grassed waterways helps to prevent erosion. Most areas can be farmed on the contour and are suitable for the construction of terraces. Returning crop residue or the regular addition of other organic material helps to improve fertility, reduce surface compaction, and increase water infiltration.

The use of this soil for pasture or hay is also an effective means of controlling erosion. The soil is best suited to shallow-rooted legumes and cool-season bunch grasses or to native warm-season grasses. Because of the natural wetness of this soil and the silty clay loam surface layer, careful management is needed to keep a good stand of grasses and legumes. Overgrazing or grazing when the soil is wet causes surface compaction, excessive runoff, and poor tilth. Proper stocking rates, pasture rotation, and restricted use during wet periods help to keep the soil and pasture in good condition.

This soil generally is unsuitable for septic tanks because of wetness and slow permeability, and it is limited for sewage lagoons because of depth to rock. Sewage generally can be piped to more suitable adjacent areas. Onsite investigations are needed to

locate suitable sites for sewage lagoons. Concrete for footings, foundations, and basement walls for dwellings and small commercial buildings should be reinforced with steel and a backfill of sand and gravel placed around the foundation and basement walls to help prevent damage caused by shrinking and swelling and excessive wetness. Drainage tile installed at the base of the sand and gravel also helps to prevent damage caused by wetness. Local roads and streets should be graded to shed water, and adequate side ditches and culverts should be installed to prevent damage caused by frost action and shrinking and swelling of the soil. Adding crushed rock or other suitable material helps to prevent damage caused by low strength.

This Sampsel soil is in capability subclass IIIe.

13C—Sampsel silty clay loam, 5 to 9 percent slopes.

slopes. This moderately sloping, poorly drained soil is on slightly concave side slopes and foot slopes along drainageways. Individual areas are irregular in shape and range from 10 to about 200 acres.

Typically, the surface layer is very dark gray, friable silty clay loam about 6 inches thick. The subsurface layer is very dark gray, friable silty clay loam about 7 inches thick. The subsoil extends to a depth of 60 inches or more. The upper part is very dark gray, firm silty clay loam; the middle part is dark grayish brown, firm silty clay; and the lower part is grayish brown, firm silty clay.

Included with this soil in mapping are small areas of somewhat poorly drained Greenton soils and moderately deep Snead soils. Greenton soils are upslope from Sampsel soils, and Snead soils are in narrow bands along the upper edge of the unit. The included soils make up 5 to 10 percent of the map unit.

Permeability is slow in this Sampsel soil, and surface runoff is medium. Reaction ranges from medium acid to moderately alkaline. Natural fertility is medium, and organic matter content is moderate. The available water capacity is moderate. A seasonal high water table ranges from near the surface to a depth of 1.5 feet. The shrink-swell potential is moderate in the surface soil and high in the subsoil. The surface layer is friable but difficult to till. It has a narrow moisture range for tillage operations and tends to become cloddy if tilled when dry and cloddy and compacted if tilled when wet. In addition, this soil may have seepy areas that stay wet most of the year.

Most areas of this soil are used for cultivated crops. The soil is suited to corn and soybeans. If this soil is used for cultivated crops, excessive erosion is a hazard and the surface soil may become compacted in seepy areas. The use of conservation tillage, winter cover crops, and grassed waterways helps to prevent erosion. Most areas can be farmed on the contour and are suitable for the construction of terraces. Returning crop residue or the regular addition of other organic material

helps to improve fertility, reduce surface compaction, and increase water infiltration.

The use of this soil for pasture or hay is also an effective means of controlling erosion. This soil is best suited to shallow-rooted legumes and cool-season bunch grasses or to native warm-season grasses. Because of the natural wetness of this soil and the silty clay loam surface layer, careful management is needed to keep a good stand of grasses and legumes. Overgrazing or grazing when the soil is wet causes surface compaction, excessive runoff, and poor tilth. Proper stocking rates, pasture rotation, and restricted use during wet periods help to keep the soil and pasture in good condition.

This soil generally is unsuitable for septic tanks because of wetness and slow permeability, and it is limited for sewage lagoons because of depth to rock and slope. Sewage generally can be piped to more suitable adjacent areas. Onsite investigations are needed to locate sites that have more depth to rock for placement of the sewage lagoons. Some areas can be leveled to reduce the slope if additional soil material is available for the construction of berms. Concrete for footings, foundations, and basement walls for dwellings and small commercial buildings should be adequately reinforced with steel and a backfill of sand and gravel placed around the foundations and basement walls to help prevent damage from shrinking and swelling and wet basements. Drainage tile installed at the base of the sand and gravel also helps to prevent damage caused by wetness. Local roads and streets should be graded to shed water, and adequate side ditches and culverts should be installed to provide good drainage and prevent damage caused by frost action and shrinking and swelling of the soil. Adding crushed rock or other suitable material helps to prevent damage caused by low strength.

This Sampsel soil is in capability subclass IIIe.

15B—Menfro silt loam, 2 to 5 percent slopes.

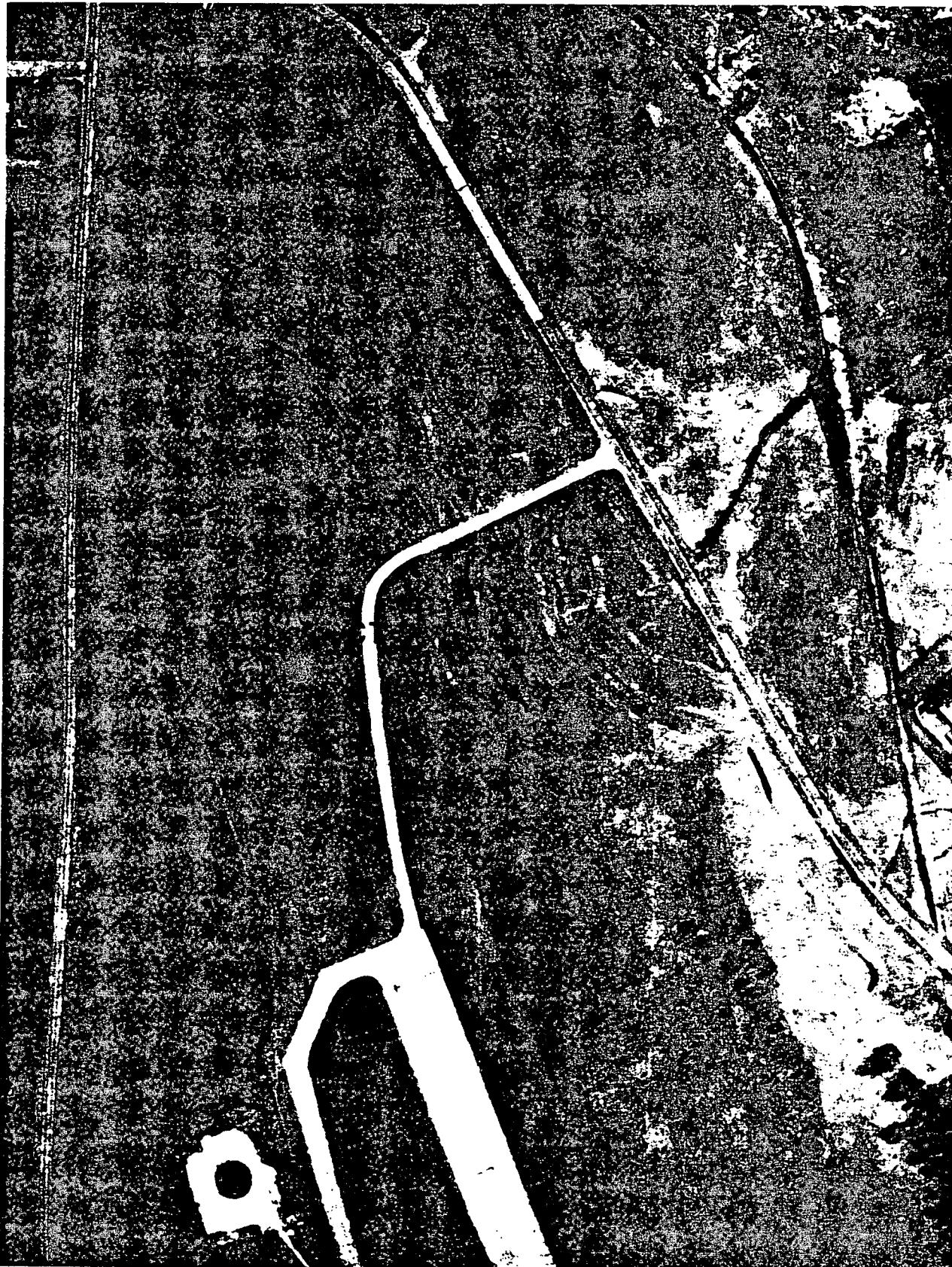
This deep, gently sloping, well drained soil is on narrow, convex ridgetops near streams. Individual areas are irregular in shape and range from 5 to 50 acres.

Typically, the surface layer is very dark grayish brown, friable silt loam about 4 inches thick. The subsurface layer is brown, friable silt loam about 6 inches thick. The subsoil is about 38 inches thick. It is dark yellowish brown, firm silty clay loam. The substratum to a depth of about 60 inches is dark brown, friable silty clay loam. In places the dark surface layer is 6 to 10 inches thick. In other places grayish brown mottles are at a depth of less than 36 inches.

Included with this soil in mapping are small areas of Sharpsburg, Sibley, and Weller soils. Sharpsburg and Sibley soils have dark surface layers more than 10 inches thick and are on broader ridgetops than the Menfro soils. The moderately well drained Weller soils have more clay in the subsoil and are on ridgetops at a

APPENDIX B

OWNERSHIP AND HISTORICAL DOCUMENTS



-Z-

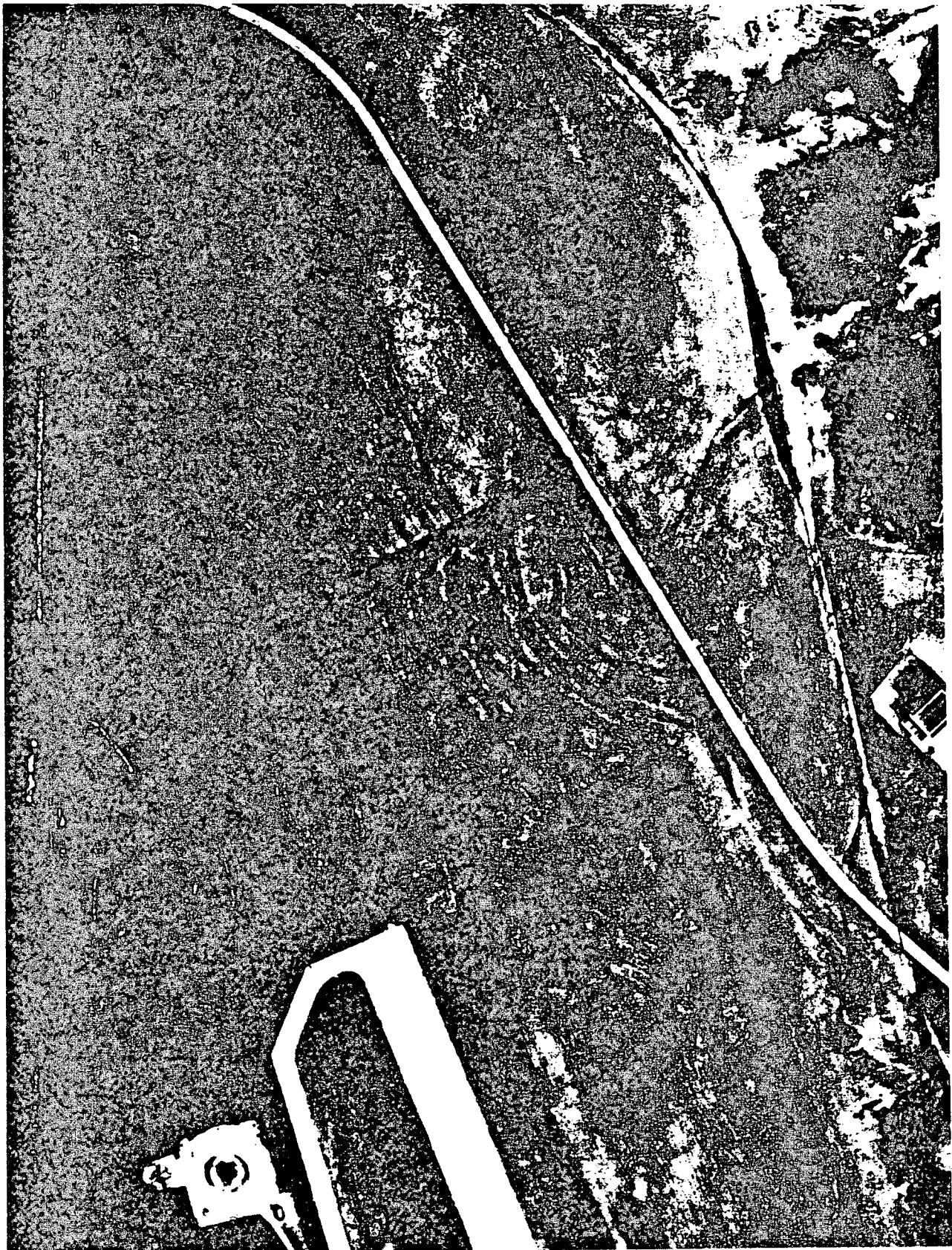
Site Name: Site C (55-Acres)
Richards-Gebaur Memorial Airport
Kansas City, Missouri

1995 AERIAL PHOTOGRAPH

Scale: 1" = 400'

Project No.: 5985E132

Date: 11/95



▲ Z -

Site Name: Site C (55-Acres)
Richards-Gebaur Memorial Airport
Kansas City, Missouri

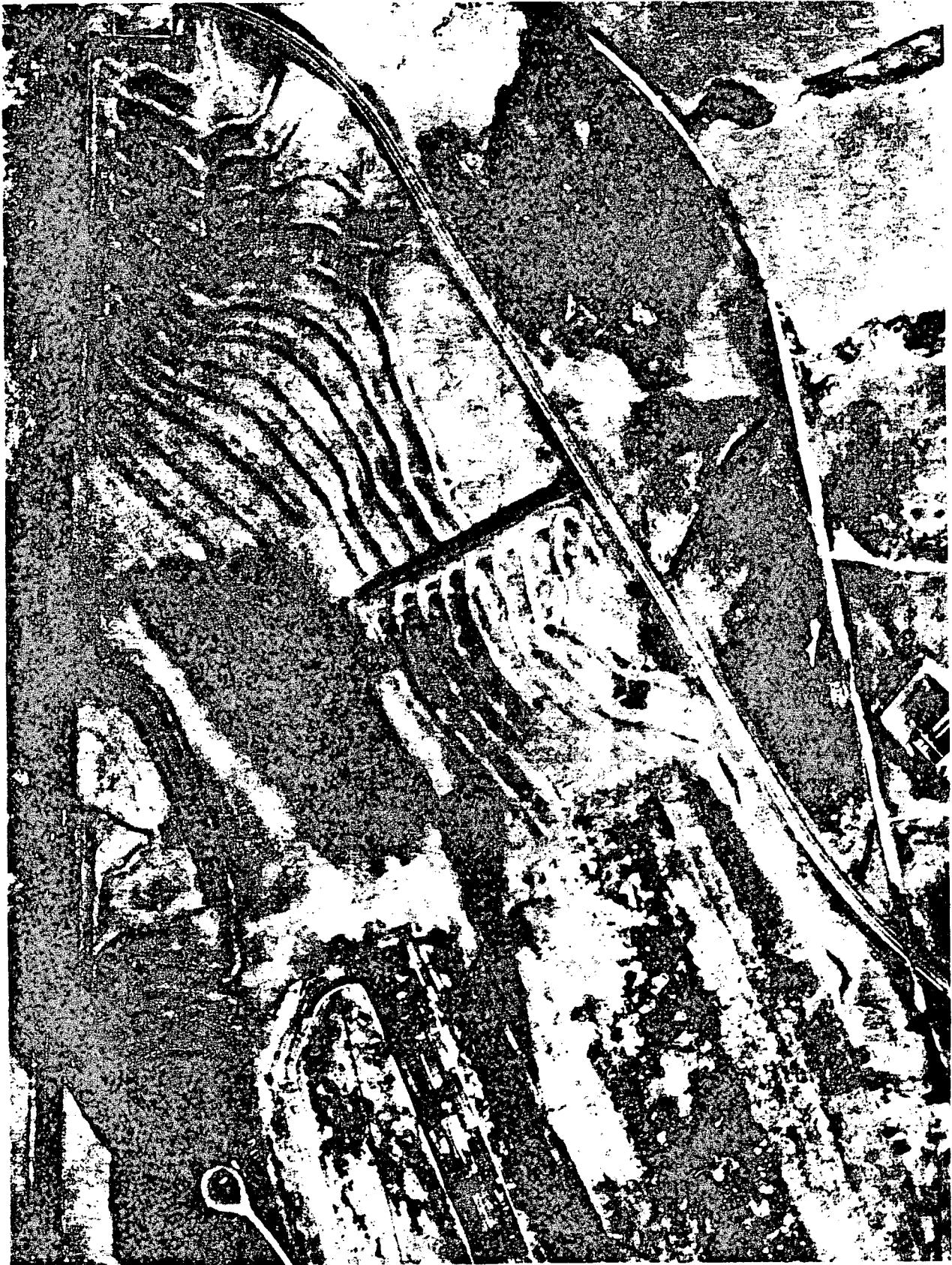
1980 AERIAL PHOTOGRAPH

Scale: 1" = 400'

Project No.: 5985E132

Date: 11/95

Professional Service Industries



-2-

Site Name: Site C (55-Acres) Richards-Gebaur Memorial Airport Kansas City, Missouri	1967 AERIAL PHOTOGRAPH	Scale: 1" = 400'
	Project No.: 5985E132	Date: 11/95

CIVIL ENGINEERING COMPOUND, BUILDINGS 605, 606, 607, 608, 609, 614

BEGINNING AT THE CONCRETE CURB ON THE NORTH CORNER OF THE INTERSECTION OF ANDREWS ROAD AND CORKILL ROAD SAID POINT BEING THE TRUE POINT OF BEGINNING; THENCE PROCEEDING NORTHEASTERLY ALONG THE WEST CURB OF ANDREWS ROAD A DISTANCE OF APPROXIMATELY 260 FEET TO THE SOUTH CONCRETE CURB OF HICKAM ROAD; THENCE NORTHWESTERLY AT A RIGHT ANGLE TO THE LAST DESCRIBED COURSE ALONG THE SOUTH CURB OF HICKAM ROAD, A DISTANCE OF APPROXIMATELY 565 FEET, TO THE SOUTH SIDE CONCRETE CURB OF WESTOVER ROAD; THENCE SOUTHWESTERLY AT A RIGHT ANGLE TO THE LAST DESCRIBED COURSE AND FOLLOWING THE CONCRETE CURB ALONG THE SOUTH SIDE OF WESTOVER ROAD, A DISTANCE OF APPROXIMATELY 260 FEET TO THE NORTH CONCRETE CURB OF CORKILL ROAD; THENCE AT A RIGHT ANGLE TO THE LAST DESCRIBED COURSE, SOUTHEASTERLY AND FOLLOWING THE CONCRETE CURB ALONG THE NORTH SIDE OF CORKILL ROAD, A DISTANCE OF APPROXIMATELY 565 FEET TO THE POINT OF BEGINNING. CONTAINING 146,900 SQUARE FEET OR 3.37 ACRES, MORE OR LESS.

BUILDING 619 AREA

BEGINNING AT THE CONCRETE CURB ON THE NORTH CORNER OF THE INTERSECTION OF ANDREWS ROAD AND HICKAM ROAD SAID POINT BEING THE TRUE POINT OF BEGINNING; THENCE PROCEEDING NORTHEASTERLY ALONG THE NORTH STREET CURB OF ANDREWS ROAD A DISTANCE OF APPROXIMATELY 40 FEET; THENCE FOLLOWING THE NORTH CURB NORtherly APPROXIMATELY 7 FEET; THENCE FOLLOWING THE NORTH CURB NORTHEASTERLY APPROXIMATELY 142 FEET; THENCE NORTHWESTERLY AT A RIGHT ANGLE WITH THE LAST DESCRIBED COURSE A DISTANCE OF APPROXIMATELY 195 FEET; THENCE SOUTHWESTERLY AT A RIGHT ANGLE TO THE LAST DESCRIBED COURSE A DISTANCE OF APPROXIMATELY 187 FEET TO THE NORTH CURB OF HICKAM ROAD; THENCE SOUTHEASTERLY AT A RIGHT ANGLE TO THE LAST DESCRIBED COURSE ALONG THE NORTH CURB OF HICKAM ROAD A DISTANCE OF APPROXIMATELY 200 FEET TO THE POINT OF BEGINNING. CONTAINING 36,678 SQUARE FEET, OR 0.84 ACRE, MORE OR LESS.

EXHIBIT E

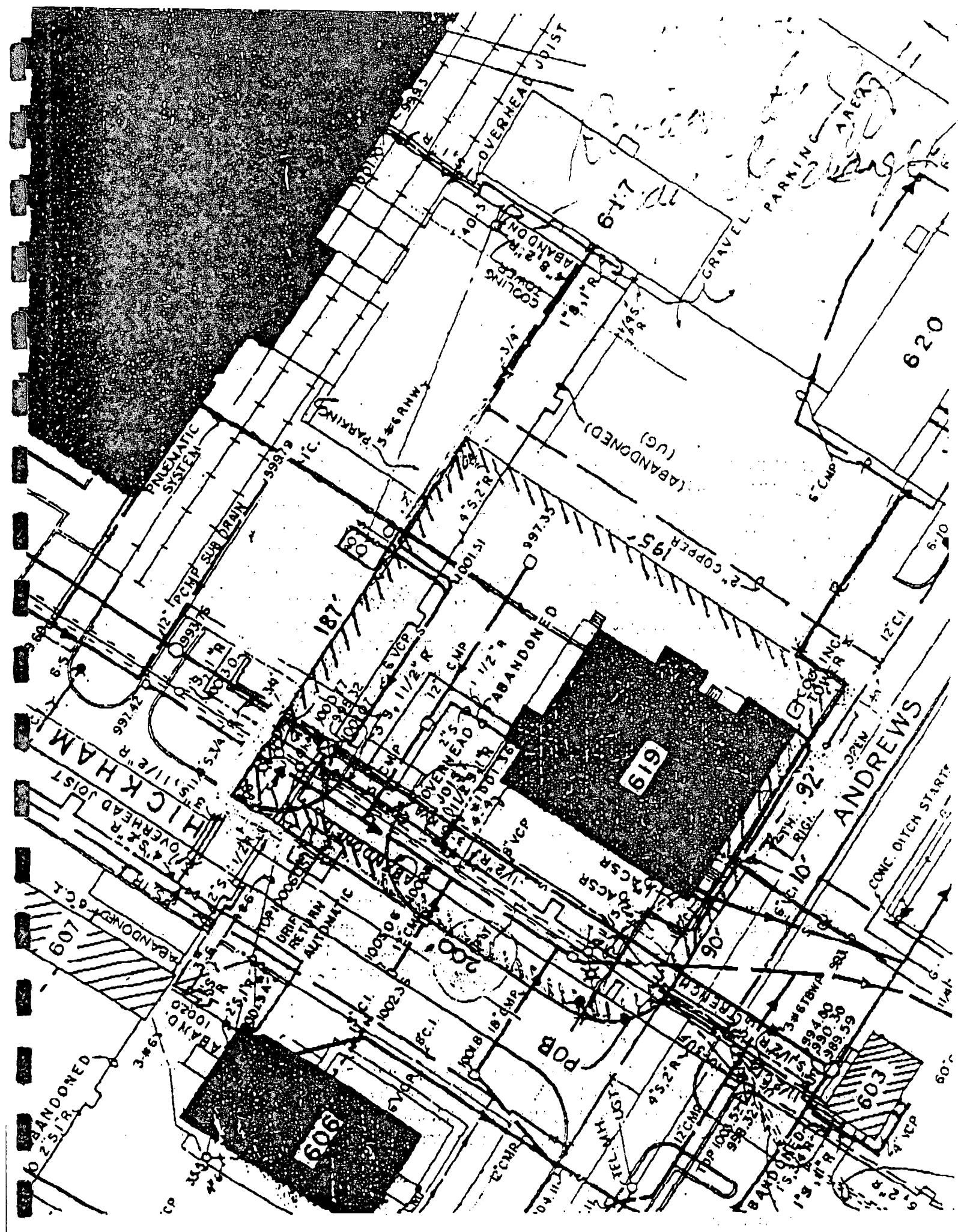
PROPERTY DESCRIPTION

BUILDING 619 located at 15400 Andrews Road in the City of Kansas City, MO, 64147-6290, to include the property more particularly described as:

Commencing at a Point of Beginning (PoB) which is the concrete curb on the north corner of the intersection of Andrews Road and Hickam Road, proceeding northeast along the street curb of Andrews Road, a distance of approximately 90' to the existing property line, then following the property line by turning a right angle northwest a distance of approximately 10', then following the property line by turning a right angle northeast a distance of approximately 92' to the property line, then turning a right angle northwest a distance of approximately 195', then turning a right angle southwest a distance of approximately 187' to the north curb of Hickam Road, then turning a right angle southeast along the north curb of Hickam Road, a distance of approximately 200' to the point of beginning.

Post-it® brand fax transmittal memo 7071 1 of page 2

Dee Hancock	Dee Bob
CAD	OK G
Dept	876-348-2511
8435 KSO	



SCHEDULE A

ATTACHMENTS

1. Written Legal Description 1 - 8
2. Facility Listing
3. Street Names
4. Airport Layout Plan showing location of parcels
5. Parcel Sites with Facility Numbers

PARCEL A-1

ALL THAT PART OF SECTION 34, AND ALL THAT PART OF THE WEST 1/2 OF SECTION 35, ALL IN TOWNSHIP 47, RANGE 33, IN KANSAS CITY, JACKSON COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 34; THENCE NORTH 3°-36'-07" EAST ALONG THE EAST LINE OF SAID SECTION 34, A DISTANCE OF 49.92 FEET TO A POINT ON THE NORTH LINE OF 155TH STREET, AND 50 FEET NORTH OF THE CENTERLINE THEREOF; THENCE NORTH 86°-21'-47" WEST ALONG THE NORTH LINE OF 155TH STREET, A DISTANCE OF 888.55 FEET TO ITS INTERSECTION WITH THE NORTHWESTERLY LINE OF ANDREWS ROAD, AND 40 FEET NORTHWESTERLY OF THE CENTERLINE THEREOF; THENCE NORTH 86°-21'-47" WEST ALONG SAID NORTH LINE, A DISTANCE OF 933.49 FEET; TO THE TRUE POINT OF BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE SOUTH 10°-18'-43" WEST, A DISTANCE OF 100.68 FEET; THENCE NORTH 86°-21'-47" WEST, A DISTANCE OF 55.38 FEET; THENCE NORTH 63°-18'-37" WEST, A DISTANCE OF 127.98 FEET; THENCE IN A NORTHERLY AND NORTHWESTERLY DIRECTION ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 225.00 FEET AND AN INITIAL TANGENT BEARING OF NORTH 48°-22'-29" WEST, A DISTANCE OF 135.55 FEET; THENCE NORTH 79°-25'-41" WEST, A DISTANCE OF 401.90 FEET; THENCE NORTH 10°-19'-42" EAST, A DISTANCE OF 370.16 FEET; THENCE NORTH 81°-12'-06" WEST, A DISTANCE OF 376.18 FEET TO A POINT ON A LINE THAT IS 75.00 FEET EASTERLY OF AND PARALLEL WITH THE WESTERLY LINE, OF A CONCRETE TAXIWAY, AS MEASURED AT RIGHT ANGLES THERETO; THENCE NORTH 10°-17'-14" EAST, ALONG SAID PARALLEL LINE, A DISTANCE OF 1489.95 FEET; THENCE NORTH 70°-18'-48" EAST, A DISTANCE OF 2335.06 FEET; THENCE SOUTH 22°-11'-25" EAST, A DISTANCE OF 1121.01 FEET; THENCE SOUTH 70°-03'-35" WEST, A DISTANCE OF 1829.08 FEET TO A POINT ON THE SOUTHEAST LINE OF HANGER ROAD AND APPROXIMATELY 50 FEET SOUTHEAST OF THE CENTERLINE THEREOF; THENCE SOUTH 10°-18'-43" WEST, A DISTANCE OF 1181.62 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 3,798.817 SQUARE FEET OR 87.21 ACRES, MORE OR LESS.

PARCEL A-2

ALL THAT PART OF THE NORTHEAST 1/4 OF SECTION 3, TOWNSHIP 46, RANGE 33, IN CASS COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID 1/4 SECTION; THENCE SOUTH 2°-41'-08" WEST ALONG THE EAST LINE OF SAID 1/4 SECTION, A DISTANCE OF 50.07 FEET TO A POINT ON THE SOUTH LINE OF 155TH STREET AND 50 FEET SOUTH OF THE CENTERLINE THEREOF; THENCE NORTH 86°-21'-47" WEST ALONG SAID SOUTH LINE, A DISTANCE OF 2218.92 FEET TO A POINT ON THE WEST LINE OF BALES AVENUE, SAID LINE BEING 35.00 FEET WESTERLY OF AND PARALLEL WITH THE CENTERLINE THEREOF; THENCE SOUTH 10°-18'-43" WEST ALONG SAID WEST LINE, A DISTANCE OF 135.10 FEET TO THE TRUE POINT OF

BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE CONTINUING SOUTH 10°-18'-43" WEST ALONG SAID WEST LINE, A DISTANCE OF 187.86 FEET; THENCE NORTH 79°-46'-30" WEST, A DISTANCE OF 153.66 FEET; THENCE NORTH 10°-18'-32" EAST, A DISTANCE OF 188.25 FEET; THENCE SOUTH 79°-37'-47" EAST, A DISTANCE OF 153.67 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 28,897 SQUARE FEET OR 0.66 ACRE, MORE OR LESS.

PARCEL A-3

ALL THAT PART OF THE SOUTHWEST 1/4 OF SECTION 3, TOWNSHIP 46, RANGE 33, IN CASS COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID 1/4 SECTION; THENCE NORTH 85°-23'-45" WEST ALONG THE SOUTH LINE OF SAID 1/4 SECTION, A DISTANCE OF 802.38 FEET; THENCE NORTH 4°-36'-15" EAST, A DISTANCE OF 233.73 FEET TO THE TRUE POINT OF BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE NORTH 5°-12'-49" EAST, A DISTANCE OF 192.38 FEET; THENCE SOUTH 84°-41'-31" EAST, A DISTANCE OF 233.48 FEET; THENCE SOUTH 5°-14'-26" WEST, A DISTANCE OF 192.52 FEET; THENCE NORTH 84°-39'-27" WEST, A DISTANCE OF 233.39 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 44,924 SQUARE FEET OF 1.03 ACRE, MORE OF LESS.

PARCEL B-1

ALL THAT PART OF SECTION 34, AND ALL THAT PART OF THE WEST 1/2 OF SECTION 35, ALL IN TOWNSHIP 47, RANGE 33, IN KANSAS CITY, JACKSON COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 34; THENCE NORTH 3°-36'-07" EAST ALONG THE EAST LINE OF SAID SECTION 34, A DISTANCE OF 49.92 FEET TO A POINT ON THE NORTH LINE OF 155TH STREET, AND 50 FEET NORTH OF THE CENTERLINE THEREOF; THENCE NORTH 86°-21'-47" WEST ALONG THE NORTH LINE OF 155TH STREET, A DISTANCE OF 888.55 FEET TO ITS INTERSECTION WITH THE NORTHWESTERLY LINE OF ANDREWS ROAD, AND 40 FEET NORTHWESTERLY OF THE CENTERLINE THEREOF, AND THE TRUE POINT OF BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE NORTH 86°-21'-47" WEST ALONG SAID NORTH LINE, A DISTANCE OF 933.49 FEET; THENCE NORTH 10°-18'-43" EAST, A DISTANCE OF 1181.62 FEET TO A POINT ON THE SOUTHEAST LINE OF HANGAR ROAD, AND APPROXIMATELY 50 FEET SOUTHEAST OF THE CENTERLINE THEREOF; THENCE NORTH 70°-03'-35" EAST, A DISTANCE OF 1829.08 FEET; THENCE NORTH 22°-11'-25" WEST, A DISTANCE OF 1121.01 FEET; THENCE NORTH 70-18'-48" EAST, A DISTANCE OF 852.38 FEET; THENCE SOUTH 42°-41'-09" EAST, A DISTANCE OF 919.90 FEET; THENCE SOUTH 43°-55'-59" WEST, A DISTANCE OF 1840.74 FEET; THENCE SOUTH 46°-22'-10" EAST, A DISTANCE OF 10.00 FEET; THENCE SOUTH 44°-00'-28" WEST, A DISTANCE OF 20.00 FEET; THENCE SOUTH 46°-04'-47" EAST, A DISTANCE OF

38.39 FEET; THENCE SOUTH 43°-58'-32" WEST, A DISTANCE OF 132.61 FEET; THENCE SOUTH 47°-08'-41" EAST, A DISTANCE OF 241.09 FEET TO A POINT ON THE NORTHWESTERLY LINE OF SAID ANDREWS ROAD AND 40.00 FEET NORTHWESTERLY OF THE CENTERLINE THEREOF, AS MEASURED AT RIGHT ANGLES THERETO; THENCE SOUTH 47°-57'-21" WEST ALONG SAID NORTHWESTERLY LINE, A DISTANCE OF 273.21 FEET; THENCE SOUTH 45°-54'-30" EAST ALONG A JOG IN SAID NORTHWESTERLY LINE, A DISTANCE OF 24.77 FEET; THENCE SOUTH 43°-53'-54" WEST ALONG SAID NORTHWESTERLY LINE, A DISTANCE OF 117.87 FEET; THENCE NORTH 46°-09'-52" WEST ALONG A JOG IN SAID NORTHWESTERLY LINE, A DISTANCE OF 24.90 FEET TO A POINT 40.00 FEET NORTHWESTERLY OF THE CENTERLINE OF SAID ANDREWS ROAD, AS MEASURED AT RIGHT ANGLES TO SAID CENTERLINE; THENCE SOUTH 43°-57'-21" WEST ALONG THE NORTHWESTERLY LINE OF SAID ANDREWS ROAD, A DISTANCE OF 805.60 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 3,337,403 SQUARE FEET OR 76.62 ACRES, MORE OR LESS.

LESS AND EXCEPT THE FOLLOWING DESCRIBED PROPERTIES FROM PARCEL B-1: FUEL TANK AREA, CIVIL ENGINEERING COMPOUND AND BUILDING 619 AREA.

FUEL TANK AREA

ALL THAT PART OF THE SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 47, RANGE 33, IN KANSAS CITY, JACKSON COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID 1/4 SECTION; THENCE SOUTH 86°-19'-50" EAST ALONG THE NORTH LINE OF SAID 1/4 SECTION, A DISTANCE OF 671.76 FEET; THENCE SOUTH 3°-40'-10" WEST, A DISTANCE OF 153.70 FEET TO THE TRUE POINT OF BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE SOUTH 6°-42'-06" EAST, A DISTANCE OF 84.80 FEET; THENCE SOUTH 44°-00'-38" WEST, A DISTANCE OF 104.26 FEET; THENCE NORTH 50°-48'-20" WEST, A DISTANCE OF 406.04 FEET; THENCE NORTH 44°-58'-39" EAST, A DISTANCE OF 26.21 FEET; THENCE NORTH 76°-21'-52" EAST, A DISTANCE OF 197.39 FEET; THENCE SOUTH 45°-37'-13" EAST, A DISTANCE OF 232.95 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 1.39 ACRES, MORE OR LESS.

CIVIL ENGINEERING COMPOUND, BUILDINGS: 605, 606, 607, 608, 609, 614

BEGINNING AT THE CONCRETE CURB ON THE NORTH CORNER OF THE INTERSECTION OF ANDREWS ROAD AND CORKILL ROAD, PROCEEDING NORTHWESTERLY ALONG THE CURB OF CORKILL ROAD A DISTANCE OF APPROXIMATELY 25 FEET, TO THE EXISTING PROPERTY LINE OF "EXCEPTION NO. 11" TO INDENTURE NO. K1455P1638, DATED AUGUST 21, 1985, WHICH IS THE TRUE POINT OF BEGINNING; THENCE NORTH 43°-57'-21" EAST ALONG SAID PROPERTY LINE A DISTANCE OF APPROXIMATELY 260 FEET, TO THE SOUTH

CONCRETE CURB OF HICKAM ROAD; THENCE NORTHWESTERLY AT A RIGHT ANGLE TO THE LAST DESCRIBED COURSE ALONG THE SOUTH CURB OF HICKAM ROAD, A DISTANCE OF APPROXIMATELY 540 FEET, TO THE SOUTH SIDE CONCRETE CURB OF WESTOVER ROAD; THENCE SOUTHWESTERLY AT A RIGHT ANGLE TO THE LAST DESCRIBED COURSE AND FOLLOWING THE CONCRETE CURB ALONG THE SOUTH SIDE OF WESTOVER ROAD, A DISTANCE OF APPROXIMATELY 260 FEET TO THE NORTH CONCRETE CURB OF CORKILL ROAD; THENCE AT A RIGHT ANGLE TO THE LAST DESCRIBED COURSE, SOUTHEASTERLY AND FOLLOWING THE CONCRETE CURB ALONG THE NORTH SIDE OF CORKILL ROAD, A DISTANCE OF APPROXIMATELY 540 FEET TO THE POINT OF BEGINNING. CONTAINING 140,400 SQUARE FEET OR 3.22 ACRES, MORE OR LESS.

