## **Seller's Acknowledgement/Disclaimer**

The enclosed documents were prepared by various companies to have an assessment of the property for the seller. These documents were prepared from the year 2000 - 2006. To the best of seller's knowledge, the property has not been altered since that time other than the timber being harvested. The seller has provided these documents to help assist bidders in the due diligence process. However, it is the responsibility of the bidder and/or bidder's representative to verify all information and conduct their own due diligence prior to bidding on the property. The seller makes no warranty as to the accuracy or completeness of these documents.



## REPORT OF PHASE I ENVIRONMENTAL SITE ASSESSMENT AND MINE DOCUMENT REVIEW

Approximately 133 Acre Site Off Edwards Lake Road and Turncliff Parkway Birmingham, Jefferson County, Alabama 35235

> May 2005 QORE Project 11243



May 2, 2005

Mr. Ingram Tynes Tynes Development Corporation 820 Shades Creek Parkway, Suite 2300 Birmingham, Alabama 35209

Subject: Phase I Environmental Site Assessment and Mine Document Review Approximately 133 Acre Site Off Edwards Lake Road and Turncliff Parkway Birmingham, Jefferson County, Alabama 35235 QORE Project 11243

Dear Mr. Tynes:

We are pleased to submit this report of the Phase I Environmental Site Assessment and Mine Document Review for the approximately 133 acre tract located off Edwards Lake Road and Turncliff Parkway in Birmingham, Jefferson County, Alabama. This report discusses background information, purpose and scope of work, execution of work, conclusions, and recommendations for the subject parcel.

We appreciate your selection of QORE for this project and look forward to assisting you further on other projects. If you have any questions, please do not hesitate to contact the undersigned.

Sincerely, QORE, Inc.

Milu L

Michael D. Summy Staff Environmental Scientist

Katrina D.L

Katrina D. Jarboe, P.E. Senior Environmental Engineer

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## SUMMARY

## Approximately 133 Acre Site Birmingham, Jefferson County, Alabama

The Tynes Development Corporation has engaged QORE, Inc. (QORE) to perform a Phase I Environmental Site Assessment of the undeveloped property located off Edwards Lake Road and Turncliff Parkway in Birmingham, Jefferson County, Alabama (subject property). The property encompasses approximately 133 acres. The property is a mixture of undeveloped woodland and areas overgrown by kudzu.

The subject property is located in an area that is a mixture of residential housing, undeveloped land, a park, and interstate right-of-way.

The results of the area reconnaissance, historic review, and review of regulatory agency information indicated the following apparent on-site source of *recognized environmental conditions* to the property:

A review of archived tax assessment records indicated that a large portion of the site was owned by the Tennessee Coal, Iron, and Railroad Company in the late 1930's and early 1940's and that strip mining was conducted on site. The archived tax records did not indicate when the Tennessee Coal, Iron, and Railroad Company purchased or sold the property. According to a previous landfill report prepared by Ground Engineering (now QORE, Inc.), an ADEM Site Investigation Report, FirstSearch Database, and other EPA records for the subject property, large areas of the central and western portions of the site were strip mined for iron ore. Some of the strip mined areas were used to dispose of debris from storm damage in the Center Point area and for domestic waste disposal in the early 1970's (1970-1974). The landfill area was estimated to cover approximately 15 acres of the site and reportedly included waste streams such as solvents, cleaning chemicals, paints, metal debris, and insecticides. The potential exists for environmental impacts to underlying soil and groundwater from these materials. Thus, the historic use of the subject site as a construction debris and domestic landfill is considered a recognized environmental condition.

We have performed a Phase I Environmental Site Assessment of the approximately 133 acres located off Edwards Lake Road and Turncliff Parkway in Birmingham, Jefferson County, Alabama in general conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) Practice E 1527-00. Significant exceptions to, or deletions from, this practice are described in Section 9.0 of this report. Based upon the information obtained to date, this assessment has revealed the following *recognized environmental condition* with the subject property:

• The historic landfill operations at the site for a period of approximately 4 years (1970-1974).

QORE recommends a limited Phase II be performed at the site to assess potential impacts from this source of concern. QORE recommends a collection of soil and groundwater samples surrounding the landfill areas at the site and a surface water sample from the retention pond in the central portion of the site. The samples would be analyzed for various chemicals of concern. Seven monitoring wells were installed by QORE (formerly Ground Engineering) in 1990 which were essentially dry, thus the

collection of groundwater samples may not be possible without rock coring. Additionally, any future development in the vicinity of the landfill areas should consider the potential impacts of explosive gases from the landfill area.

This summary is for convenience only and should not be relied upon without first reading the full contents of this report, including appendix materials.

## **1.0 INTRODUCTION**

## 1.1 Purpose

The purpose of this Phase I Environmental Site Assessment (ESA) was to identify *recognized environmental conditions* in connection with the subject property. As defined by the American Society for Testing and Materials (ASTM), E 1527-00, "the term *recognized environmental conditions* means the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release, or a material threat of a release of hazardous substance or petroleum product into the structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum product into the structures with [environmental] laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

The term *historical recognized environmental condition* as defined by ASTM is an "environmental condition which in the past would have been considered a *recognized environmental condition*, but which may or may not be considered a *recognized environmental condition* currently." ASTM further defines a *historical recognized environmental condition* by stating "if a past release of any hazardous substances or petroleum products has occurred in connection with the property and has been remediated, with such remediation accepted by the responsible regulatory agency... this condition shall be considered a *historical recognized environmental condition*..."

The term suspect environmental condition as used throughout this report is taken from Section 11.5 and 11.6 of ASTM E 1527-00 and is defined as a condition that has a potential to be a *de minimis* condition, a *recognized environmental condition*, or a *historical recognized environmental condition* for the subject property and requires further discussion as presented within the text of this report. Section 7.0 will summarize each of the known or suspect environmental conditions associated with the property and present our opinion as to whether or not the suspect environmental condition or a *historical recognized environmental condition* or not, based on site-specific characteristics.

### 1.2 Detailed Scope-of-Services

The scope of services was performed in general accordance with the ASTM E 1527-00 document *Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process* and Client-specified requirements (see Section 1.5).

The ESA consisted of a historical review of the subject property and area use, regulatory database review, assessment of the physical setting, subject parcel and area reconnaissance, and a report of our findings, opinions, conclusions, and recommendations.

## Subject Property And Area Use

Using selected sources of available public information, we reviewed the current and

historical uses of the subject property. The Phase I ESA historical review extends back until 1940 or, for uses prior to that date, back to the time the property was undeveloped. Deviations from this standard, if any, are described in Section 9.0. Sources of historical use information relating to the subject property and its adjoining properties were acquired and reviewed according to the reasonable availability of the information, the time limits provided for data acquisition and review, as permitted, by the project schedule and cost, and our judgment of the likely value of the information for indicating environmental conditions. Historical sources reviewed are listed in Section 11.0 and typically include local city directories, aerial photographs, and a topographic map.

## **Regulatory Status Review**

We reviewed select regulatory databases published for the local area to identify facilities potentially constituting a suspect environmental condition in regard to the subject property. We used the databases also to identify recorded facilities located on, or in proximity to, the subject property using the ASTM E 1527-00 standard environmental record sources and recommended search radii.

We attempted to obtain additional information on listed facilities that, by our judgment, may have adversely affected the subject property. In addition, local agencies were contacted regarding recorded information, incidents or activities of environmental concern relating to the property and its immediate environs.

## Property Physical Setting

We obtained and reviewed available published property information to characterize the physical setting of the subject property. Sources reviewed are listed in Section 11.0 of this report. We used this information to determine anticipated surface and subsurface gradients, major runoff receptors, depth to the uppermost groundwater, and major drinking water sources (surface and subsurface). This information was evaluated to assess the physical potential for subsurface contaminant migration and the qualitative risk for adverse effects to water supplies.

## Property And Area Reconnaissance

The property reconnaissance consisted of field observations of the subject property and adjoining land areas by our personnel experienced in environmental site assessments. We observed and documented current uses of the property and indicators of hazardous substances, petroleum products, storage tanks, odors, pools of liquid, drums, containers, heating and cooling systems, stains, corrosion, drains and sumps, pits, ponds, lagoons, stressed vegetation, wastes, wells, and septic systems. The area reconnaissance was performed on foot and by automobile along publicly accessible roads within approximately one-half mile of the property.

## <u>Report</u>

This report includes the findings concerning known or suspect environmental conditions and an opinion as to the potential impact those conditions would have on the subject property. Finally, we conclude whether or not the assessment revealed evidence of *recognized environmental conditions*.

## **1.3 Significant Assumptions**

The information obtained from the Client, the Client's representative, individuals interviewed, and prior environmental reports were considered to be accurate unless reasonable inquiries indicated otherwise.

Conditions observed were considered to be representative of areas that were not accessible unless otherwise indicated.

The primary direction of groundwater flow was assumed to follow topography unless otherwise indicated by measurement of groundwater wells or other quantifiable data. Additionally, the groundwater flow direction was assumed to control the migration of contaminants.

### 1.4 Limitations and Exceptions

The findings and opinions presented are relative to the dates of the subject parcel reconnaissance and should not be relied on to represent conditions at substantially later dates. The opinions included herein are based on information obtained during the study and our experience. If additional information becomes available which might impact the environmental findings, we request the opportunity to review the information, reassess the potential concerns, and modify our opinions, if warranted.

This assessment included visual observations to identify obvious sources of contamination that by association could have a significant impact on the value of the property or its continued operations.

Although this assessment has attempted to identify *recognized environmental conditions*, potential sources of contamination may have escaped detection due to: (1) the limited scope of this assessment, (2) the inaccuracy of public records, (3) the presence of undetected or unreported environmental incidents, (4) inaccessible areas, and/or (5) deliberate concealment of detrimental information.

Identification of potential business environmental risk issues in connection with the subject property were outside of the scope of this assessment.

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar conditions, by reputable environmental consultants practicing in this locality. No other warranty, expressed or implied, is made as to the professional information in this report.

This report presents an assessment of the subject parcels as defined by information provided by the Client. Our findings, opinions, conclusions, and recommendations are based on the locations and boundaries of the parcels as evident in the field.

### 1.5 Special Terms and Conditions

The work was conducted in general accordance with our proposal PB 6588, dated April 12, 2005 and the terms and conditions established therein.

## 1.6 User Reliance

This report was prepared for the sole and exclusive use and reliance by the Tynes Development Corporation, subject to the terms and conditions agreed upon between QORE and the Tynes Development Corporation. This document may not be suitable for the needs, purposes, or objectives of others. As such, reliance by other parties on the contents of this document is not granted and any such reliance shall be at the sole risk of the user and at no liability to QORE. If other parties wish to rely on this report, please have them contact us so that a mutual understanding and agreement of the terms and conditions for our services can be established prior to their reliance upon this information.

## 2.0 PROPERTY DESCRIPTION

## 2.1 Location and Legal Description

The subject property is located off Edwards Lake Road and Turncliff Parkway in Birmingham, Alabama. The site consists of undeveloped woodlands and former strip mine/landfill areas overgrown with kudzu. A site is located in Township 16 South, Range 1 West, Sections 28 and 33. According to the Jefferson County Tax Assessors Office, the site is described as Parcels: 12-33-2-000-002.002, 12-33-2-000-001, 12-33-2-000-001.005, 12-28-3-000-005, 12-28-4-000-003.001, 12-28-3-000-006, and 12-28-3-000-004.001.

## 2.2 Property and Vicinity General Characteristics

The area reconnaissance, performed on April 27, 2005, consisted of visual observations made during an approximately one-half mile radius foot and vehicular tour of the vicinity surrounding the property. The vehicular tour was confined to those areas accessible by public roads and thoroughfares. Visual observations were limited to activities and facilities in plain view of publicly accessible areas. The subject property is located in an area that is characterized by a mixture of residential housing, undeveloped land, a park, and interstate right-of-way.

## 2.3 Current Use of the Property

The subject site currently consists of heavily wooded forest and former strip mine/landfill areas mostly covered by kudzu. No evidence of industrial or agricultural usage was observed on the property. No indication of underground storage tanks (USTs) was found in the regulatory database search, nor were any observed during the site visit. No evidence of chemical storage was observed on the property. However, the steep terrain and dense vegetation at the site precluded direct observations of the ground surface over a large portion of the property.

## 2.4 Descriptions of Structures, Roads, Other Improvements on the Property

No structures were observed on the property. The property is intersected by Turncliff Parkway which follows a generally north to south path through the western portion of the property. Edwards Lake Road forms the southern boundary of the property. A dirt trail was observed along the eastern property line adjoining Interstate 59. An access road for several off-site structures, including two abandoned homes and a cell tower, is located in the southeastern portion of the site. A paved access road leading to an off-site communication tower is located on the northwest portion of the property, both of which are accessed from Turncliff Parkway.

## 2.5 Current Uses of the Adjoining Properties

Observed current uses of adjoining properties are discussed below according to their respective geographic relationship to the site.

<u>North</u> - The subject property is bordered to the north by undeveloped land and a residential garden home development, with undeveloped wooded land beyond.

<u>East</u> - The subject property is bordered to the east by Interstate 59 and a property containing two abandoned homes, an abandoned shed, and a cellular phone tower, with undeveloped land and a construction site beyond.

<u>South</u> - The subject property is bordered to the south by Edwards Lake Road, with Tom Bradford Park and undeveloped wooded land beyond.