BUILDING 619 AREA

BEGINNING, AT THE CONCRETE CURB ON THE NORTH CORNER OF THE INTERSECTION OF ANDREWS ROAD AND HICKAM ROAD, PROCEEDING NORTHWESTERLY ALONG THE STREET CURB OF HICKAM ROAD A DISTANCE OF APPROXIMATELY 25 FEET TO THE EXISTING PROPERTY LINE OF "EXCEPTION NO. 11" TO INDENTURE NO. K1455P1638, DATED AUGUST 21, 1985, WHICH IS THE TRUE POINT OF BEGINNING; THENCE NORTH 43°-57'-21" EAST A DISTANCE OF APPROXIMATELY 53 FEET; THENCE SOUTH 46°-9'-52" EAST A DISTANCE OF APPROXIMATELY 20 FEET TO THE NORTH CURB OF ANDREWS ROAD; THENCE NORTHEASTERLY ALONG THE NORTH CURB OF ANDREWS ROAD, A DISTANCE OF APPROXIMATELY 134 FEET; THENCE NORTHWESTERLY AT A RIGHT ANGLE WITH THE LAST DESCRIBED COURSE A DISTANCE OF APPROXIMATELY 195 FEET; THENCE SOUTHWESTERLY AT A RIGHT ANGLE TO THE LAST DESCRIBED COURSE A DISTANCE OF APPROXIMATELY 187 FEET TO THE NORTH CURB OF HICKAM ROAD; THENCE SOUTHEASTERLY AT A RIGHT ANGLE TO THE LAST DESCRIBED COURSE ALONG THE NORTH CURB OF HICKAM ROAD A DISTANCE OF APPROXIMATELY 175 FEET TO EXISTING PROPERTY LINE AND TO THE POINT OF BEGINNING. CONTAINING 35,405 SQUARE FEET, OR 0.81 ACRES, MORE OR LESS.

LESS AND EXCEPTED FROM PARCEL B-1 ARE THE AREAS IDENTIFIED AS: FUEL TANK AREA, CIVIL ENGINEERING COMPOUND AND BUILDING 619 AREA. CONTAINING 5.42 ACRES, MORE OR LESS. NET ACREAGE OF PARCEL B-1 LESS THE EXCEPTIONS, IS 71.20 ACRES, MORE OR LESS.

PARCEL B-2

ALL THAT PART OF THE SOUTHEAST 1/4 OF SECTION 34, AND ALL THAT PART OF THE SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 47, RANGE 33, IN KANSAS CITY, JACKSON COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 34; THENCE NORTH 3°-36'-07"

EAST ALONG THE EAST LINE OF SECTION 34, A DISTANCE OF 49.92 FEET TO A POINT ON THE NORTH LINE OF 155TH STREET, THAT IS 50 FEET NORTH OF THE CENTERLINE THEREOF, AND THE TRUE POINT OF BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE NORTH 86°-21'-47" WEST ALONG SAID NORTH LINE, A DISTANCE OF 303.32 FEET TO A POINT ON THE CENTERLINE OF SCOPE CREEK; THENCE THE FOLLOWING COURSES ALONG THE CENTERLINE OF SCOPE CREEK; THENCE NORTH 37°-48'-39" EAST, A DISTANCE OF 88.51 FEET; THENCE NORTH 22°-00'-00" EAST, A DISTANCE OF 95 FEET; THENCE NORTH 52°-00'-00" EAST, A DISTANCE OF 110 FEET; THENCE NORTH 54°-00'-00" EAST, A DISTANCE OF 50 FEET; THENCE NORTH 73°-00'-00" EAST, A DISTANCE OF 50 FEET; THENCE SOUTH 77°-00'-00" EAST, A DISTANCE OF 40 FEET; THENCE SOUTH 76°-26'-57" EAST, A DISTANCE OF 83.67 FEET; THENCE SOUTH 68°-17'-54" EAST, A DISTANCE OF 47.82 FEET; THENCE SOUTH 76°-50'-01" EAST, A DISTANCE OF 63.19 FEET; THENCE SOUTH 87°-21'-00" EAST, A DISTANCE OF 51.25 FEET; THENCE SOUTH 3°-23'-23" WEST, A DISTANCE OF 240.68 FEET TO A POINT ON THE NORTH LINE OF 155TH STREET; THENCE NORTH 86°-21'-47" WEST, A DISTANCE OF 225.78 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING, 117,506.22 SQUARE FEET, OR 2.70 ACRES, MORE OR LESS.

PARCEL B-3

ALL THAT PART OF THE SOUTHWEST 1/4 OF SECTION 35, TOWNSHIP 47, RANGE 33, IN KANSAS CITY, JACKSON COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE SOUTH 86°-21'-37" EAST ALONG THE SOUTH LINE OF SAID 1/4 SECTION, A DISTANCE OF 1321.74 FEET; THENCE NORTH 3°-38'-23" EAST, A DISTANCE OF 54.99 FEET TO A POINT ON THE NORTH LINE OF 155TH STREET AND 55.00 FEET NORTH OF THE CENTERLINE THEREOF, AND THE TRUE POINT OF BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE NORTH 3°-44'-34" EAST, A DISTANCE OF 376.95 FEET; THENCE SOUTH 87°-08'-32" EAST, A DISTANCE OF 180.83 FEET; THENCE SOUTH 3°-30'-24" WEST, A DISTANCE OF 379.41 FEET TO A POINT ON THE NORTH LINE OF SAID 155TH STREET; THENCE NORTH 86°-31'-45" WEST, ALONG THE NORTH LINE OF SAID 155TH STREET, A DISTANCE OF 182.37 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 68,675 SQUARE FEET OR 1.58 ACRES, MORE OR LESS.

PARCEL B-4

ALL THAT PART OF THE NORTHWEST 1/4 OF SECTION 35, TOWNSHIP 47, RANGE 33, IN KANSAS CITY, JACKSON COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID 1/4 SECTION; THENCE SOUTH 86°-19'-50" EAST ALONG THE SOUTH LINE OF SAID 1/4 SECTION, A DISTANCE OF 2052.93 FEET; THENCE NORTH 3°-40'-10" EAST, A DISTANCE OF 79.56 FEET TO THE TRUE POINT OF BEGINNING OF THE TRACT

OF LAND HEREIN DESCRIBED; THENCE NORTH 21°-38'-05" WEST, A DISTANCE OF 124.20 FEET; THENCE NORTH 50°-10'-12" EAST, A DISTANCE OF 290.00 FEET; THENCE NORTH 80°-33'-03" EAST, A DISTANCE OF 120.00 FEET; THENCE SOUTH 42°-26'-57" EAST, A DISTANCE OF 187.00 FEET; THENCE SOUTH 41°-04'-40" WEST, A DISTANCE OF 263.77 FEET; THENCE NORTH 86°-19'-50" WEST, PARALLEL WITH THE SOUTH LINE OF SAID 1/4 SECTION, A DISTANCE OF 248.69 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 99.868 SQUARE FEET OR 2.29 ACRES, MORE OR LESS.

PARCEL B-5

ALL THAT PART OF SECTION 34 AND 35, TOWNSHIP 47, RANGE 33, IN JACKSON COUNTY, MISSOURI, AND ALL THAT PART OF SECTIONS 2 AND 3, TOWNSHIP 46, RANGE 33, IN CASS COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHEAST CORNER OF THE WEST 1/2 OF THE WEST 1/2 OF SAID SECTION 2; THENCE SOUTH 2°-46'-02" WEST ALONG THE EAST LINE OF THE WEST 1/2 OF THE WEST 1/2 OF SAID SECTION 2, A DISTANCE OF 65.01 FEET; THENCE NORTH 80°-27'-24" WEST, A DISTANCE OF 145.75 FEET; THENCE NORTH 86°-21'-47" WEST ALONG A LINE THAT IS 65.00 FEET SOUTH OF AND PARALLEL WITH THE CENTERLINE OF 155TH STREET, AS MEASURED AT RIGHT ANGLES THERETO, A DISTANCE OF 996.33 FEET; THENCE NORTH 80°-21'-47" WEST ALONG A LINE THAT IS 50.00 FEET SOUTH OF AND PARALLEL WITH SAID CENTERLINE, AS MEASURED AT RIGHT ANGLES THERETO, A DISTANCE OF 2280.98 FEET; THENCE NORTH 10°-18'-43" EAST, A DISTANCE OF 100.68 FEET TO A POINT ON A LINE THAT IS 50.00 FEET NORTH OF AND PARALLEL WITH THE CENTERLINE OF SAID 155TH STREET; THENCE SOUTH 86°-21'-47" EAST ALONG SAID PARALLEL LINE, A DISTANCE OF 933.49 FEET TO A POINT ON A LINE THAT IS 40.00 FEET NORTHWESTERLY OF AND PARALLEL WITH THE CENTERLINE OF 155TH STREET, AS MEASURED AT RIGHT ANGLES THERETO; THENCE NORTH 43°-57'-21" EAST ALONG THE LAST SAID PARALLEL LINE, A DISTANCE OF 805.60 FEET; THENCE SOUTH 46°-09'-52" EAST, A DISTANCE OF 24.90 FEET; THENCE NORTH 43°-53'-54" EAST, A DISTANCE OF 36.57 FEET; THENCE SOUTH 46°-04'-57" EAST, A DISTANCE OF 55.14 FEET TO A POINT ON A LINE THAT IS 40.00 FEET SOUTHEASTERLY OF AND PARALLEL WITH THE CENTERLINE OF SAID 155TH STREET, AS MEASURED AT RIGHT ANGLES THERETO; THENCE SOUTH 43°-57'-21" WEST ALONG THE LAST SAID PARALLEL LINE, A DISTANCE OF 774.36 FEET TO A POINT ON A LINE THAT IS 50.00 FEET NORTH OF AND PARALLEL WITH THE CENTERLINE OF SAID 155TH STREET, AS MEASURED AT RIGHT ANGLES THERETO; THENCE SOUTH 86°-21'-47" EAST ALONG THE LAST SAID PARALLEL LINE, A DISTANCE OF 1329.77 FEET; THENCE SOUTH 89°-13'-41" EAST, A DISTANCE OF 100.09 FEET TO A POINT ON A LINE THAT IS 55.00 FEET NORTH OF AND PARALLEL WITH THE CENTERLINE OF SAID 155TH STREET; THENCE SOUTH 86°-21'-47" EAST ALONG THE LAST SAID PARALLEL LINE, A DISTANCE OF 593.05 FEET; THENCE NORTH 3°-30'-24" EAST, A DISTANCE OF 375.82 FEET; THENCE SOUTH 87°-08'-32" EAST, A DISTANCE OF

83.17 FEET; THENCE SOUTH $3^{\circ}44'34''$ WEST, A DISTANCE OF 376.95 FEET TO A POINT ON THE LAST SAID PARALLEL LINE; THENCE SOUTH $86^{\circ}21'47''$ EAST ALONG THE LAST SAID PARALLEL LINE, A DISTANCE OF 275.36 FEET TO A POINT ON THE EAST LINE OF THE WEST 1596.13 FEET OF THE SOUTH 1/2 OF SAID SECTION 35; THENCE SOUTH $3^{\circ}36'07''$ WEST ALONG SAID EAST LINE, A DISTANCE OF 55.00 FEET TO THE SOUTH LINE OF SAID SECTION 35; THENCE NORTH $86^{\circ}21'37''$ WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 8.60 FEET TO THE POINT OF BEGINNING. CONTAINING 10.51 ACRES, MORE OR LESS.

LESS AND EXCEPT THE FOLLOWING DESCRIBED PROPERTIES FROM PARCEL B-5: CIVIL ENGINEERING COMPOUND AND BUILDING 619 AREA.

CIVIL ENGINEERING COMPOUND, BUILDINGS 605, 606, 607, 608, 609, 614

BEGINNING AT THE CONCRETE CURB ON THE NORTH CORNER OF THE INTERSECTION OF ANDREWS ROAD AND CORKILL ROAD SAID POINT BEING THE TRUE POINT OF BEGINNING; THENCE PROCEEDING NORTHWESTERLY ALONG THE NORTH CURB OF CORKILL ROAD A DISTANCE OF APPROXIMATELY 25 FEET TO THE EXISTING PROPERTY LINE OF "EXCEPTION NO. 11" TO INDENTURE NO K1455P1638, DATED AUGUST 21, 1985; THENCE NORTH $43^{\circ}57'21''$ EAST ALONG SAID PROPERTY LINE A DISTANCE OF APPROXIMATELY 260 FEET TO THE SOUTH CONCRETE CURB OF HICKAM ROAD; THENCE SOUTHEASTERLY ALONG SAID CURB OF HICKAM ROAD A DISTANCE OF APPROXIMATELY 25 FEET TO THE INTERSECTION OF THE ALIGNMENT OF THE NORTH CURB OF ANDREWS ROAD; THENCE SOUTHWESTERLY ALONG THE NORTH CURB OF ANDREWS ROAD A DISTANCE OF APPROXIMATELY 260 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 6,500 SQUARE FEET, OR 0.15 ACRES, MORE OR LESS.

BUILDING 619 AREA

BEGINNING AT THE CONCRETE CURB ON THE NORTH CORNER OF THE INTERSECTION OF ANDREWS ROAD AND HICKAM ROAD SAID POINT BEING THE TRUE POINT OF BEGINNING; THENCE PROCEEDING NORTHWESTERLY ALONG THE STREET CURB OF HICKAM ROAD A DISTANCE OF APPROXIMATELY 25 FEET TO THE EXISTING PROPERTY LINE OF "EXCEPTION NO. 11" TO INDENTURE NO. K1455P1638, DATED AUGUST 21, 1985; THENCE NORTH $43^{\circ}57'21''$ EAST A DISTANCE OF APPROXIMATELY 53 FEET; THENCE SOUTH $46^{\circ}09'52''$ EAST A DISTANCE OF APPROXIMATELY 20 FEET TO THE NORTH CURB OF ANDREWS ROAD; THENCE FOLLOWING THE NORTH CURB OF ANDREWS ROAD SOUTHWESTERLY APPROXIMATELY 8 FEET; THENCE FOLLOWING SAID CURB SOUTHERLY APPROXIMATELY 7 FEET; THENCE FOLLOWING SAID CURB SOUTHWESTERLY APPROXIMATELY 40 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 1,272.5 SQUARE FEET, MORE OR LESS.

LESS AND EXCEPTED FROM PARCEL B-5 ARE THE AREAS IDENTIFIED AS: CIVIL ENGINEERING COMPOUND AND BUILDING 619 AREA. THESE EXCEPTIONS CONTAINING 0.18 ACRE, MORE OR LESS. NET ACREAGE OF PARCEL B-5 LESS THE EXCEPTIONS IS 10.33 ACRES, MORE OR LESS.

PARCEL B-6

ALL THAT PART OF THE NORTHEAST 1/4 OF SECTION 34, TOWNSHIP 47, RANGE 33, IN KANSAS CITY, JACKSON COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID 1/4 SECTION; THENCE NORTH 86°-28'-39" WEST ALONG THE NORTH LINE OF SAID 1/4 SECTION, A DISTANCE OF 583.02 FEET; THENCE SOUTH 3°-37'-06" WEST, A DISTANCE OF 212.89 FEET TO THE TRUE POINT OF BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE SOUTH 3°-37'-06" WEST, A DISTANCE OF 334.68 FEET; THENCE SOUTH 86°-24'-44" EAST, A DISTANCE OF 345.70 FEET; THENCE NORTH 3°-33'-26" EAST, A DISTANCE OF 334.67 FEET; THENCE NORTH 86°-24'-38" WEST, A DISTANCE OF 345.34 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 115,637 SQUARE FEET OR 2.65 ACRES, MORE OR LESS.

PARCEL B-7

ALL THAT PART OF THE NORTHWEST 1/4 OF SECTION 35, TOWNSHIP 47, RANGE 33, IN KANSAS CITY, JACKSON COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID 1/4 SECTION; THENCE SOUTH 86°-15'-37" EAST ALONG THE NORTH LINE OF SAID 1/4 SECTION, A DISTANCE OF 1137.21 FEET; THENCE SOUTH 3°-44'-23" WEST, A DISTANCE OF 340.54 FEET TO THE TRUE POINT OF BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE SOUTH 13°-50'-37" EAST, A DISTANCE OF 275.00 FEET; THENCE SOUTH 76°-09'-23" WEST, A DISTANCE OF 375.00 FEET; THENCE NORTH 13°-50'-37" WEST, A DISTANCE OF 275.00 FEET; THENCE NORTH 76°-09'-23" EAST, A DISTANCE OF 375.00 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 103,125 SQUARE FEET OR 2.37 ACRES, MORE OR LESS.

Facilities Located on Parcels A-1 through A-5 Airport

A-1:

900 901 903* 904* 918 925 926
927 930 940 946* 947* 948 949*
958 965 966 971

A-2:

801*

A-3:

839

Facilities Located on Parcels B-1 through B05 (Airport Related)

B-1: 610 617* 620* 621* 622*
922* 923* 924* 931* 936* 937*
938 942* 951* 953* 954 955 957

B-2: No Facilities

B-3: 105*

B-4: 1049* 1050*

B-5: Andrews Road & 155th Street

B-6: 1025

B-7: 1033

* Scheduled for demolition

Navigational Facilities owned by Air Force are presently in interim lease and are to be transferred to Kansas City

80 83 84 85 87 89
90 841 1027 1401 1800 1900

THE FOLLOWING STREET NAMES ARE IN THE PROPERTY TRANSFER AREAS:

ANDREWS ROAD
ARNOLD AVE (EAST 155TH STREET)
CORKILL STREET
HANGAR ROAD
HICKAM
MAXWELL ROAD
WESTOVER ROAD

(WORDU:\MISC\CORRESPONDENCE\SCHEDULE.DOC,CM-02

EXCEPTION NO. 5 - TRACT 3 - FACILITY 1033

ALL THAT PART OF THE NORTHWEST 1/4 OF SECTION 35, TOWNSHIP 47, RANGE 33, IN KANSAS CITY, JACKSON COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID 1/4 SECTION; THENCE SOUTH $86^{\circ}15'37''$ EAST ALONG THE NORTH LINE OF SAID 1/4 SECTION, A DISTANCE OF 1137.21 FEET; THENCE SOUTH $3^{\circ}44'23''$ WEST, A DISTANCE OF 340.54 FEET TO THE TRUE POINT OF BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE SOUTH $13^{\circ}50'37''$ EAST, A DISTANCE THENCE NORTH $76^{\circ}09'23''$ WEST, A DISTANCE OF 375.00 FEET; THENCE NORTH $13^{\circ}50'37''$ WEST, A DISTANCE OF 275.00 FEET; THENCE NORTH $09^{\circ}23''$ EAST, A DISTANCE OF 375.00 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 103,125 SQUARE FEET OR 2.37 ACRES, MORE OR LESS.

EXCEPTION NO. 7 - 801 BUILDING

ALL THAT PART OF THE NORTHEAST 1/4 OF SECTION 3, TOWNSHIP 46, RANGE 33, IN CASS COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID 1/4 SECTION; THENCE SOUTH $2^{\circ}41'08''$ WEST ALONG THE EAST LINE OF SAID 1/4 SECTION, A DISTANCE OF 50.07 FEET TO A POINT ON THE SOUTH LINE $86^{\circ}21'47''$ WEST ALONG SAID SOUTH LINE, A DISTANCE OF 2218.92 FEET TO A POINT ON THE WEST LINE OF WALKER ROAD, SAID LINE BEING 35.00 FEET WESTERLY OF AND PARALLEL WITH THE CENTERLINE THEREOF; THENCE SOUTH $10^{\circ}18'43''$ WEST ALONG SAID WEST LINE, A DISTANCE OF 135.10 FEET TO THE TRUE POINT OF BEGINNING OF THE TRACT OF LAND HEREIN DESCRIBED; THENCE CONTINUING SOUTH $10^{\circ}18'43''$ WEST ALONG SAID WEST LINE, A DISTANCE OF 187.86 FEET; THENCE NORTH $79^{\circ}46'30''$ WEST, A DISTANCE OF 153.66 FEET; THENCE NORTH $10^{\circ}18'32''$ EAST, A DISTANCE OF 188.25 FEET; THENCE SOUTH $79^{\circ}37'47''$ EAST, A DISTANCE OF 153.67 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 28,897 SQUARE FEET OR 0.66 ACRE, MORE OR LESS.

EXCEPTION NO. 8 - 828 BUILDING AREA

ALL THAT PART OF THE NORTHEAST 1/4 OF SECTION 3, TOWNSHIP 46, RANGE 33, IN CASS COUNTY, MISSOURI, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHEAST CORNER OF SAID 1/4 SECTION; THENCE SOUTH $2^{\circ}41'08''$ WEST ALONG THE EAST LINE OF SAID 1/4 SECTION, A DISTANCE OF 50.07 FEET TO A POINT ON THE SOUTH LINE OF ARNOLD AVENUE, THAT IS 50 FEET SOUTH OF THE CENTERLINE THEREOF; THENCE NORTH $86^{\circ}21'47''$ WEST ALONG SAID SOUTH LINE, A DISTANCE OF 2218.92 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 28,897 SQUARE FEET OR 0.66 ACRE, MORE OR LESS.

APPENDIX C

REGULATORY DOCUMENTATION

The following EDR report was obtained for Building 610 at Richards-Gebaur Memorial Airport; however, the information contained in the EDR report is considered valid for the subject site.



**Environmental
Data
Resources, Inc.**

Creators of Toxiccheck/®

The EDR-Radius Map with GeoCheck™

**Richards-Gebaur AP Bldg 610
15326 Andrews
Kansas City, MO 64147**

Inquiry Number: 187422.6p

August 25, 1995

***The Source
For Environmental
Risk Management
Data***

**3530 Post Road
Southport, Connecticut 06490**

Nationwide Customer Service

**Telephone: 1-800-352-0050
Fax: 1-800-231-6802**

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer

This Report contains information obtained from a variety of public sources and EDR makes no representation or warranty regarding the accuracy, reliability, quality, or completeness of said information or the information contained in this report. The customer shall assume full responsibility for the use of this report. No warranty of merchantability or of fitness for a particular purpose, expressed or implied, shall apply and EDR specifically disclaims the making of such warranties. In no event shall EDR be liable to anyone for special, incidental, consequential or exemplary damages.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The search met the specific requirements of ASTM Standard Practice for Environmental Site Assessments, E-1527-94, including those associated with governmental databases, search distances and data currency.

The address of the subject property for which the search was intended is:

15326 ANDREWS
KANSAS CITY, MO 64147

No mapped sites were found in EDR's search of available ("reasonably ascertainable") government records either on the subject property or within the ASTM E-1527-94 search radius around the subject property for the following Databases:

NPL:	National Priority List
Delisted NPL:	NPL Deletions
RCRIS-TSD:	Resource Conservation and Recovery Information System
State Haz. Waste:	Registry and Registry Log
CERCLIS:	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP:	Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS:	Corrective Action Report
State LF:	Solid Waste Disposal Areas & Processing Facilities
LUST:	Leaking Underground Storage Tanks
UST:	Underground Storage Tank Information
AST:	Service Station Master Listing
RAATS:	RCRA Administrative Action Tracking System
RCRIS-SQG:	Resource Conservation and Recovery Information System
RCRIS-LQG:	Resource Conservation and Recovery Information System
HMIRS:	Hazardous Materials Information Reporting System
PADS:	PCB Activity Database System
ERNS:	Emergency Response Notification System
FINDS:	Facility Index System
TRIS:	Toxic Chemical Release Inventory System
NPL Liens:	Federal Superfund Liens
TSCA:	Toxic Substances Control Act

Unmapped (orphan) sites are not considered in the foregoing analysis.

Search Results:

Search results for the subject property and the search radius, are listed below:

Subject Property:

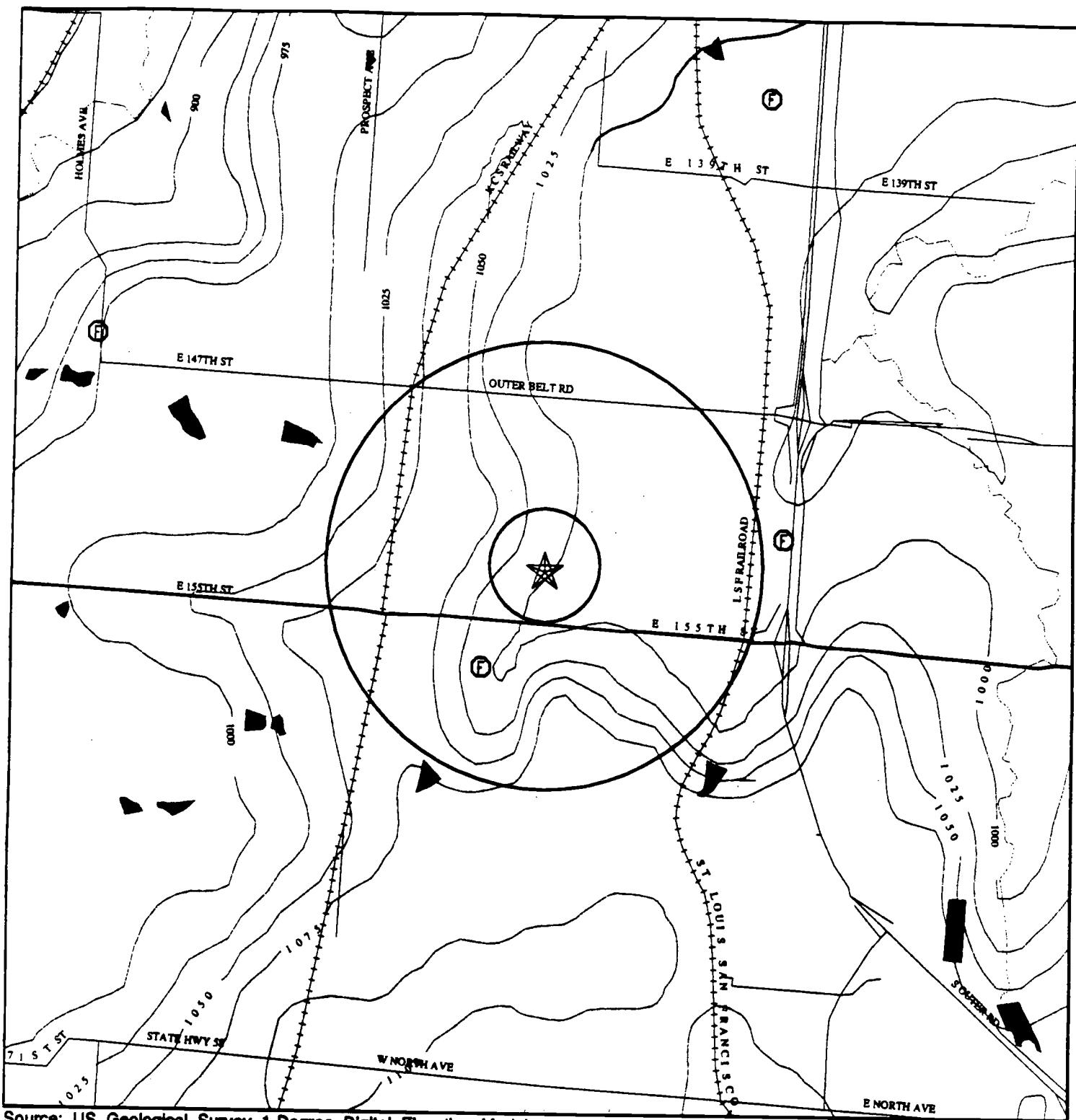
The subject property was not listed in any of the databases searched by EDR.

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
RICHARDS GEBAUR AIR FORCE BASE	CERCLIS
WAL-MART	LUST
R W HARMON	LUST
FAA - VORTAC	LUST
BRUGGER MCDOWELL AUTO UNLIMITED	LUST
TOTAL PETROLEUM (LAT-LONG) LENEXA Q	LUST
BYRAM SITE	LUST
RICHARDO - GEBAUR AIR BASE	LUST
CIRCLE K #2433	LUST
USPCI-KAW YARD OFFICE	LUST
COMMERCE BANK - PRICE DEVELOPMENT C	LUST
WATERWAY GAS & WASH/AMOCO OIL #2384	LUST
PREMIER CADILLAC DEALERSHIP	LUST
AMOCO OIL #2242	LUST
CONOCO #25022	LUST
RICHARDS-GEBAUR AIRPORT	UST
RICHARDS-GEBAUR AIRPORT	UST
RICHARDS-GEBAUR AIRPORT	UST
COTTER & CO	RCRIS-SQG,FINDS,UST
PAYLESS CASHWAYS, INC	UST
RICHARDS-GEBAUR AIRPORT	UST
PAYLESS CASHWAYS INC	RCRIS-SQG,FINDS

TOPOGRAPHIC MAP • 187422.6p • PSI, Inc.



Source: US Geological Survey 1-Degree Digital Elevation Model
Compiled 09/15/92

0 1/4 1/2 1 2 Miles

- N - Major Roads
- N - Contour lines (25 foot interval unless otherwise shown)
- A - Waterways

- Earthquake epicenter, Richter 5 or greater.
- Closest well according to (F)ederal or (S)tate database in quadrant.
- Closest public water supply well.

TARGET PROPERTY: Richards-Gebaur AP Bldg 610
ADDRESS: 15326 Andrews
CITY/STATE/ZIP: Kansas City MO 64147
LAT/LONG: 38.8482 / 94.549

CUSTOMER: PSI, Inc.
CONTACT: Rick Leines
INQUIRY #: 187422.6p
DATE: August 25, 1995

GEOCHECK VERSION 2.1

SUMMARY

GEOLOGIC AGE IDENTIFICATION†

Geologic Code: PP3
 Era: Paleozoic
 System: Pennsylvanian
 Series: Missourian Series

ROCK STRATIGRAPHIC UNIT†

Category: Stratified Sequence

GROUNDWATER FLOW INFORMATION

General Topographic Gradient: General ESE
 General Hydrogeologic Gradient: no hydrogeologic data available.

Note: In a general way, the water table typically conforms to surface topography.‡

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property: 2438094-G5 BELTON, MO KS

FEDERAL DATABASE WELL INFORMATION

<u>WELL QUADRANT</u>	<u>DISTANCE FROM TP</u>	<u>LITHOLOGY</u>	<u>DEPTH TO WATER TABLE</u>
North	>2 Miles	Not Reported	Not Reported
East	1 - 2 Miles	Not Reported	Not Reported
South	1/2 - 1 Mile	Not Reported	Not Reported
West	>2 Miles	Not Reported	Not Reported

PUBLIC WATER SUPPLY SYSTEM INFORMATION (EPA-FRDS)

Searched by Nearest Well.

Location Relative to TP: >2 Miles South
 PWS Name: SOUTHFORK MHP
 1301 N. SCOTT AVE.
 BELTON, MO 64012

Well currently has or has had major violation(s): No

AREA RADON INFORMATION

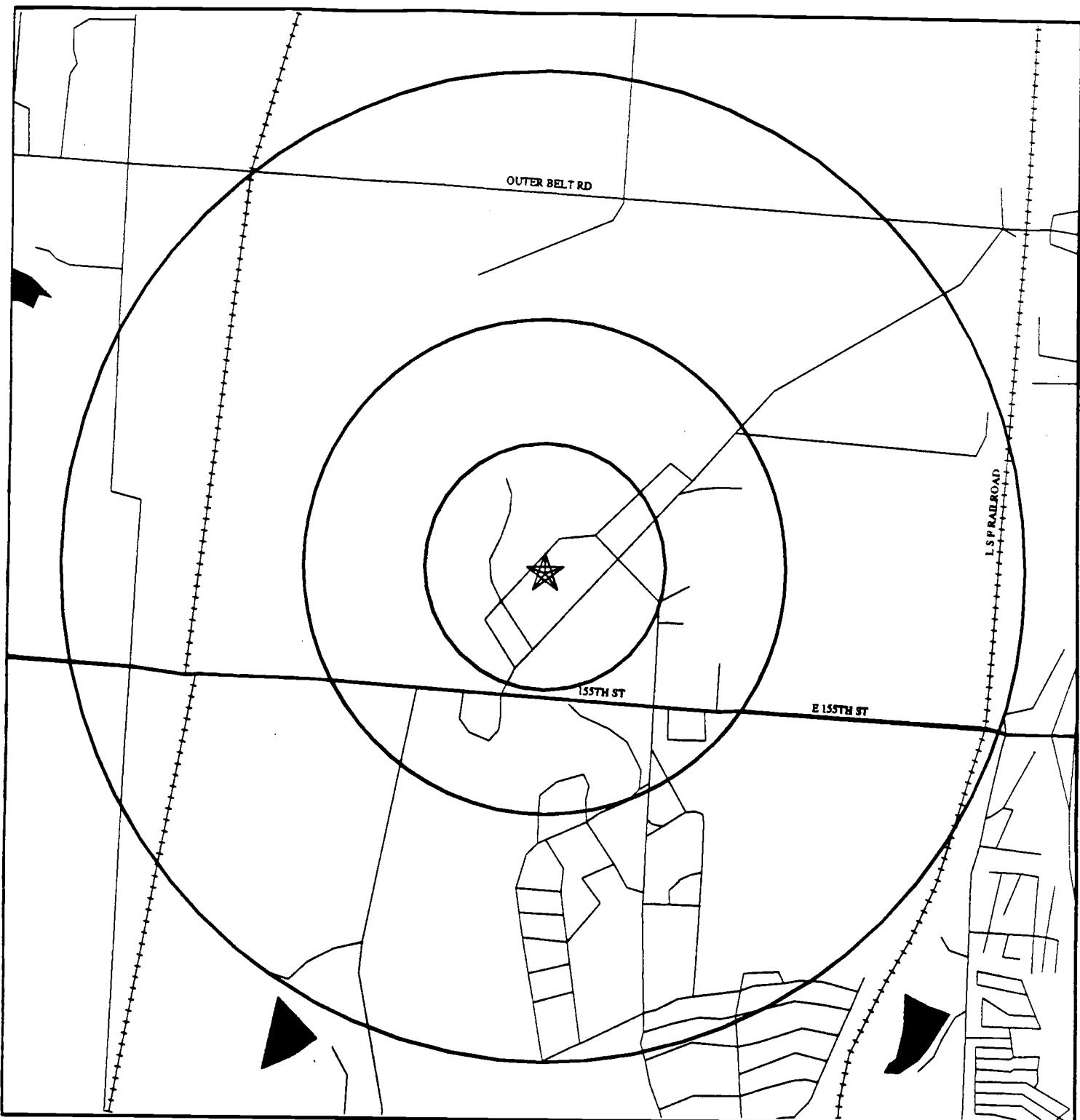
JACKSON COUNTY, MO

Number of sites tested: 207

<u>Area</u>	<u>Average Activity</u>	<u>% <4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% >20 pCi/L</u>
Living Area - 1st Floor	3.172 pCi/L	72%	28%	0%
Living Area - 2nd Floor	1.300 pCi/L	100%	0%	0%
Basement	4.266 pCi/L	68%	30%	1%

† Source: P.G. Schruben, R.E. Arndt and W.J. Sawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A Digital Representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS-11 (1994)
 ‡ U.S. EPA Ground Water Handbook, Vol I: Ground Water and Contamination, Office of Research and Development, EPA 600/3-80/016a Chapter 4, page 78, September 1990.

OVERVIEW MAP - 187422.6p - PSI, Inc.



- ★ - Indicates TARGET PROPERTY.
- ▲ - Indicates sites at elevations higher than or equal to the target property.
- ◆ - Indicates sites at elevations lower than the target property.
- ▲ - Coal Gasification Sites (if requested)
- National Priority List Sites

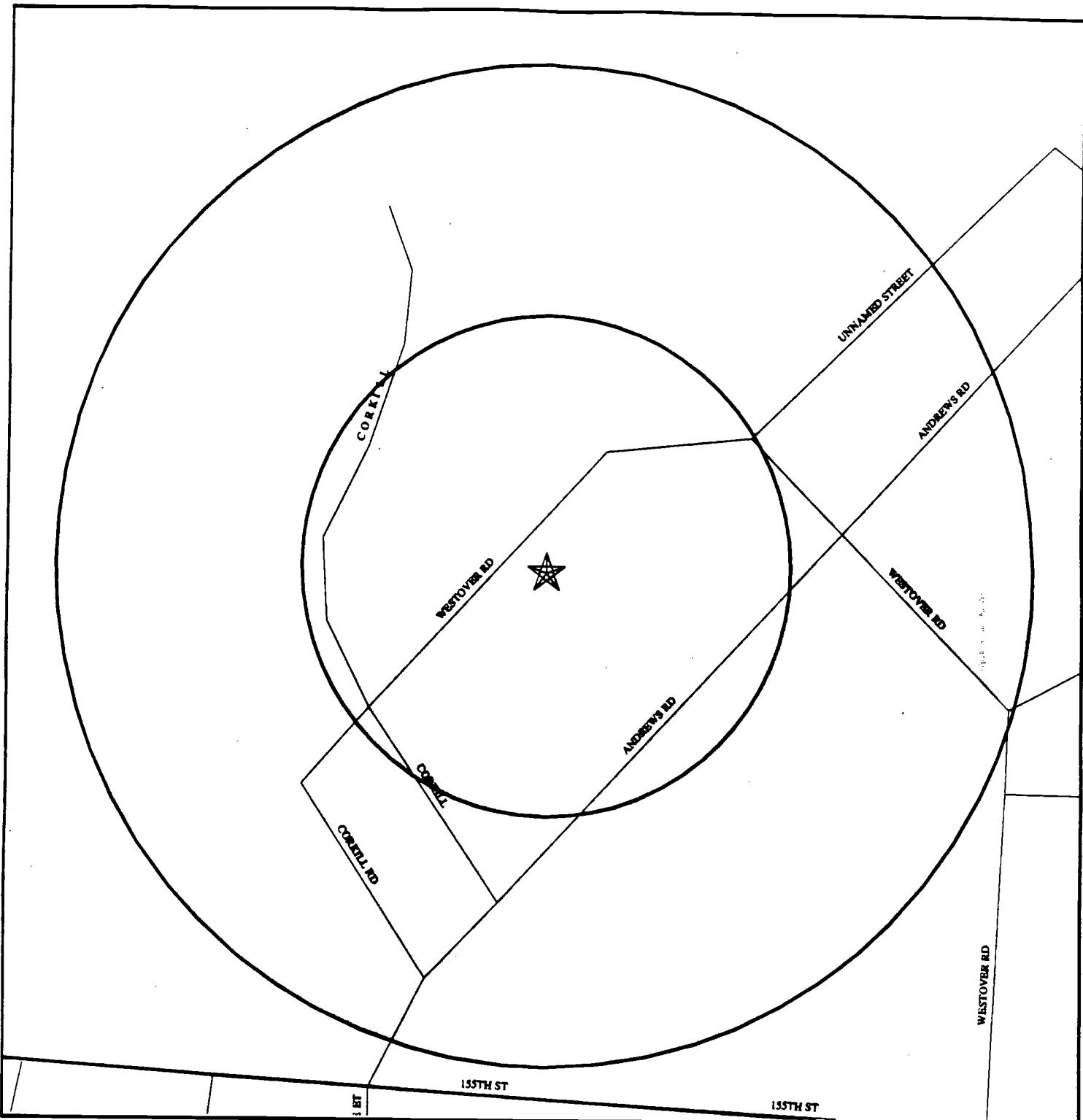
0 1/4 1/2 1
Miles

- - Power transmission lines (USGS DLG, 1993)
 △ - Oil & Gas pipelines (USGS DLG, 1993)

TARGET PROPERTY: Richards-Gebaur AP Bldg 610
 ADDRESS: 15326 Andrews
 CITY/STATE/ZIP: Kansas City MO 64147
 LAT/LONG: 38.8482 / 94.549

CUSTOMER: PSI, Inc.
 CONTACT: Rick Leines
 INQUIRY #: 187422.6p
 DATE: August 25, 1995

DETAIL MAP - 187422.6p - PSI, Inc.



- ★ - Indicates TARGET PROPERTY.
- ▲ - Indicates sites at elevations higher than or equal to the target property.
- - Indicates sites at elevations lower than the target property.
- ▲ - Coal Gasification Sites (if requested)
- - Sensitive Receptors
- National Priority List Sites

- - Power transmission lines (USGS DLG, 1993)
- △ - Oil & Gas pipelines (USGS DLG, 1993)

TARGET PROPERTY:	Richards-Gebaur AP Bldg 610
ADDRESS:	15326 Andrews
CITY/STATE/ZIP:	Kansas City MO 64147
LAT/LONG:	38.8482 / 94.549

CUSTOMER:	PSI, Inc.
CONTACT:	Rick Laines
INQUIRY #:	187422.6p
DATE:	August 25, 1995

**MAP FINDINGS SUMMARY SHOWING
ALL SITES**

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
State Haz. Waste		1.000	0	0	0	0	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		TP	NR	NR	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
State Landfill		0.500	0	0	0	NR	NR	0
LUST		0.500	0	0	0	NR	NR	0
UST		0.250	0	0	NR	NR	NR	0
AST		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
RCRIS Sm. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRIS Lg. Quan. Gen.		0.250	0	0	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
ROD		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
Coal Gas		N/A	N/A	N/A	N/A	N/A	N/A	N/A

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

**MAP FINDINGS SUMMARY SHOWING
ONLY SITES HIGHER THAN OR THE SAME ELEVATION AS TP**

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
State Haz. Waste		1.000	0	0	0	0	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		TP	NR	NR	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
State Landfill		0.500	0	0	0	NR	NR	0
LUST		0.500	0	0	0	NR	NR	0
UST		0.250	0	0	NR	NR	NR	0
AST		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
RCRIS Sm. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRIS Lg. Quan. Gen.		0.250	0	0	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
ROD		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
Coal Gas		N/A	N/A	N/A	N/A	N/A	N/A	N/A

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s) EDR ID Number
 EPA ID Number

Coal Gas Site Search: EDR does not presently have coal gas site information available in this state.

NO SITES FOUND

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
BELTON	1000481425	RICHARDS GEBAUR AIR FORCE BASE	HWY 150 & US 71 HWY	64012	CERCLIS	
BELTON	S101443008	WAL-MART	HWY 58 / US 71	64012	LUST	
BELTON	S100488774	R W HARMON	17327 S 71 HWY	64012	LUST	
KANSAS CITY	U001159835	RICHARDS-GEBAUR AIRPORT	3509 E 147TH ST BLDG 1010	64147	UST	LU1022
KANSAS CITY	U001159837	RICHARDS-GEBAUR AIRPORT	3401 E 155TH TER BLDG 82	64147	UST	UT0012633
KANSAS CITY	U000752660	RICHARDS-GEBAUR AIRPORT	3411 E 155TH TER BLDG 829	64147	UST	UT0012631
KANSAS CITY	S100917043	FAA - VORTAC	HWY 169 / 108TH		LUST	UT0012632
KANSAS CITY	S100489503	BRUGGER McDOWELL AUTO UNLIMITED	1005 HWY 25 SOUTH		LUST	LU01913
KANSAS CITY	1000631621	COTTER & CO	14900 S 71 HWY	64147	RCRIS-SQG, FINDS, UST	LU1131
KANSAS CITY	U000752268	PAYLESS CASHWAYS, INC	14330 S 71 HWY	64147	UST	UT0001980
KANSAS CITY	1000830453	PAYLESS CASHWAYS INC	14330 S 71 HWY	64147	RCRIS-SQG, FINDS	UT0003199
KANSAS CITY	S100773573	TOTAL PETROLEUM (LAT-LONG) LENEXA Q	79TH / STATE LINE RD		LUST	LU1354
KANSAS CITY	U001159836	RICHARDS-GEBAUR AIRPORT	15415 DENVER AVE, BLDG 1301	64147	UST	UT0012635
KANSAS CITY	S100489824	BYRAM SITE	6704 NW HWY 9		LUST	LU1950
KANSAS CITY	S100773813	RICHARDO - GEBAUR AIR BASE	15404 MAXWELL AVE	64147	LUST	LU2102
KANSAS CITY	U001159833	RICHARDS-GEBAUR AIRPORT	15600 SPRUCE AVE BLDG 514	64147	UST	UT0012625
KANSAS CITY	S101099622	CIRCLE K #2433	13011 STATE LINE RD		LUST	LU3237
KANSAS CITY	S101094068	USPCI-KAW YARD OFFICE	STATE LINE RD		LUST	LU04094
KANSAS CITY	S101094069	COMMERCE BANK - PRICE DEVELOPMENT C	STATE LINE RD / 135TH ST		LUST	LU03473
KANSAS CITY	S101094066	WATERWAY GAS & WASH/AMOCO OIL #2384	8507 STATE LINE RD		LUST	LU01612
KANSAS CITY	S101094067	PREMIER CADILLAC DEALERSHIP	8011 STATE LINE RD		LUST	LU03368
KANSAS CITY	S100660708	AMOCO OIL #2242	13013 STATE LINE RD		LUST	LU03232
KANSAS CITY	S100660561	CONOCO #25022	7425 STATE LINE RD		LUST	LU03955
KANSAS CITY	U000752662	RICHARDS-GEBAUR AIRPORT	NO STREET ADDRESS	64147	UST	UT0012634
KANSAS CITY	U000752657	RICHARDS-GEBAUR AIRPORT	NO STREET ADDRESS	64147	UST	UT0012623

**GEOCHECK VERSION 2.1 ADDENDUM
FEDERAL DATABASE WELL INFORMATION**

Well Closest to Target Property (North Quadrant)

BASIC WELL DATA

Site ID:	385240094315001	Distance from TP:	>2 Miles
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	Not Reported	County:	Jackson
Altitude:		State:	Missouri
Well Depth:	685.00 ft.	Topographic Setting:	Not Reported
Depth to Water Table:	Not Reported	Prim. Use of Site:	Not Reported
Date Measured:	Not Reported	Prim. Use of Water:	Not Reported

LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Pennsylvanian-Middle-Des Moinesian
Principal Lithology of Unit:	Not Reported
Further Description:	Not Reported

WATER LEVEL VARIABILITY

Not Reported

GEOCHECK VERSION 2.1
FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (East Quadrant)

BASIC WELL DATA

Site ID:	385100094314501	Distance from TP:	1 - 2 Miles
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	Not Reported	County:	Jackson
Altitude:	1024.00 ft.	State:	Missouri
Well Depth:	433.00 ft.	Topographic Setting:	Not Reported
Depth to Water Table:	Not Reported	Prim. Use of Site:	Not Reported
Date Measured:	Not Reported	Prim. Use of Water:	Not Reported

LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Pennsylvanian-Middle-Des Moinesian		
Principal Lithology of Unit:	Not Reported		
Further Description:	Not Reported		

WATER LEVEL VARIABILITY

Not Reported

GEOCHECK VERSION 2.1
FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (South Quadrant)

BASIC WELL DATA

Site ID:	385030094331501	Distance from TP:	1/2 - 1 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	Not Reported	County:	Cass
Altitude:		State:	Missouri
Well Depth:	32.00 ft.	Topographic Setting:	Not Reported
Depth to Water Table:	Not Reported	Prim. Use of Site:	Withdrawal of water
Date Measured:	Not Reported	Prim. Use of Water:	Domestic

LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Pennsylvanian
Principal Lithology of Unit:	Not Reported
Further Description:	Not Reported

WATER LEVEL VARIABILITY

Not Reported

GOCHECK VERSION 2.1
FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (West Quadrant)

BASIC WELL DATA

Site ID:	385145094351001	Distance from TP:	>2 Miles
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	Not Reported	County:	Jackson
Altitude:		State:	Missouri
Well Depth:	965.00 ft.	Topographic Setting:	Not Reported
Depth to Water Table:	Not Reported	Prim. Use of Site:	Not Reported
Date Measured:	Not Reported	Prim. Use of Water:	Not Reported

LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Pennsylvanian-Middle-Des Moinesian
Principal Lithology of Unit:	Not Reported
Further Description:	Not Reported

WATER LEVEL VARIABILITY

Not Reported

GEOCHECK VERSION 2.1
PUBLIC WATER SUPPLY SYSTEM INFORMATION

Searched by Nearest Well.

PWS SUMMARY:

PWS ID:	MO1048442	PWS Status:	Active	Distance from TP:	>2 Miles
Dir relative to TP:	South	Date Initiated:	November / 1991	Date Deactivated:	Not Reported
PWS Name:	SOUTHFORK MHP 1301 N. SCOTT AVE. BELTON, MO 64012				

Addressee / Facility Type:	Not Reported
Facility Name:	Not Reported

Facility Latitude:	38 48 42	Facility Longitude:	094 31 54
City Served:	SOUTHFORK MHP		
Treatment Class:	Untreated	Population Served:	501 - 1,000 Persons

Well currently has or has had major violation(s): No

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM RECORDS:

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

Source: EPA/NTIS

Telephone: 703-416-0702

CERCLIS: CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/15/95

Date Made Active at EDR: 06/08/95

Date of Data Arrival at EDR: 04/25/95

Elapsed ASTM days: 44

ERNS: Emergency Response Notification System

Source: EPA

Telephone: 202-260-2342

ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/94

Date Made Active at EDR: 05/25/95

Date of Data Arrival at EDR: 04/11/95

Elapsed ASTM days: 44

NPL: National Priority List

Source: EPA

Telephone: 703-603-8852

NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 05/26/95

Date Made Active at EDR: 06/06/95

Date of Data Arrival at EDR: 06/06/95

Elapsed ASTM days: 0

RCRIS: Resource Conservation and Recovery Information System

Source: EPA/NTIS

Telephone: 202-260-3393

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 05/31/95

Date Made Active at EDR: 08/22/95

Date of Data Arrival at EDR: 06/28/95

Elapsed ASTM days: 55

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEDERAL NON-ASTM RECORDS:

CONSENT: Superfund (CERCLA) Consent Decrees

Source: EPA Regional Offices

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: Varies

Date of Next Scheduled Update: 09/01/95

CORRACTS: Corrective Action Report

Source: EPA

Telephone: 202-260-3393

CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/10/95

Date of Next Scheduled Update: 09/18/95

FINDS: Facility Index System

Source: EPA/NTIS

Telephone: 800-908-2493

FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FITS [FIFRA/TSCA Tracking System]), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

Date of Government Version: 07/27/94

Date of Next Scheduled Update: 10/16/95

HMIRS: Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation

Telephone: 202-366-4555

HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/30/94

Date of Next Scheduled Update: 12/04/95

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/01/95

Date of Next Scheduled Update: 10/16/95

NPL LIENS: Federal Superfund Liens

Source: EPA

Telephone: 202-260-8969

NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91

Date of Next Scheduled Update: 11/27/95

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-260-3992

PADS: PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/14/94

Date of Next Scheduled Update: 09/18/95

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

Date of Government Version: 04/17/95

Date of Next Scheduled Update: 10/02/95

ROD: Records Of Decision

Source: NTIS

Telephone: 703-416-0703

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/31/95

Date of Next Scheduled Update: 12/04/95

TRIS: Toxic Chemical Release Inventory System

Source: EPA/NTIS

Telephone: 202-260-2320

TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/92

Date of Next Scheduled Update: 10/09/95

TSCA: Toxic Substances Control Act

Source: EPA/NTIS

Telephone: 202-260-1444

TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 05/15/86

Date of Next Scheduled Update: 09/18/95

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STATE OF MISSOURI ASTM RECORDS:

LUST: Leaking Underground Storage Tanks
Source: Department of Natural Resources
Telephone: 314-526-3349

LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/31/95
Date Made Active at EDR: 07/26/95

Date of Data Arrival at EDR: 06/16/95
Elapsed ASTM days: 40

SHWS: Registry and Registry Log

Source: Department of Natural Resources
Telephone: 314-751-1990

SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/30/95
Date Made Active at EDR: 08/21/95

Date of Data Arrival at EDR: 07/21/95
Elapsed ASTM days: 31

SWF/LS: Solid Waste Disposal Areas & Processing Facilities

Source: Department of Natural Resources
Telephone: 314-751-5401

SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/15/95
Date Made Active at EDR: 07/26/95

Date of Data Arrival at EDR: 06/19/95
Elapsed ASTM days: 37

UST: Underground Storage Tank Information

Source: Department of Natural Resources
Telephone: 314-751-7326

UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/31/95
Date Made Active at EDR: 06/26/95

Date of Data Arrival at EDR: 05/30/95
Elapsed ASTM days: 27

STATE OF MISSOURI NON-ASTM RECORDS:

AST: Service Station Master Listing
Source: Department of Agriculture
Telephone: 314-751-4278

Date of Government Version: 05/01/95

Date of Next Scheduled Update: 11/13/95

Historical and Other Database(s)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

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NFRAP: No Further Remedial Action Planned

Source: EPA/NTIS

Telephone: 703-416-0702

NFRAP: As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

FRDS: Federal Reporting Data System

Source: EPA/Office of Drinking Water

FRDS provides information regarding public water supplies and their compliance with monitoring requirements, maximum contaminant levels (MCL's), and other requirements of the Safe Drinking Water Act of 1986.

Area Radon Information: The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

Oil/Gas Pipelines/Electrical Transmission Lines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

Sensitive Receptors: There are individuals who, due to their fragile immune systems, are deemed to be especially sensitive to environmental discharges. These typically include the elderly, the sick, and children. While the exact location of these sensitive receptors cannot be determined, EDR indicates those facilities, such as schools, hospitals, day care centers, and nursing homes, where sensitive receptors are likely to be located.

USGS Water Wells: In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1994 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration



**Environmental
Data
Resources, Inc.**

Creators of Toxiccheck®

EDR-Site Report™

for

RICHARDS-GEBAUR AIRPORT

3411 E 155TH TER BLDG 829
KANSAS CITY, MO 64147

Inquiry Number:

August 29, 1995

**The Source
For Environmental
Risk Management
Data**

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

TABLE OF CONTENTS

The EDR-Site Report™ is a comprehensive presentation of government filings on a facility identified in a search of over 4 million government records from more than 600 federal, state and local environmental databases. The report is divided into three sections:

Section 1: Facility Summary **Page 3**

Summary of facility filings including a review of the following areas: waste management, waste disposal, multi-media issues, and Superfund liability.

Section 2: Facility Detail Reports **Page 4**

All available detailed information from databases where sites are identified.

Section 3: Databases Searched and Update Information..... **Page 5**

Name, source, update dates, contact phone number and description of each of the databases searched for this report.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer

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SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 RICHARDS-GEBEUR AIRPORT 3411 E 155TH TER BLDG 829 KANSAS CITY, MO 64147 EDR ID #U000752660
WASTE MANAGEMENT Facility generates hazardous waste (RCRIS)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRIS/TSDF)	NO
Facility has received Notices of Violations (RCRIS/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	YES - p4
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility is not a Superfund Site but has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LS)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has enforcement actions under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	NO
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

WASTE MANAGEMENT

Facility manages registered underground storage tanks

DATABASE: Petroleum Storage Tank Database (UST)

RICHARDS-GEBAUR AIRPORT-
3411 E 155TH TER BLDG 829
KANSAS CITY, MO 64147

UST:

Facility ID: UT0012632
Total Tanks: 3
Tank ID: 1
Tank Status: Currently in use
Capacity: 500
Substance: USED OIL

Facility Contact: Not reported
Facility Telephone: Not reported
Owner Name: AVIATION DEPARTMENT/RICHARDS-GEBAUR
Owner Address: 15405 MAXWELL AVENUE
City, State, Zip: KANSAS CITY, MO 64147
Owner Telephone: 816/322/0001

Facility ID: UT0012632
Total Tanks: 3
Tank ID: 2
Tank Status: Currently in use
Capacity: 1000
Substance: DIESEL

Facility Contact: Not reported
Facility Telephone: Not reported
Owner Name: AVIATION DEPARTMENT/RICHARDS-GEBAUR
Owner Address: 15405 MAXWELL AVENUE
City, State, Zip: KANSAS CITY, MO 64147
Owner Telephone: 816/322/0001

Facility ID: UT0012632
Total Tanks: 3
Tank ID: 3
Tank Status: Currently in use
Capacity: 1000
Substance: GASOLINE

Facility Contact: Not reported
Facility Telephone: Not reported
Owner Name: AVIATION DEPARTMENT/RICHARDS-GEBAUR
Owner Address: 15405 MAXWELL AVENUE
City, State, Zip: KANSAS CITY, MO 64147
Owner Telephone: 816/322/0001

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement for databases included in ASTM E1527-94.

WASTE MANAGEMENT

RCRIS: Resource Conservation and Recovery Information System
Source: EPA/NTIS
Telephone: 202-260-3393

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 05/31/1995
Date Made Active at EDR: 08/22/1995

Date of Data Arrival at EDR: 06/28/1995
Elapsed ASTM Days: 55

RAATS: RCRA Administrative Action Tracking System

Source: EPA
Telephone: 202-564-4104

RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

Date of Government Version: 04/17/1995

Date of Next Scheduled Update: 10/02/95

CORRACTS: Corrective Action Report

Source: EPA
Telephone: 202-260-3393

CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/10/1995

Date of Next Scheduled Update: 09/18/95

PADS: PCB Activity Database System

Source: EPA
Telephone: 202-260-3992

PADS: PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/14/1994

Date of Next Scheduled Update: 09/18/95

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/01/1995

Date of Next Scheduled Update: 10/16/95

MO AST: Service Station Master Listing

Source: Department of Agriculture
Telephone: 314-751-4278

Date of Government Version: 05/01/1995

Date of Next Scheduled Update: 11/13/95

MO UST: Underground Storage Tank Information

Source: Department of Natural Resources
Telephone: 314-751-7326

UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/31/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/30/1995
Elapsed ASTM Days: 27

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO LUST: Leaking Underground Storage Tanks
Source: Department of Natural Resources
Telephone: 314-526-3349

LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/31/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/16/1995
Elapsed ASTM Days: 40

ERNS: Emergency Response Notification System
Source: EPA
Telephone: 202-260-2342

ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/1994
Date Made Active at EDR: 05/25/1995

Date of Data Arrival at EDR: 04/11/1995
Elapsed ASTM Days: 44

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555

HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/30/1994

Date of Next Scheduled Update: 12/04/95

WASTE DISPOSAL

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852

NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 05/26/1995
Date Made Active at EDR: 06/06/1995

Date of Data Arrival at EDR: 06/06/1995
Elapsed ASTM Days: 0

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-416-0702

CERCLIS: Comprehensive Environmental Response, Compensation and Liability Information System. CERCLIS contains information on sites identified by the USEPA as known or suspect abandoned, inactive or uncontrolled hazardous waste sites which may require cleanup.

Date of Government Version: 03/15/1995
Date Made Active at EDR: 06/08/1995

Date of Data Arrival at EDR: 04/25/1995
Elapsed ASTM Days: 44

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-260-8969

NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Made Active at EDR: 03/30/1994

Date of Data Arrival at EDR: 02/02/1994
Elapsed ASTM Days: 56

MO SHWS: Registry and Registry Log
Source: Department of Natural Resources
Telephone: 314-751-1990

SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/30/1995
Date Made Active at EDR: 08/21/1995

Date of Data Arrival at EDR: 07/21/1995
Elapsed ASTM Days: 31

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO SWF/LS: Solid Waste Disposal Areas & Processing Facilities

Source: Department of Natural Resources

Telephone: 314-751-5401

SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/15/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/19/1995
Elapsed ASTM Days: 37

MULTIMEDIA

TRIS: Toxic Chemical Release Inventory System

Source: EPA/NTIS

Telephone: 202-260-2320

TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/1992

Date of Next Scheduled Update: 10/09/95

TSCA: Toxic Substances Control Act

Source: EPA/NTIS

Telephone: 202-260-1444

TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 05/15/1986

Date of Next Scheduled Update: 09/18/95

FTTS: Fifra / Tscfa Tracking System

Source: EPA/Office of Prevention, Pesticides & Toxic Substances

Telephone: 202-260-7864

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 05/15/1995

Date of Next Scheduled Update: 11/06/95

FINDS: Facility Index System

Source: EPA/NTIS

Telephone: 800-908-2493

FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

Date of Government Version: 07/27/1994

Date of Next Scheduled Update: 10/16/95

POTENTIAL SUPERFUND LIABILITY

SETS: Site Enforcement Tracking System

Source: EPA/NTIS

Telephone: 202-260-8718

SETS list the potentially responsible parties (PRPs) recorded by EPA (in SETS) at Superfund sites. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/15/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/15/1995
Elapsed ASTM Days: 42

EDR-Site ReportTM

for

RICHARDS-GEBAUR AIRPORT

15415 DENVER AVE, BLDG 1301
KANSAS CITY, MO 64147

Inquiry Number:

August 29, 1995



**Environmental
Data
Resources, Inc.**

Creators of Toxiccheck®

***The Source
For Environmental
Risk Management
Data***

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

TABLE OF CONTENTS

The EDR-Site Report™ is a comprehensive presentation of government filings on a facility identified in a search of over 4 million government records from more than 600 federal, state and local environmental databases. The report is divided into three sections:

Section 1: Facility Summary Page 3

Summary of facility filings including a review of the following areas: waste management, waste disposal, multi-media issues, and Superfund liability.

Section 2: Facility Detail Reports Page 4

All available detailed information from databases where sites are identified.

Section 3: Databases Searched and Update Information. Page 5

Name, source, update dates, contact phone number and description of each of the databases searched for this report.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer

This Report contains information obtained from a variety of public sources and EDR makes no representation or warranty regarding the accuracy, reliability, quality, or completeness of said information contained in this report. The customer shall assume full responsibility for the use of this report. **No warranty of merchantability or of fitness for a particular purpose, expressed or implied, shall apply and EDR specifically disclaims the making of such warranties. In no event shall EDR be liable to anyone for special, incidental, consequential or exemplary damages.**

SECTION 1: FACILITY SUMMARY

FACILITY	FACILITY 1 RICHARDS-GEBAUER AIRPORT 15415 DENVER AVE. BLDG 1301 KANSAS CITY, MO 64147 EDR ID #U001159836
AREA	
WASTE MANAGEMENT Facility generates hazardous waste (RCRIS)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRIS/TSDF)	NO
Facility has received Notices of Violations (RCRIS/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	YES - p4
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility is not a Superfund Site but has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LS)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has enforcement actions under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	NO
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

WASTE MANAGEMENT

Facility manages registered underground storage tanks

DATABASE: Petroleum Storage Tank Database (UST)

RICHARDS-GEBEUR AIRPORT-
3401 E 155TH TER BLDG 82
KANSAS CITY, MO 64147

UST:

Facility ID: UT0012631
Total Tanks: 2
Tank ID: 1
Tank Status: Currently in use
Capacity: 15000
Substance: GASOLINE

Facility Contact: Not reported
Facility Telephone: Not reported
Owner Name: AVIATION DEPARTMENT/RICHARDS-GEBEUR
Owner Address: 15405 MAXWELL AVENUE
City, State, Zip: KANSAS CITY, MO 64147
Owner Telephone: 816/322/0001

Facility ID: UT0012631
Total Tanks: 2
Tank ID: 2
Tank Status: Currently in use
Capacity: 500
Substance: USED OIL

Facility Contact: Not reported
Facility Telephone: Not reported
Owner Name: AVIATION DEPARTMENT/RICHARDS-GEBEUR
Owner Address: 15405 MAXWELL AVENUE
City, State, Zip: KANSAS CITY, MO 64147
Owner Telephone: 816/322/0001

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement for databases included in ASTM E1527-94.

WASTE MANAGEMENT

RCRIS: Resource Conservation and Recovery Information System

Source: EPA/NTIS

Telephone: 202-260-3393

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 05/31/1995
Date Made Active at EDR: 08/22/1995

Date of Data Arrival at EDR: 06/28/1995
Elapsed ASTM Days: 55

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

Date of Government Version: 04/17/1995

Date of Next Scheduled Update: 10/02/95

CORRACTS: Corrective Action Report

Source: EPA

Telephone: 202-260-3393

CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/10/1995

Date of Next Scheduled Update: 09/18/95

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-260-3992

PADS: PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/14/1994

Date of Next Scheduled Update: 09/18/95

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/01/1995

Date of Next Scheduled Update: 10/16/95

MO AST: Service Station Master Listing

Source: Department of Agriculture

Telephone: 314-751-4278

Date of Government Version: 05/01/1995

Date of Next Scheduled Update: 11/13/95

MO UST: Underground Storage Tank Information

Source: Department of Natural Resources

Telephone: 314-751-7326

UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/31/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/30/1995
Elapsed ASTM Days: 27

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO LUST: Leaking Underground Storage Tanks
Source: Department of Natural Resources
Telephone: 314-526-3349

LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/31/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/16/1995
Elapsed ASTM Days: 40

ERNS: Emergency Response Notification System
Source: EPA
Telephone: 202-260-2342

ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/1994
Date Made Active at EDR: 05/25/1995

Date of Data Arrival at EDR: 04/11/1995
Elapsed ASTM Days: 44

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555

HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/30/1994

Date of Next Scheduled Update: 12/04/95

WASTE DISPOSAL

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852

NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 05/26/1995
Date Made Active at EDR: 06/06/1995

Date of Data Arrival at EDR: 06/06/1995
Elapsed ASTM Days: 0

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-416-0702

CERCLIS: Comprehensive Environmental Response, Compensation and Liability Information System. CERCLIS contains information on sites identified by the USEPA as known or suspect abandoned, inactive or uncontrolled hazardous waste sites which may require cleanup.

Date of Government Version: 03/15/1995
Date Made Active at EDR: 06/08/1995

Date of Data Arrival at EDR: 04/25/1995
Elapsed ASTM Days: 44

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-260-8969

NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Made Active at EDR: 03/30/1994

Date of Data Arrival at EDR: 02/02/1994
Elapsed ASTM Days: 56

MO SHWS: Registry and Registry Log
Source: Department of Natural Resources
Telephone: 314-751-1990

SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/30/1995
Date Made Active at EDR: 08/21/1995

Date of Data Arrival at EDR: 07/21/1995
Elapsed ASTM Days: 31

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO SWF/LS: Solid Waste Disposal Areas & Processing Facilities

Source: Department of Natural Resources
Telephone: 314-751-5401

SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/15/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/19/1995
Elapsed ASTM Days: 37

MULTIMEDIA

TRIS: Toxic Chemical Release Inventory System

Source: EPA/NTIS
Telephone: 202-260-2320

TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/1992

Date of Next Scheduled Update: 10/09/95

TSCA: Toxic Substances Control Act

Source: EPA/NTIS
Telephone: 202-260-1444

TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 05/15/1986

Date of Next Scheduled Update: 09/18/95

FTTS: Fifra / Tscia Tracking System

Source: EPA/Office of Prevention, Pesticides & Toxic Substances
Telephone: 202-260-7864

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 05/15/1995

Date of Next Scheduled Update: 11/06/95

FINDS: Facility Index System

Source: EPA/NTIS
Telephone: 800-908-2493

FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System], CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals In Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

Date of Government Version: 07/27/1994

Date of Next Scheduled Update: 10/16/95

POTENTIAL SUPERFUND LIABILITY

SETS: Site Enforcement Tracking System

Source: EPA/NTIS
Telephone: 202-260-8718

SETS list the potentially responsible parties (PRPs) recorded by EPA (in SETS) at Superfund sites. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/15/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/15/1995
Elapsed ASTM Days: 42

EDR-Site ReportTM

for

RICHARDO - GEBAUR AIR BASE

15404 MAXWELL AVE
KANSAS CITY, MO 64147

Inquiry Number:

August 29, 1995



**Environmental
Data
Resources, Inc.**

Creators of Toxiccheck®

***The Source*
For Environmental
Risk Management
Data**

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

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Summary of facility filings including a review of the following areas: waste management, waste disposal, multi-media issues, and Superfund liability.

Section 2: Facility Detail Reports **Page 4**

All available detailed information from databases where sites are identified.

Section 3: Databases Searched and Update Information..... **Page 5**

Name, source, update dates, contact phone number and description of each of the databases searched for this report.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer

This Report contains information obtained from a variety of public sources and EDR makes no representation or warranty regarding the accuracy, reliability, quality, or completeness of said information contained in this report. The customer shall assume full responsibility for the use of this report. **No warranty of merchantability or of fitness for a particular purpose, expressed or implied, shall apply and EDR specifically disclaims the making of such warranties. In no event shall EDR be liable to anyone for special, incidental, consequential or exemplary damages.**

SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 RICHARDO - GEBEUR AIR BASE 15404 MAXWELL AVE KANSAS CITY, MO 64147 EDR ID #S100773813
WASTE MANAGEMENT Facility generates hazardous waste (RCRIS)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRIS/TSDF)	NO
Facility has received Notices of Violations (RCRIS/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	NO
Facility has reported leaking underground storage tank incidents (LUST)	YES - p4
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility is not a Superfund Site but has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LS)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has enforcement actions under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	NO
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

WASTE MANAGEMENT

Facility has reported leaking underground storage tank incidents

DATABASE: Leaking Petroleum Storage Tank Database (LUST)

RICHARDO - GEBEUR AIR BASE
15404 MAXWELL AVE
KANSAS CITY, MO 64147

LUST:
Facility ID: LU2102

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement for databases included in ASTM E1527-94.

WASTE MANAGEMENT

RCRIS: Resource Conservation and Recovery Information System

Source: EPA/NTIS

Telephone: 202-260-3393

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 05/31/1995

Date Made Active at EDR: 08/22/1995

Date of Data Arrival at EDR: 06/28/1995

Elapsed ASTM Days: 55

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

Date of Government Version: 04/17/1995

Date of Next Scheduled Update: 10/02/95

CORRACTS: Corrective Action Report

Source: EPA

Telephone: 202-260-3393

CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/10/1995

Date of Next Scheduled Update: 09/18/95

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-260-3392

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Date of Government Version: 10/14/1994

Date of Next Scheduled Update: 09/18/95

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/01/1995

Date of Next Scheduled Update: 10/16/95

MO AST: Service Station Master Listing

Source: Department of Agriculture

Telephone: 314-751-4278

Date of Government Version: 05/01/1995

Date of Next Scheduled Update: 11/13/95

MO UST: Underground Storage Tank Information

Source: Department of Natural Resources

Telephone: 314-751-7326

UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/31/1995

Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/30/1995

Elapsed ASTM Days: 27

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO LUST: Leaking Underground Storage Tanks
Source: Department of Natural Resources
Telephone: 314-526-3349

LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/31/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/16/1995
Elapsed ASTM Days: 40

ERNS: Emergency Response Notification System
Source: EPA
Telephone: 202-260-2342

ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/1994
Date Made Active at EDR: 05/25/1995

Date of Data Arrival at EDR: 04/11/1995
Elapsed ASTM Days: 44

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555

HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/30/1994

Date of Next Scheduled Update: 12/04/95

WASTE DISPOSAL

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852

NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 05/26/1995
Date Made Active at EDR: 06/06/1995

Date of Data Arrival at EDR: 06/06/1995
Elapsed ASTM Days: 0

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-416-0702

CERCLIS: Comprehensive Environmental Response, Compensation and Liability Information System. CERCLIS contains information on sites identified by the USEPA as known or suspect abandoned, inactive or uncontrolled hazardous waste sites which may require cleanup.

Date of Government Version: 03/15/1995
Date Made Active at EDR: 06/08/1995

Date of Data Arrival at EDR: 04/25/1995
Elapsed ASTM Days: 44

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-260-8969

NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Made Active at EDR: 03/30/1994

Date of Data Arrival at EDR: 02/02/1994
Elapsed ASTM Days: 56

MO SHWS: Registry and Registry Log
Source: Department of Natural Resources
Telephone: 314-751-1990

SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/30/1995
Date Made Active at EDR: 08/21/1995

Date of Data Arrival at EDR: 07/21/1995
Elapsed ASTM Days: 31

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO SWF/LS: Solid Waste Disposal Areas & Processing Facilities

Source: Department of Natural Resources

Telephone: 314-751-5401

SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/15/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/19/1995
Elapsed ASTM Days: 37

MULTIMEDIA

TRIS: Toxic Chemical Release Inventory System

Source: EPA/NTIS

Telephone: 202-260-2320

TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/1992

Date of Next Scheduled Update: 10/09/95

TSCA: Toxic Substances Control Act

Source: EPA/NTIS

Telephone: 202-260-1444

TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 05/15/1986

Date of Next Scheduled Update: 09/18/95

FTTS: Fifra / Tsc Tracking System

Source: EPA/Office of Prevention, Pesticides & Toxic Substances

Telephone: 202-260-7864

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 05/15/1995

Date of Next Scheduled Update: 11/06/95

FINDS: Facility Index System

Source: EPA/NTIS

Telephone: 800-908-2493

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Date of Government Version: 07/27/1994

Date of Next Scheduled Update: 10/16/95

POTENTIAL SUPERFUND LIABILITY

SETS: Site Enforcement Tracking System

Source: EPA/NTIS

Telephone: 202-260-8718

SETS list the potentially responsible parties (PRPs) recorded by EPA (in SETS) at Superfund sites. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/15/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/15/1995
Elapsed ASTM Days: 42

EDR-Site ReportTM

for

RICHARDS-GEBAUR AIRPORT

3509 E 147TH ST BLDG 1010
KANSAS CITY, MO 64147

Inquiry Number:

August 29, 1995



**Environmental
Data
Resources, Inc.**

Creators of Toxiccheck®

**The Source
For Environmental
Risk Management
Data**

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

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Summary of facility filings including a review of the following areas: waste management, waste disposal, multi-media issues, and Superfund liability.

Section 2: Facility Detail Reports **Page 4**

All available detailed information from databases where sites are identified.

Section 3: Databases Searched and Update Information. **Page 5**

Name, source, update dates, contact phone number and description of each of the databases searched for this report.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer

This Report contains information obtained from a variety of public sources and EDR makes no representation or warranty regarding the accuracy, reliability, quality, or completeness of said information contained in this report. The customer shall assume full responsibility for the use of this report. **No warranty of merchantability or of fitness for a particular purpose, expressed or implied, shall apply and EDR specifically disclaims the making of such warranties. In no event shall EDR be liable to anyone for special, incidental, consequential or exemplary damages.**

SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 RICHARDS-GEBEUR AIRPORT 3509 E 147TH ST BLDG 1010 KANSAS CITY, MO 64147 EDR ID #U001159835 -
WASTE MANAGEMENT Facility generates hazardous waste (RCRIS)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRIS/TSDF)	NO
Facility has received Notices of Violations (RCRIS/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	YES - p4
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility is not a Superfund Site but has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LS)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has enforcement actions under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	NO
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

WASTE MANAGEMENT

Facility manages registered underground storage tanks

DATABASE: Petroleum Storage Tank Database (UST)

RICHARDS-GEBEUR AIRPORT-
3509 E 147TH ST BLDG 1010
KANSAS CITY, MO 64147

UST:

Facility ID:	UT0012633	Facility Contact:	Not reported
Total Tanks:	3	Facility Telephone:	Not reported
Tank ID:	1	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBEUR
Tank Status:	Currently in use	Owner Address:	15405 MAXWELL AVENUE
Capacity:	1000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	PETROLEUM	Owner Telephone:	816/322/0001
Facility ID:	UT0012633	Facility Contact:	Not reported
Total Tanks:	3	Facility Telephone:	Not reported
Tank ID:	2	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBEUR
Tank Status:	Permanently closed in place	Owner Address:	15405 MAXWELL AVENUE
Capacity:	2500	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	PETROLEUM	Owner Telephone:	816/322/0001
Facility ID:	UT0012633	Facility Contact:	Not reported
Total Tanks:	3	Facility Telephone:	Not reported
Tank ID:	3	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBEUR
Tank Status:	Permanently closed in place	Owner Address:	15405 MAXWELL AVENUE
Capacity:	500	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	DIESEL	Owner Telephone:	816/322/0001

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Source: EPA

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Date of Next Scheduled Update: 09/18/95

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Date of Next Scheduled Update: 10/16/95

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Telephone: 314-751-4278

Date of Government Version: 05/01/1995

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Date of Government Version: 03/31/1995
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Date of Data Arrival at EDR: 05/30/1995
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...Continued...

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Telephone: 314-526-3349

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Date Made Active at EDR: 07/26/1995

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Elapsed ASTM Days: 40

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Date of Data Arrival at EDR: 04/11/1995

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HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

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Date of Data Arrival at EDR: 06/06/1995

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Source: EPA/NTIS

Telephone: 703-416-0702

CERCLIS: Comprehensive Environmental Response, Compensation and Liability Information System. CERCLIS contains information on sites identified by the USEPA as known or suspect abandoned, inactive or uncontrolled hazardous waste sites which may require cleanup.