<u>West</u> - The site is bordered to the west by undeveloped wooded land with residential developments beyond.

Current uses of adjoining properties are not considered suspect environmental conditions. Historical usage of adjoining properties is discussed in Section 4.5.

## 3.0 USER PROVIDED INFORMATION

ASTM E 1527-00 requires that the environmental professional request from the user of the Phase I ESA, the Client, certain information discussed below concerning the subject property or to request from the user the names of other individuals who can provide this information.

ASTM E 1527-00 assigns to the Client or its representative the responsibility to check or engage a title company or title professional to check reasonably ascertainable recorded land title records for environmental liens or activity and use limitations currently recorded against the property and provide that information for inclusion in this report.

If the Client or its representative is aware of specialized knowledge or experience that is material to the identification of *recognized environmental conditions*, or if they have actual knowledge that the purchase price of the subject property is significantly less than the purchase price of comparable properties, ASTM E 1527-00 assigns to the Client the obligation to communicate that information for inclusion in this report.

As part of our engagement to conduct this work, this information was requested from the Tynes Development Corporation or its representative. In addition, we requested from the Tynes Development Corporation or its representative any helpful documents such as those specified in Section 9.8 of ASTM E 1527-00 and as listed in Appendix H, including but not limited to, prior environmental or geotechnical reports, permits, registrations for underground and aboveground storage tanks, a legal description, and a chain-of-title.

We also requested whether the Tynes Development Corporation or its representative was aware of (1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the parcels; (2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the parcels; or (3) any notices from governmental entities regarding possible violations of environmental laws or possible liabilities relating to hazardous substances or petroleum products.

Information provided by others is discussed in Section 6.0. Information provided by the Tynes Development Corporation, its representative, or others is included in Appendix H of this report and is listed in Section 11.0.

## 3.1 Title Records

The Tynes Development Corporation or its representative did not provide us with title records for review. A chain-of-title search was not performed for the subject property.

## 3.2 Environmental Liens or Activity and Use Limitations

No information regarding environmental liens, activity and use limitations, or governmental notification relating to past or recurrent violations of environmental laws with respect to the parcels were reported to us by the Tynes Development Corporation or its representative.

## 3.3 Specialized Knowledge

No specialized knowledge or experience concerning the subject property was reported to us by the Tynes Development Corporation or its representative.

## 3.4 Valuation Reduction for Environmental Issues

No information indicating that the purchase price of the subject property is significantly less than the purchase price of comparable properties was reported to us by the Tynes Development Corporation or its representative.

## 3.5 Owner, Property Manager, and Occupant Information

Information obtained from the Jefferson County Tax Assessors Office indicates the subject property is currently owned by Jack M. Beasley/Wurthless, Inc. The property is not developed and does not use the services of a property manager. Please refer to Appendix C for a copy of the records reviewed.

## 3.6 Reason for Performing Phase I

We understand this assessment was required prior to financial transactions related to planned construction on the subject property. We understand that the purpose of this assessment is to complete an evaluation that will help to provide the factual support for the innocent landowner defense to CERCLA liability further discussed in Section 5.6.

## 3.7 Other

Other information that was provided is listed in Section 11.0 and is discussed throughout this report in applicable sections.

## 4.0 RECORDS REVIEW

## 4.1 Standard Environmental Record Sources

We reviewed selected federal and state regulatory lists in an attempt to identify recorded information concerning environmental impacts or conditions or concerns associated with the subject parcels. The regulatory lists included in the table below were obtained from Environmental FirstSearch (FirstSearch). The FirstSearch report is attached as Appendix D and includes a complete listing of the databases, an explanation of each database, and figures depicting the approximate locations of regulated facilities in the near vicinity of the subject parcels.

Please note that regulatory listings are limited and include only those facilities or incidents that are known to the regulatory agencies at the time of publication to be contaminated, in the process of evaluation for potential contamination, or to store/generate potentially hazardous substances, waste, or petroleum.

### Federal And State Lists

The following table includes the search radii and list of the databases reviewed. These databases were selected based on minimum requirements in ASTM E 1527-00. The number of facilities listed indicates the number of regulated facilities confirmed by us to be within the ASTM-specified search radius for a particular database.

ASTM FEDERAL LISTS Environmental Protection Agency	(EPA)	
Database	ASTM-Specified Search Radius	No. of Facilities Listed
National Priorities List (NPL)	One Mile	0
Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)	One-half Mile	0
"No Further Remedial Action Planned" (NFRAP) Sites	One-quarter mile	1
Resource Conservation and Recovery Information System (RCRIS) Generators	One-quarter mile	0
RCRIS Treatment, Storage and Disposal (TSD) Facilities	One-half Mile	0
Corrective Action Sites (CORRACTS) or Violators/ Enforcement	One Mile	0
Emergency Response Notification System (ERNS)	One-quarter mile	0

ASTM STATE LISTS Alabama Department of Environmental Management (ADEM)			
Database	ASTM-Specified Search Radius	No. of Facilities Listed	
Underground Storage Tank (UST) List	One-quarter mile	0	
Leaking Underground Storage Tank (LUST) List	One-half Mile	1	
Solid Waste Facilities (SWF) Report	One-half Mile	0	
State Sites	One Mile	0	
Spills - 1990	0.15 Mile	0	

The subject property was listed on the FirstSearch Database as a CERCLIS NFRAP site. The site is listed as the Edwards Lake Road Landfill and is described as an old county landfill used from 1970 through 1974. The EPA preliminary assessment was conducted in 1987 and the facility received "No Further Remedial Action Planned" status in 1992. Mr. Mike Norman, a representative of the EPA Superfund Site Evaluation Section, provided the site regulatory records for QORE to review. These records indicate the site started landfill operations (receiving storm debris and municipal trash from the Center Point area) between 1970 and 1974 and was managed by Jefferson County. Solid Waste Law became effective on September 12, 1971 and the first ADEM inspection was in May 1972. The 1972 ADEM inspection revealed no records of hazardous waste dumping at the site. Although no indications of hazardous wastes were observed during the 1972 ADEM inspection, it is possible that materials dumped/disposed after this date could be potential sources of contamination. Thus, the past use of the site as a landfill is considered a recognized environmental condition and is discussed further in Section 4.4.

One LUST facility was identified by the FirstSearch Database to be within the specified search radius for the subject property.

The Edwards Lake Exxon facility, located at 1880 Edwards Lake Road, is listed on the LUST database. This facility is listed with three 10,000-gallon USTs and one 2,000-gallon UST, all of which were installed in 1989. One LUST incident is listed in 2001 with cleanup activities ongoing. This facility is located approximately 1,575 feet southeast of the subject property in a topographic and presumed hydrogeologic downgradient position. Based on the distance from the site and the presumed gradient, this facility is not considered a suspect environmental condition to the subject property.

There were numerous "non-geocode" incident locations listed in the regulatory database reviewed (facilities that were not mapped by FirstSeach due to poor or inadequate address information). Based upon QORE's area reconnaissance, these facilities do not appear to be located within the applicable search radii from the site. Thus, the non-geocode sites do not present a suspect environmental condition to the subject property.

## 4.2 Additional Environmental Record Sources

No other additional records were reviewed as a part of this assessment.

## 4.3 Physical Setting Source(s)

Physical setting sources specified in Section 11.0 of this report were reviewed to provide information about the geology and hydrogeology of the subject parcel.

## Surface Drainage And Soil

Based upon the topographic map reviewed, the subject parcel slopes generally to the east towards Pinchgut Creek; however, the site is located in an area of steep terrain. Based on this factor and size of the site, drainage on the site varies over short distances. The site ranges in surface elevation from approximately 820 to 1,220 feet above the National Geodetic Vertical Datum of 1929. Our observation of the parcel coincides with the information presented on the topographic map. Surface run-off from the property is

expected to generally flow in an easterly direction towards Pinchgut Creek, a tributary of the Cahaba River.

The USDA Department of Agriculture, Soil Conservation Service describes the predominant soils at the site as the Bodine-Birmingham association, steep. This map unit consists of soils on Red Mountain or other mountains with similar geology. This soil unit occurs on long narrow areas that are on mountains parallel to each other in a northwest and southwest direction across the county. Bodine soils are on the steep parts of back slopes and make up about 40 percent of this map unit. Bodine soils are typically very dark grayish brown cherty silt loam. Birmingham soils are on the ridges and upper part of the mountain sides and make up approximately 35 percent of this map unit. Birmingham soils are typically dark reddish brown cobbly silt loam. Underlying these soils is slightly weathered ironstone and sandstone. Soils of this type have a moderate to moderately rapid permeability with a low available water capacity and a low shrink-swell potential. Surface runoff is rapid. The site was identified on Sheet 13 of the USDA Soil Survey of Jefferson County, Alabama 1975 aerial photograph.

## Geologic Setting

According to information from the *Geology of Alabama Map*, dated 1987, and the *Engineering Geology of Jefferson County, Alabama*, dated 1979, the site is located in the Western Red Mountain District in the Alabama Valley and Ridge physiographic section of the Appalachian Plateau Physiographic Province.

The site is located in an area underlain by the Red Mountain Formation and the Tuscumbia Limestone, Fort Payne Chert, and Maury Formation. The Red Mountain Formation is characterized by dark-reddish-brown to olive-gray partly fossiliferous, mostly fine-grained sandstone interbedded with siltstone and shale; minor amounts of bioclastic limestone and conglomeratic sandstone; and includes hematitic beds and beds of ferruginous sandstone. Outcrops in northeastern Alabama are finer grained and include more limestone. This formation is generally 200 to 500 feet thick, and the hematite beds range in thickness from a few inches to 30 feet. The Tuscumbia Limestone formation is characterized by light- to dark-gray, fossiliferous and oolitic, partly argillaceous and cherty limestone and apparently is present only along part of the northwest limb of the Coosa synclinorium. The Fort Payne Chert consists of dark-gray to light-gray limestone with abundant irregular light-gray siliceous shale which occurs locally at the base of this formation in Cherokee County. Commonly present below the Fort Payne is greenish-gray to grayish-red phosphatic shale (Maury Formation) which is mapped with the Tuscumbia Limestone and Fort Payne Chert undifferentiated.

## Groundwater

Published information indicates the groundwater source in the vicinity of the subject property is of the Tuscumbia-Fort Payne Aquifer. The site is located in the recharge area for the Tuscumbia-Fort Payne Aquifer and is considered susceptible to surface contamination. Rapid runoff from the site prevents the site from being highly susceptible to surface contamination. The major recharge areas are located in the stream valleys where runoff is slower. Formations included in this aquifer in the vicinity of the site are Fort Payne Chert and Bangor Limestone. Water bearing capabilities of the Fort Payne Chert are due to secondary porosities formed by the solution of limestone in cherty beds and fractures. The Bangor Limestone is capable of yielding large quantities of water through a network of solution channels that are interconnected.

### 4.4 Historical Use Information on the Subject Parcel

Historical sources specified in Section 11.0 of this report were reviewed to assess onsite historical activities. A 1998 aerial photograph of the subject property is included in Appendix A of this report and additional aerial photographs reviewed are included in Appendix C.

A review of city directories showed no coverage for the site. Aerial photographs from 1941, 1956, 1960 1967, 1977, 1985, and 1998 indicate that the majority of the property has been woodland with no agricultural or industrial use since at least 1941. A review of archived tax assessment records indicated that a large portion of the site was owned by the Tennessee Coal, Iron, and Railroad Company in the late 1930's and early 1940's and that strip mining was conducted on site over this timeframe. The archived tax records did not indicate when the Tennessee Coal, Iron, and Railroad Company purchased or sold the property. According to a previous landfill report prepared by Ground Engineering, an ADEM Site Investigation Report, FirstSearch Database, and other EPA records for the subject property, large areas of the central and western portions of the site were strip mined for iron ore. Some of the strip mined areas were also reportedly used to dispose of debris from storm damage in the Center Point area and for domestic waste disposal in the early 1970's. The landfill area was estimated to cover approximately 15 acres of the site.

Excerpts from the landfill report are outlined in Section 4.6 with copies of pertinent information included in Appendix H. Storm and construction debris were reportedly the only "approved" waste streams for the landfill; however, testimony from local residents and later investigations revealed domestic wastes such as glass, metal, cleaning chemicals, solvents, paint cans, and insecticides were dumped at the landfill. The ADEM Site Investigation Report, dated December 27, 1991, concludes "Metal contaminants (arsenic, cadmium, chromium, nickel, lead, and zinc) were found on site and in a groundwater sample taken from an undeveloped monitoring well; however, no evidence was found to indicate that contaminants are migrating from the site via the surface water route." The City of Birmingham reportedly purchased the property in 1985 with plans to construct a water theme park; however, these plans fell through and the site was purchased by private individuals. According to an interview with Mr. Gil Simmons, a representative of the current property owner, no development activities have occurred at the site since the landfill's closure, with exception of the construction of Turncliff Parkway in the early to mid 1990's. The interview with Mr. Simmons is summarized in Section 6.1. Due to the evidence that uncontrolled wastes such as cleaning chemicals, solvents, paint cans, insecticides, metal debris, and other materials were disposed on-site over a period of four years, the potential exists that environmental impacts to underlying soil and/or groundwater have occurred. Thus, the historic use of approximately 15 acres of the subject site as a landfill is considered a recognized environmental condition.