Date of Government Version: 03/15/1995

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Date of Data Arrival at EDR: 04/25/1995

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Source: EPA

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Date of Government Version: 10/15/1991

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Date of Data Arrival at EDR: 02/02/1994

Elapsed ASTM Days: 56

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Source: Department of Natural Resources

Telephone: 314-751-1990

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SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO SWF/LS: Solid Waste Disposal Areas & Processing Facilities
Source: Department of Natural Resources
Telephone: 314-751-5401

SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/15/1995
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Date of Data Arrival at EDR: 06/19/1995
Elapsed ASTM Days: 37

MULTIMEDIA

TRIS: Toxic Chemical Release Inventory System
Source: EPA/NTIS
Telephone: 202-260-2320

TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/1992

Date of Next Scheduled Update: 10/09/95

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Source: EPA/NTIS
Telephone: 202-260-1444

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Telephone: 202-260-7864

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

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Source: EPA/NTIS
Telephone: 800-908-2493

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Date of Government Version: 07/27/1994

Date of Next Scheduled Update: 10/16/95

POTENTIAL SUPERFUND LIABILITY

SETS: Site Enforcement Tracking System
Source: EPA/NTIS
Telephone: 202-260-8718

SETS list the potentially responsible parties (PRPs) recorded by EPA (in SETS) at Superfund sites. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/15/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/15/1995
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EDR-Site Report™

for

RICHARDS-GEBAUR AIRPORT

3401 E 155TH TER BLDG 82
KANSAS CITY, MO 64147

Inquiry Number:

August 29, 1995



**Environmental
Data
Resources, Inc.**

Creators of Toxiccheck®

**The Source
For Environmental
Risk Management
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3530 Post Road
Southport, Connecticut 06490

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SECTION 2: FACILITY DETAIL REPORTS

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Facility manages registered underground storage tanks

DATABASE: Petroleum Storage Tank Database (UST)

RICHARDS-GEBAUR AIRPORT
15415 DENVER AVE, BLDG 1301
KANSAS CITY, MO 64147

UST:

Facility ID: UT0012635
Total Tanks: 1
Tank ID: 1
Tank Status: Permanently closed in place
Capacity: 4000
Substance: PETROLEUM

Facility Contact: Not reported
Facility Telephone: Not reported
Owner Name: AVIATION DEPARTMENT/RICHARDS-GEBAUR
Owner Address: 15405 MAXWELL AVENUE
City, State, Zip: KANSAS CITY, MO 64147
Owner Telephone: 816/322/0001

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Source: Department of Natural Resources

Telephone: 314-751-7326

UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/31/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/30/1995
Elapsed ASTM Days: 27

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO LUST: Leaking Underground Storage Tanks
Source: Department of Natural Resources
Telephone: 314-526-3349

LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/31/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/16/1995
Elapsed ASTM Days: 40

ERNS: Emergency Response Notification System
Source: EPA
Telephone: 202-260-2342

ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/1994
Date Made Active at EDR: 05/25/1995

Date of Data Arrival at EDR: 04/11/1995
Elapsed ASTM Days: 44

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555

HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/30/1994

Date of Next Scheduled Update: 12/04/95

WASTE DISPOSAL

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852

NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 05/26/1995
Date Made Active at EDR: 06/06/1995

Date of Data Arrival at EDR: 06/06/1995
Elapsed ASTM Days: 0

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-416-0702

CERCLIS: Comprehensive Environmental Response, Compensation and Liability Information System. CERCLIS contains information on sites identified by the USEPA as known or suspect abandoned, inactive or uncontrolled hazardous waste sites which may require cleanup.

Date of Government Version: 03/15/1995
Date Made Active at EDR: 06/08/1995

Date of Data Arrival at EDR: 04/25/1995
Elapsed ASTM Days: 44

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-260-8969

NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Made Active at EDR: 03/30/1994

Date of Data Arrival at EDR: 02/02/1994
Elapsed ASTM Days: 56

MO SHWS: Registry and Registry Log
Source: Department of Natural Resources
Telephone: 314-751-1990

SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/30/1995
Date Made Active at EDR: 08/21/1995

Date of Data Arrival at EDR: 07/21/1995
Elapsed ASTM Days: 31

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO SWF/LS: Solid Waste Disposal Areas & Processing Facilities

Source: Department of Natural Resources
Telephone: 314-751-5401

SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/15/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/19/1995
Elapsed ASTM Days: 37

MULTIMEDIA

TRIS: Toxic Chemical Release Inventory System

Source: EPA/NTIS
Telephone: 202-260-2320

TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/1992

Date of Next Scheduled Update: 10/09/95

TSCA: Toxic Substances Control Act

Source: EPA/NTIS
Telephone: 202-260-1444

TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 05/15/1986

Date of Next Scheduled Update: 09/18/95

FTTS: Fifra / Tscia Tracking System

Source: EPA/Office of Prevention, Pesticides & Toxic Substances
Telephone: 202-260-7864

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 05/15/1995

Date of Next Scheduled Update: 11/06/95

FINDS: Facility Index System

Source: EPA/NTIS
Telephone: 800-908-2493

FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

Date of Government Version: 07/27/1994

Date of Next Scheduled Update: 10/16/95

POTENTIAL SUPERFUND LIABILITY

SETS: Site Enforcement Tracking System

Source: EPA/NTIS
Telephone: 202-260-8718

SETS list the potentially responsible parties (PRPs) recorded by EPA (in SETS) at Superfund sites. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/15/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/15/1995
Elapsed ASTM Days: 42



**Environmental
Data
Resources, Inc.**

Creators of Toxiccheck®

EDR-Site Report™

for

RICHARDS-GEBAUR AIRPORT

15600 SPRUCE AVE BLDG 514

KANSAS CITY, MO 64147

Inquiry Number:

August 29, 1995

**The Source
For Environmental
Risk Management
Data**

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

TABLE OF CONTENTS

The EDR-Site Report™ is a comprehensive presentation of government filings on a facility identified in a search of over 4 million government records from more than 600 federal, state and local environmental databases. The report is divided into three sections:

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Summary of facility filings including a review of the following areas: waste management, waste disposal, multi-media issues, and Superfund liability.

Section 2: Facility Detail Reports Page 4

All available detailed information from databases where sites are identified.

Section 3: Databases Searched and Update Information..... Page 5

Name, source, update dates, contact phone number and description of each of the databases searched for this report.

Thank you for your business.

Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer

This Report contains information obtained from a variety of public sources and EDR makes no representation or warranty regarding the accuracy, reliability, quality, or completeness of said information contained in this report. The customer shall assume full responsibility for the use of this report. **No warranty of merchantability or of fitness for a particular purpose, expressed or implied, shall apply and EDR specifically disclaims the making of such warranties.** In no event shall EDR be liable to anyone for special, incidental, consequential or exemplary damages.

SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 RICHARDS-GEBEUR AIRPORT 15600 SPRUCE AVE BLDG 514 KANSAS CITY, MO 64147 EDR ID #U001159833
WASTE MANAGEMENT Facility generates hazardous waste (RCRIS)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRIS/TSDF)	NO
Facility has received Notices of Violations (RCRIS/VIO)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	YES - p4
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility is not a Superfund Site but has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LS)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has enforcement actions under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	NO
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

WASTE MANAGEMENT

Facility manages registered underground storage tanks

DATABASE: Petroleum Storage Tank Database (UST)

RICHARDS-GEBAUER AIRPORT-
15600 SPRUCE AVE BLDG 514
KANSAS CITY, MO 64147

UST:

Facility ID:	UT0012625	Facility Contact:	Not reported
Total Tanks:	6	Facility Telephone:	Not reported
Tank ID:	1	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUER
Tank Status:	Currently in use	Owner Address:	15405 MAXWELL AVENUE
Capacity:	50000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	PETROLEUM	Owner Telephone:	816/322/0001
Facility ID:	UT0012625	Facility Contact:	Not reported
Total Tanks:	6	Facility Telephone:	Not reported
Tank ID:	2	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUER
Tank Status:	Currently in use	Owner Address:	15405 MAXWELL AVENUE
Capacity:	50000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	PETROLEUM	Owner Telephone:	816/322/0001
Facility ID:	UT0012625	Facility Contact:	Not reported
Total Tanks:	6	Facility Telephone:	Not reported
Tank ID:	3	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUER
Tank Status:	Currently in use	Owner Address:	15405 MAXWELL AVENUE
Capacity:	50000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	PETROLEUM	Owner Telephone:	816/322/0001
Facility ID:	UT0012625	Facility Contact:	Not reported
Total Tanks:	6	Facility Telephone:	Not reported
Tank ID:	4	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUER
Tank Status:	Currently in use	Owner Address:	15405 MAXWELL AVENUE
Capacity:	50000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	PETROLEUM	Owner Telephone:	816/322/0001
Facility ID:	UT0012625	Facility Contact:	Not reported
Total Tanks:	6	Facility Telephone:	Not reported
Tank ID:	5	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUER
Tank Status:	Currently in use	Owner Address:	15405 MAXWELL AVENUE
Capacity:	50000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	PETROLEUM	Owner Telephone:	816/322/0001

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement for databases included in ASTM E1527-94.

WASTE MANAGEMENT

RCRIS: Resource Conservation and Recovery Information System

Source: EPA/NTIS

Telephone: 202-260-3393

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 05/31/1995
Date Made Active at EDR: 08/22/1995

Date of Data Arrival at EDR: 06/28/1995
Elapsed ASTM Days: 55

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

Date of Government Version: 04/17/1995

Date of Next Scheduled Update: 10/02/95

CORRACTS: Corrective Action Report

Source: EPA

Telephone: 202-260-3393

CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/10/1995

Date of Next Scheduled Update: 09/18/95

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-260-3992

PADS: PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/14/1994

Date of Next Scheduled Update: 09/18/95

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/01/1995

Date of Next Scheduled Update: 10/16/95

MO AST: Service Station Master Listing

Source: Department of Agriculture

Telephone: 314-751-4278

Date of Government Version: 05/01/1995

Date of Next Scheduled Update: 11/13/95

MO UST: Underground Storage Tank Information

Source: Department of Natural Resources

Telephone: 314-751-7326

UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/31/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/30/1995
Elapsed ASTM Days: 27

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO LUST: Leaking Underground Storage Tanks
Source: Department of Natural Resources
Telephone: 314-526-3349

LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/31/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/16/1995
Elapsed ASTM Days: 40

ERNS: Emergency Response Notification System
Source: EPA
Telephone: 202-260-2342

ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/1994
Date Made Active at EDR: 05/25/1995

Date of Data Arrival at EDR: 04/11/1995
Elapsed ASTM Days: 44

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555

HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/30/1994

Date of Next Scheduled Update: 12/04/95

WASTE DISPOSAL

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852

NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 05/26/1995
Date Made Active at EDR: 06/06/1995

Date of Data Arrival at EDR: 06/06/1995
Elapsed ASTM Days: 0

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-416-0702

CERCLIS: Comprehensive Environmental Response, Compensation and Liability Information System. CERCLIS contains information on sites identified by the USEPA as known or suspect abandoned, inactive or uncontrolled hazardous waste sites which may require cleanup.

Date of Government Version: 03/15/1995
Date Made Active at EDR: 06/08/1995

Date of Data Arrival at EDR: 04/25/1995
Elapsed ASTM Days: 44

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-260-8969

NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Made Active at EDR: 03/30/1994

Date of Data Arrival at EDR: 02/02/1994
Elapsed ASTM Days: 56

MO SHWS: Registry and Registry Log
Source: Department of Natural Resources
Telephone: 314-751-1990

SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/30/1995
Date Made Active at EDR: 08/21/1995

Date of Data Arrival at EDR: 07/21/1995
Elapsed ASTM Days: 31

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO SWF/LS: Solid Waste Disposal Areas & Processing Facilities

Source: Department of Natural Resources

Telephone: 314-751-5401

SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/15/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/19/1995
Elapsed ASTM Days: 37

MULTIMEDIA

TRIS: Toxic Chemical Release Inventory System

Source: EPA/NTIS

Telephone: 202-260-2320

TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/1992

Date of Next Scheduled Update: 10/09/95

TSCA: Toxic Substances Control Act

Source: EPA/NTIS

Telephone: 202-260-1444

TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 05/15/1986

Date of Next Scheduled Update: 09/18/95

FTTS: Fifra / Tscia Tracking System

Source: EPA/Office of Prevention, Pesticides & Toxic Substances

Telephone: 202-260-7864

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 05/15/1995

Date of Next Scheduled Update: 11/06/95

FINDS: Facility Index System

Source: EPA/NTIS

Telephone: 800-908-2493

FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS (FIFRA/TSCA Tracking System)), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

Date of Government Version: 07/27/1994

Date of Next Scheduled Update: 10/16/95

POTENTIAL SUPERFUND LIABILITY

SETS: Site Enforcement Tracking System

Source: EPA/NTIS

Telephone: 202-260-8718

SETS list the potentially responsible parties (PRPs) recorded by EPA (in SETS) at Superfund sites. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/15/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/15/1995
Elapsed ASTM Days: 42

EDR-Site Report™

for

RICHARDS-GEBAUR AIRPORT

NO STREET ADDRESS

KANSAS CITY, MO 64147

Inquiry Number:

August 29, 1995



**Environmental
Data
Resources, Inc.**

Creators of Toxiccheck®

***The Source
For Environmental
Risk Management
Data***

3530 Post Road
Southport, Connecticut 06490

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Telephone: 1-800-352-0050
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Name, source, update dates, contact phone number and description of each of the databases searched for this report.

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SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 RICHARDS-GEBAUR AIRPORT NO STREET ADDRESS KANSAS CITY, MO 64147 EDR ID #U000752662
WASTE MANAGEMENT Facility generates hazardous waste (RCRIS)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRIS/TSDF)	NO
Facility has received Notices of Violations (RCRIS/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	YES - p4
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility is not a Superfund Site but has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LS)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has enforcement actions under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	NO
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

WASTE MANAGEMENT

Facility manages registered underground storage tanks

DATABASE: Petroleum Storage Tank Database (UST)

RICHARDS-GEBAUR AIRPORT-
NO STREET ADDRESS
KANSAS CITY, MO 64147

UST:

Facility ID:	UT0012634	Facility Contact:	Not reported
Total Tanks:	1	Facility Telephone:	Not reported
Tank ID:	1	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUR
Tank Status:	Premarily closed in place	Owner Address:	15405 MAXWELL AVENUE
Capacity:	2000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	DIESEL	Owner Telephone:	816/322/0001

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

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Source: EPA/NTIS

Telephone: 202-260-3393

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Date Made Active at EDR: 08/22/1995

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Elapsed ASTM Days: 55

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Source: EPA

Telephone: 202-564-4104

RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

Date of Government Version: 04/17/1995

Date of Next Scheduled Update: 10/02/95

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Source: EPA

Telephone: 202-260-3393

CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/10/1995

Date of Next Scheduled Update: 09/18/95

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Source: EPA

Telephone: 202-260-3992

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Date of Government Version: 10/14/1994

Date of Next Scheduled Update: 09/18/95

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/01/1995

Date of Next Scheduled Update: 10/16/95

MO AST: Service Station Master Listing

Source: Department of Agriculture

Telephone: 314-751-4278

Date of Government Version: 05/01/1995

Date of Next Scheduled Update: 11/13/95

MO UST: Underground Storage Tank Information

Source: Department of Natural Resources

Telephone: 314-751-7326

UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/31/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/30/1995
Elapsed ASTM Days: 27

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO LUST: Leaking Underground Storage Tanks
Source: Department of Natural Resources
Telephone: 314-526-3349

LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/31/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/16/1995
Elapsed ASTM Days: 40

ERNS: Emergency Response Notification System
Source: EPA
Telephone: 202-260-2342

ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/1994
Date Made Active at EDR: 05/25/1995

Date of Data Arrival at EDR: 04/11/1995
Elapsed ASTM Days: 44

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555

HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/30/1994

Date of Next Scheduled Update: 12/04/95

WASTE DISPOSAL

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852

NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 05/26/1995
Date Made Active at EDR: 06/06/1995

Date of Data Arrival at EDR: 06/06/1995
Elapsed ASTM Days: 0

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-416-0702

CERCLIS: Comprehensive Environmental Response, Compensation and Liability Information System. CERCLIS contains information on sites identified by the USEPA as known or suspect abandoned, inactive or uncontrolled hazardous waste sites which may require cleanup.

Date of Government Version: 03/15/1995
Date Made Active at EDR: 06/08/1995

Date of Data Arrival at EDR: 04/25/1995
Elapsed ASTM Days: 44

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-260-8969

NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Made Active at EDR: 03/30/1994

Date of Data Arrival at EDR: 02/02/1994
Elapsed ASTM Days: 56

MO SHWS: Registry and Registry Log
Source: Department of Natural Resources
Telephone: 314-751-1990

SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/30/1995
Date Made Active at EDR: 08/21/1995

Date of Data Arrival at EDR: 07/21/1995
Elapsed ASTM Days: 31

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO SWF/LS: Solid Waste Disposal Areas & Processing Facilities

Source: Department of Natural Resources

Telephone: 314-751-5401

SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/15/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/19/1995
Elapsed ASTM Days: 37

MULTIMEDIA

TRIS: Toxic Chemical Release Inventory System

Source: EPA/NTIS

Telephone: 202-260-2320

TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/1992

Date of Next Scheduled Update: 10/09/95

TSCA: Toxic Substances Control Act

Source: EPA/NTIS

Telephone: 202-260-1444

TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 05/15/1986

Date of Next Scheduled Update: 09/18/95

FTTS: Fifra / Tscia Tracking System

Source: EPA/Office of Prevention, Pesticides & Toxic Substances

Telephone: 202-260-7864

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 05/15/1995

Date of Next Scheduled Update: 11/06/95

FINDS: Facility Index System

Source: EPA/NTIS

Telephone: 800-908-2493

FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

Date of Government Version: 07/27/1994

Date of Next Scheduled Update: 10/16/95

POTENTIAL SUPERFUND LIABILITY

SETS: Site Enforcement Tracking System

Source: EPA/NTIS

Telephone: 202-260-8718

SETS list the potentially responsible parties (PRPs) recorded by EPA (in SETS) at Superfund sites. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/15/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/15/1995
Elapsed ASTM Days: 42

EDR-Site Report™

for

RICHARDS-GEBAUR AIRPORT

NO STREET ADDRESS
KANSAS CITY, MO 64147

Inquiry Number:

August 29, 1995



**Environmental
Data
Resources, Inc.**

Creators of Toxiccheck®

**The Source
For Environmental
Risk Management
Data**

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

TABLE OF CONTENTS

The EDR-Site Report™ is a comprehensive presentation of government filings on a facility identified in a search of over 4 million government records from more than 600 federal, state and local environmental databases. The report is divided into three sections:

Section 1: Facility Summary Page 3

Summary of facility filings including a review of the following areas: waste management, waste disposal, multi-media issues, and Superfund liability.

Section 2: Facility Detail Reports Page 4

All available detailed information from databases where sites are identified.

Section 3: Databases Searched and Update Information. Page 5

Name, source, update dates, contact phone number and description of each of the databases searched for this report.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer

This Report contains information obtained from a variety of public sources and EDR makes no representation or warranty regarding the accuracy, reliability, quality, or completeness of said information contained in this report. The customer shall assume full responsibility for the use of this report. **No warranty of merchantability or of fitness for a particular purpose, expressed or implied, shall apply** and EDR specifically disclaims the making of such warranties. In no event shall EDR be liable to anyone for special, incidental, consequential or exemplary damages.

SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 RICHARDS-GEBAUR AIRPORT NO STREET ADDRESS KANSAS CITY, MO 64147 EDR ID #U000752657
WASTE MANAGEMENT Facility generates hazardous waste (RCRIS)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRIS/TSDF)	NO
Facility has received Notices of Violations (RCRIS/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	YES - p4
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility is not a Superfund Site but has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LS)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has enforcement actions under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in a county/local unique database (LOCAL)	NO
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

WASTE MANAGEMENT

Facility manages registered underground storage tanks

DATABASE: Petroleum Storage Tank Database (UST)

RICHARDS-GEBAUR AIRPORT-
NO STREET ADDRESS
KANSAS CITY, MO 64147

UST:

Facility ID:	UT0012623	Facility Contact:	Not reported
Total Tanks:	6	Facility Telephone:	Not reported
Tank ID:	1	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUR
Tank Status:	Permanently closed in place	Owner Address:	15405 MAXWELL AVENUE
Capacity:	3000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	GASOLINE	Owner Telephone:	816/322/0001
Facility ID:	UT0012623	Facility Contact:	Not reported
Total Tanks:	6	Facility Telephone:	Not reported
Tank ID:	2	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUR
Tank Status:	Permanently closed in place	Owner Address:	15405 MAXWELL AVENUE
Capacity:	3000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	GASOLINE	Owner Telephone:	816/322/0001
Facility ID:	UT0012623	Facility Contact:	Not reported
Total Tanks:	6	Facility Telephone:	Not reported
Tank ID:	3	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUR
Tank Status:	Permanently closed in place	Owner Address:	15405 MAXWELL AVENUE
Capacity:	3000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	GASOLINE	Owner Telephone:	816/322/0001
Facility ID:	UT0012623	Facility Contact:	Not reported
Total Tanks:	6	Facility Telephone:	Not reported
Tank ID:	4	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUR
Tank Status:	Permanently closed in place	Owner Address:	15405 MAXWELL AVENUE
Capacity:	3000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	GASOLINE	Owner Telephone:	816/322/0001
Facility ID:	UT0012623	Facility Contact:	Not reported
Total Tanks:	6	Facility Telephone:	Not reported
Tank ID:	5	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUR
Tank Status:	Permanently closed in place	Owner Address:	15405 MAXWELL AVENUE
Capacity:	4000	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	GASOLINE	Owner Telephone:	816/322/0001
Facility ID:	UT0012623	Facility Contact:	Not reported
Total Tanks:	6	Facility Telephone:	Not reported
Tank ID:	6	Owner Name:	AVIATION DEPARTMENT/RICHARDS-GEBAUR
Tank Status:	Permanently closed in place	Owner Address:	15405 MAXWELL AVENUE
Capacity:	500	City, State, Zip:	KANSAS CITY, MO 64147
Substance:	USED OIL	Owner Telephone:	816/322/0001

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement for databases included in ASTM E1527-94.

WASTE MANAGEMENT

RCRIS: Resource Conservation and Recovery Information System

Source: EPA/NTIS

Telephone: 202-260-3393

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 05/31/1995
Date Made Active at EDR: 08/22/1995

Date of Data Arrival at EDR: 06/28/1995
Elapsed ASTM Days: 55

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

Date of Government Version: 04/17/1995

Date of Next Scheduled Update: 10/02/95

CORRACTS: Corrective Action Report

Source: EPA

Telephone: 202-260-3393

CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/10/1995

Date of Next Scheduled Update: 09/18/95

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-260-3392

PADS: PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/14/1994

Date of Next Scheduled Update: 09/18/95

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/01/1995

Date of Next Scheduled Update: 10/16/95

MO AST: Service Station Master Listing

Source: Department of Agriculture

Telephone: 314-751-4278

Date of Government Version: 05/01/1995

Date of Next Scheduled Update: 11/13/95

MO UST: Underground Storage Tank Information

Source: Department of Natural Resources

Telephone: 314-751-7326

UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/31/1995

Date of Data Arrival at EDR: 05/30/1995

Date Made Active at EDR: 06/26/1995

Elapsed ASTM Days: 27

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO LUST: Leaking Underground Storage Tanks
Source: Department of Natural Resources
Telephone: 314-526-3349

LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/31/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/16/1995
Elapsed ASTM Days: 40

ERNS: Emergency Response Notification System
Source: EPA
Telephone: 202-260-2342

ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/1994
Date Made Active at EDR: 05/25/1995

Date of Data Arrival at EDR: 04/11/1995
Elapsed ASTM Days: 44

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555

HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/30/1994

Date of Next Scheduled Update: 12/04/95

WASTE DISPOSAL

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852

NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 05/26/1995
Date Made Active at EDR: 06/06/1995

Date of Data Arrival at EDR: 06/06/1995
Elapsed ASTM Days: 0

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-416-0702

CERCLIS: Comprehensive Environmental Response, Compensation and Liability Information System. CERCLIS contains information on sites identified by the USEPA as known or suspect abandoned, inactive or uncontrolled hazardous waste sites which may require cleanup.

Date of Government Version: 03/15/1995
Date Made Active at EDR: 06/08/1995

Date of Data Arrival at EDR: 04/25/1995
Elapsed ASTM Days: 44

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 202-260-8969

NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Made Active at EDR: 03/30/1994

Date of Data Arrival at EDR: 02/02/1994
Elapsed ASTM Days: 56

MO SHWS: Registry and Registry Log
Source: Department of Natural Resources
Telephone: 314-751-1990

SHWS: State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/30/1995
Date Made Active at EDR: 08/21/1995

Date of Data Arrival at EDR: 07/21/1995
Elapsed ASTM Days: 31

SECTION 3: DATABASES SEARCHED AND UPDATE DATES

...Continued...

MO SWF/LS: Solid Waste Disposal Areas & Processing Facilities

Source: Department of Natural Resources

Telephone: 314-751-5401

SWF/LS: Solid Waste Facilities/Landfill Sites. SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/15/1995
Date Made Active at EDR: 07/26/1995

Date of Data Arrival at EDR: 06/19/1995
Elapsed ASTM Days: 37

MULTIMEDIA

TRIS: Toxic Chemical Release Inventory System

Source: EPA/NTIS

Telephone: 202-260-2320

TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/1992

Date of Next Scheduled Update: 10/09/95

TSCA: Toxic Substances Control Act

Source: EPA/NTIS

Telephone: 202-260-1444

TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 05/15/1986

Date of Next Scheduled Update: 09/18/95

FTTS: Fifra / Tsc Tracking System

Source: EPA/Office of Prevention, Pesticides & Toxic Substances

Telephone: 202-260-7864

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 05/15/1995

Date of Next Scheduled Update: 11/06/95

FINDS: Facility Index System

Source: EPA/NTIS

Telephone: 800-908-2493

FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

Date of Government Version: 07/27/1994

Date of Next Scheduled Update: 10/16/95

POTENTIAL SUPERFUND LIABILITY

SETS: Site Enforcement Tracking System

Source: EPA/NTIS

Telephone: 202-260-8718

SETS list the potentially responsible parties (PRPs) recorded by EPA (in SETS) at Superfund sites. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/15/1995
Date Made Active at EDR: 06/26/1995

Date of Data Arrival at EDR: 05/15/1995
Elapsed ASTM Days: 42

APPENDIX D

CLIENT PROVIDED INFORMATION

2.6 SITE DESCRIPTION

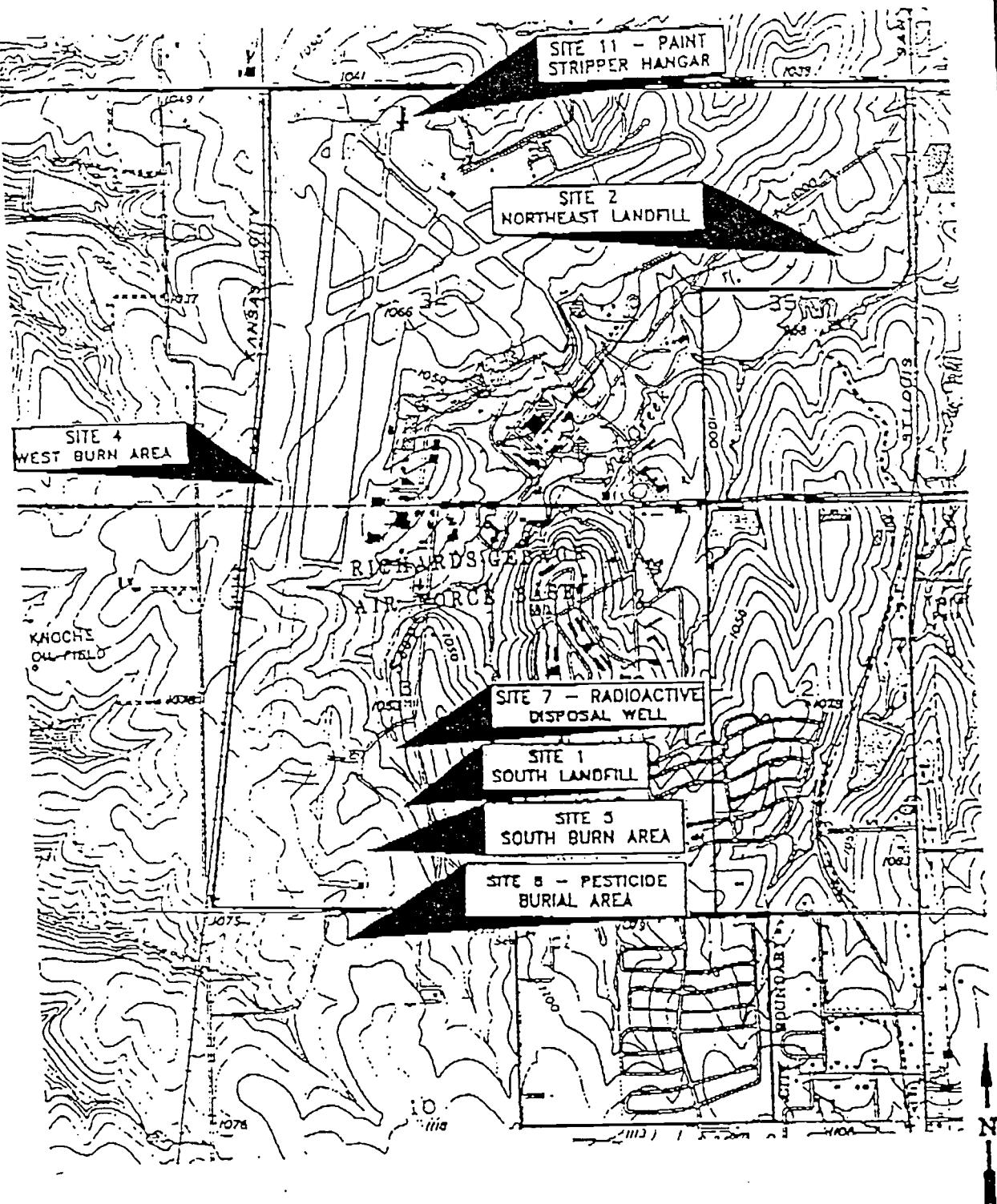
The primary source of historical information for Richards Gebaur is from the Installation Restoration Program Phase I Record Search by CH2M Hill dated March 1983. In addition, CDM Federal acquired information during records reviews and visual inspections of seven FUD sites. CDM Federal will evaluate the environmental conditions of seven sites at Richards Gebaur. These sites are shown in the following table and depicted in Figure 2-6.

FORMERLY USED DEFENSE SITES (FUDS)	
Site No.	Site Description
1	South Landfill
2	Northeast Landfill
4	West Burn Area
5	South Burn Area
7	Radioactive Disposal Well
8	Pesticide Burial Site
11	Print Stripper Hangar (Bldg 1010)

2.7 SOUTH LANDFILL

The South Landfill is located in the south-central part of Richards Gebaur. It is bounded on the west by a marshy area which is just below the base lake dam. The South Landfill is bounded on the north by a ditch for drainage from the base lake and on the east by Scope Creek (Figure 2-7). Access to the South Landfill is from the south where there is an open grassy area to the south boundary area, and to the southwest where the base runway and taxi ways are located. Approximately 1,000 yards to the southwest is Building 839, the Air Force's former non-destruct inspection laboratory.

The South Landfill is on a thin cover of unconsolidated silts and clays overlying Pennsylvanian Age rocks of the Zarah Subgroup. The unconsolidated deposit is less than eight feet thick and



Project No. 6107-008	Richards Gebaur Air Force Base Belton, Missouri	Site Location Map	Figure No.: 2-6
	 CDM FEDERAL PROGRAMS CORPORATION A Division of CDM, Inc.		8/95

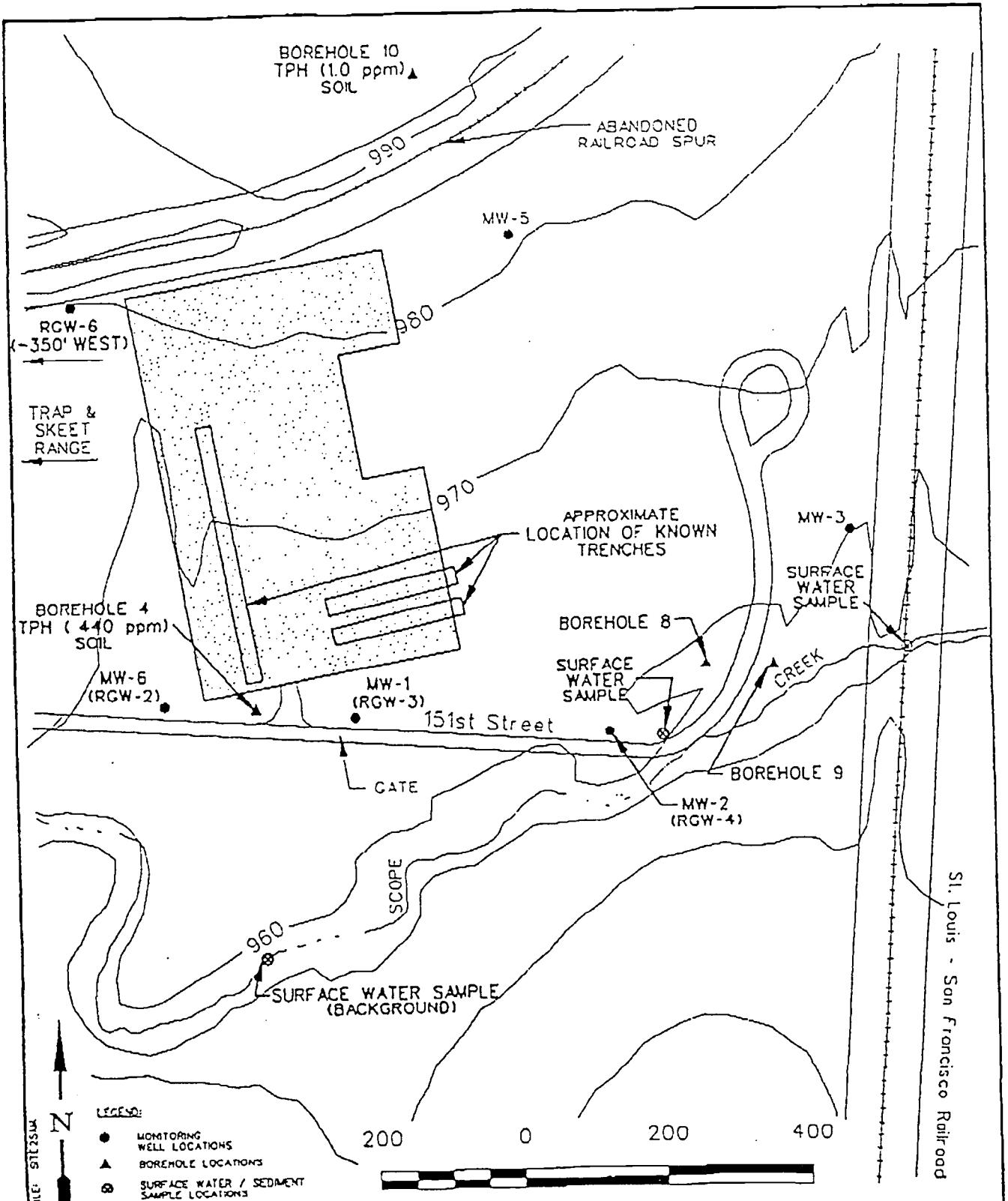
Any contaminants that may be present at the South Landfill could move vertically downward to the perched groundwater, then east-northeast toward Scope Creek on the east side of the Landfill. A formation of Lane Shale (Figure 2-2) underlays the area and may effectively restrict vertical groundwater movement. Contaminants from the Landfill could flow from groundwater seeps along Scope Creek downgradient of the area.

During a field investigation conducted by E&E, Inc. in October 1986, surface water samples were collected from Scope Creek and from ponded areas in drainage ditches in the Landfill. One soil boring was completed at the site. Sample parameters for surface water at the site included total petroleum hydrocarbons, total dissolved solids, halogenated and aromatic volatile organics, priority pollutant metals, extractable priority pollutants (GC/MS), common anions, and phenols. Soil samples were analyzed for volatile organics and total petroleum hydrocarbons. Four surface water samples and seven soil samples were collected. Of the eleven samples, one subsurface soil sample showed total petroleum hydrocarbons at 1.2 mg/kg (E&E 1988) upgradient of the Landfill to the south near the access road. Two surface soil samples, collected near seeps from the Landfill along the west bank of Scope Creek contained petroleum hydrocarbon at 1.9 mg/kg (Seep 1) and 16 mg/kg (Seep 2) (E&E 1988). These were the only contaminated samples reported at the South Landfill by E&E, Inc.

2.8 NORTHEAST LANDFILL

The Northeast Landfill is located in the Northeastern Quadrant of the Airport facility between Andrews Road and 155th Street (Figure 2-8). The area is bounded on the north by an abandoned spur of the St. Louis - San Francisco Railroad, on the east by the St. Louis - San Francisco Rail Line, on the south by Scope Creek, and on the west by a drainage swale just east of the Trap and Skeet Range. This site was used as a demolition and industrial waste landfill between 1961 and 1972.

The eastern half of the Northeast Landfill was used for waste storage. Empty drums, fuel tanks, mower and maintenance parts, and some demolition debris were observed during a site visit conducted in October 1994. The west half of the Northeast Landfill was a trench and fill



Project No.: 6107-008	Richards Gebaur Air Force Base Belton, Missouri	Site 2 Northeast Landfill Sample Results (1987)	Figure No.: 2-8
	CDC FEDERAL PROGRAMS CORPORATION • subsidiary of ComEd Services Inc.		8/95

operation. One trench, estimated to be 300 feet x 10 feet x 10 feet, ran north and south along the west boundary of the landfill area. Two additional trenches, 200 feet x 10 feet x 10 feet each, were constructed east and west just east of the north/south trench and just north of the west access road to the landfill area. A 1976 aerial photo in the Airport Manager's office also showed vegetation disturbance north of the trench location indicating a potential for an additional burial area. Waste paints, thinners, strippers, oils, and fuels were reportedly poured into the trenches along with shop waste and demolition debris from base operations and burned for disposal.