## 4.5 Historical Use Information on Adjoining Properties

Nearby property usage could potentially impact the surface and subsurface conditions at a subject property. Developing a history of past uses or occupancies can provide an indication of the potential for *recognized environmental conditions* associated with the

subject property. Historical information specified in Section 11.0 of this report was reviewed to assess off-site activities.

<u>North</u> - The properties to the north of the site appear to have been undeveloped woodlands and residential developments since the mid to late 1990's. Prior to the mid to late 1990's, these properties were undeveloped woodlands since at least 1941.

<u>East</u> - The properties to the east of the site appear to have been undeveloped wooded land and agricultural land with two residences since at least 1941. A railway appears in the 1941 photograph and appears abandoned in the 1956 photograph. Interstate 59 is depicted under construction in the path of the old railroad bed in the 1967 aerial photo. The interstate appears to have been fully constructed in the 1977 aerial.

<u>South</u> - Edwards Lake Road has been present just south of the site since at least as early as the 1941. Prior to the 1980's, the area beyond Edwards Lake Road appears to have been undeveloped wooded land. This area appears to have been undeveloped wooded land and a park since at least the mid 1980's.

<u>West</u> – The property to the west of the site appears to have been mostly wooded and undeveloped since at least 1941. Residential developments to the west of the site, beyond the adjoining undeveloped property, appear as early as the mid to late 1970's.

Based on review of aerial photographs, city directories, and interviews, historical uses of the adjoining and surrounding properties do not present suspect environmental conditions to the subject property.

### 4.6 Review of Previous Reports

A Report of Landfill Assessment performed by Ground Engineering and Testing (currently QORE) dated June 1, 1990 was reviewed as part of this assessment. Excerpts from this report are included in Appendix H. Pertinent information from this report is summarized as follows:

- Approximately 250 acres planned to be developed for residential and commercial use were included in this study of landfill and mine spoil areas.
- The west-central portion of the site was strip mined for iron ore around 1950.
- The strip mine area was used to dispose of debris from storm damage in the Center Point area as well as domestic waste for a period of time.
- A study by the City of Birmingham in 1986 reported the landfill area to cover approximately 14 to 15 acres, which extends to a depth of 15 to 18 feet below ground surface.
- 30 borings were drilled at the site to assess the limits, depth, and constituents of the landfill materials and seven monitoring wells were installed to sample groundwater and methane gas.

- The larger 8 acre landfill area to the north consists mainly of debris, with little domestic waste, averages six to eight feet in thickness, and is underlain by mine spoil.
- The smaller landfill zones in the southern portion of the site contain mostly organic domestic waste and some construction debris. This material ranges from five to thirty feet in thickness and is underlain by mine spoil.
- Several of the boreholes and the monitoring wells were covered with plastic and measured for the presence of methane gas. Methane gas was detected at explosive levels in several of the borings.
- A methane venting system was recommended for any development over or near the landfill areas of the site.
- Soil and water samples were analyzed for toxic metals. Traces of lead, mercury, and arsenic were detected in a few of the samples.
- The seven monitoring wells installed were essentially dry and subsequently only one undeveloped water sample was collected for analysis.

## 5.0 SUBJECT PARCEL RECONNAISSANCE

## 5.1 Methodology and Limiting Conditions

We observed accessible areas of the property, which were limited by the steep terrain and dense vegetation present at the site. These factors limited direct observations of the ground surface. Clearing of vegetation would be necessary to make such direct observations.

## 5.2 General Property Setting

The property reconnaissance was performed on April 27, 2005, by Mr. Michael Summy, a professional experienced in environmental site assessments, in an attempt to identify apparent visual indications of present or past activities, which have or could have contaminated the subject parcels. The subject property is located off Edwards Lake Road and Turncliff Parkway in Birmingham, Jefferson County, Alabama. A site location map is included in Appendix A.

The property currently consists of undeveloped woodlands and kudzu covered areas that were former strip mine/landfill areas.

# Hazardous Substances And Petroleum Products in Connection With Identified Uses

No hazardous substances or petroleum product containers of unknown origin or use were observed on the site.

## Storage Tanks

No storage tanks were observed on the site.

## Odors

No obvious unusual odors were noted during the reconnaissance.

## Pools Of Liquid

No pools of liquid were observed on the parcel.

### **Drums**

No drums were observed or reported to be present on the subject parcel.

### Hazardous Substances And Petroleum Products Containers Not In Connection With Identified Uses

No hazardous substances or petroleum product containers of unknown origin or use were observed on the site.

### Unidentified Substance Containers

No unidentified (unlabelled) substance containers were observed on the subject tract.

## Potential Polychlorinated Biphenyls (PCB) Containing Equipment

No electrical transformers or other equipment suspected to possibly contain PCBcontaining oil were observed on the site.

### 5.3 Exterior Observations

### Pits, Ponds, Lagoons, And Surface Waters

No pits, ponds, or lagoons were present on the subject property, with the exception of two intermittent streams in the eastern portion of the site that flow to the east-southeast and a small stormwater retention pond located in the central portion of the property.

### Stained Soil Or Pavement

No soil or pavement staining was observed on the subject parcels.

## Stressed Vegetation

No abnormally stressed vegetation was observed on the subject parcel.

## Solid Waste

Several small areas of debris such as several tires, furniture, and household waste were observed at this site. None of these items appeared to be hazardous in nature but should be properly disposed.

### Wastewater

No evidence of wastewater was observed at this site.

### <u>Wells</u>

No water supply wells, drywells, or irrigation wells were observed on the site.

### Septic Systems

No septic systems were observed.

### Heating/Cooling

The subject property is vacant and undeveloped. Thus, no heating oil tanks, air conditioning units, or heating units were reportedly used at this parcel.

### 5.4 Interior Observations

### Heating/Cooling

No structures were observed on the subject property.

### Stains Or Corrosion

No structures were observed on the subject property.

### Drains And Sumps

No structures were observed on the subject property.

## 5.5 Other Observations

### Hydraulic Equipment

No hydraulic equipment was observed on the subject property.

## **Contracted Maintenance Services**

The subject parcel does not utilize the services of a maintenance company.

### **Utilities and Stormwater Management**

No utilities were observed on the subject property, with the exception of power transmission lines traversing the site from the southwest to the northwest and power lines along Turncliff Parkway. Storm water drains are also located along Turncliff Parkway.

### 6.0 INTERVIEWS

### 6.1 Interview with Owner

Mr. Gil Simmons, representative of the subject property owner (Jack Beasley/Wurthless, Inc.), was interviewed by QORE. Mr. Simmons has been the owner of the facility since approximately 1998, at which time he obtained it from the estate of his father-in-law. He stated that his father-in-law had at least a partial interest in the property since the late 1980's/early 1990's and a full interest since 1997. He stated that the abandoned homes, outbuildings, and cell tower noted by QORE personnel during the site/area reconnaissance are not part of the subject property and that the construction of the garden home development to the north of the site began in the mid to late 1990's. Mr. Simmons stated that to his knowledge no development activities have occurred on the property, with the exception of the construction of Turncliff Parkway. Additionally, he stated that his knowledge of environmental issues with the property (strip mining/landfilling) is limited to the landfill report prepared by QORE (formerly Ground Engineering) in 1990. Mr. Simmons stated that the City of Birmingham owned the property at the time his father-in-law purchased the site and that the city had planned to develop the property as a water park; however, those plans were abandoned.

### 6.2 Interview with Subject Parcel Property Manager

The services of a property manager are not utilized at this property.

### 6.3 Interview with Occupants

The site is currently unoccupied.

### 6.4 Interview with Local Government Officials

The following local government officials were contacted as a part of this assessment:

- Birmingham Fire Department, Fire Prevention, via written request
- Jefferson County Department of Health, Ms. Dee Dee White
- Alabama Department of Environmental Management records and EPA records, via email from Mr. Mike Norman of the Superfund Site Evaluation Section

Copies of the records of communication for these inquiries are included in Appendix E of this report.

#### 6.5 Interview with Others

Mr. Alan Davis of Southpace Properties (realtor for the site) was interviewed by QORE. Mr. Davis stated that some areas of the site along Turncliff Parkway were strip mined and used for waste disposal. He stated that his knowledge of the site was limited and referred Mr. Gil Simmons, the representative of the subject property owner, to QORE.

## 7.0 FINDINGS AND OPINIONS

Based on the information we obtained to date, known or suspect environmental conditions associated with the property, including *recognized environmental conditions*, *historical recognized environmental conditions*, *de minimis* conditions and other environmental conditions and our opinions of the impact on the subject parcel are summarized as follows:

A review of archived tax assessment records indicated that a large portion of the 0 site was owned by the Tennessee Coal, Iron, and Railroad Company in the late 1930's and early 1940's and that strip mining was conducted on site. The archived tax records did not indicate when the Tennessee Coal, Iron, and Railroad Company purchased or sold the property. According to a previous landfill report prepared by Ground Engineering (now QORE, Inc.), an ADEM Site Investigation Report, FirstSearch Database, and other EPA records for the subject property, large areas of the central and western portions of the site were strip mined for iron ore in the past. Some of the strip mined areas were used to dispose of debris from storm damage in the Center Point area and for domestic waste disposal in the early 1970's (1970-1974). The landfill area was estimated to cover approximately 15 acres of the site and apparently included the disposal of items such as paints, solvents, metal scraps, cleaning chemicals, and insecticides. Due to the uncontrolled nature of the disposal activities and the types of items disposed, the potential exists for contamination from these materials to the underlying soil and/or groundwater. Thus the historic use of the subject site as a landfill is considered a recognized environmental condition.

## 8.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E 1527-00 of the approximately 133 acre tract located off Edwards Lake Road and Turncliff Parkway in Birmingham, Jefferson County, Alabama. Any significant exceptions to, or deletions from, this practice are described in Section 9.0 of this report. This assessment has revealed the following *recognized environmental condition* in connection with the subject property:

• The historic landfill operations at the site for a period of approximately 4 years (1970-1974).

QORE recommends a limited Phase II be performed at the site to assess potential impacts from this source of concern. QORE recommends a collection of soil and groundwater samples surrounding the landfill areas at the site and a surface water sample from the retention pond in the central portion of the site. The samples would be analyzed for various chemicals of concern. Seven monitoring wells were installed by QORE (formerly Ground Engineering) in 1990 which were essentially dry, thus groundwater sampling may not be possible without rock coring. Any future development

in the vicinity of the landfill areas should consider the potential impacts of explosive gases from the past landfilling activities.

## 9.0 DEVIATIONS

Deviations or deletions from the scope of work defined by ASTM E 1527-00 were not intentionally made. Those identified during our assessment are listed below:

Title documents were not provided by the Client. The Client did not request us to obtain a chain-of-title for the property.

## 10.0 PAST MINING DOCUMENT REVIEW

## Past Mining Document Review

Mr. Richard Mickwee, one of QORE's Geotechnical Project Engineers, visited the Alabama Mine Safety Office in Homewood, Alabama, to research past underground mining at the site. QORE's research did not reveal the presence of any documented underground mining beneath the proposed property.

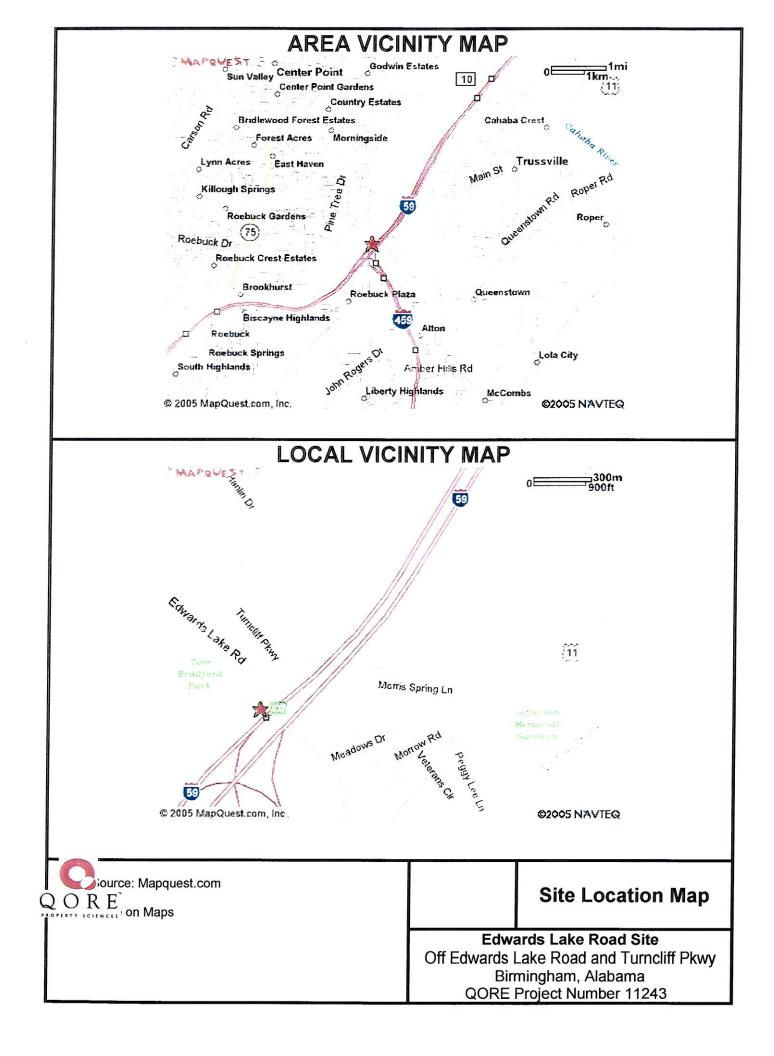
Based on notation on the USGS Topographic Quadrangle Map for Irondale, Alabama, we understand that strip mining has been performed at the site. QORE contacted the Alabama Surface Mining Commission located in Jasper, Alabama. Based on conversations with Mr. Steve Hinkle, we understand that the strip mining that occurred on-site was for the removal of iron ore. USGS topographic maps indicate that the strip mining occurred prior to 1959, which is prior to any strip mining regulatory legislation in the State of Alabama. Based on the topographic quadrangle map information, the strip mining appeared to have been located in a relatively thin band in the middle of the site, trending northeast/southwest.