A magnetometer and electromagnetic (EM) geophysical survey was performed by E&E, Inc. (E&E 1988). Findings indicated three linear anomalies in the area of the trenches. It is believed that these anomalies correspond to locations of several trenches.

The Northeast Landfill is located on a thin cover of unconsolidated silts and clays overlying a gray to green shale averaging 22 feet in thickness. The unconsolidated deposit above the shale ranges from less than 8 feet thick to over 20 feet thick, and pinches out at or near the banks of Scope Creek on the south edge of the Northeast Landfill. A chert layer was found just above bedrock and just below the green shale layer at the site.

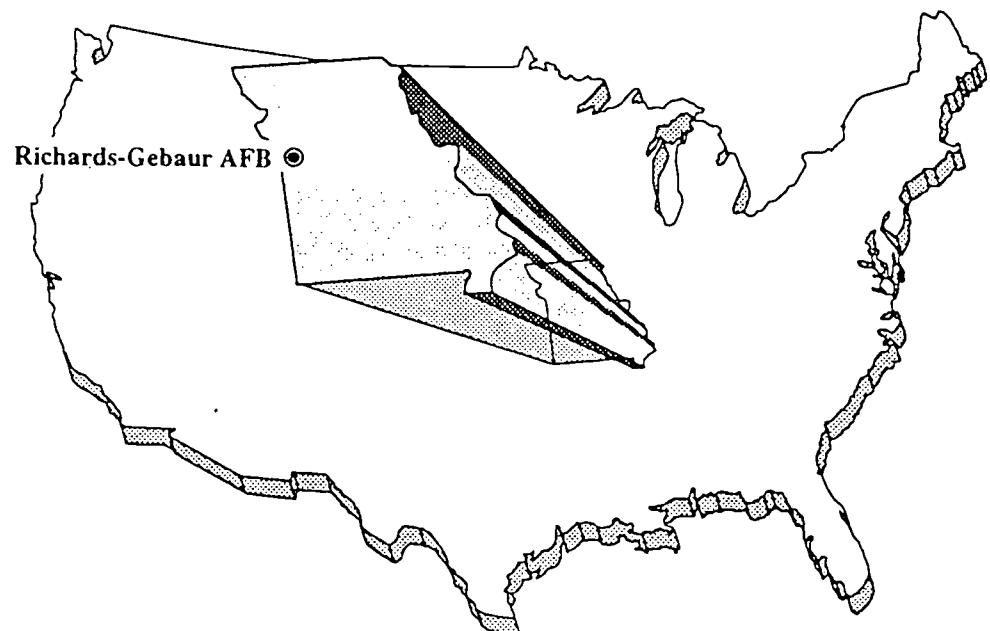
The Northeast Landfill is bounded on the south by Scope Creek in an area where the creek flows for the majority of the year. Five monitoring wells installed by E&E, Inc. during a 1986 investigation had sufficient recharge to allow collection of groundwater samples from the site. Three wells were located along the south and east boundaries of the suspected fill area (MW-1, MW-2, and MW-6). One well was located east of the suspected fill area (MW-3). One well was located northeast of the suspected fill area (MW-5).

E&E, Inc. collected eight water samples (3 surface and 5 groundwater) which were analyzed for petroleum hydrocarbons, total dissolved solids (TDS), halogenated and aromatic volatile organics, priority pollutant metals, extractable priority pollutants (GC/MS), common anions, and phenols. Sediment and soil samples were analyzed for volatile organics and petroleum hydrocarbons. Five anions, fluoride, chloride, nitrate, bromide, and sulfate, were reported above detectable limits. Sulfate was reported at 280 mg/L which exceeds the EPA secondary drinking water standard of



BASEWIDE
ENVIRONMENTAL BASELINE SURVEY
RICHARDS-GEBAUR AIR FORCE BASE,
MISSOURI

December 1993



Medical/Biohazardous Waste. Medical/biohazardous wastes at Richards-Gebaur AFB have been generated at two facilities. The waste is disposed of off base by a licensed contractor.

Ordnance. The Small Arms Range will be cleared of any unexploded ordnance prior to base closure. Lead levels in the soil at the Small Arms Range were sampled in 1993, and found to be below regulatory action levels. Historic maps and findings from recent visual inspections indicate that ordnance disposal may have taken place at the Belton Training Complex.

Wastewater Discharges. Sanitary sewage effluent from Richards-Gebaur AFB discharges into the Little Blue Valley Sewer District. There are also three active septic tank systems with leach fields located on Richards-Gebaur AFB property.

To minimize contaminants entering the storm drainage or sanitary sewer systems, the base has a separate industrial waste sewer that serves some maintenance facilities and the flightline area. The effluent is stored in a detention reservoir and then passed through an OWS prior to being discharged into the Little Blue Valley Sewer District System.

Richards-Gebaur AFB has filed for a Discharge Permit (Forms E and F) with MDNR. In a recent study, sediment and surface water in major drainage swales and tributaries on the base were investigated for hazardous characteristics. No indications of significant contamination were found, and no remediation of sediment or surface water is required.

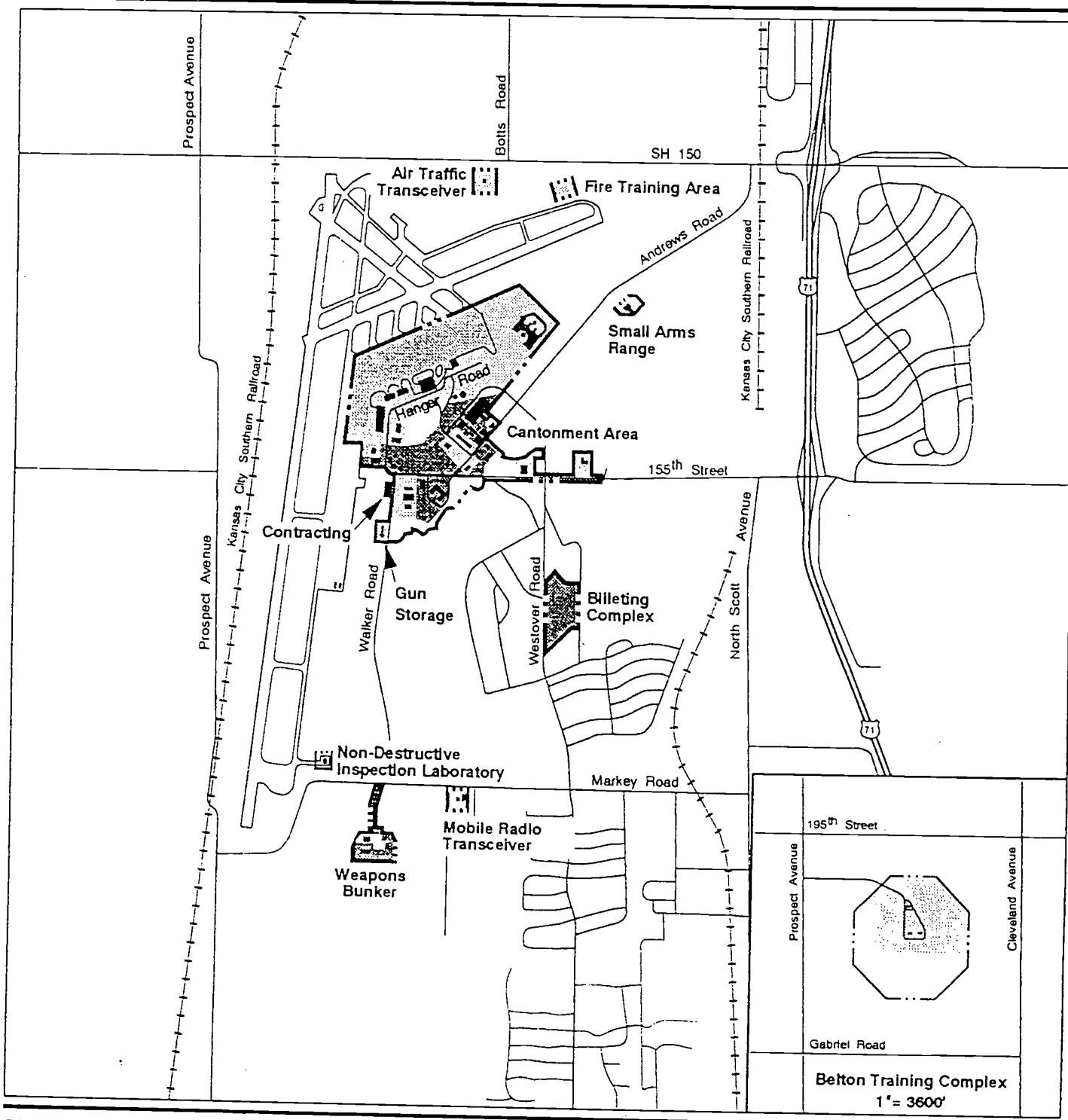
Radioactive and Mixed Wastes. There are no radioactive or mixed waste sites or issues at Richards-Gebaur AFB.

Solid Waste. There are no active landfills at Richards-Gebaur AFB, and no known historical landfills.

Disclosure Resources

Disclosure resources (asbestos, polychlorinated biphenyls [PCBs], radon, and lead-based paint) were not used in property categorization.

Asbestos. A comprehensive basewide asbestos assessment study was completed in September 1987. The study included the 71 buildings on base at that time. Of the buildings surveyed, 39 were identified as having asbestos-containing material (ACM), and 32 buildings either had no suspected material found or all samples taken were negative for ACM. Facility 942 has been closed due to the condition of ACM.



EXPLANATION

- Uncontaminated Property (Category 1)
- Hazardous substance stored - no release (Category 2)
- Hazardous substance release, below action levels (Category 3)
- Hazardous substance release, all actions have been taken (Category 4)

- Hazardous substance release, not all actions have been taken (Category 5)
- Hazardous substance release, no actions taken (Category 6)
- Areas requiring additional evaluation (Category 7)

— Base Boundary

0 650 1250 2500 Feet



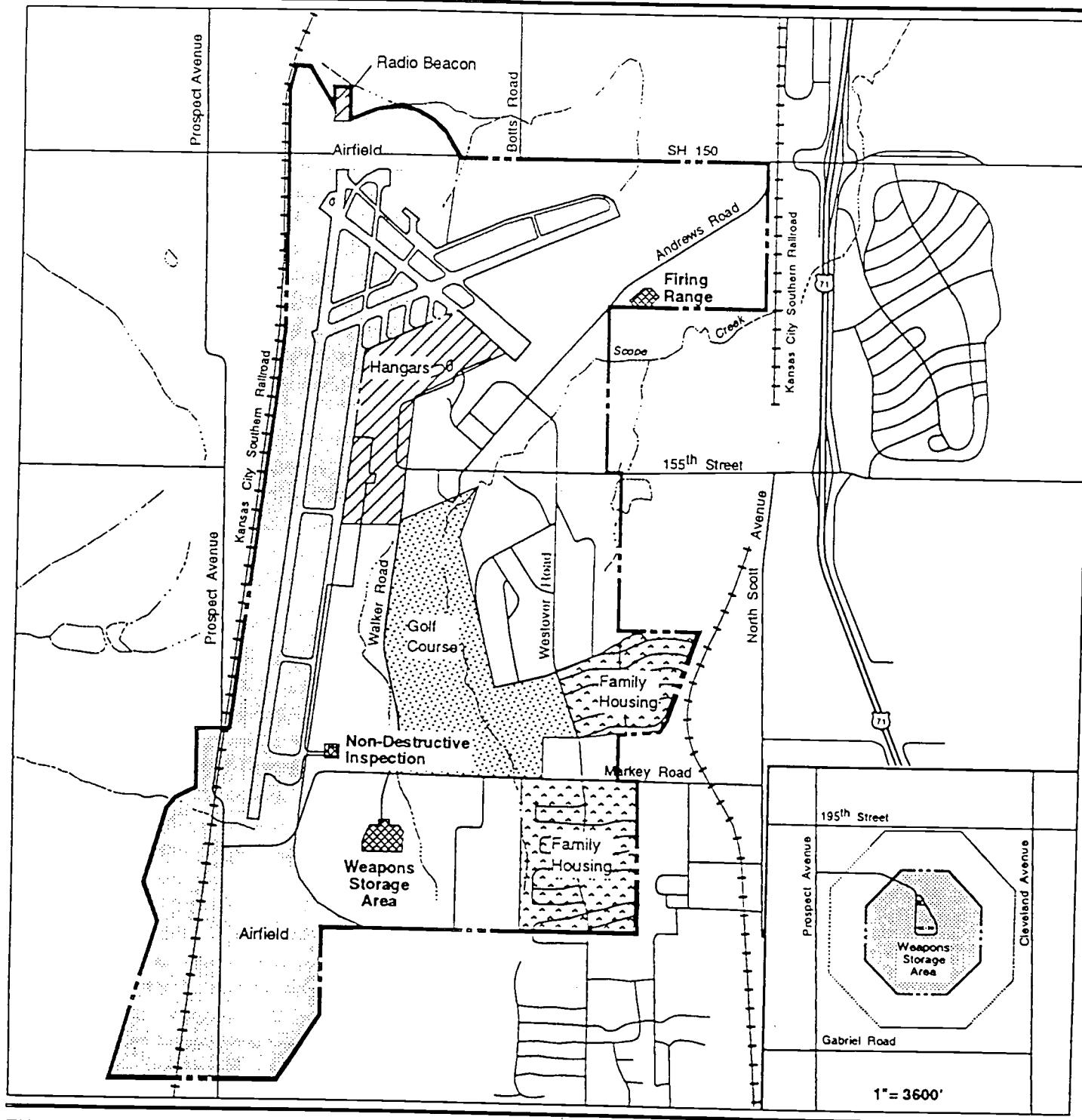
Property Categorization

Figure S-1

Content of Environmental Baseline Survey Report. The information for the EBS was obtained through a records search, visual inspections, and interviews. The records search included a title search, review of aerial photographs, and review of all available Air Force and other agency records including environmental restoration and compliance reports, records, audits, facility drawings, and inspections. Visual inspections of the base property and facilities were conducted. The EBS also includes an assessment of environmental conditions of off-base properties contiguous to or relatively near the base that could pose environmental concern and/or affect the subject property. Physical inspections were also conducted on contiguous off-base properties where access was obtained from the owner or operator. Where access was not permitted, visual inspections of off-base properties were conducted from base property or public roads.

Based on an analysis of the available data, the EBS categorizes property into one of seven categories:

- Category 1 - Areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas)
- Category 2 - Areas where only storage of hazardous substances or petroleum products has occurred (but no release, disposal, or migration from adjacent areas has occurred)
- Category 3 - Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, but at concentrations that do not require a removal or remedial action
- Category 4 - Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, and all remedial actions necessary to protect human health and the environment have been taken
- Category 5 - Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, removal and/or remedial actions are under way, but all required remedial actions have not yet been taken
- Category 6 - Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, but required response actions have not yet been implemented
- Category 7 - Areas that are unevaluated or require additional evaluation.



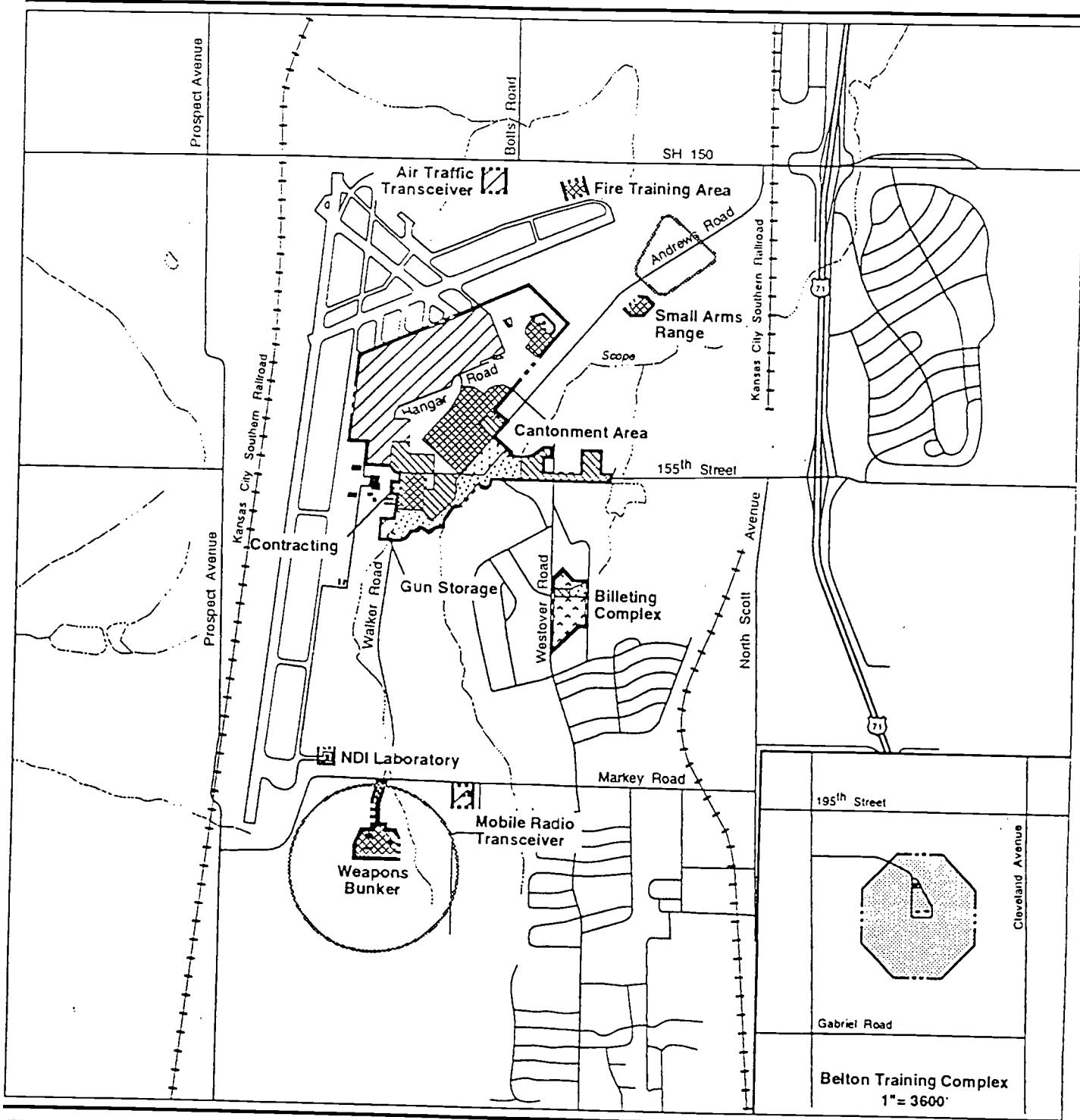
EXPLANATION

Airfield Institutional (Education) (a) Agriculture
Aviation Support Commercial (a) Vacant Land
Industrial Residential Base Boundary
Institutional (Medical) (a) Public/Recreation Easement

Major Land Use Changes (1966)

(a) Standard land use designation not applicable to this figure.

Figure 3-2



1993 Land Use

Figure 3-3

airfield. These mains are a 12-inch and an 8-inch pipeline that both feed into a city meter pit on the south side of M-150. A 12-inch outlet from the meter pit feeds a 1,060,000-gallon and a 50,000-gallon in-ground tank. These tanks and the 12-inch main feed the water department's pump station, Facility 938.

The system distributes water through 12-inch output mains to provide the base domestic water and fire protection needs. This system supplies two additional storage tanks: a 320,000-gallon in-ground tank located near the flightline for fire protection (owned and operated by Kansas City), and an elevated 400,000-gallon steel tank at the south end of the system to provide pressure.

Wastewater. Wastewater generated on base is collected and discharged to the Little Blue Valley Sewer District Interceptor B. Interceptor B is a 12-inch pipeline that runs parallel to and west of U.S. 71 before heading west along M-150 and then turning southwest and onto the base. Sanitary sewers on base consist of 6-inch to 18-inch reinforced concrete pipes. Three active septic systems serve remote ancillary buildings.

To minimize contaminants entering the storm drainage or sanitary sewer systems, the base has a separate industrial waste sewer that serves some maintenance facilities and the flightline area. The effluent is held in a detention reservoir (Facility 943) and passed through an OWS prior to being discharged into the Little Blue Valley Sewer District system.

Drainage Patterns. The airfield and on-base storm drainage facilities consist of a combination of open channels and closed drainage systems. The closed drainage systems include pipes ranging in diameter from 18 inches to 66 inches. All base stormwater drains into Scope Creek, which flows into the Little Blue River, which flows from southwest to northeast (Figure 3-4).

Solid Waste. Solid waste generated on Richards-Gebaur AFB is hauled off base by a commercial hauler and deposited in the Johnson County landfill in Shawnee, Kansas. Medical wastes are collected and disposed of off base by a private contractor.

Electricity. Missouri Public Service provides electricity to Richards-Gebaur AFB through two substations: the north substation, which has a 3,750-kilovolt ampere (kVA) capacity and provides primary service to the Cantonment Area, and the 7,500-kVA south substation. Electrical power is delivered to the north substation at 34.5 kilovolts (kV), and to the south substation at 69 kV. A combination of overhead and underground lines distribute electricity to the base buildings.

Natural Gas. Gas Service, a division of Western Resources, Inc., provides natural gas to the base via two high-pressure pipelines. A 4-inch pipeline

evaluate past disposal sites, control the migration of contaminants, and control potential hazards to human health and the environment.

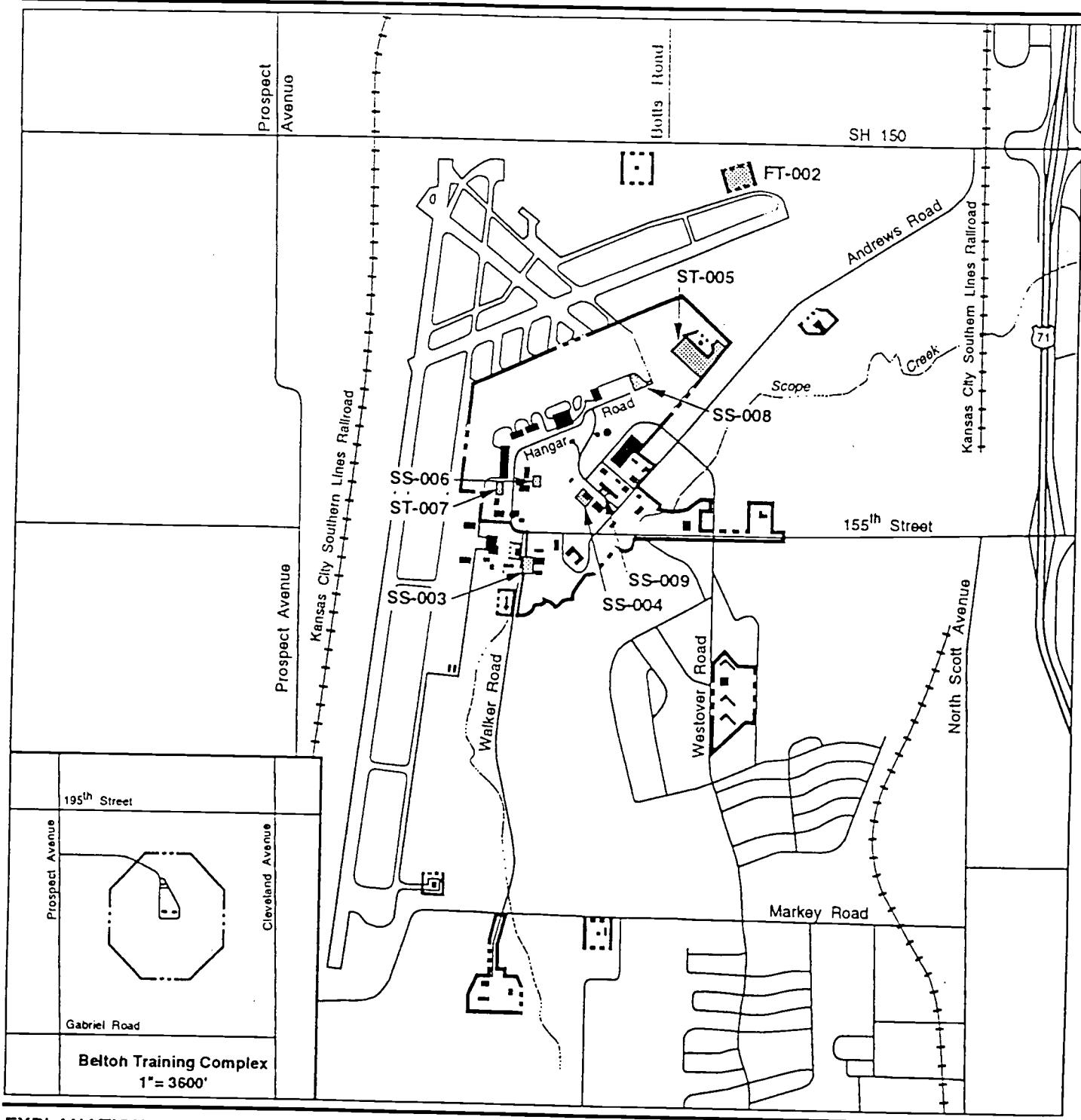
The IRP at Richards-Gebaur AFB was initiated in 1983. Since that time, eight sites of past contamination have been identified. The locations of the eight IRP sites are shown in Figures 3-5 and 5-1. A brief description of each site is presented in Table 3-2.

The 1983 Phase I Records Search identified nine potential disposal sites. Of these, seven were on property that was transferred from the Air Force in 1981; the U.S. Army Corps of Engineers has responsibility for remediation of these sites (see Table 4-5). The other two sites (FT-002, a former fire training area, and SS-003, an oil saturated area) are on Air Force property and are part of the continuing IRP at Richards-Gebaur AFB. The Phase I Records Search found no evidence to indicate the presence of contamination at the Belton Training Complex or migration of contamination onto off-base property.

Phase II studies in 1988 identified one additional site (SS-004, a hazardous waste drum storage area). A 1990 Site Inspection (SI) identified Site ST-005 (the POL Storage Yard) and Site SS-006 (Facility 927, a hazardous material storage area). Site ST-007 (USTs at Facility 902) was discovered in 1988 at the time of a UST removal project. Sites SS-008 (the test cell area) and SS-009 (the fire valve area) were identified during soil excavation projects in 1991 and 1992, respectively.

No Further Action Planned Decision Documents have been submitted to MDNR and the U.S. Environmental Protection Agency (U.S. EPA) for sites SS-003, SS-004, and ST-007, and the base is awaiting comments or concurrence on these three sites. A No Further Action With Deed Restriction Decision Document was filed for Site FT-002 in 1990, but it was rejected by MDNR and U.S. EPA. A 1992 RI detected no groundwater contamination, and no further action for groundwater is recommended at FT-002. Remedial action consisting of landfarming is anticipated at Site ST-005, which is in the Remedial Design stage. An interim removal action has taken place at Site SS-006. An SI at Site SS-008 has been completed and a final report is anticipated in the near future. Site SS-009 was identified in 1992 during a trenching operation to repair a water line. Contaminated soil from an unconfirmed source was identified; no further information is available.

In addition to the mandates of the IRP, prior to the transfer of any property at Richards-Gebaur AFB, the Air Force must also comply with the provisions of CERCLA Section 120(h). CERCLA Section 120(h) requires that, before property can be transferred from federal ownership, the United States must provide notice of specific hazardous waste activities on the property and include in the deed a covenant warranting that "all remedial action necessary



EXPLANATION

- IRP Sites
- Base Boundary

IRP Sites

Site No.	Site Name
FT-002	North Burn Pit
SS-003	Oil Saturated Area
SS-004	Hazardous Waste Drum Storage
ST-005	POL Storage Yard
SS-006	Hazardous Material Storage Building 927
ST-007	Underground Storage Tanks
SS-008	Test Cell Area
SS-009	Fire Valve Area

Installation Restoration Program Sites

0 500 1000 2000 Feet



Figure 3-5

to protect human health and the environment with respect to any [hazardous] substance remaining on the property has been taken before the date of such transfer." Furthermore, the covenant must also warrant that "any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States."

Eight IRP sites have been identified at Richards-Gebaur AFB. Contamination has been confirmed at six of the sites; investigations are ongoing at the other two. Interim remedial actions have been taken at four of the sites (SS-003, SS-004, SS-006, and SS-007) where contamination has been confirmed, and a remedial investigation for soils is in progress at another (FT-002). These five sites are therefore considered Category 5. At ST-005, a remedial action for confirmed contamination has been selected but not yet implemented, so that site is considered Category 6. Further investigation is planned at Sites SS-008 and SS-009, and they are considered Category 7. Specific resource categories for IRP sites are presented in Table 3-2.

3.3.3 Storage Tanks

The following sections describe the findings for ASTs, USTs, and OWSs based on the records search and VSI. An overview of pipelines, hydrant fueling, and transfer systems is also provided.

3.3.3.1 Aboveground Storage Tanks

There have been 36 ASTs used at Richards-Gebaur AFB. Table 3-3 summarizes the history of ASTs at Richards-Gebaur AFB, and Figure 5-1 shows their locations.

Based upon the methodology presented in Chapter 2, no evidence of a release occurring was identified for 32 of the ASTs; therefore, they are considered Category 2. During the VSI, staining was noted at two ASTs, but it is likely that releases were of *de minimis* quantities and affected soil was below action levels, and the ASTs are considered Category 3. No documentation of tank integrity (e.g., testing results) is available for one AST in the POL storage yard (IRP Site ST-005), and the AST at the Fire Training Area has been identified, but not confirmed, as a possible source of contamination at IRP Site FT-002. Therefore, both of these ASTs are considered Category 7.

3.3.3.2 Underground Storage Tanks

Table 3-4 summarizes the history and status of the 33 USTs at Richards-Gebaur AFB, and Figure 5-1 shows their locations.

Contamination has been confirmed at four USTs, which are being investigated and remediated under the IRP; these USTs are considered

Medical and dental X-ray operations (Facility 604) produce photochemical wastes and utilize silver recovery units. The silver recovery units treat photochemical wastes prior to discharge to the local sewage system. A study to determine the extent of mercury contamination in Facility 604 is discussed in Section 3.3.1.2.

Based upon the methodology presented in Chapter 2, no evidence of a release occurring was identified at Facility 601, and it is considered Category 2. Contamination has been confirmed at Facility 604, and investigation and remedial actions are in progress, so it is considered Category 7. These facilities are listed in Table 5-1 and shown in Figure 5-1.

3.3.7 Ordnance

There are no grenade or skeet ranges at Richards-Gebaur AFB. Facilities 1049 and 1050 comprise the Small Arms Range. This range will be cleared of unexploded ordnance prior to disposal. The Small Arms Range was studied in a Phase II project (Firing Range Site Phase II, 1993). The report concluded that lead levels in site soils are above background levels but below levels requiring remedial action. Ordnance may have been disposed of by burning or blasting within the Belton Training Complex; rifle rounds were discovered during the VSI.

Facilities 1049 and 1050 have not been surveyed for unexploded ordnance, and are therefore considered Category 7. No investigations have been conducted at the Belton Training Complex to determine if any unexploded ordnance or residual soil contamination exists; therefore, this site is also considered Category 7.

3.3.8 Wastewater Discharges

Wastewater systems at Richards-Gebaur AFB consist of the sanitary sewer line, the industrial sewer line, and storm drainage.

The sanitary sewer system is connected to the Little Blue Valley Sewer District. The industrial sewer line collects effluent from the flightline and from industrial shops on base and discharges it into Facility 943, a detention reservoir. The effluent passes through an OWS (Facility 9470) and is then discharged to the sanitary sewer line leaving base. An environmental assessment of the detention reservoir is in progress. The Sanitary Sewer/Storm Water Runoff Study (Geraghty and Miller, 1991a) identified a drain at Facility 1201 as potentially draining to a leach field, and identifies interior drains in Facilities 605, 930, 948, 958, 965, and 966 that drain into the storm sewer system.

Storm water leaving the base was studied in the Water Course Soil Assessment, Richards-Gebaur AFB, Missouri, Phase II Final Report. This

Table 3-2. Installation Restoration Program (IRP) Sites

IRP Site Number	Operable Unit	Known or Suspected Material Disposed of	Site Name	Program Status	Dates of Operation	Specific Property Category
FT-002	1	Waste oils, solvents, and fuels	North Burn Pit	Supplemental Remedial Investigation	1965-1988	5
SS-003	1	Waste petroleum, oils, and lubricants products	Oil Saturated Area	Decision Document	1955-1980	5
SS-004	1	Waste oil	Hazardous Waste Drum Storage	Decision Document	Unknown-1985	5
ST-005	1	Fuels	Petroleum, Oils, and Lubricants (POL) Storage Yard	Remedial Design/Remedial Action	1954-Present	6
SS-006	1	Waste oil	Hazardous Material Storage, Facility 927	Preliminary Assessment/Site Inspection; Interim Remedial Action completed in fall 1993	1957 - Present	5
ST-007	1	JP-4	Leaking Underground Storage Tanks	Decision Document	1954-1971	5
SS-008	1	Petroleum, oils, and lubricants	Test Cell Area	Preliminary Assessment/Site Inspection	1956-1977	7
SS-009	1	Petroleum, oils, and lubricants	Fire Valve Area	Preliminary Assessment/Site Inspection	Unknown	7

Table 3-3. Aboveground Storage Tanks

Facility	Contents	Capacity (gallons)	Status	Years of Operation	Program Status	Specific Property Category
105	Diesel	275	Active	1972-Present	Air Force Policy	2
602 interior	Diesel	90	Active	Unknown-Present	Air Force Policy	2
602 exterior	Diesel	275	Active	Unknown-Present	Air Force Policy	2
614	Diesel	90	Removed	Unknown	Air Force Policy	2
614	MOGAS	50	Removed	Unknown	Air Force Policy	2
614	MOGAS	50	Removed	Unknown	Air Force Policy	2
614	Diesel	44	Removed	Unknown	Air Force Policy	2
700	MOGAS	10,000	Active	1989-Present	Air Force Policy	2
701	Diesel	10,000	Active	1989-Present	Air Force Policy	2
710	Diesel	275	Active	Unknown-Present	Air Force Policy	2
711	Reclaimed JP-4	1,000	Active	Unknown-Present	Air Force Policy	2
841	Diesel	275	Active	1970-Present	Air Force Policy	2
901	Diesel	275	Active	1970-Present	Air Force Policy	3
918	MOGAS	20	Active	Unknown	Air Force Policy	2
921	Diesel	1,000	Removed	1956-Unknown	Air Force Policy	2
944	JP-4	2,500	Removed	1956-Unknown	Air Force Policy	2
945	JP-4	500	Removed	1957-Unknown	Air Force Policy	2
945	JP-4	500	Removed	1957-Unknown	Air Force Policy	2
945	Waste PD-680, paint thinner, POL	1,000	Removed	1957-Unknown	Air Force Policy	2
945	Waste PD-680, paint thinner, POL	1,000	Removed	1957-Unknown	Air Force Policy	2
953	Diesel	44	Removed	Unknown	Air Force Policy	2
954	Heating oil	260,000	Inactive	1954-Unknown	Air Force Policy	7
955	JP-4	187,000	Active	1954-Present	Air Force Policy	2
957	JP-4	210,000	Active	1956-Present	Air Force Policy	2
958	Waste PD-680, paint thinner, POL	500	Removed	Unknown	Air Force Policy	2
963	Solvent	500	Active	Unknown-Present	Air Force Policy	2
1009	MOGAS	275	Active	Unknown-Present	Air Force Policy	2
1011	MOGAS	275	Removed	1962-Unknown	Air Force Policy	3
1025 interior	Diesel	90	Active	1972-Present	Air Force Policy	2
1025 exterior	Diesel	275	Active	1972-Present	Air Force Policy	2
1025 exterior	Diesel	560	Active	1972-Present	Air Force Policy	2
1033	Waste JP-4	5,000	Removed	1961-Unknown	Air Force Policy	7
1100	MOGAS	275	Active	Unknown-Present	Air Force Policy	2
1401	MOGAS	275	Removed	Unknown	Air Force Policy	2
9610	Diesel	10,000	Inactive	1958-Unknown	Air Force Policy	2
9610	MOGAS	10,000	Inactive	1958-Unknown	Air Force Policy	2

Notes: exterior = AST is found outside facility.
interior = AST is found inside facility.
MOGAS = Motor gasoline.
POL = Petroleum, oils, and lubricants.

Sources: CH₂M Hill, 1983.
Intelcom Support Services, 1992.
U.S. Air Force, 1993a.

Table 3-5. Oil/Water Separator Systems

Facility	Capacity (gallons)	Status	Years of Operation	Type of System	Program Status	Specific Property Category
702	50	Removed	1989-93	A	CWA	2
702	190	Removed	1989-93	U	MDNR	7
702	550	Active	1993-Present	A	CWA	2
702	550	Active	1993-Present	A	CWA	2
704	500	Removed	1956-69	U	MDNR	7
704	500	Removed	1956-75	U	MDNR	7
704	500	Removed	1975-93	U	MDNR	7
704	282	Removed	1989-93	U	MDNR	7
704	550	Active	1993-Present	A	CWA	2
704	550	Active	1993-Present	A	CWA	2
711	1000	Removed	1965-93	U	MDNR	7
711	500	Removed	1965-93	U	MDNR	7
711	282	Removed	1989-93	U	MDNR	7
711	550	Active	1993-Present	A	CWA	2
711	550	Active	1993-Present	A	CWA	2
920	200	Removed	1973-93	U	MDNR	7
920	500	Removed	1973-93	U	MDNR	7
920	550	Active	1993-Present	A	CWA	2
920	550	Active	1993-Present	A	CWA	2
927	400	Closed in place	1958-89	U	MDNR	7
927	100	Closed in place	1958-89	U	MDNR	7
940	275	Removed	1965-88	U	MDNR	7
940	1075	Removed	1965-Unknown	U	MDNR	7
944	1000	Removed	1956-88	U	MDNR	7
944	140	Removed	1956-88	U	MDNR	7
1033	425	Closed in place	1972-89	U	MDNR	7
1033	565	Removed	1972-89	U	MDNR	7
9470	7800	Removed	1973-89	A	CWA	2
9470	1000	Active	1973-Present	U	MDNR	7
9470	1500	Removed	1973-89	U	MDNR	7
9470	282	Removed	1989-93	U	MDNR	7
9470	550	Active	1993-Present	A	CWA	2
9470	550	Active	1993-Present	A	CWA	2

A = Aboveground storage.

CWA = Clean Water Act program.

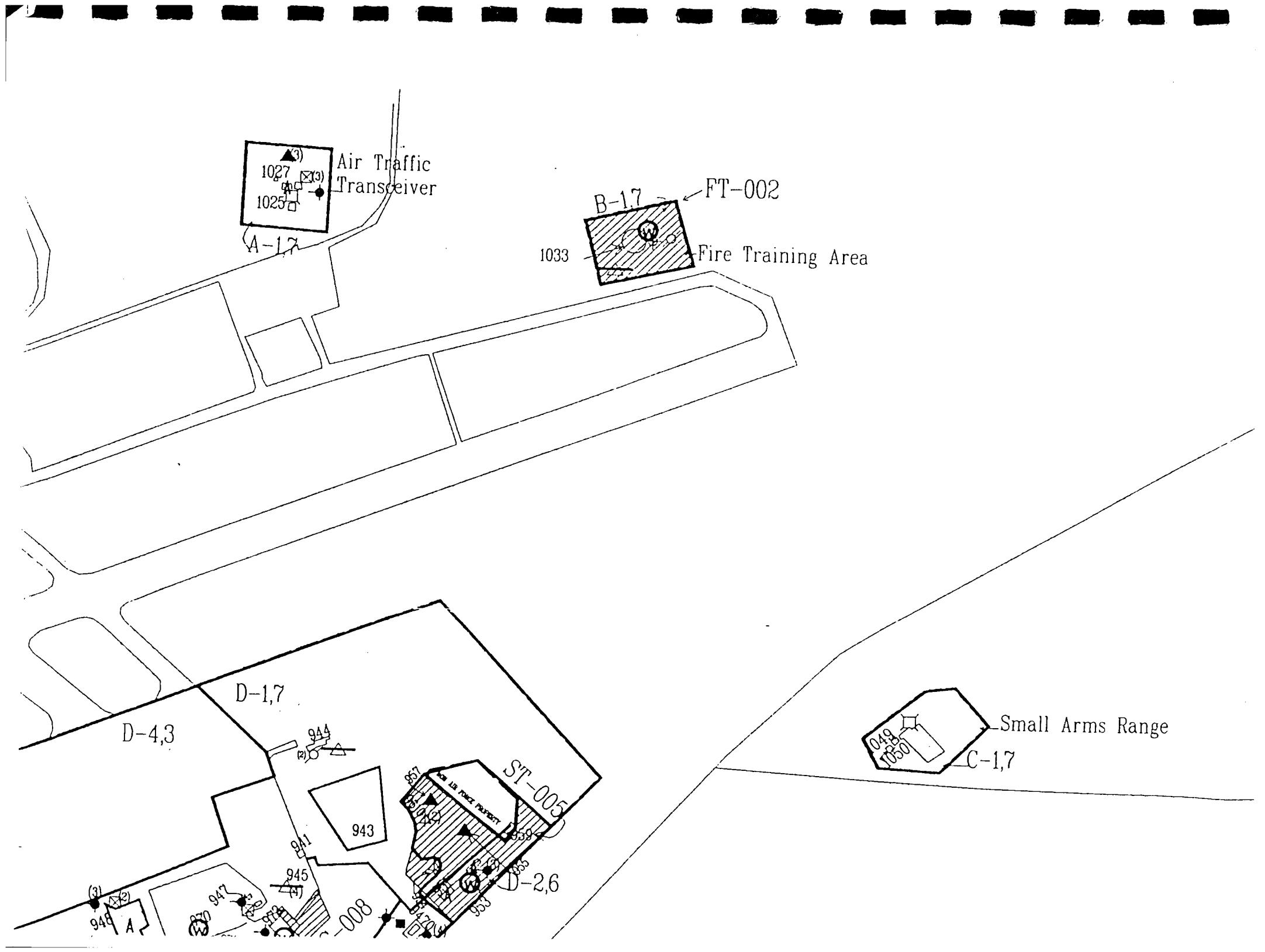
MDNR = Missouri Department of Natural Resources.

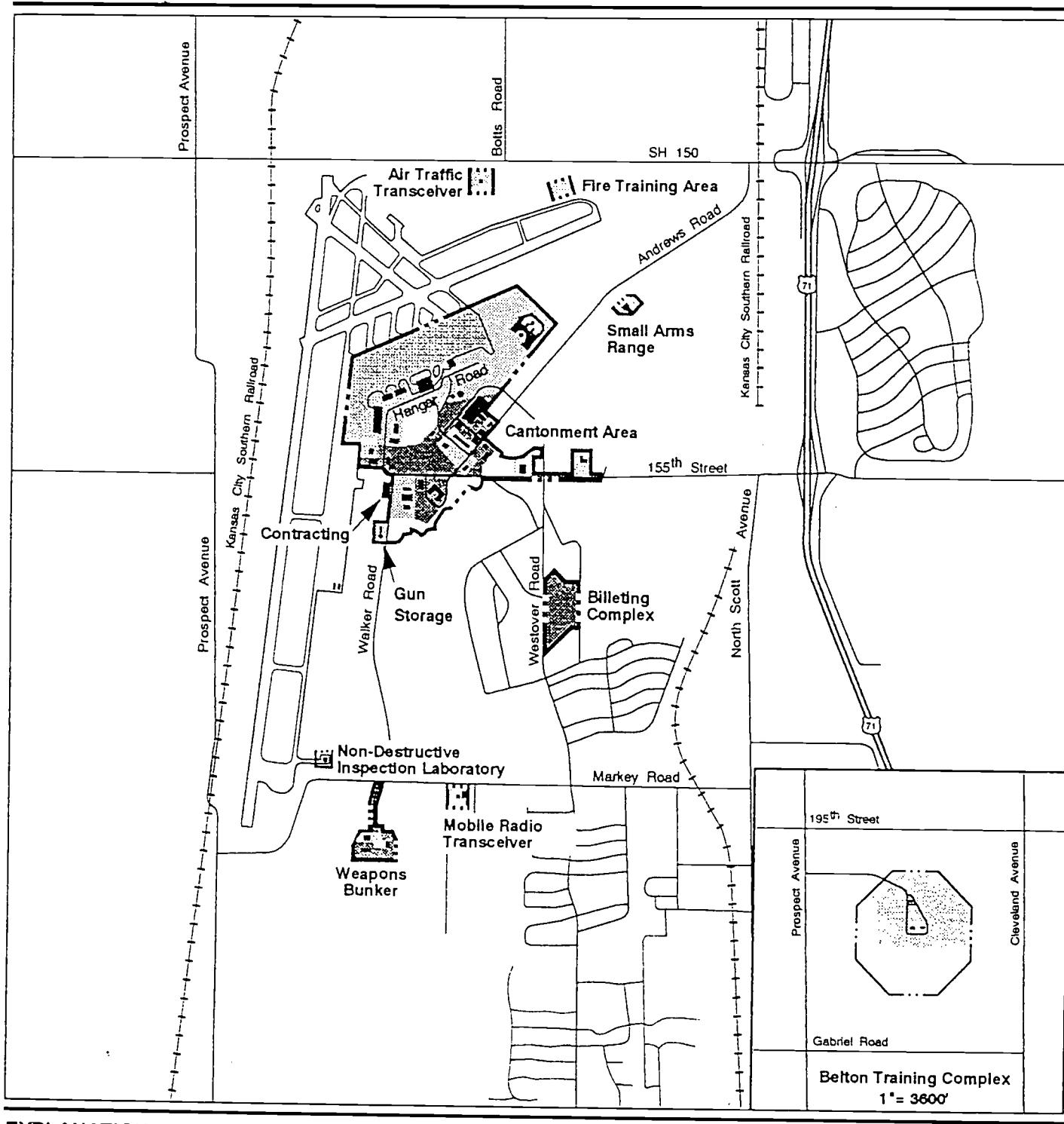
U = Underground storage.

Table 4-5. Formerly Used Defense Sites

Page 1 of 2

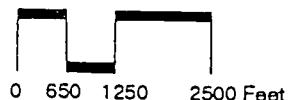
MAP ID	SITE NUMBER	SITE NAME	LOCATION AND WASTE DESCRIPTION	DATES OF OPERATION	CURRENT STATUS
12	1	South Landfill	Near the Non-Destructive Inspection Laboratory and adjacent to Scope Creek. Site was used as a sanitary landfill until 1956. After that until 1961 some wastes, including building rubble, yard debris, and waste from some industrial shop areas, were deposited there.	1954-1961	Records Search and Site Inspection
13	2	Northeast Landfill	East of the Small Arms Range. Site was used for the disposal of miscellaneous wastes including building rubble, yard debris and wastes from some industrial shop areas. The wastes were typically burned and buried in trenches.	1961-1972	Records Search and Site Inspection
14	3	Contractor Rubble Burial Area	West of the golf course along Walker Road. Debris including wood, concrete, masonry and metal. Some use as a sanitary landfill has been reported here.	1954-1978	Records Search and Site Inspection
15	4	West Burn Pit	North of Jackson-Cass County line and west of the main runway. Site was used for fire training exercises for one year. Typically, waste fuels and waste oils were burned during fire training exercises.	1954-1955	Records Search and Site Inspection
16	5	South Burn Area	Southwest of South Landfill. Site used for fire training exercises for 10 years. Typically, waste fuels and waste oils were burned during fire training exercises.	1955-1965	Records Search and Site Inspection
17	7	Radioactive Disposal Well	North of the South Landfill and east of the flightline. Low-level radioactive materials were deposited into a cased well.	1955-1970	Records Search and Site Inspection





EXPLANATION

- Uncontaminated Property (Category 1)
- Hazardous substance stored - no release (Category 2)
- Hazardous substance release, below action levels (Category 3)
- Hazardous substance release, all actions have been taken (Category 4)



- Hazardous substance release, not all actions have been taken (Category 5)
 - Hazardous substance release, no actions taken (Category 6)
 - Areas requiring additional evaluation (Category 7)
- Base Boundary

Property Categorization

Figure 5-2

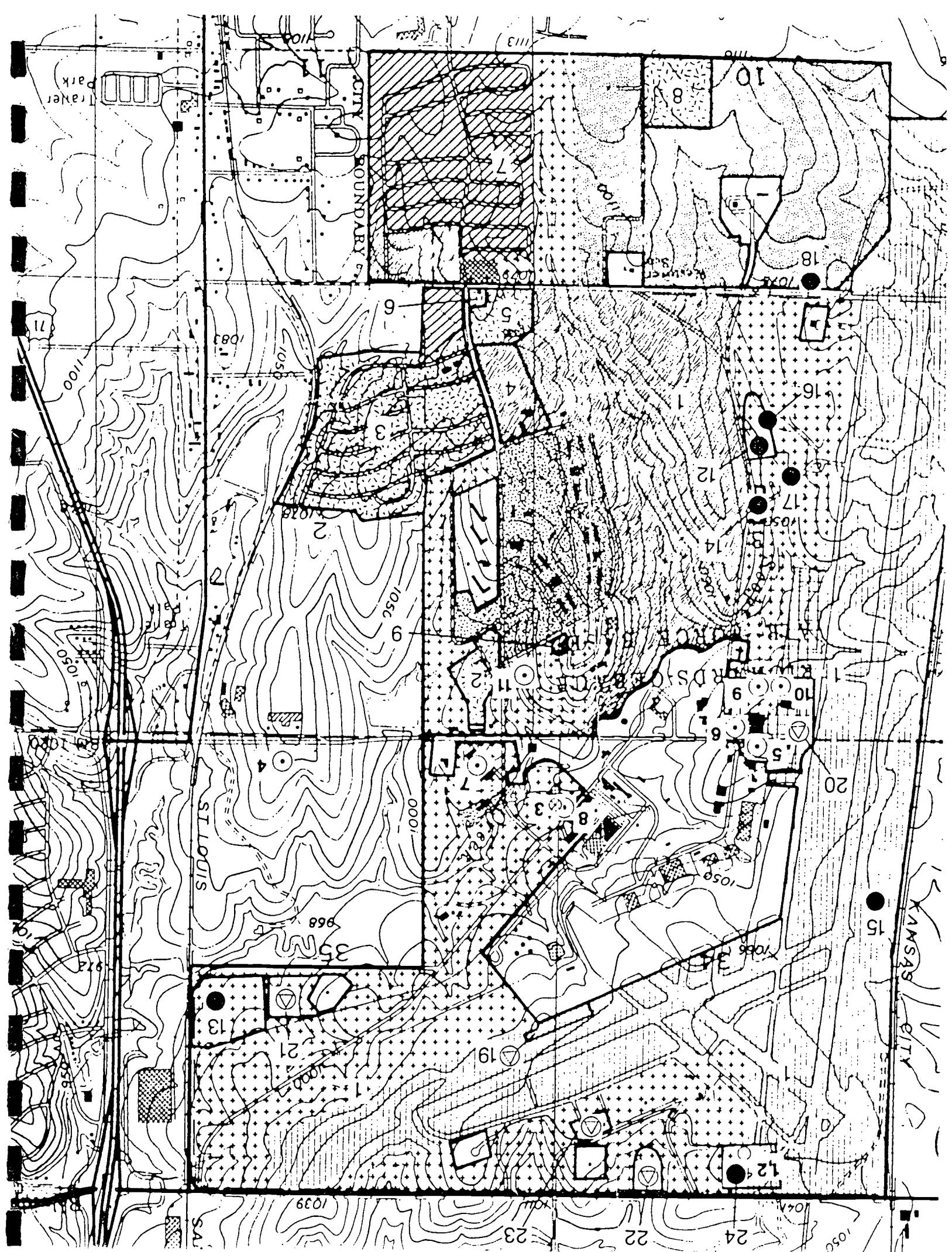


Table 5-1. Facility/Property Matrix - Richards-Gebaur AFB
Page 6 of 7

Facility (Use)	Property ID Number	Year of Construction	Square Footage	IRP Site	Hazardous Materials	Hazardous Waste	Storage Tanks/OWSs			ACM	Lead- Based Paint	Type of Inspection Completed	Overall Property Category
							Type	Content	Capacity (gallons) ¹⁴				
1009 (Instrument Landing System Localizer)	(b)	Unknown	Unknown				AST-A(2)	MOGAS	275	N	X	Physical	2
1011 (Electrical Power Station)	(b)	1962	128				AST-R(3)	MOGAS	275	N	X	Physical	3
1025 (Air Traffic Transceivers)	A-1	1953	1,048				AST-A(2)	Diesel	90	Y	X	Physical	7
							AST-A(2)	Diesel	275				
							AST-A(2)	Diesel	560				
							UST-R(7)	Fuel oil #2	550				
							UST-R(7)	Diesel	275				
							UST-R(7)	Fuel oil #2	1,000				
1027 (Support Structure Antenna)	A-1	1969	NA							N	X	None	7
1033 (Fire Training Facility)	B-1	1973	NA	FT-002(5)		W-2	AST-R(7)	Waste JP-4	5,000	N	X	Physical	7
							OWS-R(7)	Waste oil	425				
							OWS-R(7)	Waste oil	565				
1049 (Range Control House)	C-1	1956	2,320							N	X	Physical	7
1050 (Storage Magazine Aboveground)	C-1	1956	100							N	X	Physical	7
1100 (Mobile Radio Transceiver)	F-1	1953	1,048				AST-A(2)	MOGAS	275	Y	X	Physical	7
							UST-R(7)	Fuel oil #2	550				
							UST-R(7)	Gasoline	250				
1101 (Support Structure Antenna)	F-1	1969	NA							N	X	None	7
1201 (Weapons System Maintenance Management Facility)	G-2	1961	1,429				UST-R(7)	Fuel oil #2	3,000	Y	X	Physical	7
1202 (Missile Assembly and Training)	G-2	1961	3,852		II-2	W-2	UST-R(7)	Fuel oil #2	1,500	Y	X	Physical	7
							UST-I(7)	Fuel oil #2	1,650				
1203 (Storage Magazine Aboveground)	G-1	1961	5,614		II-2					N	X	Physical	2
1205 (Base Hazardous Storage)	G-1	1962	53							N	X	Physical	2
1206 (Spares Inert Storage)	G-2	1991	6,000							N		None	2
1207 (Equipment Pad)	G-1	1991	7,074							N		None	2
1401 (Instrument Landing System Localizer)	(b)	1957	186				AST-R(2)	MOGAS	275	N	X	Visual	2
1600 (Reserve Forces Operational Training)	J-1	1956	1,267							N	X	Physical	7

Table 5-2. Property/Facility Key
Page 1 of 4

Property ID Number, Property Category	Facility (Use)
A-1,7	1025 (Air Traffic Transceivers) 1027 (Support Structure Antenna)
B-1,7	1033 (Fireman Training Facility)
C-1,7	1049 (Range Control House) 1050 (Storage Magazine Aboveground)
D-1,7	903 (Electric Power Station Building) 904 (Base Hazard Storage) 918 (Maintenance Hangar) 927 (Jet Engine Inspection and Maintenance Shop) 928 (Base Engineering Hazardous Storage) 930 (Electronic Counter Measures Pad Shop/Storage) 938 (Water Pump Station) 940 (Aircraft General Purpose Shop) 941 (Truck Fill Stand) 942 (Heating Facility Building) 943 (Industrial Waste Treatment and Disposal Detention Reservoir) 944-d (Engine Test Cell) 945 (Aircraft Wash Pad) 946 (Base Hazardous Storage) 947 (Corrosion Control Utility Storage) 948 (Fuel Systems Maintenance Dock) 949 (Corrosion Control Utility Storage) 950 (Transformer Storage) 958 (Aircraft Support Equipment Shop) 959 (Base Hazardous Storage) 960 (Liquid Fuel Stand) 961 (Aircraft Wash Rack Pad) 962 (Aircraft Support Equipment Shop) 963 (Aboveground Storage Tank) 964 (Liquid Oxygen Storage) 965 (Aircraft General Purpose Shop) 966 (Maintenance Dock) 968 (Test Stand) 970 (Refueling Vehicle Parking) 971 (Petroleum Operations) 972 (Base Hazardous Storage) 973 (Base Hazardous Storage) 9470 (OWS and Waste Storage)
D-2,6	951 (Base Engineering Maintenance Shop) 952 (Truck Fill Stand) 953 (Liquid Fuel Pump Station) 954 (Heating Fuel Oil Storage) 955 (Jet Fuel Storage)

Table F-1. Hazardous Wastes Generated
Page 4 of 4

Facility	Types of Waste Generated	Documented Years of Generation ^(a)	Amount Generated
965	Stripper	1985	261 gallons/year
	Hydraulic fluid with methyl ethyl ketone	1985	15 gallons/year
	Toluene and methyl ethyl ketone	1985	54 gallons/year
	Thinner and methyl ethyl ketone	1985	27 gallons/year
	Epoxy remover	1985-1986	55 gallons/year
	Polyurethane paint	1987	151 gallons/year
	Polyurethane thinner	1986-1987	25 gallons/year
	Paint thinner	1986-1991	139 gallons/year
	Waste paint	1991-1992	75 gallons/year
	Waste thinner with methyl ethyl ketone	1992	49 gallons/year
966	Petroleum PD-680-II	1985-1986	48 gallons/year
	Paint stripper	1987-1988	93 gallons/year
	Used paint stripper	1987	110 gallons/year
	Paint stripper	1990	50 gallons/year
970	Tar	1990	40 gallons/year
973	JP-4 contaminated water	1990	45 gallons/year
1033	Aliphatic hydrocarbons	1991	15 gallons/year
1202	JP-4, engine oil, solvents	1969-1982	25,000 gallons/year
	JP-4	1983-1988	5,520 gallons/year
1202	Denatured alcohol with brake fluid	1990-1992	2 gallons/year
Fire Dept.	JP-4 Spill-X	1993	278 pounds/year

**SUPPLEMENTAL
WORK PLAN**

**CONTRACT NO: F23608-90-0020-5003
RG 91-0066, IRP REMEDIAL INVESTIGATION, FT02
NORTH BURN PIT
RICHARDS-GEBAUR AIR FORCE BASE, MISSOURI
October 1991**

91-804-3-009

**Burns & McDonnell
Engineers-Architects-Consultants
Kansas City, Missouri**

1.0 FIELD WORK PLAN

1.1 SCOPE OF WORK

This Work Plan has been prepared by Burns & McDonnell for the activities associated with the supplemental remedial investigation to be performed at the North Burn Pit (Site) at Richards-Gebaur Air Force Base (RAGFB), Missouri. Included in this Work Plan are a Field Work Plan, a Sampling and Analysis Plan, a Quality Assurance Project Plan, and a Site Health and Safety Plan. This project is to be performed in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Contingency Plan.

This supplemental Work Plan has been prepared for the additional field activities not covered by the original Work Plan - "Site Specific Sampling/Analysis - Quality Control/Quality Assurance Plan, Remedial Investigation (RI), Feasibility Study (FS) and Preliminary Assessment (PA) at Various Sites, Richards-Gebaur Air Force Base, Belton, Missouri" by O'Brien and Gere Engineers, Incorporated. As such this Work Plan is an addendum to the original Work Plan and not a replacement of the original Work Plan.

The objective of this project is to evaluate the approximate extent and nature of groundwater contamination associated with the Site, as well as determine the need for further actions. Field activities of the site investigation will include the collection of water levels and the sampling of the six monitoring wells now present at the Site.

1.2 SITE LOCATION

RGAFB is located in west-central Missouri, about 2.6 miles east of the Kansas state line, as shown on Figure 1. The base is almost equally divided by the Jackson and Cass County line, which runs east-west through the middle of the base. In Cass County, the base is bounded by the city of Belton on the east and south; and in Jackson County, the base is bounded by Kansas City. Downtown Kansas City is about 18 miles to the north, Grandview is about 3 miles to the northeast, and Belton is about 3 miles to the northeast and Belton is about 3 miles to the southeast. The main access to the base is off U.S. Highway 71 (Reference 1). The Site is located in the central north portion of RGAFB (see Figure 2).

1.3 SITE HISTORY

The North Burn Pit Area was used for fire protection training by the Base Fire Department from 1965 until 1988. During the first four years of operation, waste oils, fuels, and solvents were stored near and burned in an unlined pit. In 1969, the fire training area was upgraded to a concrete-lined pit which drained through an oil-water separator. After the pit was upgraded, jet fuel (JP-4) was the only flammable liquid burned during fire training exercises. In 1988, the fire training area and oil-water separator were deactivated and training exercises were discontinued (Reference 1).

In July of 1988, a site inspection including a soil gas survey, the installation of 3 monitoring wells and the collection of soil and water samples was conducted (Reference 2). In August of 1989, as part of a Remedial

Investigation, 4 additional monitoring wells were installed, 2 additional surface soil samples were obtained, hydraulic conductivity tests were conducted on the new monitoring wells, and groundwater samples were collected from all 7 monitoring wells. The data provided indicate that lead and petroleum hydrocarbons are present in the soil and that lead, chromium, and possibly bis (2-ethylhexyl) phthalate are present in the groundwater. Sample and monitoring well locations from these investigations are shown in Figure 3.

1.4 SITE ACTIVITIES

Field activities to be conducted at the Site during this investigation consist of the abandonment of Monitoring Well GWM-605, the collection of static water elevations and the purging and sampling of the six monitoring wells. One water sample will be obtained from each monitoring well and submitted for chemical analysis. For each monitoring well, a water sampling record, as shown in Appendix A, will be completed.

1.5 PUBLIC INQUIRIES

Burns & McDonnell will not release to the public any information concerning this project. Any public inquiries made to Burns & McDonnell will be directed to the RGAFB Contracting Officer. The Contracting Officer will in-turn direct the inquiries to the RGAFB Public Affairs Officer.

1.6 PURGE WATER

All purged water will be placed in Department of Transportation (DOT) approved drums for storage at Facility 973, Hazardous Waste/Material Storage Yard (see Figure 2). Each barrel will be labeled with RG#91-0066, the monitoring well number and the word "water". Disposal recommendations will be provided to RGAFB based upon the groundwater analytical results.

1.7 ABANDONMENT OF MONITORING WELL GWM 605

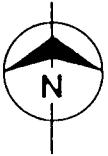
Monitoring Well GWM 605 will be abandoned before water sampling activities are conducted. The monitoring well will be abandoned by drilling out the well thereby removing all casing, cement, and other well material now present. The monitoring well will then be backfilled with grout to the ground surface. The grout will be emplaced using a tremie pipe from the bottom upward. All water and wastes from the well abandonment will be placed in DOT approval drums. The drums will be moved for storage at Facility 973, Hazardous Waste/Material Storage Yard (see Figure 2). Each barrel will be labeled with RG #91-0066, GWM-605, and the words "well abandonment waste".

1.8 SCHEDULE OF FIELD ACTIVITIES

The field activities for this Work Plan, including the sampling of 6 monitoring wells and the abandonment of Monitoring Well GWM 605, will be concluded during 1 week of field work.

1.9 REMEDIAL INVESTIGATION REPORT

Upon completion of the field activities, a Remedial Investigation report will be prepared for RGAFB. The report will be prepared in accordance with "The Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" EPA, October 1988. The report will detail the technical findings, field and laboratory observations, results of sample analysis, and QA/QC results. The Remedial Investigation report will compare data gathered at the



100 0 100 200
SCALE IN FEET

LEGEND

- GROUND WATER MONITORING WELL (INSTALLED 8/89)
- IRP PHASE II STAGE 2 WATER MONITORING WELL
- ◆ SHALLOW SOIL SAMPLE
- (1043.62) GROUND WATER ELEVATIONS OBTAINED 9/13/89
- APPROXIMATE GROUND WATER FLOW DIRECTION

FROM:
REMEDIAL INVESTIGATION (R1)
RICHARDS-GEBEUR AIR FORCE BASE
BELTON, MISSOURI
CONTRACT DAC W41-87-D-0153
JULY 1990
O'BRIEN & GERE

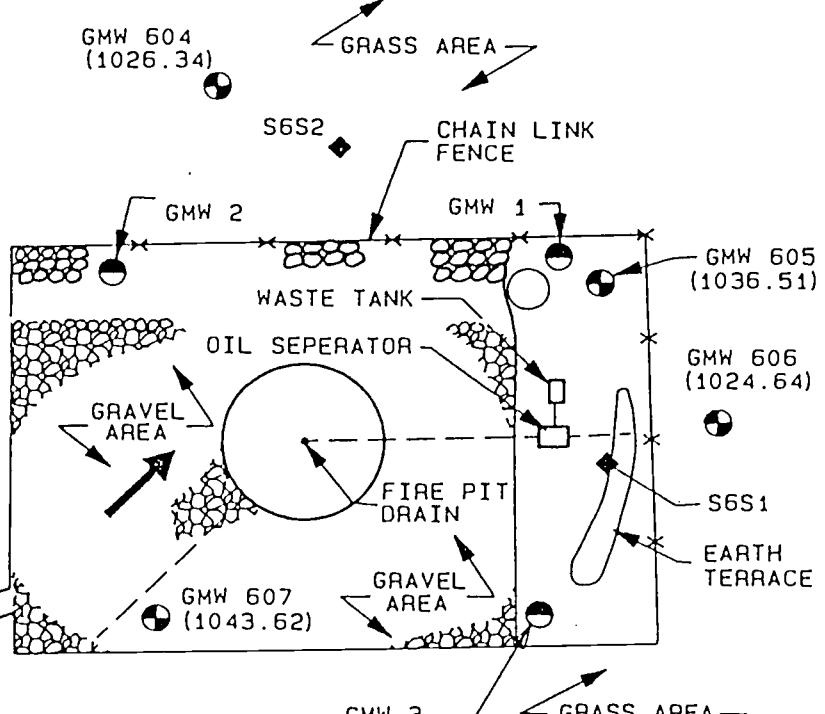
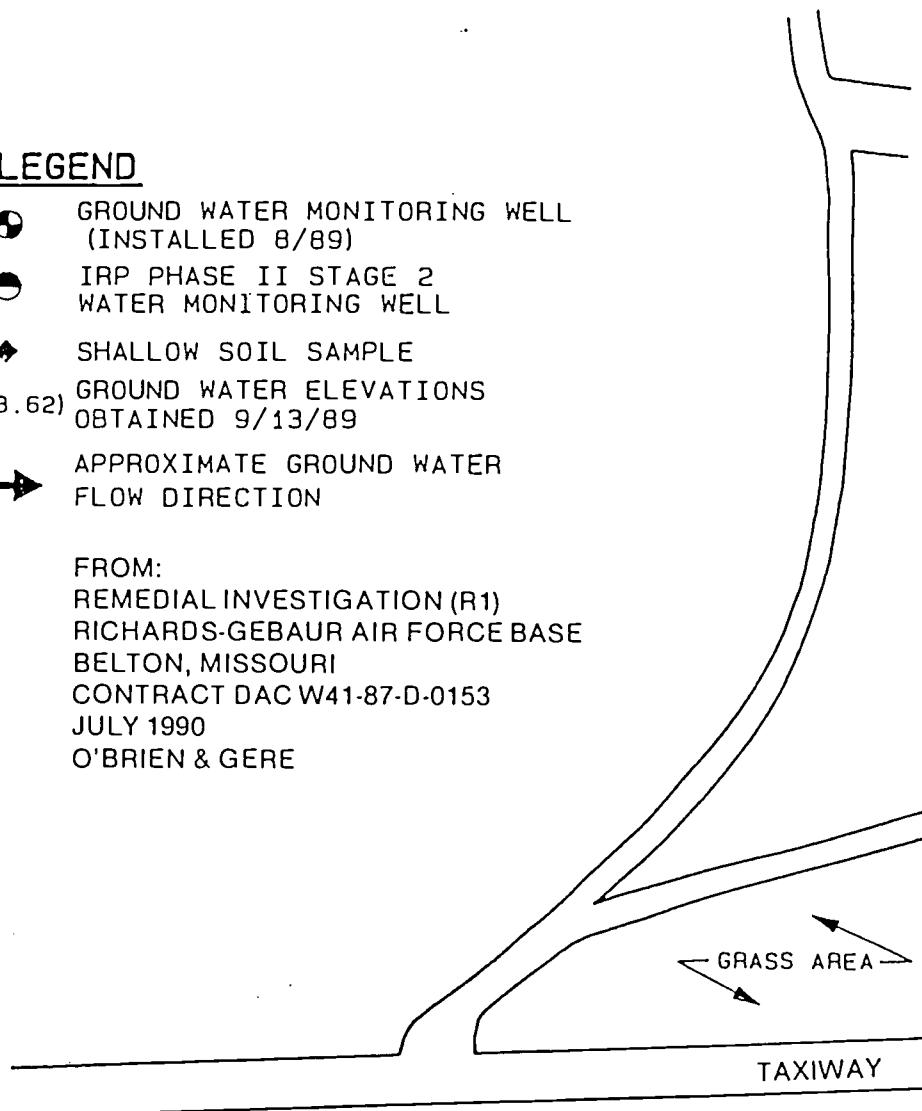


Figure 3
PREVIOUS SAMPLE LOCATIONS
NORTH BURN PIT AREA, FTO2

**CONTRACT NO. F23608-91-0020-5003
RG 91-0066, IRP Remedial Investigation, FT002
North Burn Pit
Richards-Gebaur Air Force Base, Missouri**

April 1992

**Supplemental
Remedial Investigation Report
FINAL**

91-804-3-009

**Burns & McDonnell
Engineers-Architects-Consultants
Kansas City, Missouri**

1.0 INTRODUCTION

1.1 SCOPE OF WORK

This Supplemental Remedial Investigation (RI) report has been prepared by Burns & McDonnell for the North Burn Pit (Site) at Richards-Gebaur Air Force Base (RGAFB). The scope of this project includes defining the nature and extent of groundwater contamination associated with the Site and comparing previous data to that collected during this investigation. This RI is to amend, not replace the existing Remedial Investigation. In accordance with the scope of work, this RI contains a discussion of field activities conducted, results and significance of sample analyses, laboratory and field quality assurance/quality control (QA/QC) information, and a conclusions and recommendations section. Included in the appendices of this report are the water sampling records, chain-of-custodies, the laboratory analytical results, and laboratory quality control reports.

1.2 SITE LOCATION

RGAFB is located in west-central Missouri, about 2.6 miles east of the Kansas-Missouri state line, as shown on Figure 1. The Base is almost equally divided by the Jackson-Cass county line, which runs east-west through the middle of the Base. In Cass County, the Base is bounded by the city of Belton on the east and south, and in Jackson County, the Base is bounded by Kansas City. Downtown Kansas City is about 18 miles to the north, Grandview is about 3 miles to the northeast, and Belton is about 3 miles to the southeast. The main access to the Base is off U.S. Highway 71 (Reference 1). The Site is located in the central north portion of RGAFB (see Figure 2).

1.3 SITE HISTORY

The Site was used for fire protection training by the Base Fire Department from 1965 until 1988. During the first four years of operation, waste oils, fuels, and solvents were stored near and burned in an unlined pit. In 1969, the fire training area was upgraded to a concrete-lined pit which drained through an oil-water separator. After the pit was upgraded, jet fuel (JP-4) was the only flammable liquid burned during fire training exercises. In 1988, the fire training area and oil-water separator were deactivated and training exercises were discontinued (Reference 1).

In July of 1988, a Site Inspection, including a soil gas survey, the installation of three monitoring wells, and the collection of soil and water samples, was conducted (Reference 2). In August of 1989, as part of a Remedial Investigation by O'Brien and Gere, four additional monitoring wells were installed, two additional surface soil samples were obtained, hydraulic conductivity tests were conducted on two of the new monitoring wells, and groundwater samples were collected from the four monitoring wells. The data provided indicated that lead and petroleum hydrocarbons are present in the soil and that lead, chromium, and possibly bis (2-ethylhexyl) phthalate are present in the groundwater. Sample and monitoring well locations from these investigations are shown in Figure 3.

* * * * *

3.0 NATURE AND EXTENT OF CONTAMINATION

3.1 GENERAL

At the Site, groundwater sampling was conducted on Groundwater Monitoring Wells GMW 604, GMW 605, GMW 606, and GMW 607. Groundwater Monitoring Wells GMW 1, GMW 2, and GMW 3 were dry and therefore, were not sampled. The water samples were analyzed for alkalinity, common anions, common cations, total dissolved solids, metals, purgeable aromatics, and purgeable halocarbons. The low recharge rate at Groundwater Monitoring Well GMW 606 did not allow collection of an adequate sample volume to perform all proposed analytical tests. Groundwater Sample GMW 606 was not analyzed for alkalinity and total dissolved solids. Groundwater Sample GMW 608 was obtained from Groundwater Monitoring Well GMW 607 as a duplicate of Groundwater Sample GMW 607. Groundwater Sample GMW 1 was obtained from Groundwater Monitoring Well GMW 605. All groundwater samples were analyzed by Southwest Laboratory of Broken Arrow, Oklahoma.

3.2 ALKALINITY

Alkalinity as CaCO_3 ranged from 218 mg/l in Monitoring Well GMW 1 to 540 mg/l in Monitoring Well GMW 607 (See Table 2)

3.3 COMMON ANIONS

The groundwater samples were analyzed for inorganic chloride, fluoride, nitrate, nitrite, and ortho-phosphorus (See Table 2). Neither nitrite nor ortho-phosphorus were detected in any of the monitoring wells. Fluoride was only detected in Groundwater Sample GMW 1 at a level of 0.4 mg/l. Nitrate ranged in concentration from below detection level in Groundwater Sample GMW 606 to 6.4 mg/l in Groundwater Sample GMW 607. Inorganic chloride ranged in concentration from 2.0 mg/l in Groundwater Sample GMW 606 to 15.6 mg/l in Groundwater Sample GMW 1. All results were below drinking water standards (See Table 2).

3.4 COMMON CATIONS

All groundwater samples were analyzed for the common cations: calcium, iron, magnesium, manganese, potassium, and sodium. Table 2 summarizes the laboratory results. The chemical results indicate that the water present at the Site is fresh water with some mineralization present.

3.5 TOTAL DISSOLVED SOLIDS

Total dissolved solids ranged from 317 mg/l in Groundwater Sample GMW 1 to 428 mg/l in Groundwater Sample GMW 604. All results were below the drinking water standard of 500 mg/l (See Table 2).

3.6 DISSOLVED METALS

Water samples from the Site were analyzed for antimony, beryllium, cadmium, chromium, copper, nickel, silver, zinc, arsenic, lead, mercury, selenium, and thallium. All water samples analyzed for metals were filtered in the field using the method described in Section 2.5. All samples results were below the detection limits for the metals except for the Groundwater Sample GMW 1. Groundwater Sample GMW 1 contained 12.3 $\mu\text{g/l}$ copper and 11.7 $\mu\text{g/l}$ silver. Both of these levels are below the drinking water standards for copper and silver (See Table 2).