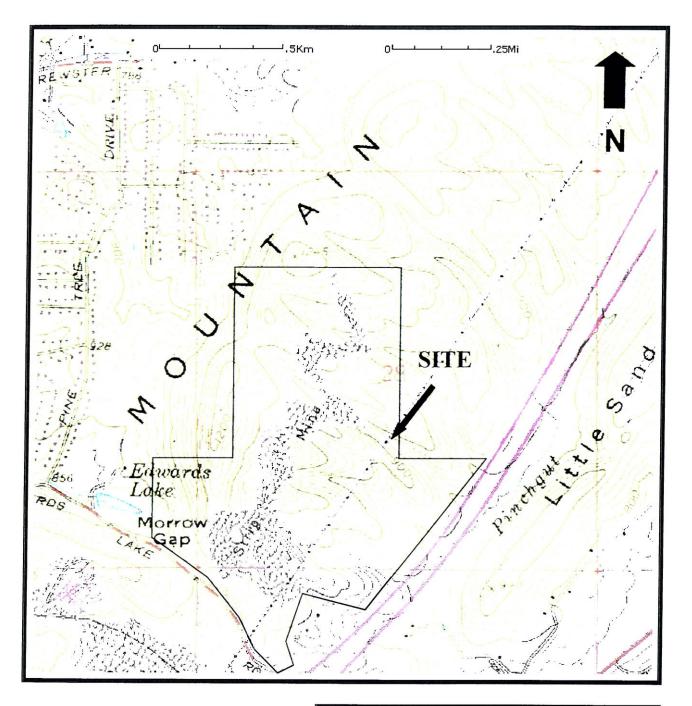
## 11.0 REFERENCES

- Irondale, Alabama, U.S. Geological Survey (USGS), 7.5 minute series Topographic Map, dated 1959 and photorevised 1978;
- Engineering Geology of Jefferson County, Geologic Survey of Alabama, dated 1979;
- Geologic Map of Alabama, Geologic Survey of Alabama, dated 1989;
- Soil Survey of Jefferson County, Alabama, United States Department of Agriculture, Natural Resources Conservation Service (formerly Soil Conservation Service), Map 13;
- Environmental FirstSearch, Inc. (FirstSearch) Report and Radius Map, 1750 Edwards Lake Road, Birmingham, Alabama, dated April 28, 2005;
- Aerial photograph obtained from Terraserver Internet Website, dated 1998;

- Aerial photographs obtained from the Jefferson County Soil Conservation Office, dated 1985, 1977, 1967, 1960, 1956, and 1941;
- Tax Information from the Tax Assessors Office (Parcel #'s: 12-33-2-000-002.002, 12-33-2-000-001, 12-33-2-000-001.005, 12-28-3-000-005, 12-28-4-000-003.001, 12-28-3-000-006, and 12-28-3-000-004.001), Jefferson County Courthouse, Birmingham, Alabama;
- Jefferson County Public Library, R. L. Polk City Directories, dated 1965, 1970, 1975, 1980, 1985, 1990, 1995, and 2001;
- Report of Landfill Assessment Planned Turncliff Development, Edwards Lake Road, Birmingham, Alabama, dated June 1, 1990, prepared by Ground Engineering and Testing (currently QORE);
- Written correspondence with the Fire Prevention Division of the Birmingham Fire Department (local regulatory agency);
- Interview with Ms. Dee Dee White of the Jefferson County Department of Health, Environmental Health Services;
- Interview with Mr. Mike Norman of the Environmental Protection Agency, Superfund Site Evaluation Section;
- Interview with Mr. Alan Davis of Southpace Properties, realtor of the subject property;
- Interview with Ms. Rosemary Mantee of the Alabama Department of Environmental Management, UST Corrective Action Division; and
- Interview with Mr. Gil Simmons, representative of the current owner of the subject property, Jack Beasley/Wurthless, Inc.

Appendix A Figures





Source: USGS, 7.5 Minute Topographic Map, Irondale, Alabama Quadrangle

Date: 1959 Photorevised 1978



# **Topographic Map**

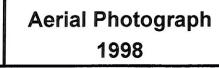
**Edwards Lake Road Site** Off Edwards Lake Road and Turncliff Pkwy Birmingham, Alabama QORE Project Number 11243



Source: TerraServer.com



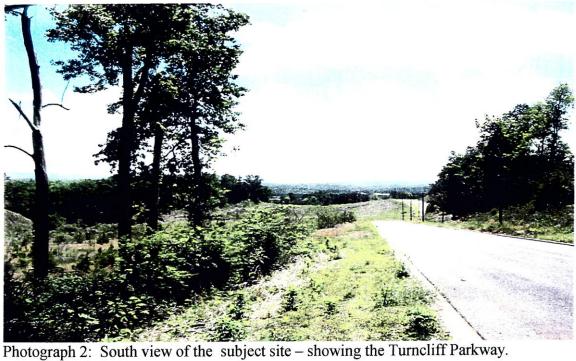
QORE



**Edwards Lake Road Site** Off Edwards Lake Road and Turncliff Pkwy Birmingham, Alabama QORE Project Number 11243 Appendix B Photographs



Photograph 1: North view of the subject property – showing the Turncliff Parkway and the kudzu covered strip mine/landfill areas.





Photograph 3: View of the north adjacent residential developments.



Photograph 4: South view of the southeastern portion of the subject property – showing Turncliff Parkway and Interstate 59 in the distance.

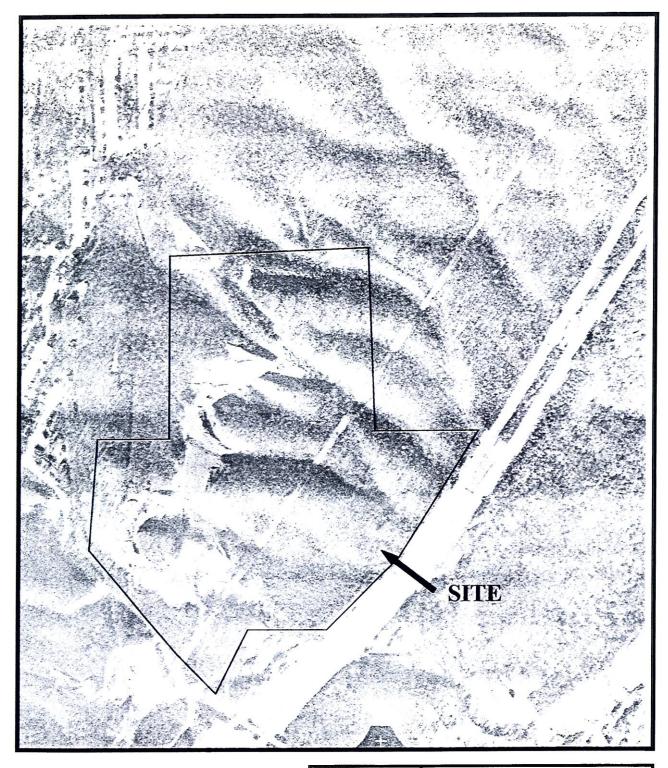


Photograph 5: View of a small area of household waste dumping located in the southeastern portion of the subject property.



Photograph 6: View of a surface water detention pond located in the central portion of the subject property.

Appendix C Historical Research Documentation



Source: Natural Resource Conservation Service

Birmingham, Alabama

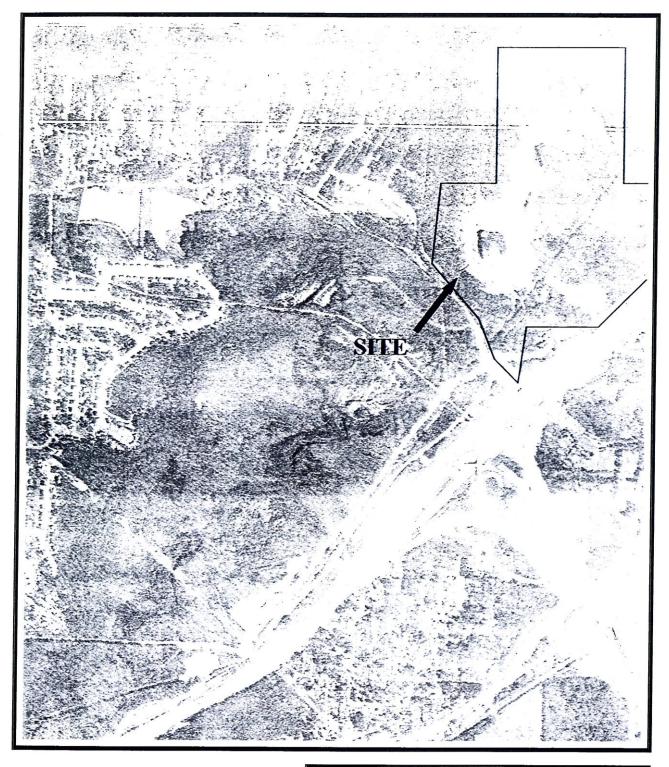
Scale: 1" = 1,000'



QORE



**Edwards Lake Road Site** Off Edwards Lake Road and Turncliff Pkwy Birmingham, Alabama QORE Project Number 11243



Source: Natural Resource Conservation Service

Birmingham, Alabama

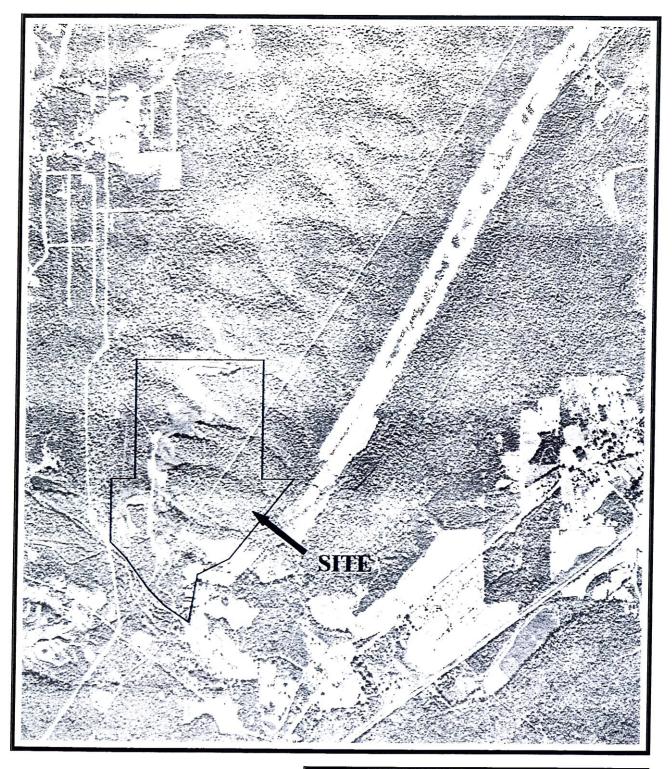
Scale: 1:15,840



Ν

Aerial Photograph 1977

**Edwards Lake Road Site** Off Edwards Lake Road and Turncliff Pkwy Birmingham, Alabama QORE Project Number 11243



Birmingham, Alabama

Scale: 1:15,840



Ν

Aerial Photograph 1967



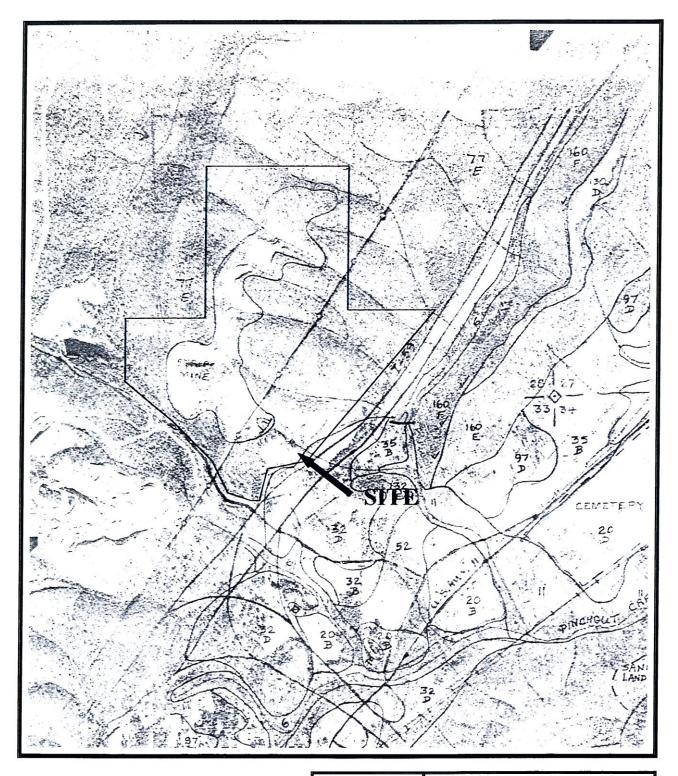
Birmingham, Alabama

Scale: 1:15,840



Q O R E

Aerial Photograph 1960



Birmingham, Alabama

Scale: 1:15,840



Q O R E

Aerial Photograph 1956



Birmingham, Alabama

Scale: 1:15,840



Aerial Photograph 1941

Appendix D Regulatory Records Documentation

# FirstSearch Technology Corporation

## **Environmental FirstSearch<sup>™</sup> Report**

### TARGET PROPERTY:

### **1750 EDWARDS LAKE ROAD**

### **BIRMINGHAM AL 35235**

Job Number: 11243

### **PREPARED FOR:**

**QORE** Property Sciences

3608 7th Court South

Birmingham, AL 35222

04-28-05



Tel: (407) 265-8900

Fax: (407) 265-8904

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# Target Site:1750 EDWARDS LAKE ROADBIRMINGHAM AL 35235

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	02-14-05	1.25	0	0	0	0	0	0	0
CERCLIS	Y	01-18-05	0.75	0	0	0	0	0	1	1
NFRAP	Y	06-23-04	0.50	0	0	0	1	-	0	1
RCRA TSD	Y	02-14-05	0.75	0	0	0	0	0	0	0
RCRA COR	Y	02-14-05	1.25	0	0	0	0	0	0	0
RCRA GEN	Y	02-14-05	0.50	0	0	0	1	-	3	4
ERNS	Y	12-31-04	0.50	0	0	0	0	-	51	51
State Sites	Υ	12-15-04	1.25	0	0	0	0	0	4	4.
Spills-1990	Y	NA	0.50	0	0	0	0	-	0	0
SWL	Y	10-13-04	0.75	0	0	0	0	0	0	0
REG UST/AST	Y	02-24-05	0.50	0	0	0	0	-	15	15
Leaking UST	Y	02-24-05	0.75	0	0	0	0	1	1	2
- TOTALS -				0	0	0	2	1	75	78

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to FirstSearch Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in FirstSearch Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

#### Waiver of Liability

Although FirstSearch Technology Corp. uses its best efforts to research the actual location of each site, FirstSearch Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of FirstSearch Technology Corp.'s services proceeding are signifying an understanding of FirstSearch Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

### Environmental FirstSearch Site Information Report

 Request Date:
 04-28-05
 Search Type:
 COORD

 Requestor Name:
 Mike Summy
 Job Number:
 11243

 Standard:
 ASTM
 TARGET ADDRESS:
 1750 EDWARDS LAKE ROAD

## BIRMINGHAM AL 35235

Sites: 78	Non-Geocoded: 75	<b>Population:</b> NA
Radon: 0.8 - 4 PCI/L		

	Degrees (Decimal)	Degrees (Min/Sec)		<u>UTMs</u>
Longitude:	-86.651443	-86:39:5	Easting:	532336.308
Latitude:	33.608204	33:36:30	Northing:	3718577.064
	~		Zone:	16

Comment

Comment:

### Additional Requests/Services

Adjacent ZIP Codes: 1 M	file(s)	Services:		
ZIP Code City Name	ST_Dist/Dir Sel		Requested?	Date
35173 TRUSSVILLE	AL 0.44 SE Y	Sanborns	No	
		Aerial Photographs	No	
		Topographical Maps	No	
		City Directories	No	
		Title Search	No	
		Municipal Reports	No	
		Online Topos	No	

TAR	GET	OFFE-	750 EDWARDS LAKE ROAD SIRMINGHAM AL 35235	<b>JOB:</b> 11243		
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2	2	RCRAGN	NATIONS RENT STORE 270 ALR000030692/VGN	1887 EDWARDS LAKE ROAD TRUSSVILLE AL 35235	0.48 SW	2
3	3	LUST	EDWARDS LAKE EXXON UST010308	1880 EDWARDS LAKE RD BIRMINGHAM AL 35235	0.61 SE	3

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N/A	26	ERNS	INTERSTATE 20 WEST NRC-735424/MOBILE		MILE MARKER 132 BIRMINGHAM AL		NON GC	
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N/A	28	ERNS	INTERSTATE 65 NORTH AT NRC-641423/MOBILE	INTERCHANGE	DOWNTOWN BIRM BIRMINGHAM AL	INGHAM	NON GC	
N/A	29	ERNS	KEENAN TRANSPORT CO. 643336/HIGHWAY RELATED	)	MILE MARKER 88 C BIRMINGHAM AL	ON INTERSTAT	NON GC	
N/A	30	ERNS	KOPPERS INC NRC-550837/FIXED		BIRMINGHAM AL		NON GC	
N/A	31	ERNS	MCKENZIE TANK LINES 538307/HIGHWAY RELATED	)	37.5 MILES NORTH BIRMINGHAM AL	OF BIRMING	NON GC	
N/A	24	ERNS	I-459 SOUTHBOUND	MILE	BIRMINGHAM AL		NON GC	
N/A	33	ERNS	MILE POST 791 - SUBDIVISI NRC-643350/RAILROAD	ON: ALABA	BIRMINGHAM AL		NON GC	
N/A	21	ERNS	FROM TALLPOSSA ST TO I- NRC-728044/MOBILE	59 SOUTH BO	BIRMINGHAM AL		NON GC	
N/A	35	ERNS	MILEPOST 136.8 NRC-702719/RAILROAD		BIRMINGHAM AL		NON GC	
N/A	36	ERNS	MILEPOST 791 NRC-743305/RAILROAD		BIRMINGHAM AL		NON GC	
N/A	37	ERNS	MILEPOST 801.0 NRC-710579/RAILROAD		BIRMINGHAM AL		NON GC	
N/A	39	ERNS	N/A NRC-527917/STORAGE TANH		CSX BOYLES YARD BIRMINGHAM AL	RAILROAD MI	I NON GC	
N/A	32	ERNS	MILE 274 SB ON I 65 NEAR M NRC-703161/MOBILE		BIRMINGHAM AL		NON GC	
N/A	16	ERNS	CSX TRANSPORTATION 173777/RAILROAD		BOYLES RAIL YARI BIRMINGHAM AL	)	NON GC	
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N/A	9	ERNS	165 NORTH BOUND ON EXIT NRC-593407/MOBILE		BIRMINGHAM AL		NON GC	

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N/A	22	ERNS	I 65 NORTH LAKE SHORE DRIVE EXIT NRC-703384/MOBILE	BIRMINGHAM AL	NON GC
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N/A	38	ERNS	MILLER TRANSPORTERS INC 358396/HIGHWAY RELATED	HWY I-65 BIRMINGHAM AL	NON GC
N/A	42	ERNS	RAILYARD NRC-644066/RAILROAD NON-RELEASE	BIRMINGHAM AL	NON GC
N/A	58	ERNS	NRC-654464/MOBILE	1-59 SOUTH MILE 141 TRUSSVILLE AL 35173	NON GC
N/A	57	ERNS	I-59 WEST NRC-654480/MOBILE	TRUSSVILLE AL 35173	NON GC
N/A	56	ERNS	I-59 SOUTH BOUND NRC-609243/MOBILE	MILE 140 AND 141 TRUSSVILLE AL 35173	NON GC

TAR	RGE	GET SITE: 1750 EDWARDS LAKE ROAD JOB: 11243 BIRMINGHAM AL 35235			
TOTAL:	7	78	GEOCODED: 3 NON	GEOCODED: 75	SELECTED: 0
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N/A	50	ERNS	NRC-706887/AIRCRAFT	TALLATOSA ST BIRMINGHAM AL	NON GC
N/A	49	ERNS	NRC-645846/MOBILE	HWY 31 BETWEEN RIVER CHASE BIRMINGHAM AL	NON GC
N/A	48	ERNS	NRC-568984/RAILROAD NON-RELEASE	MILEPOST: 139.9 BIRMINGHAM AL	NON GC
N/A	47	ERNS	NRC-590108/RAILROAD NON-RELEASE	MILEPOST 000392.5 BIRMINGHAM AL	NON GC
N/A	46	ERN\$	NRC-539763/RAILROAD NON-RELEASE	ON THE TRAIN TRACKS BIRMINGHAM AL	NON GC
N/A	45	ERNS	TRANSPORT INC 582037/HIGHWAY RELATED	INDUSTRIAL CHEMICAL / CALLE BIRMINGHAM AL	NON GC
N/A	44	ERNS	THE FIRST SWITCH COMING OFF MAIN L NRC-708698/RAILROAD NON-RELEASE	BIRMINGHAM AL	NON GC
N/A	43	ERNS	SPALDING ISHKOOD RD AND MONTE VALI NRC-714013/MOBILE	BIRMINGHAM AL	NON GC
N/A	53	ERNS	430447/HIGHWAY RELATED	HWY 59 BIRMINGHAM AL	NON GC
N/A	78	LUST	GOLD KIST POULTRY UST930908/NFA	CAMP COLEMAN RD (RT 4 BOX 2 TRUSSVILLE AL 35173	NON GC
N/A	7	RCRAGN	SAM S CLUB STORE #4817 SAM S EAST ALR000032243/VGN	5940 TRUSSVILLE CROSSINGS P TRUSSVILLE AL 35173	NON GC
N/A	5	RCRAGN	RENTAL SERVICE CORPORATION #52 ALR000030023/VGN	3235 VETERANS CIRCLE TRUSSVILLE AL 35173	NON GC
N/A	6	RCRAGN	RIDERS HARLEY DAVIDSON ALR000033001/VGN	4750 NORRELL DRIVE TRUSSVILLE AL 35173	NON GC
N/A	60	STATE	BIRMINGHAM SOUTHERN PRECISION DRUM	N	NON CO
			9134	BIRMINGHAM AL	NON GC
N/A	59	STATE	BIRMINGHAM BROWNFIELDS CLEANUP 9271	BIRMINGHAM AL	NON GC
N/A	61	STATE	LAKE PURDY DRUG LAB DUMP 9093	BIRMINGHAM AL	NON GC
N/A	62	STATE	TRUSSVILLE FOUNDRY 9105	TRUSSVILLE AL 35173	NON GC

TAR	RGE [		1750 EDWARDS LAKE ROAD BIRMINGHAM AL 35235	<b>JOB:</b> 11243	
TOTAL:	7	8	GEOCODED: 3 NO	<b>DN GEOCODED:</b> 75	SELECTED: 0
Page No.	ID	<b>DB</b> Туре	Site Name/ID/Status	Address	Dist/Dir Map ID
N/A	72	UST	TRUSSVILLE CREW HEADQUARTERS 10988-10146	GREEN DR TRUSSVILLE AL 35173	NON GC
N/A	77	UST	TRUSSVILLE TEXACO 17973-20411	3311 EDWARDS LAKE PARKWAY TRUSSVILLE AL 35173	NON GC
N/A	76	UST	TRUSSVILLE INDUSTRIAL PARK 10814-12713	HWY 11 E TRUSSVILLE AL 35173	NON GC
N/A	75	UST	TRUSSVILLE INDUSTRIAL PARK 10814/DELETED	HWY 11 E TRUSSVILLE AL 35173	NON GC
N/A	63	UST	HIGHWAY 11 SHELL 18587-13343	3220 MORROW ROAD TRUSSVILLE AL 35235	NON GC
N/A	73	UST	TRUSSVILLE IND PARK SEWAGE PUMP # 10815/DELETED	2 HWY11E TRUSSVILLE AL 35173	NON GC
N/A	64	UST	AMERICAN BUMPER CO 2406-10215	TRUSSVILLE - RAILRD AVE TRUSSVILLE AL 35173	NON GC
N/A	71	UST	SUNNY FOODS #18 18579-22014	5704 CHALKVILLE ROAD NORTH TRUSSVILLE AL 35173	NON GC
N/A	70	UST	SULPHUR SPRINGS MICROWAVE TOWER 3524-10327	JEFFERSON 5 MILE OFF DOLLAR TRUSSVILLE AL 35173	NON GC
N/A	69	UST	SHERMAN READY MIX CONCRETE 1795-10499	2561 RUFNER RD TRUSSVILLE AL 35173	NON GC
N/A	68	UST	SAM S CLUB #4817 18940-21237	5940 TRUSSVILLE CROSSING PK TRUSSVILLE AL 35173	NON GC
N/A	67	UST	GOLD KIST POULTRY 5867-12106	CAMP COLEMAN RD TRUSSVILLE AL 35173	NON GC
N/A	66	UST	CORN BROS INC 5919-11250	HWY 11 N TRUSSVILLE AL 35173	NON GC
N/A	65	UST	CANTRELL S PACKAGE STORE GROCERY 9200-13994	GADSDEN HWY TRUSSVILLE AL 35173	NON GC
N/A	74	UST	TRUSSVILLE IND PARK SEWAGE PUMP #/ 10815-12713	2 HWY11 E TRUSSVILLE AL 35173	NON GC

.