Table 2
Summary of Analytical Results

Parameter	Detection Limit	Analytical Method	Groundwater Sample Number (Analytical levels detected by the laboratory)					Drinking Water Standard ¹
			GMW 1*	GMW 604	GMW 606	GMW 607	GMW 608**	
Alkalinity	1 mg/l	E310.1	218	300	NS ²	516	540	NA ³
Common Anions		E300.0						
Inorganic Chloride	0.2 mg/l		15.6	3.4	2.0	3.0	3.0	250
Fluoride	0.2 mg/l		0.4	BDL ⁴	BDL	BDL	BDL	4
Nitrate	0.2 mg/l		1.3	0.4	BDL	6.4	6.4	10
Nitrate	0.2 mg/l		BDL	BDL	BDL	BDL	BDL	1
Ortho-phosphorus	0.1 mg/l		BDL	BDL	BDL	BDL	BDL	NA
Common Cations		SW3050/ 6010						
Calcium	500 mg/l		77.90	76.6	68.90	85.70	87.70	NA
Iron	30 mg/l		0.838	BDL	BDL	BDL	BDL	0.3
Magnesium	500 mg/l		6.56	18.2	15.80	6.72	6.52	NA
Manganese	10 mg/l		2.29	0.0435	0.014	BDL	BDL	0.5
Potassium	500 mg/l		0.636	1.72	6.62	1.01	0.94	NA
Sodium	500 mg/l		20.40	27.60	33.90	15.20	15.80	NA
Total Dissolved Solids	1-4 mg/l	E160.1	317	428	NS	387	360	500
Metal Screen (dissolved)		E200.7	Copper 12.3 Silver 11.7	BDL	BDL	BDL	BDL	Copper 1000 Silver 100
Purgeable Aromatic	1 µg/l	SW846- 8020	Benzene 0.9	Toluene 1.2 T ⁵ Ethylbenzene 1.7 m,p-Xylene 1.1	Toluene 1.0 T m,p-Xylene 1.1	BDL	BDL	Benzene 5 Toluene 1000 Ethylbenzene 700 Xylene 10,000
Purgeable Halocarbons	1 µg/l	SW846- 8010	Methylene Chloride 1.1 1,2-Dichloroethane 0.5	BDL	Methylene Chloride 0.6 1,4-Dichlorobenzene 0.6	BDL	BDL	Methylene Chloride 5 1,2-Dichloroethane 0.5 1,4-Dichlorobenzene 0.6

* From Groundwater Monitoring Well GMW 605

** Duplicate of GMW 607

¹ Source: Drinking Water Regulations and Health Advisories USEPA, April 1991

NS² - Not Sampled

NA³ - Non Applicable

BDL⁴ - Below Detection Limit

T⁵ - Contaminant also present in Trip Blank at comparable levels

3.7 PURGEABLE AROMATICS

All groundwater samples were analyzed for purgeable aromatics using Method SW 846-8020. Analytical results for the Groundwater Sample GMW 1 reported a benzene concentration of 0.9 $\mu\text{g/l}$. Groundwater Sample GMW 604 was analyzed as containing 1.2 $\mu\text{g/l}$ toluene, 1.7 $\mu\text{g/l}$ ethylbenzene, and 1.1 $\mu\text{g/l}$ m,p-xylene. Groundwater Sample GMW 606 was analyzed as containing 1.0 $\mu\text{g/l}$ toluene and 1.1 $\mu\text{g/l}$ m,p-xylene (See Table 2). Toluene was also found in Trip Blank-2. Toluene as indicated by USEPA Risk Assessment Guidance (Reference 5), is a common laboratory contaminant. Groundwater Samples GMW 607 and GMW 608 from Groundwater Monitoring Well GMW 607 were below detection level for all purgeable aromatic analyses. All levels of purgeable aromatics were reportedly present at concentrations below drinking water standards.

3.8 PURGEABLE HALOCARBONS

All groundwater samples were analyzed for purgeable halocarbons using Method SW 846-8010. Groundwater Sample GMW 1 was analyzed as containing 1.1 $\mu\text{g/l}$ methylene chloride and 0.5 $\mu\text{g/l}$ 1,2-dichloroethane. Groundwater Sample GMW 606 was analyzed as containing 0.6 $\mu\text{g/l}$ methylene chloride and 0.6 $\mu\text{g/l}$ 1,4-dichlorobenzene (See Table 2). Purgeable halogenated analytes were not present, at levels above the analytical detection limit in Groundwater GMW 604, GMW 607, and GMW 608. Of the purgeable halocarbons found, methylene chloride was found at a level lower than the drinking water standard for methylene chloride. Also, methylene chloride is a common lab contaminant. 1,2-dichloroethane and 1,4-dichlorobenzene were also present at concentrations below drinking water standards.

* * * * *

LEGEND

- GROUND WATER MONITORING WELL
(INSTALLED 8/89)
- IRP PHASE II STAGE 2
WATER MONITORING WELL
- (1025.51) GROUNDWATER ELEVATION
- SOIL STRATA IN WHICH GROUNDWATER
MONITORING WELL IS SCREENED

MODIFIED FROM:
REMEDIAL INVESTIGATION (RI)
RICHARDS-GEBAUR AIR FORCE BASE
BELTON, MISSOURI
CONTRACT DAC W41-87-D-0153
JULY 1990
O'BRIEN & GERE

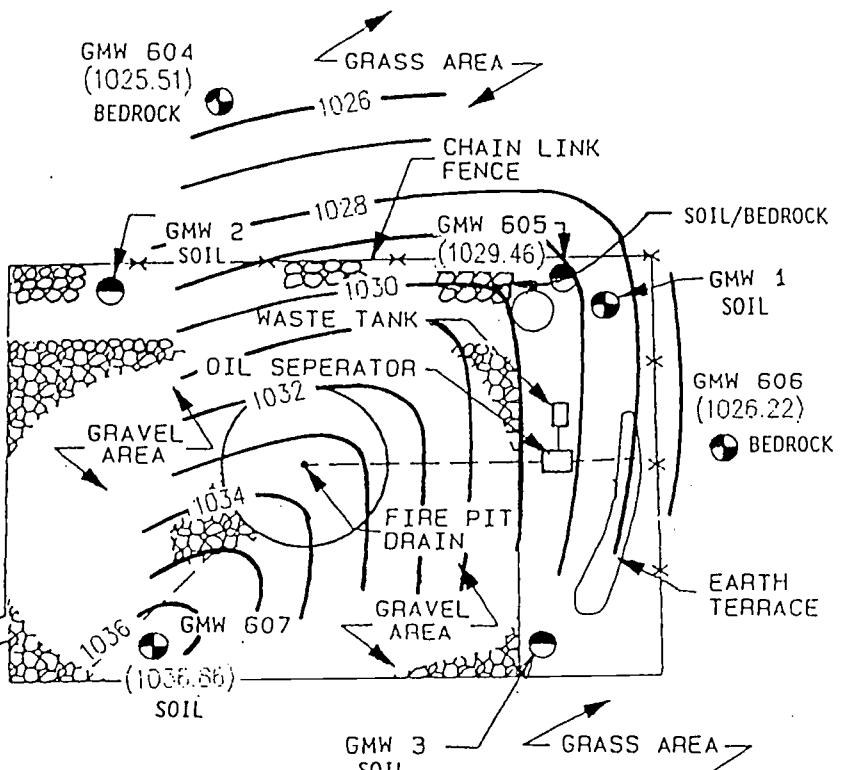
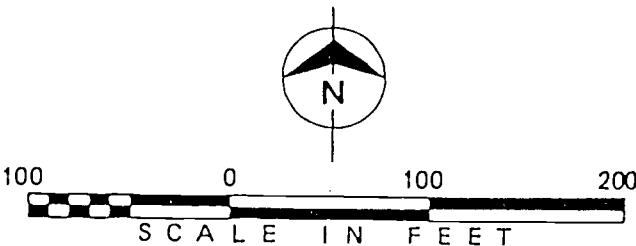
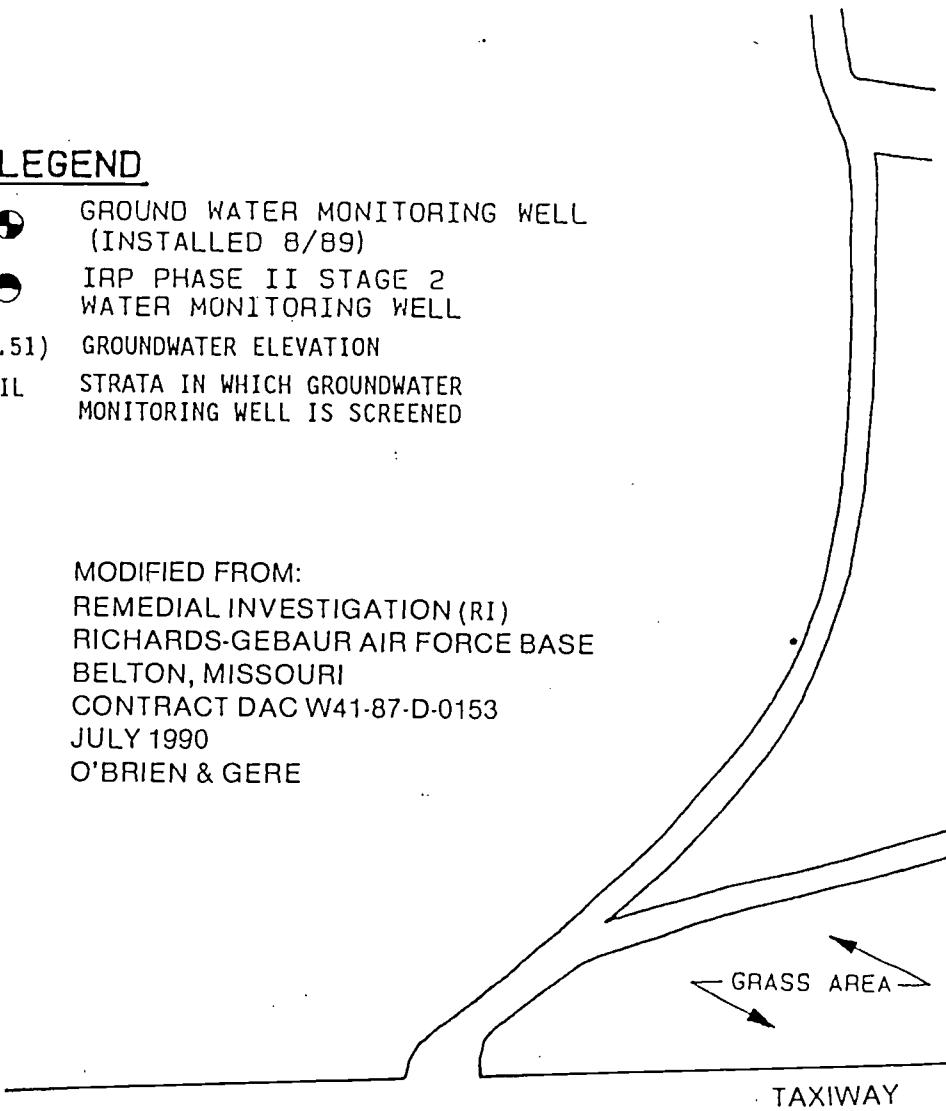


FIGURE 4
GROUNDWATER
ELEVATIONS
NORTH BURN
PIT AREA, FT02

5.0 COMPARISON WITH PREVIOUS DATA

Three rounds of groundwater sampling have been conducted at this Site. Round 1 was conducted in 1988 by Ecology and Environment. Groundwater Monitoring Wells GMW 1, GMW 2, and GMW 3 were installed and sampled during this Site Inspection. The water samples were analyzed for halogenated and aromatic volatiles. Round 2 was conducted in 1989 by O'Brien and Gere. Groundwater Monitoring Wells GMW 604, GMW 605, GMW 606, and GMW 607 were installed and sampled during this investigation phase. O'Brien and Gere analyzed the water samples for purgeable aromatics and halocarbons, base/neutral acid extractables, total recoverable metals, arsenic, mercury, and selenium. Round 3 was conducted in 1991 by Burns & McDonnell. Groundwater Monitoring Wells GMW 604, GMW 605, GMW 606, and GMW 607 were sampled during this investigation phase. Groundwater Monitoring Wells GMW 1, GMW 2, and GMW 3 were dry and therefore, could not be sampled. Groundwater Monitoring Well GMW 1 was abandoned prior to the start of sampling. The water samples were analyzed for the parameters presented in Table 1. Table 4 presents a summary of the three investigations.

Groundwater Monitoring Wells GMW 1, GMW 2, and GMW 3 were sampled only in 1988 by Ecology and Environment. Groundwater Monitoring Well GMW 1 was analyzed as containing 37 µg/l methylene chloride. Groundwater Monitoring Wells GMW 2 and GMW 3 contained chloroform (0.5 and 0.61 µg/l) and tetrachloroethylene (0.71 and 0.41 µg/l). These three wells were dry during the 1991 sampling event.

Groundwater Monitoring Wells GMW 604, GMW 605, GMW 606, and GMW 607 were sampled by O'Brien and Gere in 1989. Groundwater Monitoring Well GMW 605 was analyzed as having no contaminants present above drinking water standards. The three wells, GMW 604, GMW 606, and GMW 607, were analyzed as containing bis (2-ethylhexyl) phthalate, chromium, and lead above drinking water and health standards. Burns & McDonnell sampled these wells again in 1991. No analytes were found present in levels above drinking water standards. The 1991 water samples were not analyzed for bis (2-ethylhexyl) phthalate; however, O'Brien and Gere in their 1990 report (Ref. 1) determined that the bis (2-ethylhexyl) phthalate present in the samples was due to laboratory contamination. Both the 1989 and the 1991 samples were analyzed for metals; however, the 1989 metal samples were unfiltered and the 1991 metal samples were filtered. The results indicated that the lead and chromium present in the 1989 samples were probably due to sediment in the sample and did not represent soluble groundwater contamination.

* * * * *

Table 4
 Summary of Analytical Data
 From 1988, 1989, and 1991
 Groundwater Sampling Rounds

Groundwater Monitoring Well No.	1988 Ecology & Environment ¹	1989 O'Brien & Gere ²	1991 Burns & McDonnell ³
GMW 1	37 µg/l Methylene Chloride	NS ⁴	Dry/ Abandoned
GMW 2	0.5 µg/l Chloroform 0.71 µg/l Tetrachloroethylene	NS	Dry
GMW 3	0.61 µg/l Chloroform 0.41 µg/l Tetrachloroethylene	NS	Dry
GMW 604	NA ⁵	0.021 mg/l Bis (2-ethylhexyl) phthalate 0.18 mg/l Chromium 0.12 mg/l Lead BDWS	BDWS ⁶
GMW 605	NA	BDWS	BDWS
GMW 606	NA	0.1 mg/l Bis (2-ethylhexyl) phthalate 0.29 mg/l Chromium 0.20 mg/l Lead	BDWS
GMW 607	NA	0.011 mg/l Bis (2-ethylhexyl) phthalate 0.11 mg/l Chromium 0.11 mg/l Lead	BDWS

¹ Groundwater samples analyzed for halogenated and aromatic volatiles. All concentrations reported were included in this table.

² Groundwater samples analyzed for purgeable aromatics and halocarbons, base/neutral acid extractables, total recoverable metals, arsenic, mercury, and selenium. Only concentrations above drinking water standards reported in this table.

³ Groundwater analyzed for parameters in Table 1. Only concentrations above drinking water standards reported in this table.

⁴ NS – Not Sampled

⁵ NA – Not Applicable – wells not installed until 1989

⁶ BDWS – All results below drinking water standards.

7.0 PUBLIC HEALTH EVALUATION

Groundwater data was obtained during the Burns & McDonnell RI to identify potential contaminants of concern in groundwater at the Site. Samples collected during this recent investigation were analyzed for dissolved metals and volatile organic compounds. This groundwater data was compared to maximum contaminant levels (MCLs) developed under the Safe Drinking Water Act and data from past investigations to assess the potential impact of this Site on human health and the environment. The maximum contaminant levels adopted by the State of Missouri Public Drinking Water Program are identical to the federal drinking waters standards.

Elevated levels of chromium and lead above MCLs had been detected in the total metal samples collected and analyzed by O'Brien and Gere during past investigations at this Site for both the upgradient and downgradient monitoring wells. Dissolved metal analytical data obtained from the Burns & McDonnell investigation did not detect these elevated metal levels in filtered groundwater samples from the Site. Data obtained from this project phase suggests that the metal levels detected during the previous investigation were associated with sediment in the groundwater samples and did not represent soluble groundwater contamination originating from the Burn Pit Area. Based on the high total metal levels detected in the upgradient well during the O'Brien and Gere investigation and the low dissolved metal levels recently detected, the North Burn Pit Area is not expected to contribute to the levels of metals in the shallow groundwater system.

The only dissolved metals detected in groundwater during the Burns & McDonnell investigation were copper - 12.3 $\mu\text{g/l}$ and silver - 11.7 $\mu\text{g/l}$, which were reported in Groundwater Sample GMW 1 from Groundwater Monitoring Well GMW 605. These dissolved metal levels are significantly below the established MCL levels for copper - 1000 $\mu\text{g/l}$ and silver - 100 $\mu\text{g/l}$. Based on this data, dissolved metal levels in groundwater at the Site do not pose human health or environmental concerns.

Chloroform and tetrachloroethylene, organic contaminants detected in groundwater by Ecology and Environment during a previous investigation, were not detected in groundwater samples analyzed during this investigation phase.

Methylene chloride was detected in groundwater samples from Groundwater Monitoring Wells GMW 605 and GMW 606 at levels of 0.6 $\mu\text{g/l}$ and 1.1 $\mu\text{g/l}$, respectively. These levels are below the proposed MCL level for methylene chloride - 5 $\mu\text{g/l}$. Although not detected in blank samples associated with this investigation, methylene chloride is a common laboratory contaminant and may not have been present in the site groundwater.

Toluene was detected in groundwater samples from GMW 604 and GMW 606 at 1.2 $\mu\text{g/l}$ and 1.0 $\mu\text{g/l}$, respectively. However, toluene was found in Trip Blank-2 at a level of 1.5 $\mu\text{g/l}$. Other contaminants detected in the groundwater sample from Groundwater Monitoring Well GMW 604 were ethylbenzene - 1.7 $\mu\text{g/l}$ and xylene - 1.1 $\mu\text{g/l}$. Xylene - 1.1 $\mu\text{g/l}$ and 1,4 dichlorobenzene - 0.6 $\mu\text{g/l}$, were also detected in the groundwater sample from Groundwater Monitoring Well

GMW 606. Estimated levels of 1,2 dichlorobenzene - 0.5 $\mu\text{g/l}$ and benzene - 0.9 $\mu\text{g/l}$ were reported to be present in the groundwater sample from Groundwater Monitoring Well GMW 605. Each of the volatile organic compounds were found in the groundwater at this Site at levels below MCL standards established under the Safe Drinking Water Act. Maximum contaminant levels for 1,2-dichloroethane, 1,4-dichlorobenzene, ethylbenzene, xylene, and benzene are 600 $\mu\text{g/l}$, 75 $\mu\text{g/l}$, 700 $\mu\text{g/l}$, 10,000 $\mu\text{g/l}$, and 5 $\mu\text{g/l}$, respectively.

As a result of this investigation, no contaminants of concern have been identified for the Site. Levels of dissolved metals and volatile organic compounds in the groundwater are within state and federal health-based standards. Volatile organic compounds detected during this investigation phase were found only at low levels, near their analytical level of detection. Based on this data, the Site does not appear to be a significant groundwater contamination source.

* * * * *

8.0 CONCLUSIONS AND RECOMMENDATIONS

No contaminants of concern have been identified for the shallow groundwater of this Site. Based upon the data obtained, the North Burn Pit does not appear to be a significant groundwater contamination source for the shallow groundwater system. No further action concerning the groundwater is recommended at the North Burn Pit - Site FT02.

* * * * *

File:
P.M.E. 17A-13

REMEDIAL INVESTIGATION (RI)

AT

RICHARDS-GEBAUR AIR FORCE BASE
BELTON, MISSOURI

FOR

FT002 - NORTH BURN PIT
SS003 - OIL SATURATED AREA
SS004 - HAZARDOUS WASTE DRUM STORAGE
ST005 - POL STORAGE YARD

CONTRACT DACW41-87-D-0153

PREPARED FOR:

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE RESERVE
ROBINS AIR FORCE BASE, GEORGIA

UNDER CONTRACT WITH:
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
KANSAS CITY DISTRICT
KANSAS CITY, MISSOURI

PREPARED BY:

O'BRIEN & GERE ENGINEERS, INCORPORATED
5000 CEDAR PLAZA PARKWAY
SUITE 211
ST. LOUIS, MISSOURI 63128

OCTOBER 1991

EXECUTIVE SUMMARY

O'Brien & Gere Engineers, Inc. (O'Brien & Gere) was contracted to conduct a Remedial Investigation at the following four sites at Richards-Gebaur Air Force Base (AFB) in Belton, Missouri. The results of this investigation are summarized below, while detailed information regarding the work performed can be found in later sections of this report.

A. FT002 - North Burn Pit

Low concentrations of lead and Total Petroleum Hydrocarbons (TPH) exist in the surface soil. Under current conditions, this site poses negligible risk to human health and the environment. Maximum lifetime cancer risk of 1.7E-09 was calculated for FT002.

B. SS003 - Oil Saturated Area

Concentrations of lead and TPH exist in the soil at this site. A maximum lifetime cancer risk of 2.1E-06 was calculated for this site. Under current conditions, the contaminated soils at this site do not pose a significant public health risk. Removal of oil-stained areas should be considered to minimize exposure during any future earth moving activities. Approximately 275 cubic feet of contaminated soils have been estimated for removal from the site to arrive at cleanup levels of 100 parts per million (ppm) or less TPH concentration. This is based on a contamination depth of three feet at the site.

C. SS004 - Hazardous Waste Drum Storage

The surface soils at this site contain concentrations of TPH; however, a maximum lifetime cancer risk of 1.0E-06 was calculated. Based on the current assessment, there is no significant risk to human health or the environment. Removal of surface soils along the fenceline may be considered if site conditions change in the future. The amount of contaminated soils to be removed was estimated to be approximately 210 cubic feet. This is based on the assumption that contamination is in the top eight inches of soil.

D. ST005 - POL Storage Yard

Concentrations of TPH exist in surface and subsurface soils at this site. A maximum lifetime cancer risk of 4.3E-07 was calculated based on existing site conditions. While no significant migration of contaminants to groundwater exist, there is a potential for migration due to the relatively shallow groundwater table. The potential for migration of contaminants via surface water run off also exists at this site. The impact to and quality of surface water should be addressed during any construction at this site.

SECTION ONE - INTRODUCTION

1.01 PURPOSE

The purpose of the Remedial Investigation (RI) at four sites located on Richards-Gebaur AFB is to collect site data and to characterize the vertical and horizontal extent of waste present at the sites.

1.02 SITE BACKGROUND INFORMATION

O'Brien & Gere was contracted to perform a Remedial Investigation at four sites for Richards-Gebaur AFB. The four sites contained in this RI have previously been investigated. The four sites are: FT002 - North Burn Pit; SS003 - Oil Saturated Area; SS004 - Hazardous Waste Drum Storage and ST005 - POL Storage Yard.

1.03 FT002 - NORTH BURN PIT

Since 1965, fire training activities have been conducted at the North Burn Pit, which is just north of a closed runway and north of the hangars. Until about 1969, waste oils, hydraulic fluid, some solvents, and contaminated fuels (referred to as POL waste), were stored and burned at the North Burn Pit. Storage of POL waste was accomplished in 55-gallon drums and used for subsequent fire training exercises. After 1969, waste oils and solvents were no longer burned and only off-spec JP-4 fuel was used for the training exercises.

In 1969 the site was improved with a concrete slab lining and retaining curb around the burn pit area to contain off-spec jet fuel, an oil separator to skim runoff prior to storm water discharge and a 5,000-gallon aboveground tank for receiving and storing waste fuels prior to burning. The Installation Restoration Program (IRP) Phase II Stage 2 report published by Ecology and the Environment, Inc. (E&E) in July, 1988 noted at least one failure of the separator and spillage of small quantities of fuel during fuel transfer to the aboveground tank had occurred during the operational life of the fire training area.

In February of 1988, training exercises were discontinued at the site when it was discovered effluent from the oil-water separator required a NPDES permit. The 5,000-gallon tank was removed during the summer of 1988.

Previous investigations were undertaken during the IRP Phase II Stage 2 (equivalent to a SI) which were to determine: 1) the indication of contamination from the site using a soil gas survey; 2) the occurrence of subsurface soil contamination; and, 3) evaluate whether groundwater contamination has occurred. As a

result of these investigations, it was determined that there is very little groundwater movement and no deep aquifers being threatened. Installation of an additional well and additional monitoring were recommended (IRP Phase II Stage 2 report by E&E, 1988) to monitor groundwater quality and to confirm concentrations of volatile organics.

1.04 SS003 - OIL SATURATED AREA

The Oil Saturated Area is located west of Building 704. The area was previously used for storage of waste oil products by the Motor Pool. According to the Records Search (CH2M Hill, March 1983) in 1980, the ground was reportedly soft as a result of oil saturation and gravel was spread over the ground surface to stabilize it. During the Records Search field work at the Base, a small patch of oil-contaminated ground was noted at the edge of the gravel. There appears to be a moderate potential for surface water migration. Storm water runoff is channeled through a ditch across the southwest corner of the compound.

An IRP Phase II Stage 2 investigation (E&E, July 1988) was conducted at this site to evaluate the type and extent of surface and subsurface soil contamination, and to determine if contaminants are migrating via the surface drainage pathway. It was reported that lead was detected in some soil samples. Considering the depth of the samples (0-1 foot), it was determined that workers could be subject to direct contact with lead in the soil, and recommended removal be considered. Total petroleum hydrocarbons were also detected in the soil and removal of surface soils was recommended as well.

1.05 SS004 - HAZARDOUS WASTE DRUM STORAGE

The Hazardous Waste Drum Storage is located at the southwest corner of Building 923. This area, which is fenced and paved, was used for an undetermined number of years for storage of hazardous and non-hazardous drummed waste prior to disposal. The site is located in the watershed for Scope Creek. In a previous investigation by E&E, a single soil boring was drilled to 15 feet without encountering water. Surface water runoff flows directly into a grassy swale to the west of the area.

It was noted in the IRP Phase II Stage 2 report that, during the pre-survey meeting, as a result of a Notice of Violation issued by the USEPA at the storage area, remedial efforts such as the overpacking of seeping drums, removal of stained soils, and scraping the asphalt surface were performed. This site was not part of the Phase I or Phase II Stage 1 investigations. Hazardous materials are no longer stored in this area.

generally too thick and are cost prohibitive to drill through for single-family homes, particularly given the accessibility of inexpensive hook-ups to the Missouri River water system. Two wells are still in use in a City of Belton mobile home park a mile southeast of the AFB. One of the wells produces 17 gpm and the other eight gpm. Production is from a system of vertical joints in a black fissile shale caused by a structural uplift of the Hushpuckney Shale member at a depth of approximately 275 feet.

3.02 SITE SOIL SAMPLING INVESTIGATIONS

3.02.1 FT002 - North Burn Pit

Two surface soil samples and a duplicate sample (0-2 feet) were collected from the site (see Figure 3-1). Samples S6S1, S6S2 and sample S6S3 (duplicate of sample S6S1), detected no significant amounts of volatile and semi-volatile organics. Levels of lead were detected at 440 mg/kg, 17 mg/kg and 580 mg/kg in samples S6S1, S6S2 and S6S3, respectively (see Table 3-1). Laboratory data for this site can be found in Appendix A, while previous analytical data summaries and other data from previous investigations can be found in Exhibit A.

3.02.2 SS003 - Oil Saturated Area

Two surface soil samples, a duplicate sample, and a background sample (0-2 feet) were collected from this site; S9S1, S9S2, S9S3 and S9S4. Sample S9S4 is the duplicate of sample S9S3. Only sample S9S3 contained detectable amounts of volatile organics (6 ppb xylenes, see Table 3-2). None of the remaining soil samples from SS003 contained measurable semi-volatile organic compounds. Soil sample S9S3 contained 170 mg/kg of lead while sample S9S2, the AFB background soil sample, contained the expected 20 mg/kg of lead (see Table 3-2). Laboratory data can be found in Appendix A, while previous laboratory data can be found in Exhibit A for this site.

3.02.3 SS004 - Hazardous Waste Drum Storage

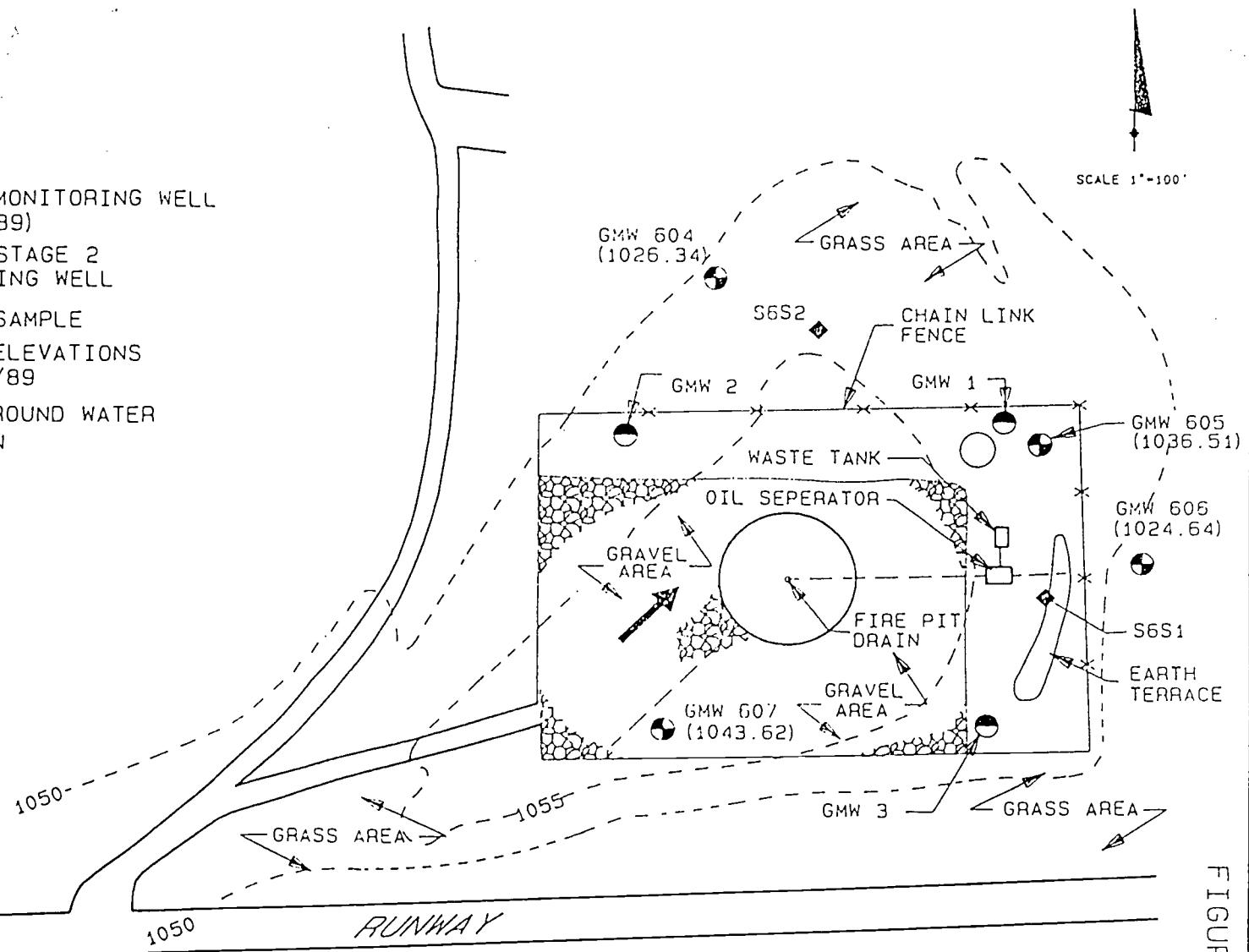
Three surface soil samples and a duplicate sample (0-2 feet) were collected from SS004 (see Figure 3-3). Volatile and semi-volatile organic compounds were detected; however, these compounds were also found in the laboratory method blanks (see Table 3-3 or Appendix A for laboratory data). Total metal concentrations of all samples were comparable with concentrations found in background samples on the Base.

3.02.4 ST005 - POL Storage Yard

Three soil borings, ten feet in depth, were completed at the POL Storage Yard (see Figure 3-4). Measurable concentrations of

LEGEND

- GROUND WATER MONITORING WELL
(INSTALLED 8/89)
- IRP PHASE II STAGE 2
WATER MONITORING WELL
- ◆ SHALLOW SOIL SAMPLE
(1043.62) GROUND WATER ELEVATIONS
OBTAINED 9/13/89
- APPROXIMATE GROUND WATER
FLOW DIRECTION
- - - LAND CONTOUR



FT002 - NORTH BURN PIT

acetone and Bis (2-ethylhexyl) phthalate were detected in the soil samples, which were collected at depths ranging from three feet to eight feet, at ST005. However, these compounds were detected in the laboratory method blank, and are considered a product of the laboratory (see Table 3-4). No acid extractable compounds were found above detection limits. Total metal concentrations of lead ranged from 13 to 28 mg/kg, while chromium concentrations ranged from 23 to 40 mg/kg, which is comparable with concentrations found in background samples on the Base.

3.03 GROUNDWATER INVESTIGATION

The locations of groundwater monitoring wells installed at FT002 and ST005 are shown in Figures 3-1 and 3-4, respectively.

3.03.1 FT002 - North Burn Pit

Groundwater results (see Table 3-5) show that no volatile compounds were detected, while a base/neutral compound, bis(2-ethylhexyl)phthalate was detected in three of the samples. However, this compound was determined to be a laboratory contaminant. Total lead and chromium concentrations from turbid unfiltered groundwater samples were found to exceed the National Drinking Water Standard (40 CFR 141.11) 0.005 mg/l. Total lead concentrations were 0.12 mg/l, 0.20 mg/l, and 0.11 mg/l while chromium levels of 0.18 mg/l, 0.29 mg/l, and 0.11 mg/l were found in samples 604, 606, and 607, respectively.

3.03.2 ST005 - POL Storage Yard

A single upgradient unfiltered groundwater sample (1206) yielded a benzene concentration of .007 mg/l which is above the .005 mg/l MCL set by the National Drinking Water Standards (see Table 3-6). Base/neutral extractable compound, bis(2-ethylhexyl) phthalate, was detected at concentrations of .023 mg/l and 1.6 mg/l. However, this compound was found to be a common laboratory contaminant. No acid extractables were detected in the analyses of the soil samples at the site. Total metal concentrations of barium, chromium and lead were found above the MCL as set by the National Drinking Water Standards (40 CFR 141.11). Barium levels ranged from 0.8 to 1.9 mg/l. Chromium levels ranged from 0.07 to 0.37 mg/l and lead levels ranged from 0.07 to 0.29 mg/l.

3.04 MONITORING WELL INSTALLATION

A total of eight shallow groundwater monitoring wells were installed to investigate specific subsurface areas at FT002 and at ST005. Soil and rock samples were collected during the installation of each monitoring well for geotechnical analyses. The wells were installed and completed in accordance with the MDNR/USEPA/USAF approved Work Plan for this project.

3.04.1 FT002 - North Burn Pit

All of the monitoring well borings at FT002 were terminated in the Lane shale. All of the screened intake areas of GMW #604 through GMW #607 were positioned at the upper portion of the shallow aquifer to aid in the detection of any free-phased floating contaminants. GMW #604 and #606, as can be seen from Table 3-8, yielded very small volumes of water during development. During sample collection only minor amounts of water were purged prior to collection; therefore, it is possible that groundwater samples taken from these wells could have contained some drill water. However, these samples were taken from the limestone interval above the lower permeability member, and if any petroleum based contaminants were present in this interval, they would have been detected in these samples even if some drill water had mixed with the small amount of groundwater present in these wells. The water used in drilling the wells was Belton tap water. The analysis of this water by the City of Kansas City can be found in Exhibit D.

3.04.2 ST005 - POL Storage Yard

Four groundwater monitoring wells, GMW #1205, GMW #1206, GMW #1207, and GMW #1208, were installed at ST005 to sample shallow groundwater. One of the existing well, GMW #4, was also sampled.

GMW #1205 was installed in an assumed downgradient location to monitor groundwater movement from the site toward the creek (see Figure 3-4). GMW #1207 and GMW #1209 were installed near one of the fuel unloading stations adjacent to the railroad tracks. GMW #1206 was installed at a location upgradient of the storage tanks to provide background groundwater quality data for comparison purposes. Test boring logs and well construction diagrams for monitoring wells installed at ST005 are located in Appendix B. Well construction data for this site can be found in Table 3-9. The groundwater flow directions presented on Figure 3-4 are based on groundwater elevation data obtained on at the time of sampling.

The groundwater monitoring well test boring logs for ST005 reveal that three different subsurface units are distinguishable. The surface soils/fill consist of generally six inches of topsoil in the vicinity of GMW #1205 and GMW #1206. The boring for GMW #1207 encountered three inches of asphalt fragments mixed with crushed rock and the boring for GMW #1208 encountered three inches of crushed rock (limestone). The surface soils are underlain by silty clay and residual clay. An upper fill material zone was identified up to 5 feet thick in the vicinity of the boring for GMW #1208. The naturally occurring silty clay and residual clay range in thickness from approximately ten feet at GMW #1208 to 17.5 feet in the area of GMW #1206. The clay contains weathered limestone and chert fragments and the rock fragment content was observed increasing with depth in all four borings. Limestone, clay stone, and shale underlie the residual clay formation. These competent

3.06 FT002 AND ST005 HYDROGEOLOGY

Groundwater elevations for monitoring wells at FT002 and ST005 can be found on Table 3-13 and Table 3-14, respectively. Data recorded during the September 13, 1989 sampling event at FT002 and the September 14, 1989 sampling event at ST005 have been summarized in Tables 3-11 and Table 3-12, respectively.

As indicated by the groundwater elevations presented on Figure 3-1, the general horizontal groundwater flow direction in the vicinity of FT002 is primarily towards the northeast. In the vicinity of GMW #605, however, an anomaly to the apparent flow pattern exists, relative to the groundwater elevations observed at GMW #604 and GMW #606. Although the higher groundwater level at GMW #605, as compared to adjacent monitoring wells GMW #604 and GMW #606 which have water levels consistently ten to 12 feet lower, cannot specifically be accounted for, it is possible that the monitoring well bentonite seal may leak or the screened interval may intercept perched groundwater due to the heterogeneous nature of the area formations, such as an irregular weathered surface of the Argentine limestone.