### Environmental FirstSearch Site Detail Report

TARGET SITE:	1750 EDWARDS LAKE ROAD			
	BIRMINGHAM AL 35235			

**JOB:** 11243

		IS NFRAP		
SEARCH ID: 1	DIST/DIR:	0.42 SW	MAP ID:	1
NAME: EDWARDS LAKE ROAD LAND ADDRESS: EDWARDS LAKE ROAD AT LA BIRMINGHAM AL 35215 JEFFERSON CONTACT: MIKE NORMAN		REV: ID1: ID2: STATUS: PHONE:	1/18/05 ALD982111759 0404459 NFRAP-N 4045628792	
DESCRIPTION: OLD COUNTY LDFL, USED 1970-1974 (OUT	SIDE CITY LIMITS) BUT MA	Y BE ANNEXED.		
ACTION/QUALITY ARCHIVE SITE	AGENCY/RPS EPA In-House	START/RAA	END 01-29-1992	
DISCOVERY	EPA Fund-Financed		07-23-1987	
PRELIMINARY ASSESSMENT	EPA Fund-Financed		09-24-1987	
SITE INSPECTION High	EPA Fund-Financed		05-08-1990	
SITE INSPECTION NFRAP (No Futher Remedial Action Planned	State, Fund Financed	01-09-1992	01-29-1992	

### Environmental FirstSearch Site Detail Report

TARGET SITE:	1750 EDWARDS LAKE ROAD
	<b>BIRMINGHAM AL 35235</b>

**JOB:** 11243

SEARCH ID:	2	DIST/DIR:	0.48 SW	MAP ID:	2
NAME: NA	TIONS RENT STORE 270		REV:	7/12/04	
	7 EDWARDS LAKE ROAD		ID1:	ALR000030692	
TR	USSVILLE AL 35235		ID2:		
+	FERSON		STATUS:	VGN	
CONTACT: NIC	CKY BARBEE		PHONE:	2056550800	

### Environmental FirstSearch Site Detail Report

LEAKING UNDERGROUND STORAGE TANKS						
SEARCH ID: 3	DIST/DIR:	0.61 SE	MAP ID:	3		
NAME: EDWARDS LAKE EXXON ADDRESS: 1880 EDWARDS LAKE RD BIRMINGHAM AL JEFFERSON CONTACT:		REV: ID1: ID2: STATUS: PHONE:	2/24/05 UST010308			
SITE INFORMATION						
INCIDENT DATE: INCIDENT NUMBER:	03/01 08					
OWNER INFORMATION						
OWNER NAME: ADDRESS:	MCCULLOUGH OIL CO P O BOX 579 FULTONDALE AL 35068					
TANK INFORMATION						
CURRENTLY IN USE: INSTALLED DATE: PERM OUT OF USE:	X 8/31/1989					
REMOVAL DATE: TEMP OUT OF USE:	1/1/1901					
TANK CAPACITY:	10000 GAL					
CURRENTLY IN USE: INSTALLED DATE: PERM OUT OF USE:	X 8/31/1989					
REMOVAL DATE: FEMP OUT OF USE:	1/1/1901					
TANK CAPACITY:	10000 GAL					
CURRENTLY IN USE: INSTALLED DATE: PERM OUT OF USE:	X 8/31/1989					
REMOVAL DATE: FEMP OUT OF USE:	1/1/1901					
FANK CAPACITY:	10000 GAL					
CURRENTLY IN USE: INSTALLED DATE: PERM OUT OF USE:	X 8/31/1989					
REMOVAL DATE: FEMP OUT OF USE:	1/1/1901					
FANK CAPACITY:	2000 GAL					

#### Environmental FirstSearch Federal Database Descriptions

#### ASTM Databases:

**CERCLIS:** Comprehensive Environmental Response Compensation and Liability Information System. The EPA's database of current and potential Superfund sites currently or previously under investigation. Source: Environmental Protection Agency.

Updated quarterly.

**CERCLIS-NFRAP (Archive):** Comprehensive Environmental Response Compensation and Liability Information System Archived Sites. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Updated quarterly.

**ERNS:** Emergency Response Notification System. The EPA's database of emergency response actions. Source: Environmental Protection Agency. Data since January, 2001, has been received from the National Response Center as the EPA no longer maintains this data.

Updated quarterly.

FINDS: The Facility Index System. The EPA's Index of identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility. Source: Environmental Protection Agency.

Updated semi-annually.

NPL: National Priority List. The EPA's list of confirmed or proposed Superfund sites. Source: Environmental Protection Agency.

Updated quarterly.

**RCRIS:** Resource Conservation and Recovery Information System. The EPA's database of registered hazardous waste generators and treatment, storage and disposal facilities. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List). Source: Environmental Protection Agency.

RCRA TSD: Resource Conservation and Recovery Information System Treatment, Storage, and Disposal Facilities. The EPA's database of RCRIS sites which treat, store, dispose, or incinerate hazardous waste. This information is also reported in the standard RCRIS detailed data.

#### ASTM Database Descriptions (continued):

**RCRA COR:** Resource Conservation and Recovery Information System Corrective Action Sites. The EPA's database of RCRIS sites with reported corrective action. This information is also reported in the standard RCRIS detailed data.

RCRA GEN: Resource Conservation and Recovery Information System Large, Small, and Very Small Quantity Generators. The EPA's database of RCRIS sites that create hazardous waste or meet other RCRA requirements. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List).

RCRA NLR: Resource Conservation and Recovery Information System sites No Longer Regulated. FirstSearch's proprietary database of Resource Conservation and Recovery Information System's that the EPA cannot categorize.

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All RCRA databases are Updated quarterly

#### Environmental FirstSearch Federal Database Descriptions

#### Non-ASTM Databases:

HMIRS: Hazardous Materials Incident Response System. This database contains information from the US Department of Transportation regarding materials, packaging, and a description of events for tracked incidents.

Updated quarterly.

NCDB: National Compliance Database. The National Compliance Data Base System (NCDB) tracks regional compliance and enforcement activity and manages the Pesticides and Toxic Substances Compliance and Enforcement program at a national level. The system tracks all compliance monitoring and enforcement activities from the time an inspector conducts and inspection until the time the inspector closes or the case settles the enforcement action. NCDB is the national repository of the 10 regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS is transferred to NCDB to support the need for monitoring national performance of regional programs.

Updated quarterly

**NPDES:** National Pollution Discharge Elimination System. The EPA's database of all permitted facilities receiving and discharging effluents. Source: Environmental Protection Agency.

Updated semi-annually.

NRDB: National Radon Database. The NRDB was created by the EPA to distribute information regarding the EPA/State Residential Radon Surveys and the National Residential Radon Survey. The data is presented by zipcode in Environmental FirstSearch Reports. Source: National Technical Information Service (NTIS)

Updated Periodically

Nuclear: The Nuclear Regulatory Commission's (NRC) list of permitted nuclear facilities.

Updated Periodically

#### PADS: PCB Activity Database System

The EPA's database PCB handlers (generators, transporters, storers and/or disposers) that are required to notify the EPA, the rules being similar to RCRA. This database indicates the type of handler and registration number. Also included is the PCB Transformer Registration Database.

Updated semi-annually.

**Receptors:** 1995 TIGER census listing of schools and hospitals that may house individuals deemed sensitive to environmental discharges due to their fragile immune systems.

Updated Periodically

#### Environmental FirstSearch Alabama Database Descriptions

#### ALABAMA UNDERGROUND STORAGE TANKS (UST)

Alabama Department of Environmental Management's Underground Storage Tank List database is concerned with petroleum storage systems. Updated Quarterly

#### ALABAMA LEAKING UNDERGROUND STORAGE TANKS (LUST)

The Alabama Dept. of Environmental Management LUST database is concerned with petroleum storage systems and includes facilities and/or locations that have reported the possible release of contaminants. Updated Quarterly

#### ALABAMA SOLID WASTE FACILITIES (SWF)

The Alabama Dept. of Environmental Management Solid Waste Landfills List is concerned with the handling of solid waste and includes locations identified with solid waste landfilling or associated activities involving the handling of solid waste. Updated Quarterly

#### ALABAMA SITES LIST

Alabama Department of Environmental Management's Hazardous Waste Cleanup Fund Annual Report Updated Quarterly

#### Environmental FirstSearch Alabama Database Descriptions

#### ALABAMA UNDERGROUND STORAGE TANKS (UST)

Alabama Department of Environmental Management's Underground Storage Tank List database is concerned with petroleum storage systems. Updated Quarterly

#### ALABAMA LEAKING UNDERGROUND STORAGE TANKS (LUST)

The Alabama Dept. of Environmental Management LUST database is concerned with petroleum storage systems and includes facilities and/or locations that have reported the possible release of contaminants. Updated Quarterly

#### ALABAMA SOLID WASTE FACILITIES (SWF)

The Alabama Dept. of Environmental Management Solid Waste Landfills List is concerned with the handling of solid waste and includes locations identified with solid waste landfilling or associated activities involving the handling of solid waste. Updated Quarterly

#### ALABAMA SITES LIST

Alabama Department of Environmental Management's Hazardous Waste Cleanup Fund Annual Report Updated Quarterly

#### Environmental FirstSearch Federal Database Sources

**CERCLIS:** The EPA's Comprehensive Environmental Response Compensation and Liability Information System database. Updated quarterly

**CERCLIS NFRAP:** The EPA's Comprehensive Environmental Response Compensation and Liability Information System archived sites. Updated quarterly

**ERNS:** The EPA's Emergency Response Notification System. Updated quarterly

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FED OTHER: The EPA's Section Seven Tracking System. Updated Quarterly

FINDS: The EPA's Facility Index System. Updated as new data becomes available

**HMIRS:** The EPA's hazardous Materials Incident Response System Updated quarterly

NCDB: The EPA's National Compliance Database. Updated quarterly

**NPDES:** The EPA's National Pollution Discharge Elimination System Updated quarterly

**NPL:** The EPA's list of confirmed or proposed Superfund Sites Updated quarterly

**NRDB:** The National Technical Information Service's National Radon Database Updated as new data becomes available

**NUCLEAR:** The Nuclear Regulatory Commission's list of permitted nuclear facilities. Updated periodically

PADS: The EPA's PCB handlers database. Updated quarterly

**RCRA COR:** The EPA's Resource Conservation and Recovery Information System's Corrective Action Sites. Updated quarterly

**RCRA GEN:** The EPA's Resource Conservation and Recovery Information System's Generators and Transporters. Updated quarterly

**RCRA NLR:** FirstSearch's proprietary database of Resource Conservation and Recovery Information System's that the EPA cannot categorize. Updated quarterly

**RCRA TSD:** The EPA's Resource Conservation and Recovery Information System's Treatment, Storage, and Disposal facilities. Updated quarterly

**RECEPTORS:** The 2002 Census listing of schools and hospitals Updated as new data becomes available

**RELEASES:** The EPA's ERNS air and surface water releases. Updated quarterly

TRIS: The EPA's Toxic Release Inventory System. Updated quarterly

#### Environmental FirstSearch Alabama Database Sources

BROWNFIELDS (BF) Not available.

#### LEAKING UNDERGROUND STORAGE TANKS (LUST)

Alabama Department of Environmental Management LUST database Updated Quarterly

OTHER (OT)

Not available

PERMITS (PE) Not available

RELEASES (RL) Not available

90 SPILLS (SP) Not available

80 SPILLS (80) Not available

STATE SITES (ST)

Alabama Department of Environmental Management's Hazardous Waste Cleanup Fund Annual Report Updated quarterly

SOLID WASTE LANDFILLS (SWL)

Alabama Department of Environmental Management's Landfill List Updated quarterly

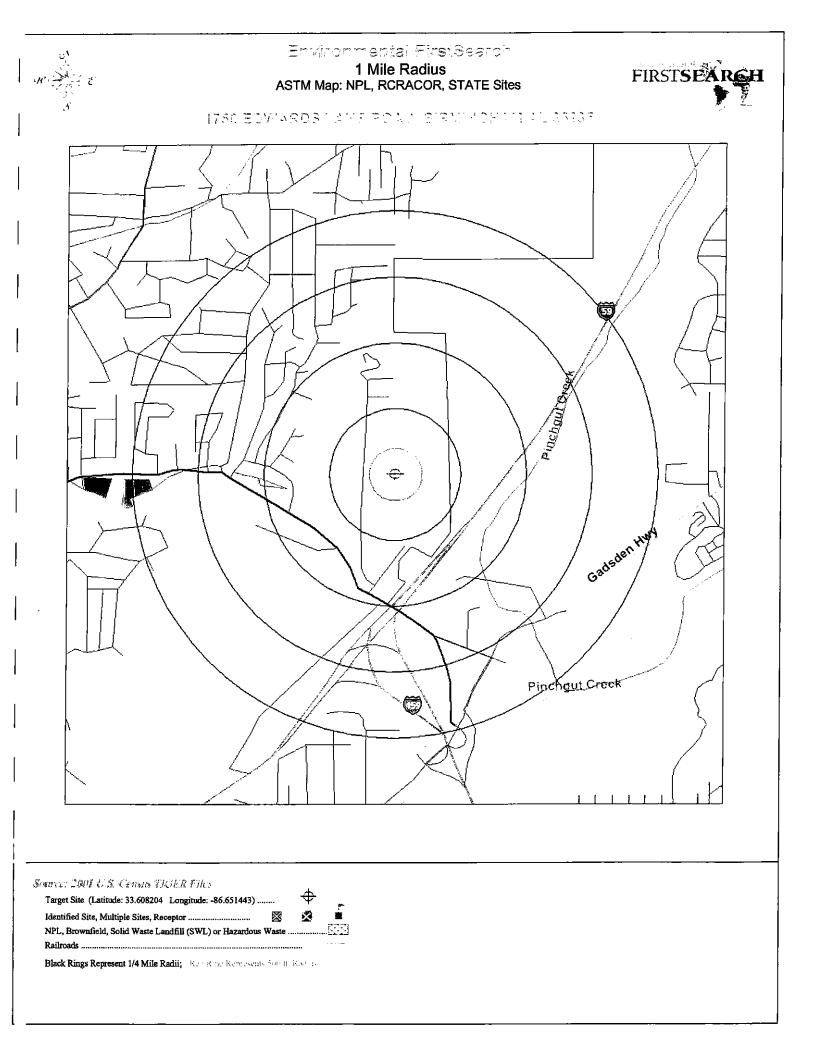
UNDERGROUND STORAGE TANKS (UST) Alabama Department of Environmental Management's Underground Storage Tank List Updated quarterly

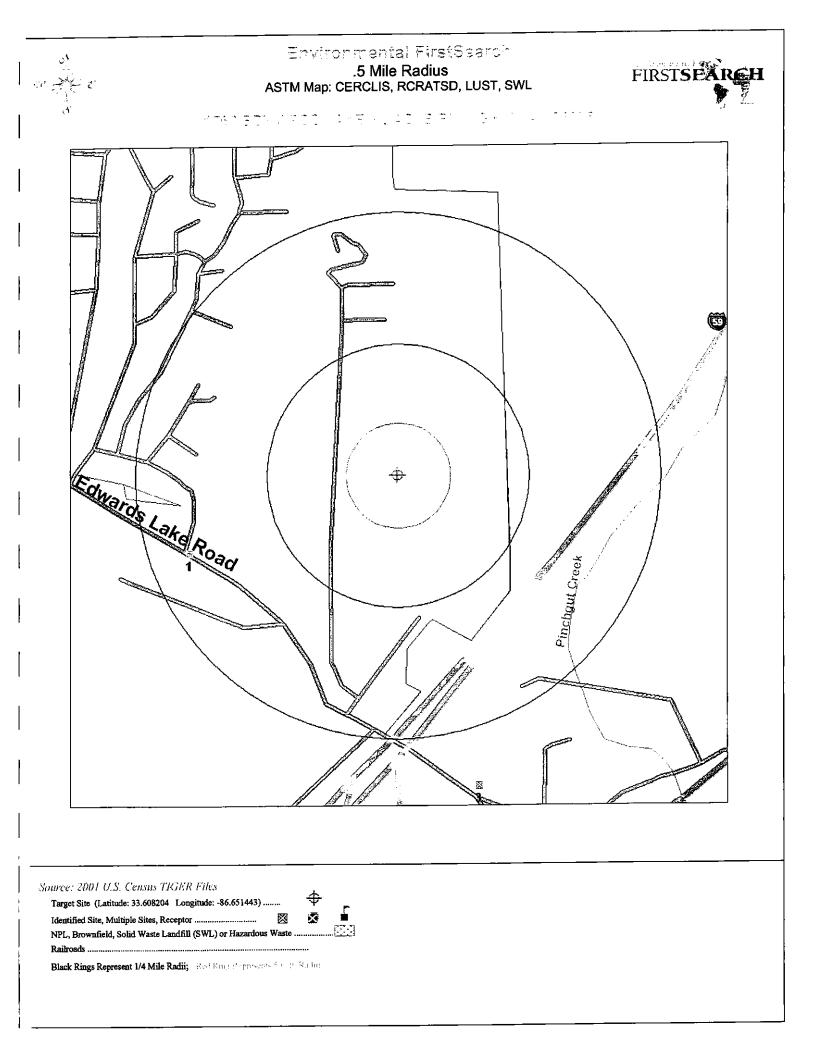
GIS Sources

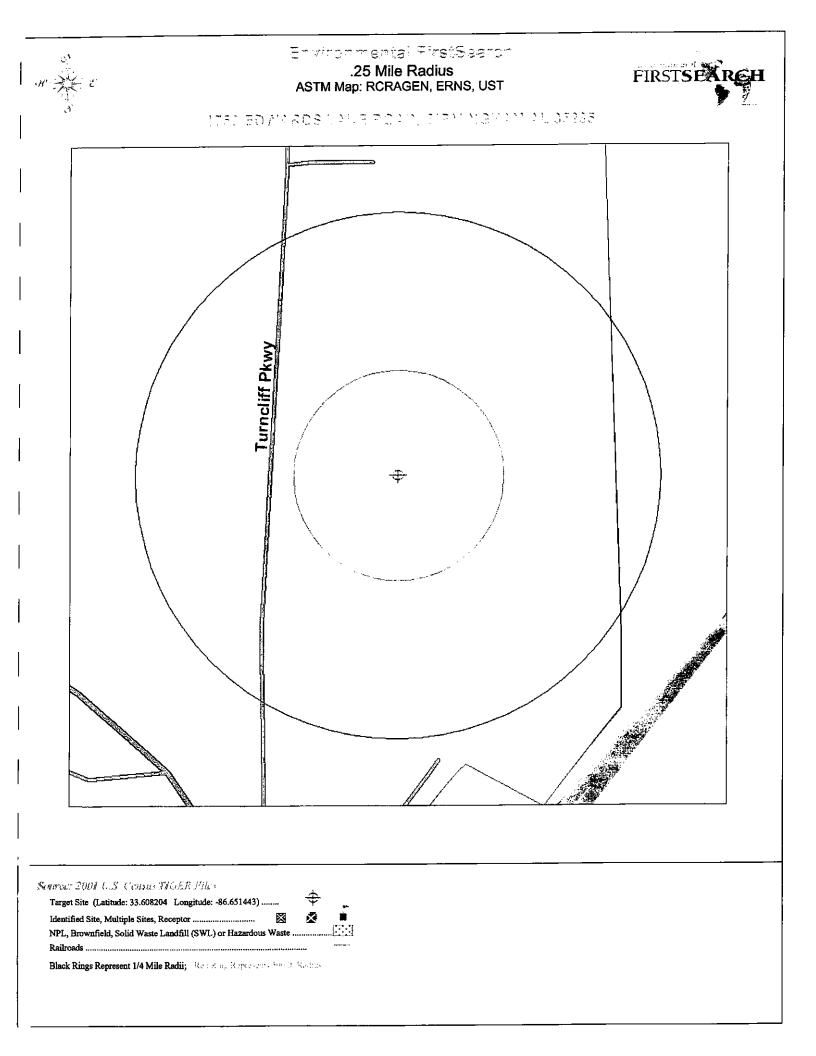
AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) Not available

AQUIFERS (AQ) Not available

STATE WELLS (PWS) Not available







Appendix E Interview Documentation

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### Interview Records Site/Job Name<u>: Edwars Lake Road Site</u> Job Number: <u>11243</u> Site Address:<u>Edwards Lake Road, Birmingham, Alabama</u>

Site Owner/Contact: <u>Mr. Gil Simmons</u> Ph. Number: <u>205-854-6114</u> Date: <u>04/28/05</u> <u>Mr. Gil Simmons, representative of the subject property owner (Jack Beasley/Wurthless, Inc.), was interviewed by QORE. Mr. Simmons has been the owner of the facility since approximately 1998, when he obtained it from the estate of his father-in-law. He stated that his father-in-law had at least a partial interest in the property since the late 1980's/early 1990's and a full interest since 1997. He stated that the abandoned homes, outbuildings, and cell tower are not part of the subject property and that the garden home development to the north of the site was started in the mid to late 1990's. Mr. Simmons stated that to his knowledge no development activities have occurred on the property, with the exception of the construction of Turncliff Parkway. Additionally, he stated that his knowledge of environmental issues with the property (strip mining/landfilling) is limited to the geotechnical report prepared by QORE (formerly Ground Engineering) in 1990. Mr. Simmons stated that the City of Birmingham owned the property at the time his father-in-law purchased the site and that at one time the city wanted to develop the property as a water park; however, those plans fell through.</u>

Local Fire Dept: <u>Birmingham Fire Department – Fire Prevention</u> Ph. Number: <u>205-250-7540</u> Date: <u>04/28/05</u> Fire Prevention was contacted in reference to any fire calls or HAZMAT incidents related to the site property. It is department policy that all requests for information must come in writing, thus a faxed request was submitted on 04/28/05. A response has not yet been received.

State Regulatory Agency: <u>Ms. Dee Dee White</u> Ph. Number: <u>205-933-9110</u> Date: <u>04/28/05</u> <u>Ms. White of the Jefferson County Health Department stated that she did not know of any complaints or</u> <u>environmental concerns associated with the subject property. Ms. White stated that department records</u> were reviewed through the 1980's.

 State Regulatory Agency: <u>Ms. Rosemary Mantee</u>
 Ph. Number: <u>334-270-5655</u>
 Date: <u>04/29/05</u>

 <u>Ms. Mantee of the ADEM UST Corrective Action Division stated that the cleanup activities for the LUST incident at the Edwards Lake Exxon facility are ongoing.</u>

 Other:
 Mr. Alan Davis
 Ph. Number: 205-271-7221
 Date: 04/28/05

 Mr. Alan Davis of Southpace Properties (realtor for the site), provided QORE with the owner representative of the site and stated that a portion of the property was strip mined and used as a waste disposal area.
 Date: 04/28/05

### Interview Records Site/Job Name<u>: Edwars Lake Road Site</u> Job Number: <u>11243</u> Site Address: <u>Edwards Lake Road, Birmingham, Alabama</u>

 Regulatory Agency: Mr. Mike Norman
 Ph. Number: 404-562-8792
 Date: 04/28/05

 Mr. Mike Norman of the EPA Superfund Site Evaluation Section was interviewed by QORE and forwarded the EPA and ADEM records for the Edwards Lake Road Landfill (subject site).

Appendix F Special Contractual Conditions Between User and Environmental Professional There Are No Special Contractual Conditions Between User and Environmental Professional

## Appendix G Resumes

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#### SUMMY, MICHAEL D ENVIRONMENTAL SCIENTIST

#### Education:

B.S. Environmental Science, YOUNGSTOWN STATE UNIVERSITY, 2000 High School Diploma, INDIAN CREEK, 1994

#### Professional Registrations, Certifications\Training, Affiliations:

Alabama licensed lead-based paint inspector/risk assessor Tennessee licensed lead-based paint inspector AHERA accredited asbestos inspector/assessor Certified Indoor Environmentalist (CIE) by the Indoor Air Quality Association

#### Experience: 4 years

#### Career Summary:

Mr. Summy has conducted approximately 125 Phase 1 Environmental Site Assessments (ESA's) according to the Department of Housing and Urban Development protocols on multi-family housing, commercial facilities, and raw land for National Clients, throughout the U.S. Additionally, Mr. Summy has completed several ESA's on multi-family facilities according to Freddie Mac and Fannie Mae due diligence guidelines. Asbestos, lead-based paint, and radon testing was completed in conjunction with many of these projects. Mr. Summy conducted lead-based paint inspections and/or post abatement clearance testing for numerous housing authorities in Alabama including; Anniston, Talladega, Huntsville, Red Bay, Prattville, Greenville, Blountsville, Ashland, Heflin, Samson, Gadsden, and Demopolis. Mr. Summy also has completed several visual mold/moisture intrusion surveys in conjunction with ESA's on light industrial/commercial warehouse projects in the southeast. Mr. Summy has completed an extensive lead-based paint, asbestos, and mercury containing equipment inspection for the Birmingham Water Works Board.

#### **Project Experience:**

#### Environmental\_Assessment

**Roosevelt Middle School** - Mr. Summy conducted a Phase 1 Environmental Site Assessment, Asbestos Survey, Lead-based Paint Screening, and Radon Gas monitoring prior to renovation of the turn of the century school building into loft apartments.

**Ambassador Hotel** - Mr. Summy conducted a Phase 1 Environmental Site Assessment, HUD Environmental Assessment, and Lead-based Paint Screening to the vacant commercial building prior to its renovation.

**Six Assisted Living Facilities throughout Nebraska** - Mr. Summy performed Phase 1 Environmental Site Assessments for these six properties in conformance with HUD due diligence requirements as part of their refinancing.

**City of Heflin Housing Authority** – Mr. Summy performed lead-based paint inspection, risk assessment, and post abatement clearance testing for several units prior to their renovation.

### KATRINA D. JARBOE, P.E.

Environmental Services Manager

#### EDUCATION

Auburn University, Auburn, Alabama Bachelor of Civil Engineering, Magna Cum Laude, 1994

#### REGISTRATIONS

Professional Engineer, Alabama #23379 Professional Engineer, Mississippi #15299

#### TRAINING

40 Hour OSHA/Hazardous Waste Operations Training 8 Hour OSHA/Hazardous Waste Operations Training Update Inspecting Buildings for Asbestos Containing Materials, AHERA Certified Inspecting Buildings for Asbestos Containing Materials Update Lead Inspectors Training with Radiation Safety

#### **AFFILIATIONS/ACTIVITIES**

Birmingham Chamber of Commerce - Environmental Committee Business Council of Alabama - Environment and Energy Committee American Consulting Engineers Council of Alabama – Geoenvironmental Committee Solid Waste Association of North America Shades Creek Clean-up, Adopt-A-Stream

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#### PROJECT EXPERIENCE

- Extensive experience in all levels of preacquisition site assessments, ranging from small scale Environmental Transaction Screening/Audits to Phase I/II/III Environmental Site Assessments of major industrial property. An example of Ms. Jarboe's related experience includes a Phase I Environmental Site Assessment conducted at an iron foundry in Birmingham, Alabama. The facility had been in operation since the late 1800's, with on-site operations such as a metal fabrication shop, a machine shop and support activities such as sandblasting and painting. Based on the findings of the Phase I ESA, Ms. Jarboe subsequently prepared a comprehensive soil and groundwater sampling plan to assess the presence of various contaminants at the site.
- Project manager on over 300 due diligence projects for the telecommunication industry for sites located throughout the Southeastern United States. Her experience includes Transaction Screens, Phase I Environmental Site Assessments, NEPA compliance studies, and Environmental Assessments.
- Accredited inspector for Asbestos and Lead. Related experience includes building inspections, the preparation of O&M Plans, and writing specifications for asbestos/lead abatement. Ms. Jarboe has recently performed an intrusive investigation for illegally disposed asbestos containing debris, which included the preparation of a comprehensive subsurface sampling plan.
- Extensive work in pre-construction NPDES permitting and related areas, including BMP and SPCC plan preparation, stormwater sampling and facility inspections.