As indicated by the groundwater elevations presented on Figure 3-4, the general horizontal groundwater flow direction in the vicinity of ST005 is primarily towards the south. This predominant southerly flow direction is consistent with local surface drainage and physiographic condition with particular regard to the position of Scope Creek approximately 1,500 feet to the southeast.

SECTION FOUR - NATURE AND EXTENT OF CONTAMINATION

4.01 GENERAL

In this Section, the presently available data related to the nature and extent of contamination at each of the following sites at Richards-Gebaur AFB is presented for all sites, FT002 - North Burn Pit, SS003 - Oil Saturated Area, SS004 - Hazardous Waste Drum Storage and ST005 - POL Storage Yard.

Information relating to the nature and extent of contamination at each of these sites is presented and discussed in subsections 4.01, 4.02, 4.03, and 4.04, respectively. The information presented here is taken from the following reports: "Installation Restoration Program Phase II Confirmation/ Quantification Stage 2 Final Report for Richards-Gebaur Air Force Base, Missouri" (E&E 1988); analytical data from soil and water samples collected by O'Brien & Gere on September 14, 1989 and analyzed by O'Brien & Gere Laboratories, Inc. (O'Brien & Gere 1989); analytical results from soil samples collected by the United States Army Corps of Engineers (USACE 1989).

4.02 FT002 - NORTH BURN PIT

In 1988, a soil gas survey was performed by E&E to assess the scope of impact that past fire training exercises had at this site. Based on soil gas results, E&E drilled three boreholes outside the perimeter of the concrete burn pit and collected three subsurface soil samples from each borehole. They also collected six surface soil samples outside the burn pit. The sampling locations of the samples collected by E&E are shown in Figure 3-5 in Exhibit A. The 15 soil samples were analyzed for halogenated and aromatic organics and TPH. The analytical results from soil samples collected by E&E are given in Table 4-7 in Appendix A. Low concentrations of petroleum hydrocarbons were detected in surface soils throughout the site (2.8 to 34 milligrams per kilogram [mg/kg]).

E&E also installed three groundwater monitoring wells within the fenced area (and property line), and collected one groundwater sample from each well, as well as a surface water sample from standing water behind the raised terrace at the eastern perimeter of the site (Figure 4-7 in Exhibit A). The surface water and groundwater sample from MW1 were analyzed for halogenated and aromatic volatile organics (VOC's). The surface water sample was also analyzed for petroleum hydrocarbons. The groundwater samples from MW2 and MW3 were only analyzed for volatile organic compounds. E&E reported that groundwater samples from wells MW2 and MW3 had low concentrations of chloroform (0.50 and 0.61 ug/l, respectively), and tetrachloroethylene (0.71 and 0.41 ug/l, respectively). The deeper well, MW1, reportedly had detectable methylene chloride concentrations (37 ug/l).

In September 1989, O'Brien & Gere installed four groundwater monitoring wells - GMW #604, #605, #606, and #607, and sampled them approximately two weeks later. In addition, four surface soil samples, S6S1, S6S2, S6S3, and S6S1-M, were collected at two locations in the North Burn Pit. Samples S6S1, S6S3, and S6S1-M were collected in front of a small earth terrace east of the concrete burn pit. Sample S6S2 was collected from a stained area north of the burn pit, approximately 30 feet outside the fenced area. The sampling locations are shown on Figure 3-1. The data from soil analyses conducted by O'Brien & Gere are given in Table 3-2. Lead concentrations in the sediments behind an erosion control terrace were significantly higher than the background lead sample for the Base (20 mg/kg). USGS reported that average lead concentrations in Missouri soils are 2-200 mg/kg. Lead was detected in the sediments at the site from a vertically split duplicate sample which yielded 440 mg/kg and 580 mg/kg. All other metal concentrations were within the range normally found in the soils of the region. Unfiltered groundwater samples from wells GMW #605 and GMW #607 had lead and chromium concentrations that exceeded the respective USEPA MCL for each of these total metals. No base/neutral extractables or volatile organic compounds were detected in any of the on-site samples.

The data provided by E&E and O'Brien & Gere suggest that low concentrations of petroleum hydrocarbons are present in surface soils throughout the site. Lead was detected at one sampling location (S6S1, terrace retention sediments) near the site. The unfiltered groundwater samples collected from the site by O'Brien & Gere indicated lead and chromium concentrations that were higher than the corresponding USEPA MCL's in three out of four groundwater wells sampled. However, since the metal concentrations were similar in wells that are estimated to be upgradient (GMW #604) and downgradient (GMW #607) of the site, it is evident that the North Burn Pit is not the source of metals in the groundwater. The clay soils in Missouri have naturally high background concentrations of these metals, and the groundwater concentrations may reflect the naturally occurring groundwater concentrations for these metals. Unfiltered samples tend to be turbid and carry fines through the analytical processes. It can therefore be expected that analyses on unfiltered groundwater samples can reflect parent formation characteristics to a degree. Low concentrations of chloroform, methylene chloride, and tetrachloroethylene were detected in groundwater collected from wells at the site; but, the concentrations detected were well below the USEPA MCL for chloroform (100 ug/l) and the USEPA Health Advisory for non-carcinogenic effects for tetrachloroethylene (Table 4-1). The concentration of methylene chloride detected exceeded the USEPA Ambient Water Quality Criteria for methylene chloride.

4.03 SS003 - OIL SATURATED AREA

E&E collected three surface soil samples from an oil-stained area, three subsurface soil samples, three sediment soil samples and one surface water sample from a drainage ditch that runs along the west edge of the site. The sample locations are shown in Figure 3-7 in Exhibit A. The surface soils at the site (samples 4007, 4008 and 4009) were reported to show unnatural concentrations of total petroleum hydrocarbons (670 to 3,800 mg/kg) and higher than background concentrations of lead (169-343 mg/kg). The surface soil samples in the drainage ditch downgradient from the Oil Saturated Area (sampling locations 4010, 4011, and 4012) were reported to have background concentrations of petroleum hydrocarbons (non-detect to 3 mg/kg), and lead concentrations were also within background concentrations for the region (E&E 1988). The subsurface soil samples (4039, 4040, and 4041) detected only background levels of petroleum hydrocarbons and lead at depths of 3.5, 8.5 and 16 feet. (Table 4-2, Tidball 1984).

O'Brien & Gere collected and analyzed three surface soil samples and a duplicate sample from SS003. Sample S9S1 was collected from within the fenceline, next to the storage shed. S9S2 was collected approximately 20 feet east of the fenceline, and S9S3 was collected outside and adjacent to the southern fenceline, approximately 20 feet from the eastern corner (Figure 3-2). Although detectable concentrations of arsenic barium, chromium, and

a) Estimation of CaPAH Concentration in Surface Soils - For most of the sites considered, acceptable analytical data indicating the concentration of specific PAH's in the soils was not available. The concentration of CaPAH's that may have been present in surface soils was estimated based on published values for CaPAH concentrations in different petroleum products (Table 5-13). As a conservative measure, it was assumed that all the TPH's detected at each of sites were from used motor oil, which has the highest concentration of CaPAH's of all the petroleum products reviewed. The published value reflects concentrations that would be present in recently used motor oil. It is anticipated that actual CaPAH concentrations in the soil would be lower than this estimate because a certain proportion of the discharged PAH's would be lost from the soil over time as a result of volatilization, runoff, leaching, and biodegradation.

b) Estimation of Exposure Duration - It was assumed that the same receptors would come into contact with chemicals at a single site on a regular basis for 25 years of their life. In fact, it is highly unlikely that the same individual would perform the same activity consistently for 25 years. This means that the true exposure duration for any one individual would probably be less than 25 years.

c) Estimation of the Number of Hours Per Day that Receptors are Exposed to Contaminants - For sites SS003, SS004 and ST005, it was assumed that receptors would come into contact with contaminated soil at each of the sites for a total of two hours per day. This is considered to be a conservative estimate of potential average daily exposure. It is expected that the actual exposure duration per day would probably be less than this value.

d) Estimation of Dermal and Ingestion Uptake Factors - Dermal and ingestion uptake factors were taken as the estimated absorption factors for benzene. Benzene is a relatively well absorbed hydrocarbon. The actual absorption factors for other petroleum hydrocarbons are expected to be less than that for benzene. In addition, the uptake factor for benzene was estimated based on studies in which humans or animals were exposed to 100% benzene or benzene solutions. The uptake of petroleum hydrocarbons adsorbed to soils is expected to be lower than the uptake rate of liquid hydrocarbon mixtures.

SECTION SIX - SUMMARY AND CONCLUSIONS

6.01 FT002 - NORTH BURN PIT

Data from soil and water samples collected in the North Burn Pit indicate that soils in the North Burn Pit are contaminated with low concentrations of TPH's and lead. There is little potential for the significant migration of on-site chemicals via surface

runoff, dust generation, volatilization, or leaching to groundwater. The baseline risk assessment indicates that, under current conditions, the site poses negligible risk to human health or the environment since access to the site is restricted, use of the site by human receptors is very infrequent, and the site does not provide a favorable habitat or feeding area for potential wildlife receptors.

6.02 SS003 - OIL SATURATED AREA

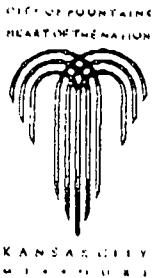
Analytical data from soil samples collected at the site indicate that there is a contamination of surface soils at the oil Saturated Area with lead and TPH's. Soil and water samples collected at downgradient locations with respect to surface runoff suggest that the contamination is confined to the immediate vicinity of the oil-stained area at the site. An RME cancer risk for TPH exposure for workers at the site of 2.1E-06 was calculated. It should be noted that this risk estimate was calculated under highly conservative exposure assumptions, and has a very high probability of overestimating potential health risks to workers. Removal or isolation of the oil-stained soils would minimize the potential for future exposures at SS003.

6.03 SS004 - HAZARDOUS WASTE DRUM STORAGE

The data from soil and water samples collected at the site indicate that surface soils at the Hazardous Waste Drum Storage are contaminated with concentrations of TPH's. The data suggest that there has not been significant off-site migration of contaminants from the site in surface runoff. An RME cancer risk of 1.0E-06 was calculated for SS004. It should be noted that this risk estimate was calculated under highly conservative exposure assumptions, and has a very high probability of overestimating potential health risks to workers. A hot spot outside the northwestern fenceline with relatively high concentrations of TPH in surface soils was identified. Removal of this hot spot should be evaluated.

6.04 ST005 - POL STORAGE YARD

The data collected by the USACE indicate that surface and subsurface soils at the POL Storage Yard are contaminated by TPH's. The likely source of the TPH's is JP-4 jet fuel or fuel oil discharged from the fuel storage tanks and spillage during fuel transfer to tankers at the fuel transfer stations (E&E 1988). Based on current conditions, a lifetime cancer risk of 4.3E-07 was calculated for workers exposed to contaminants at the POL Storage Yard. This suggests that, based on the available data, soil contaminants present at the POL Storage Yard do not currently pose a significant risk to human health. The data from soil and groundwater samples collected by E&E and O'Brien & Gere at the POL Storage Yard suggest that there had not been a significant migration of contaminants to groundwater or to surface water via



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Engineering	243-3030	243-3071
Human Resources	243-3010	243-3072
Information Services	243-3140	243-3172
Marketing	243-3160	243-3171

December 15, 1995

Mr. Dave Brewer
PSI, Inc.
4149 Pennsylvania Ave.
Kansas City, MO 64111

NATURE SAVER™ FAX MEMO 01816		Date 12/15/95	For Pages ▶ 12
To ANDY CLAYTON	From DENNIS WILSON	KCAD	
Co/Dept. 251	Co	Phone #	243-3044
Phone #	Fax #	(913) 865-9594	

Re: KCAD Project No. S34
Comments on Site C Phase I and Phase
IIs for Buildings 610 and 839

Dear Dave:

Enclosed for your use and listed below are the US Air Force's and the Kansas City, Missouri Aviation Department's comments on the above-referenced draft reports. Please incorporate the comments as necessary into the reports.

Phase I on Site C- 55 Acre Tract

1. The US Air Force's comments are enclosed.
2. Page 1, Para 5, after "...not provided by the Aviation Department.", insert a statement that a general site map was provided and is located on page 8 of this report.
3. Page 11, Fire Department section, second sentence: Insert "exist" after "...on-site USTs"
4. Page 18, February 1995 photo, line 5: 120,000 square feet
5. Page 18, February 1995 photo: No discussion of tree clearing and incinerating activities that took place around 1992 and probably the cause of the "square" area
6. Page 18, 1980 photo: Were trees in place?
7. Page 20, Interviews table: 243-5207 phone number should be 243-3044; Esch's employer should read, "U.S. Air Force Base Conversion Agency"
8. Page 21, surface fill section: Mention tree clearing activities?
9. Appendix E, Photograph 20: Excavated soil area?

Phase II on Building 839

10. The US Air Force's comments are enclosed.
11. Page 3, last sentence: Section 4.0 is "Assessment Activities" not Field Investigation".
12. Page 8, Section 6.2, second para, first sentence: "Probes" should be "Probe".

Page 2
December 15, 1995
Dave Brewer

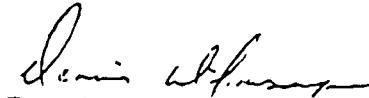
13. Page 12, second para, first sentence: Change "have" to "has".
14. Figure 2: Legend lists photograph location of which no photos were taken but does not list what P1 through P5 mean.
15. Soil analytical: Please address relatively high lead levels as previously discussed.

Phase II on Building 610

16. The US Air Force's comments are enclosed.
17. Page 2, Section 2.1: Capitalize "Department"
18. Page 4, Section 3.2, second para: Insert Leaking Underground Storage Tank prior to "LUST" and place parentheses around "LUST"
19. Page 4, Section 3.4, fourth line: It should read, "...located at an approximate..."
20. Page 10, first paragraph: Change "Municipal" to "Memorial"

Please provide five copies of each of the final reports to the Kansas City, Missouri Aviation Department. Please give me a call if you have any questions.

Sincerely,


Dennis Wilmsmeyer
Project Manager
Engineering Division

Enclosures

cc: Andy Clayton, PSI

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DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

839PSI2C

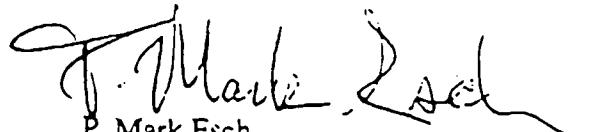
MEMORANDUM FOR AVIATION DEPARTMENT
ATTN: DENNIS WILMSMEYER

12-Dec-95

FROM: Operating Location Q, AFBCA
15471 Hangar Road
Kansas City, MO 64147-1220

SUBJECT: Review Comments on 3 Draft Phase Reports by PSI

1. A limited review (Atch'd) of the subject documents was performed. I recommend several changes be made to these reports before they are finalized. Please have PSI consider these review comments.
2. Thank you for the opportunity to review your reports. I can be reached at (816) 348-2511, x28 if you have any questions on these comments.


P. Mark Esch
BRAC Environmental Coordinator

Attachments:

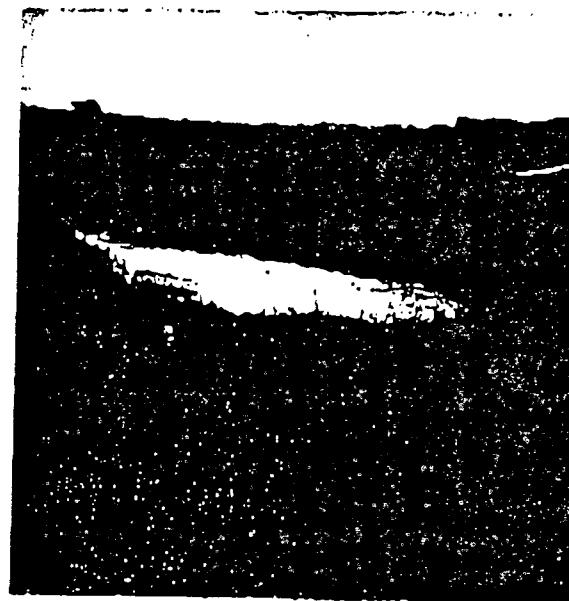
1. OL Q, AFBCA Review Comments

DOCUMENT REVIEW Page 1 of 3				Operating Location Q, AFBCA 15471 Hangar Road Kansas City, MO 64147-1220 Ph# (816) 348-2511 Fx# (816) 348-2515
Reviewer: P. MARK ESCH				Document Title: Phase I Environmental Site Assessment for PGMA site C 55 acre tract
Date: 12 DEC 95				Type: <input type="checkbox"/> Internal Draft <input checked="" type="checkbox"/> Draft <input type="checkbox"/> Draft Final <input type="checkbox"/> Final
Page	Sec.	Para.	Line	REVIEW COMMENT
GENERAL				THIS TRACT IS NOT ON AIR FORCE PROPERTY, AS SUCH WE HAVE ONLY REVIEWED INFORMATION PERTAINING TO AIR FORCE INTERESTS.
1	3			AS A GENERAL RULE, SITUATIONS SUCH AS THIS SHOULD BE RESOLVED BEFORE A REPORT IS DRAFTED. IN THIS WAY, THE ISSUE & SOLUTION ARE PRESENTED TOGETHER, IF RELEVANT.
1	5			SURFACE WATER SAMPLES HAVE NOT INDICATED ANY CONTAMINATION TO BE CONCERNED ABOUT.
1	6			NO ABOVE GROUND TANK IS PRESENT AT FTCDL. THE METAL STRUCTURE WAS USED TO SIMULATE AN AIRCRAFT FUSELAGE DURING FIRE TRAINING EXERCISES. THE TOTAL NUMBER OF MONITORING WELLS IN THE AREA IS 5. ALSO SEE ATCH #1.
3	1			ALL INFORMATION KNOWN ABOUT AIR FORCE PROPERTY IS CONTAINED IN THE ENV. BASELINE SURVEY (EBS). THIS WAS PROVIDED IN LIEU OF THE QUESTIONNAIRE.
13	BULLET	1		STATEMENT IS VALID FOR PROPERTY OWNED BY THE AIR FORCE TODAY. IN THE PAST, THERE WERE 2 LAND FILLS.

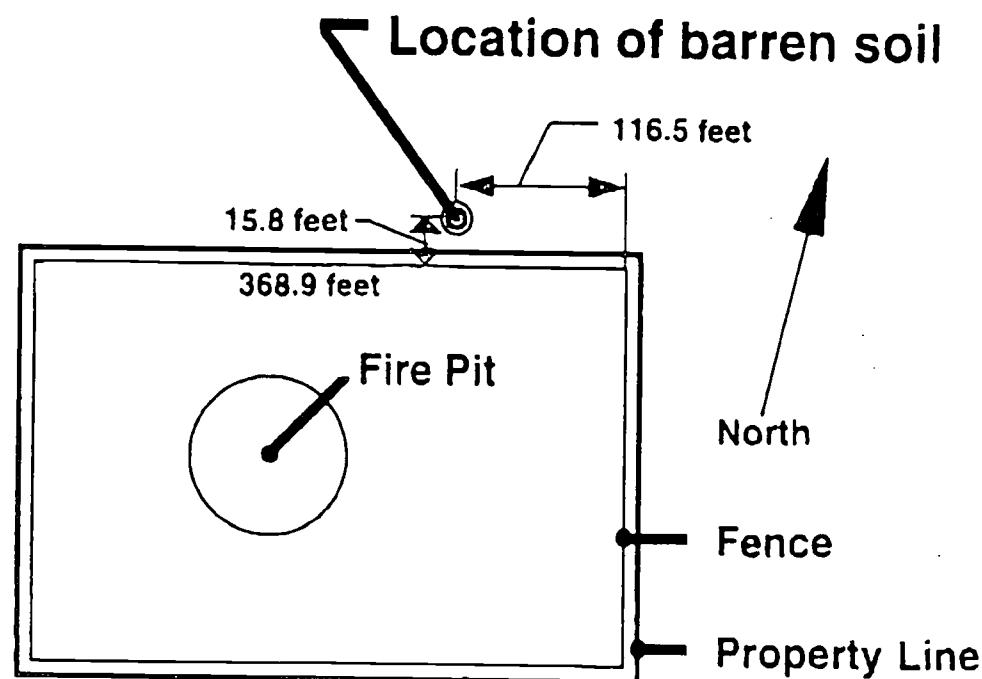
DOCUMENT REVIEW Page 2 of 3				Operating Location Q, AFBCA 15471 Hangar Road Kansas City, MO 64147-1220 Ph# (816) 348-2511 Fx# (816) 348-2515
Reviewer: P. MARK ESCH				Document Title: Phase I Environmental Site Assessment for EGMA Site C, a 55 acre tract
Date: 12 DEC 95				Type: <input type="checkbox"/> Internal Draft <input checked="" type="checkbox"/> Draft <input type="checkbox"/> Draft Final <input type="checkbox"/> Final
Page	Sec.	Para.	Line	REVIEW COMMENT
13	Bullet	3		The materials identified were ignited during fire protection training exercises, not DISPOSED of at the site.
13	Bullet	4		The former AST was not /is not a possible source of contamination. If this statement is in the EBS, it is in error.
13	Bullet	5		Replace "Building 1033" with "Facility 1033." Replace "Waste JP-4" with "off-specification JP-4".
13	Bullet	6		Information has been updated. Only one OWS system was present. Part of the system was removed during closure, other parts were closed in-place.
13	Bullet	7		We have located no documents to support this waste generation.
13	Bullet	10		The range had already been cleared of UXO.
20	Table			INSERT "BASE" INBETWEEN "US AIR FORCE" AND "CONVERSION AGENCY."
21	STRESSED...			SEE ATCH 1, NO VEG TATION HERE FOR THE PAST 5 YEARS.

ADMINISTRATIVE RECORD COPY

ATCH # 1



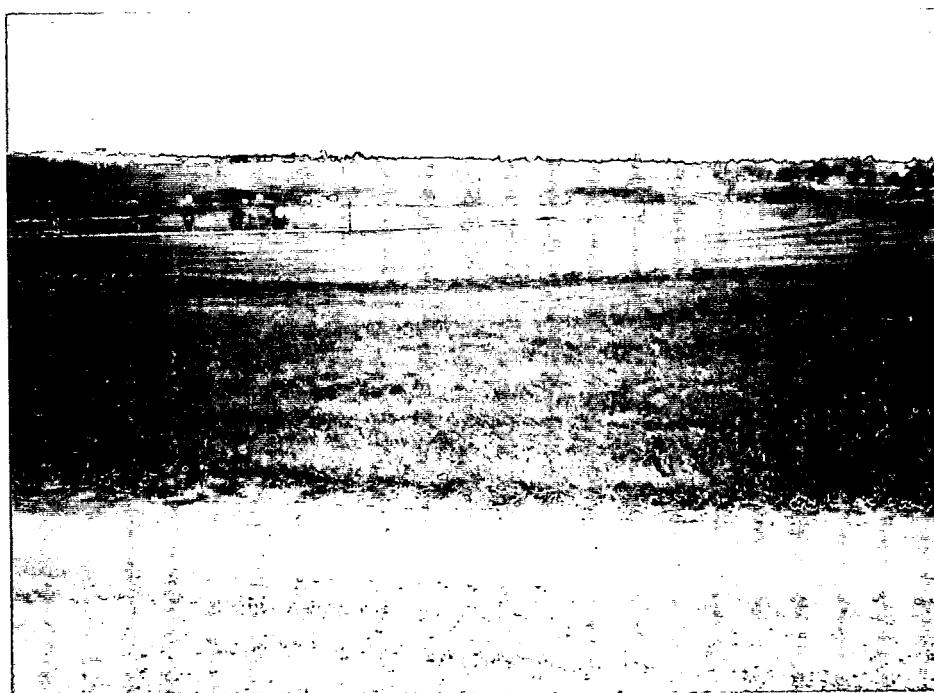
Color photo taken on 2 June 1994. Photo shows a barren area where no vegetation will grow. An aerial photo taken on 4 June 1990 indicates the same "teardrop" shape with no vegetation. The area shown is on Kansas City property.



APPENDIX E
RECONNAISSANCE PHOTOGRAPHS



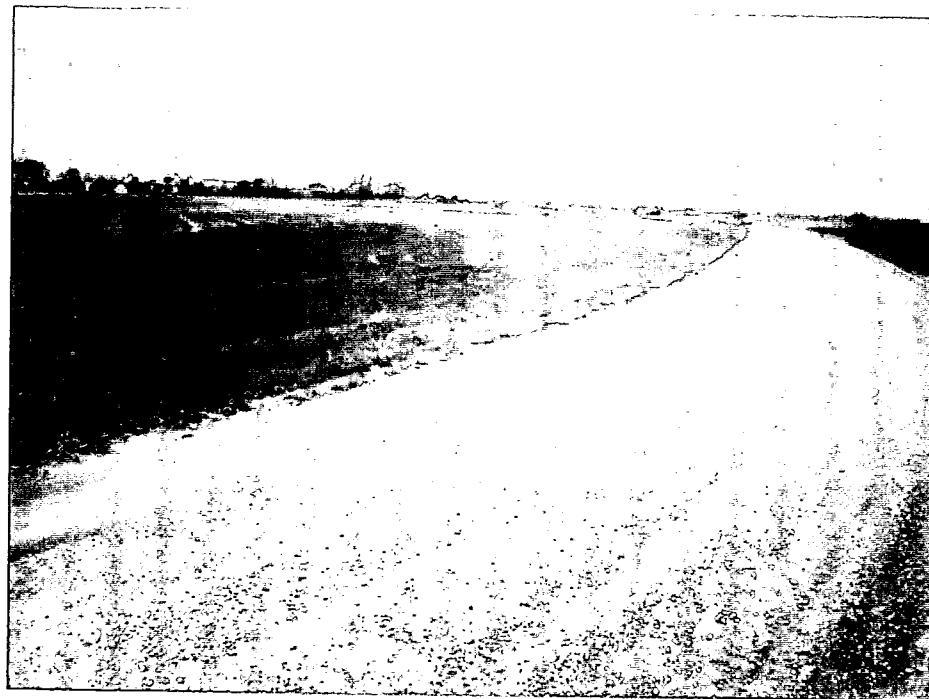
PHOTOGRAPH 1: On-site access road from Andrews Road.



PHOTOGRAPH 2: Southwest area of subject site. The Small Arms Range and Skeet Range are located south of Andrews Road.



PHOTOGRAPH 3: Southwest area of subject site and adjacent property.



PHOTOGRAPH 4: West area of subject site. The airport's east/west runway can be seen in the background.



PHOTOGRAPH 5:

Northwest area of subject site. The IRP FT-002 Site (North Burn Pit) is located adjacent to the subject site.



PHOTOGRAPH 6:

Northwest area of subject site.



PHOTOGRAPH 7: North area of subject site. Highway 150 is located near the tree line.



PHOTOGRAPH 8: North area of subject site.



PHOTOGRAPH 9: North central area of subject site viewing east.



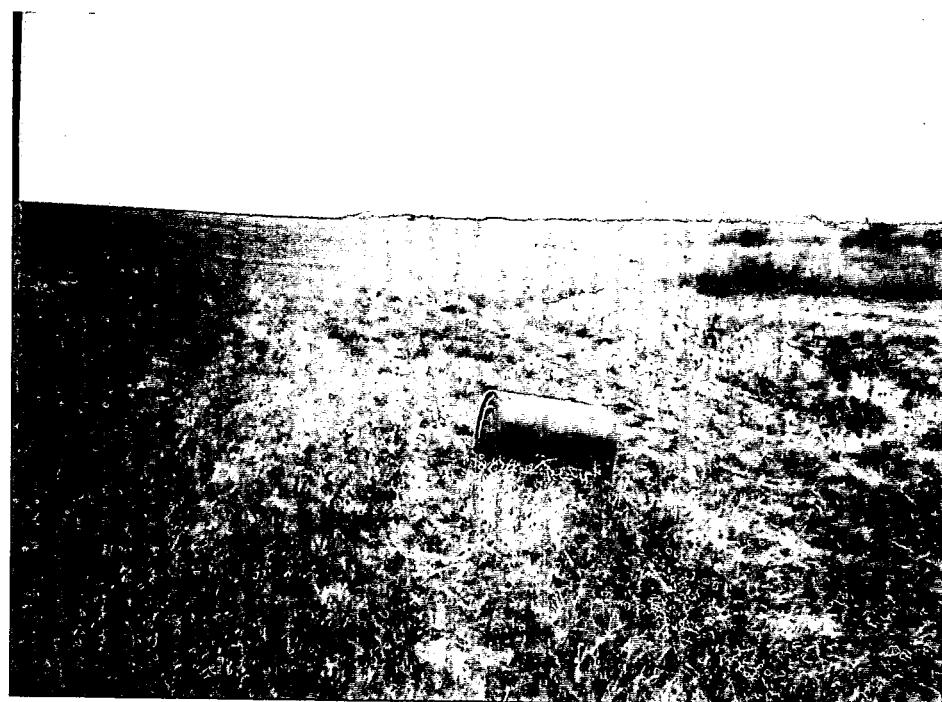
PHOTOGRAPH 10: View southeast across the subject site.



PHOTOGRAPH 11: South area of subject site viewing southeast towards Andrews Road.



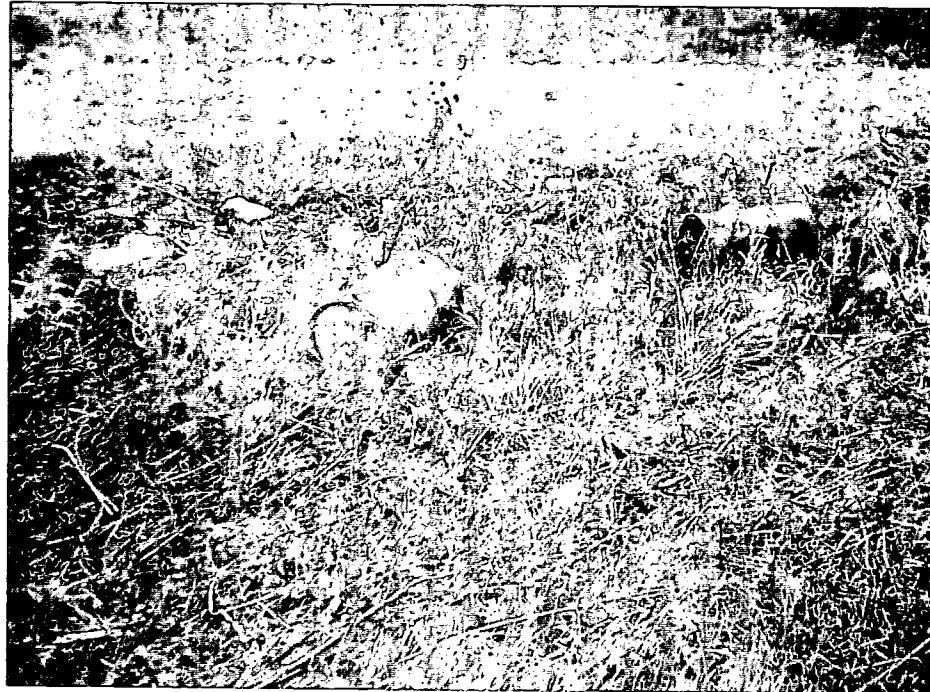
PHOTOGRAPH 12: Discarded 55-gallon drums located on the northwest area of the subject site.



PHOTOGRAPH 13: Discarded 55-gallon drum located on the northwest area of the subject site near the north adjacent drainage area.



PHOTOGRAPH 14: Discarded building rubble on the north adjacent drainage area



PHOTOGRAPH 15: Another picture of the discarded drums on the northwest area of subject site.



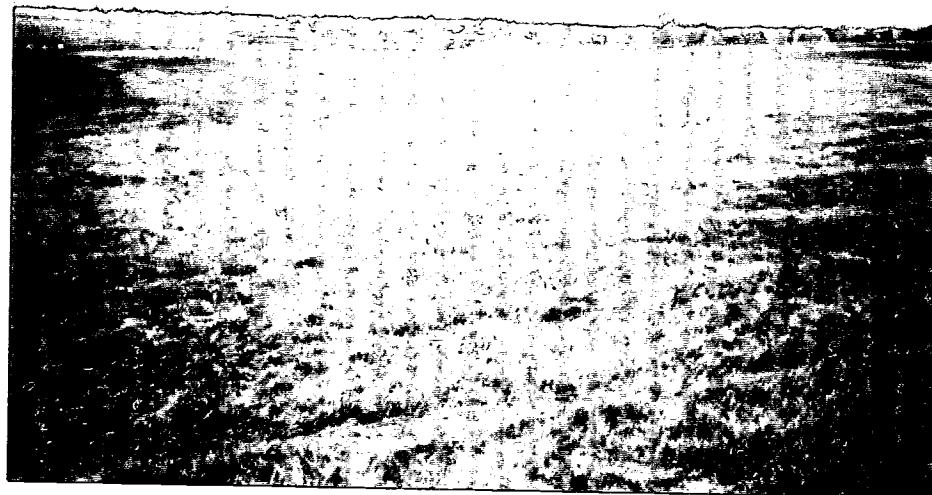
PHOTOGRAPH 16: View of the IRP FT-002 (North Burn Pit) Site located adjacent to the northwest of the subject site.



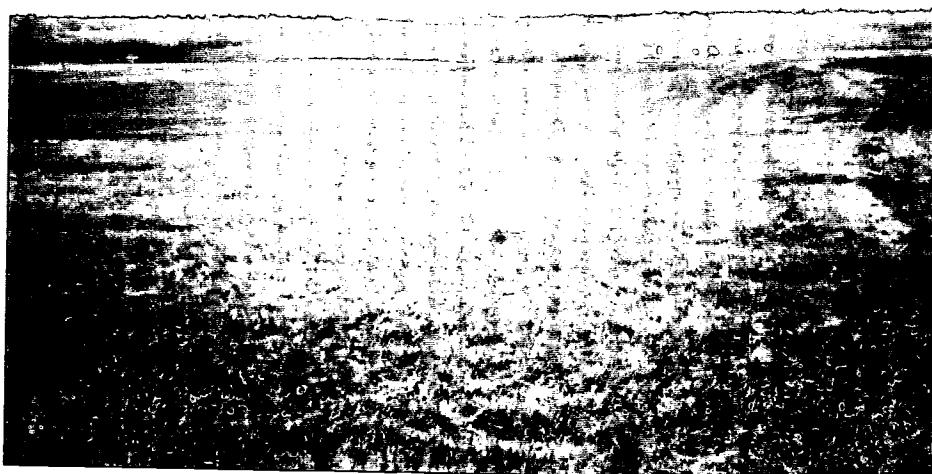
PHOTOGRAPH 17: Monitoring well located east of the IRP FT-002 (North Burn Pit) Site.



PHOTOGRAPH 18: North area of the subject site viewing west along Highway 150.



PHOTOGRAPH 19: View southwest across the subject site.



PHOTOGRAPH 20: Excavated soil area located on the north central area of the subject site.



PHOTOGRAPH 21: Northeast area of the subject site viewing east along Highway 150.



PHOTOGRAPH 22: View of the Small Arms Range located south of Andrews Road.



PHOTOGRAPH 23: South area of the subject site viewing east along Andrews Road.

APPENDIX F
AUTHOR'S CREDENTIALS

Environmental Project Manager
Lawrence Advanced Environmental Management Department

Relevant Experience

Mr. Leines is responsible for client contact, consultation, proposal development, management, on-site investigation, record search, sampling, report writing and production of Phase I and II environmental and contamination assessments. His duties also include management of underground storage tank removal, sampling of soil, groundwater, wastewater, and NPDES storm water.

Previously, Mr. Leines was a field inspector for Hall-Kimbrell's asbestos division. In this position, he was responsible for a variety of field services necessary for successful completion of asbestos projects. During the assessment phase, he met with the client or building contact, conducted building inspections, sampled suspect materials, and determined exposure potentials for each area.

Representative Projects

Dean Machinery Company - Development of the site safety and health plan, management of the removal of an underground storage tank, soil sampling, supervised personnel, on-site monitoring, transportation of samples to the laboratory, assisted in the handling of UST, wastes, and contaminated soil disposal, report writing and production for submittal to the Missouri Department of Natural Resources (MDNR).

United Investors Real Estate - Managed the removal and incineration of five PCB-containing transformers. Developed the site safety and health plan, collected information necessary for contractors to complete tasks, and supervised removal and transportation of the transformers. Mr. Leines also assessed the extent of contamination, developed reports, and documented all procedures.

Deluxe Check Printers - Assisted with numerous phases of this large project involving assessment and remediation associated with leaking underground storage tanks. Conducted soil and water sampling, gathered data and supplies, decontaminated equipment, developed reports, and assessed contamination. Also assisted in developing a sampling grid for additional investigation, sampled water and soil from appropriate locations, observed the removal of an underground storage tank while ensuring the health and safety of the workers, conducted HNu organic vapor meter readings around the site, and took photographs. Performs ongoing quarterly sampling of monitoring and extraction wells, report production for submittal to the County Water Pollution Control Board and the Kansas Department of Health and Environment (KDHE).

Hospital Linen Services - Conducted semiannual sampling of wastewater discharge as it entered the municipal sewer system during normal working hours. Samples were delivered to our analytical facility with consideration of special transportation and holding time requirements and were analyzed for pH, surfactants, biochemical oxygen demand, chemical oxygen demand, and total suspended solids.

State of Iowa Atlantic/Riverton - Community Remediation Project - Investigation of site histories, obtained access agreements, located utilities prior to drilling operations, S.S. & Health officer, drilling assistant, soil sampling and on-site screening, development of monitoring wells, groundwater sampling and responsible for the transportation of samples to laboratory. Production of site cleanup reports for submittal to IDNR.

Certifications and Affiliations

OSHA 40-hour Health and Safety Training
and Site Supervisor Training

Phase I Environmental Site Assessment Training

Phase II Environmental Site Assessment Training

Kansas Licensed UST Installer and Remover

EPA-Certified Asbestos Management Planner

National Groundwater Association

EPA-Certified Asbestos Inspector

Iowa Well Contractor #40349

Education - B.S. General Studies, University of Kansas, 1986