Appendix H Information Requested From Client Excerpts From Documents Provided by Client or Others

#### **INFORMATION REQUEST**

Per ASTM requirements, QORE requested that the following information be provided to QORE at the time of project authorization or as soon as possible thereafter.

- Site contact name and phone number
- Legal description of the property
- Chain-of-title
- Title Insurance Commitment
- Plans and specifications
- Site Survey
- Environmental site assessment reports
- Environmental audit reports
- Environmental permits
- Registrations for underground and above-ground storage tanks
- Material safety data sheets
- Community right-to-know plan
- Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans; etc.
- Reports regarding hydrogeological conditions on the property or surrounding area-(including wetland reports/ permits)
- Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property
- Hazardous waste generator notices or reports
- Geotechnical studies
- Reasonably ascertainable recorded land title records for environmental liens or activity and use limitations currently recorded against the property and provide that information for inclusion in this report.
- Any specialized knowledge or experience, that is material to *recognized environmental conditions* in connection with the subject parcels, or if any actual knowledge that the purchase price of the property is significantly less than the purchase price of comparable properties.
- Knowledge of (1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property; (2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property; or (3) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.



June 1, 1990

City of Birmingham Department of Engineering and Construction 220 City Hall • Birmingham, Alabama 35203

ATTENTION:	Mr. Hobson Riley
	City Engineer

Subject: REPORT OF LANDFILL ASSESSMENT PLANNED TURNCLIFF DEVELOPMENT EDWARDS LAKE ROAD BIRMINGHAM, ALABAMA Our Job No. B5667-B

Gentlemen:

Ground Engineering and Testing Service, Inc. has completed its study of the property located on Edwards Lake Road where the planned Turncliff development is to be constructed. This report addresses our findings, and our recommendations for site development as it relates to the existing landfill and mine spoils. Our Boring Records, a Boring and Well Location Plan, and our laboratory test results can be found in the Appendix.

#### **PROJECT INFORMATION**

The subject property is located off Edwards Lake Road, just north of Interstate Highway I-59. Approximately 250 acres of land will be developed for commercial and residential use. The planned entrance will be from Edwards Lake Road.

Some time around 1950, the western portion of the property was strip mined for iron ore. Then, in the early 1970's, the strip mine area was used to dispose of debris from storm damage in the Center Point area. The site was also used for domestic waste disposal for a period of time. A study performed for the City in 1986

found that the landfill area covered about 14 to 15 acres. The base of the landfill materials was found to be as much as 15 to 18 feet below the ground surface.

#### EXPLORATORY METHODS

In March, 1990, Ground Engineering was authorized to perform additional studies on the site. The primary purpose of this study was to further evaluate the limits and depth of the landfill, and to better define the constituents of the landfill materials. To accomplish this, a series of borings were drilled in the approximate landfill areas. We drilled a total of 30 borings at the site. Additionally, 7 monitoring wells were installed to monitor and sample water and methane gas.

Representative samples of the materials obtained from our borings were submitted for analytical testing. We also submitted liquid/sediment samples from seepage at the ground surface along the drainage features at the lower elevations. Monitoring for methane has been conducted in the borings and the monitoring wells.

#### FINDINGS

#### Boring and Well Construction

The borings were drilled to better define the landfill limits established during the 1986 study. The approximate location of the landfill materials are shown on Drawing No. B5667-B1. Table 1 summarizes the depth of the landfill materials and mine spoils at the boring locations.

The larger 8 acre landfill area located to the north consists primarily of debris, and contains little domestic waste. Our borings indicate that the debris is approximately 6 to 8 feet thick on average. However, some thicker zones are likely present. Since the debris is underlain by mine spoil in many locations, the thickness will be dependent upon the grading performed at the completion of the mining.

Most of the organic, domestic waste is located in the smaller landfill zones located to the southern end of the site. The thickness of this material varies from 5 to 30 feet where present. The material consists of household garbage and construction debris. Mine spoils underlie much of the waste.

#### Well Monitoring

Monitoring wells were installed for the purpose of monitoring the methane, and for obtaining water samples for analytical testing to determine water quality. However, only one well contained a trace of water after installation and development. The water in this well contained a considerable amount of sediment, and was deemed unsuited for sampling and testing for hazardous constituents. All other wells were dry.



After the borings were completed, methane gas displaced by air introduced during the drilling operation was monitored. This was accomplished by covering the boreholes with plastic, then monitoring for the presence of combustible gas vapors using a combustible gas indicator. The probe of the indicator was inserted through the plastic and the space tested for explosive gas levels. Gas vapors were similarly monitored in the wells by removing the well caps and inserting the probe into the well casing.

Combustible gas levels were noted in several of the borings and all of the monitoring wells. The gas was present at explosive levels. Most of the methane was detected in the two smaller areas of household waste materials. However, we also detected methane in borings and wells installed in the larger waste area containing primarily construction debris.

#### Laboratory Testing

We submitted soil samples of representative samples obtained from the borings. We also obtained samples of water and sediment at seepage points from the toe of the slopes along the eastern edges of the landfill areas. The samples were tested for toxic metals, in accordance with the extraction procedure toxicity method of EPA document SW-846, <u>Test Methods For Evaluating Solid Waste.</u>

Most of the constituents tested for were below test method detection levels. There were traces of lead, mercury, and arsenic detected in a few samples. However, they are well within the acceptable levels established by EPA.

#### SITE DEVELOPMENT CONSIDERATIONS

#### **General Considerations**

It is our opinion that development of the property can proceed as planned. We have not detected the presence of any hazardous constituents in the landfill materials. The materials encountered are typical of what would be expected to be found in a landfill consisting of storm debris and domestic waste.

We have discussed the plans with the Alabama Department of Environmental Management (ADEM). Personnel at ADEM has stated that, while they have no regulatory control over the landfill, they would like to be present during site grading to observe the materials encountered. Any waste materials removed during grading will need to be properly disposed of in a permitted sanitary landfill. However, no other special treatment of the landfill materials is expected.



There has been methane generated as a part of the decomposition of the landfill constituents. It is our opinion that this methane generation is the primary environmental concern at the site. A methane venting system is recommended for portions of the site. The need for and installation of this system is discussed more fully in the following section.

#### Methane Considerations

The generation and subsequent migration of methane can pose a significant hazard to persons and structures if not properly addressed. The gas can affect the health of persons if proper venting is not available. Also, if the gas becomes confined in the presence of oxygen (such as in a basement), an explosion can result.

Therefore, a gas-tight membrane should be constructed beneath the ground floor slab in any building constructed over the landfill areas. We recommend that a very low density polyethylene (VLDPE), "sandwiched" between 2 layers of a protective geotextile be used. A membrane with a minimum thickness of 40 mil should be used. The membrane and geotextile should be placed on a porous fill. Both sand and crushed gravel can be used, with gravel being preferred, as it is the most porous. We also recommend that perforated pipe such as PVC or polyethylene tubing be placed in the porous fill and vented to the outside to allow for dissipation of any collected gases. The pipe should be spaced every 100 feet and can be interconnected to form a continuous system. A suggested detail for this construction is in the Appendix.

For buildings located outside the landfill limits the need for a gas-tight methane should be evaluated on an individual basis. During the geotechnical explorations for these buildings, the borings need to be monitored for methane gas generation.

If other improvements, such as parking lots, are planned over the landfill areas, we recommend that a passive gas venting system be installed within the landfill limits. This system should consist of a series of lateral pipes contained in gravel filled trenches. The trenches should extend down to just below the top of the landfill. The laterals are then connected to a series of header pipes which allow for venting of the gases into the atmosphere. The laterals should be spaced every 250 feet. Header pipes should be constructed every 500 feet along the lateral. A detail showing the suggested construction is in the Appendix.

For undeveloped areas within the landfill limits, a venting system may not be needed, unless they will be used for recreation purposes, or other similar purposes which will have heavy pedestrian use. However, it should be noted that gas accumulation in the soil can poison landscape vegetation. Oftentimes stunted vegetation is a sign of gas release through the soil. Therefore a cover of 2 feet of compacted fill should be considered for all landfill areas. Otherwise, random gas release at the ground surface could occur.

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#### Other Environmental Considerations

ADEM has indicated that any landfill materials excavated from the site will have to be transported and disposed of in a regulated landfill. The samples we submitted for testing indicated that these materials are suitable for disposable in a municipal landfill.

One of the common problems with excavation in landfill areas is the odor associated with the decomposition. Once the fill materials are exposed to the atmosphere, the decomposition process is reactivated and the odors are spread rapidly. Therefore, some odor problems should be expected.

Also, hydrogen sulfide is another gas which can be generated. Both the hydrogen sulfide and methane can pose a health hazard to workers. Confined spaces should be properly ventilated, and construction personnel should be properly alerted to the presence and dangers of the gases.

One of the initial concerns going into the project was the handling of leachate on the site. As mentioned previously, our wells were basically dry. Also, we see little sign of leachate generation at the edges of the landfill. Therefore, we do not feel that leachate is a major concern at this site.

#### Preliminary Geotechnical Considerations

The primary purpose of this study was to evaluate the landfill areas from an environmental standpoint. A detailed evaluation of all geotechnical aspects of the project was beyond the scope of this work. However, we have provided some comments concerning foundation and sitework.

There has been concern about constructing roadways over the landfill portions of the site. We believe that the roadways can be constructed over most of the site. The primary concern is the possibility of a void developing under the roadway. There are several areas on the site now where voids are present at the ground surface. Therefore, we recommend that the roadway subgrade over landfill areas be reinforced with a geosynthetic material such as a geotextile or a geogrid. Again, a detail with suggested construction procedures is attached in the Appendix. These materials will reduce the potential of a catastrophic failure of a roadway. The geosynthetics will help bridge over smaller, localized dropouts. However, there can be some long-term settlement of roadways. Flexible pavements (asphalt) are probably more suited to these conditions than would be rigid, concrete pavements. A greater than normal maintenance schedule should be anticipated for the roadways.

If building construction is to proceed over the landfill areas, special foundation construction will be needed. Foundations cannot be supported in the landfill materials without risk of severe and damaging settlements. Foundations bearing beneath the landfill, and preferably beneath the mine spoils, will be needed. We

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We recommend that a separate geotechnical study be conducted for each individual building to determine the most appropriate foundation system. The mine spoil underlying the site will impact construction as well as the landfill. The mine spoil may provide adequate support under lightly loaded structures. However, deep foundations may also be needed for these areas especially under heavier loads.

We appreciate your selection of our firm to assist you in this project. We are confident that our report has addressed your concerns. However, we would welcome any questions you may have. Please contact us if you need additional information.

Very truly yours, GROUND ENGINEERING AND TESTING SERVICE, INC.

Jankes C. Peques, Jr Senior Geotechnical/Engiger

K. A. Excrement Richard A. Bourguard, P.E. Senior Geotechnical Engineer

JCP/GBC/RAB:cp

cc: Mr. Clyde Turner

Greg B. Corson Environmental Geologist



GROUND ENGINEERING AND TESTING SERVICE, INC.

**Guy Hunt** 

Governor

# ALABAMA

Leigh Pegues, Director

1751 Cong. W. L.

Dickinson Drive Montgomery, AL December 27, 1991

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rec. 1/9/92 approved approved

FAX 941-1603 P.O. Box 953 Decatur, AL 35602

35209 (205)942-6168

(205) 353-1713 FAX 340-9359 Dear Ms. Townsend:

2204 Perimeter RoadSubmitted herein is the site investigation (SI) reportMobile.ALfor the Edwards Lake Road Landfill, located in Jefferson County,36615Alabama. Included is all the pertinent information which was(205)479-2336collected regarding the site. After completion of theFAX 479-2593SI the following analyses are offered:

Cover on the landfill is adequatly vegetated and no erosion was noted during the SI as the slopes are covered with kudzu.

Re: Site Investigation of the Edwards Lake Road Landfill, located

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11442 141533 (\* 1116)

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Soil samples revealed the presence of metal contaminants while no organic analytes were detected. No inorganic or organic analytes were detected in the surface water samples acquired-however, a sample from an undeveloped (unpurged) ground water monitoring well on site revealed the presence of arsenic, cadmium, chromium, nickel, lead and zinc.

If you have any question with regard to these determinations, please do not hesitate to call.

Sincerely,

Cleyton N. Scott Compliance/Emergency Response Section Field Operations Division