



CUY-90-14.90

PID 77332/85531

APPENDIX EC-12

**ESA Phase I Report for PPN 101-32-038
(Contract Document)**

State of Ohio
Department of Transportation
Jolene M. Molitoris, Director

**Innerbelt Bridge
Construction Contract Group 1 (CCG1)**

Revision Date: March 4, 2010

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
1.0 INTRODUCTION	1
1.1 Purpose	1
1.2 Transportation Improvement	1
1.3 Methods of Investigation	1
2.0 GEOGRAPHICAL AND GEOLOGIC SETTING	3
2.1 Physiography	3
2.2 Topography	3
2.3 Bedrock Geology	3
2.4 Bedrock Topography	3
2.5 Hydrology	3
2.6 Hydrogeology	3
2.7 Soils	4
2.8 Oil and Gas Wells	4
3.0 HISTORICAL INFORMATION	5
3.1 Tax Map	5
3.2 Aerial Photographs	5
3.3 Sanborn Fire Insurance Maps	6
3.4 Topographic Maps	7
3.5 City/Street Directories	7
4.0 REGULATORY RECORDS REVIEW	8
4.1 Federal Records	8
4.2 State Records	9
4.3 Local Records	14
4.4 Additional Environmental Records Sources	16
5.0 PARCEL RECONNAISSANCE	17
5.1 Methodology and Limiting Conditions	17
5.2 General Site Settings	17
5.3 Observations	17
6.0 INTERVIEWS	19
7.0 CONCLUSIONS	20
7.1 Conclusions	20
8.0 RECOMMENDATIONS	22

Figures

Figure 1: Property Location Map	2
Figure 2: Site Sketch	18

Appendices

- Appendix A – Physiographic Regions Map of Ohio
- Appendix B – USGS Topographic Map
- Appendix C – Geologic Map of Ohio
- Appendix D – Bedrock Topography Map
- Appendix E – Principle Streams and Their Drainage Areas Map
- Appendix F – Cuyahoga County Ground Water Resources Map
- Appendix G – Soil Survey
- Appendix H – ODNR Oil and Gas Well Map
- Appendix I – Current Tax Map
- Appendix J – Aerial Photographs
- Appendix K – Sanborn Fire Insurance Maps
- Appendix L – FirstSearch Report
- Appendix M – BUSTR Documents
- Appendix N – Cleveland Fire Prevention Bureau Documents
- Appendix O – Cleveland Department of Building and Housing Documents
- Appendix P – Photographic Documentation

KME\kme\rlfjs\mdk

I:\2009\H09004-12\Triangular Parcel Situated at Ontario and Superior_PhaseI.doc

EXECUTIVE SUMMARY

From October 2009 to January 2010, HzW Environmental Consultants, LLC (HzW) conducted a Phase I Environmental Site Assessment (ESA) of a triangular-shaped parcel of land located at the corner of Carnegie Avenue and Ontario Street in the City of Cleveland, Cuyahoga County, Ohio (the Property). The Ohio Department of Transportation (ODOT) Project Identification Number (PID) for the Property is 77510. This Phase I ESA was conducted in accordance with ODOT's "Environmental Site Assessment Guidelines" dated April 2009. The primary purpose of the Phase I ESA was to determine the potential of a release of hazardous substances and/or petroleum products from the Property that would affect proposed construction activities.

According to Mr. Mark Alan Carpenter, P.E., District 12 Environmental Engineer, ODOT, the Property is situated just beyond the boundaries of the ESA Screening performed in 2006 for the Interbelt project. The majority of the Property will have construction activities including "streetscaping" (i.e. new sidewalk pavers, above ground tree planters, public art, benches, bike rack, etc.) and new roadway pavement.

According to the current tax map provided by the Cuyahoga County Department of Development MapInfo Proviewer 8.5 program, the Property consists of one (1) parcel designated permanent parcel number (PPN) 101-32-038. The Property is located between Broadway Avenue and Ontario Street to the northwest of Carnegie Avenue in the City of Cleveland, Cuyahoga County, Ohio. According to historical Sanborn maps, the Property was developed sometime prior to 1886; several small structures are depicted on the 1886 Sanborn map, which were razed between 1912 and 1937. According to documents reviewed at the Cleveland Building and Housing Department, a service station was constructed on the Property in 1937, which was razed and replaced with a new service station in 1965. In 1977, the structure constructed in 1965 was razed and replaced with a gasoline filling station kiosk which was razed in 1996. The Property has been undeveloped since 1996, with the exception of a small structure depicted in the 2000 aerial photograph reviewed. The remainder of the Property currently consists of a concrete curb, street sign, utility poles, light poles, a few trees and shrubs, a water meter and an ad sign display. Land use surrounding the Property consists of public thoroughfares (Broadway Avenue, Carnegie Avenue and Ontario Street) to the northeast, southeast and southwest, respectively; land use further northeast consists of a baseball field; land use further southeast consists of grass, trees and an access ramp to a freeway; and land use further southwest consists of a steep cliff of trees and a railroad right-of-way.

Based on the findings of this Phase I ESA and/or the proposed construction activities, the Property is recommended for inclusion in Phase II ESA activities.

1.0 INTRODUCTION

1.1 Purpose

This study was conducted in accordance with HzW's letter agreement dated September 24, 2009, which was authorized by Mr. Timothy M. Hill, Administrator, Office of Environmental Services of the Ohio Department of Transportation (the Client). A map identifying the location of the Property is presented as **Figure 1**. The primary purpose of the Phase I ESA was to determine the potential of a release of hazardous substances and/or petroleum products from the Property that would affect proposed construction activities.

1.2 Transportation Improvement

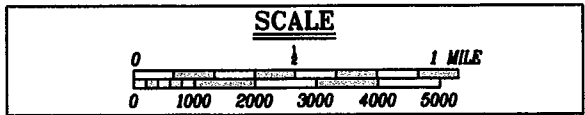
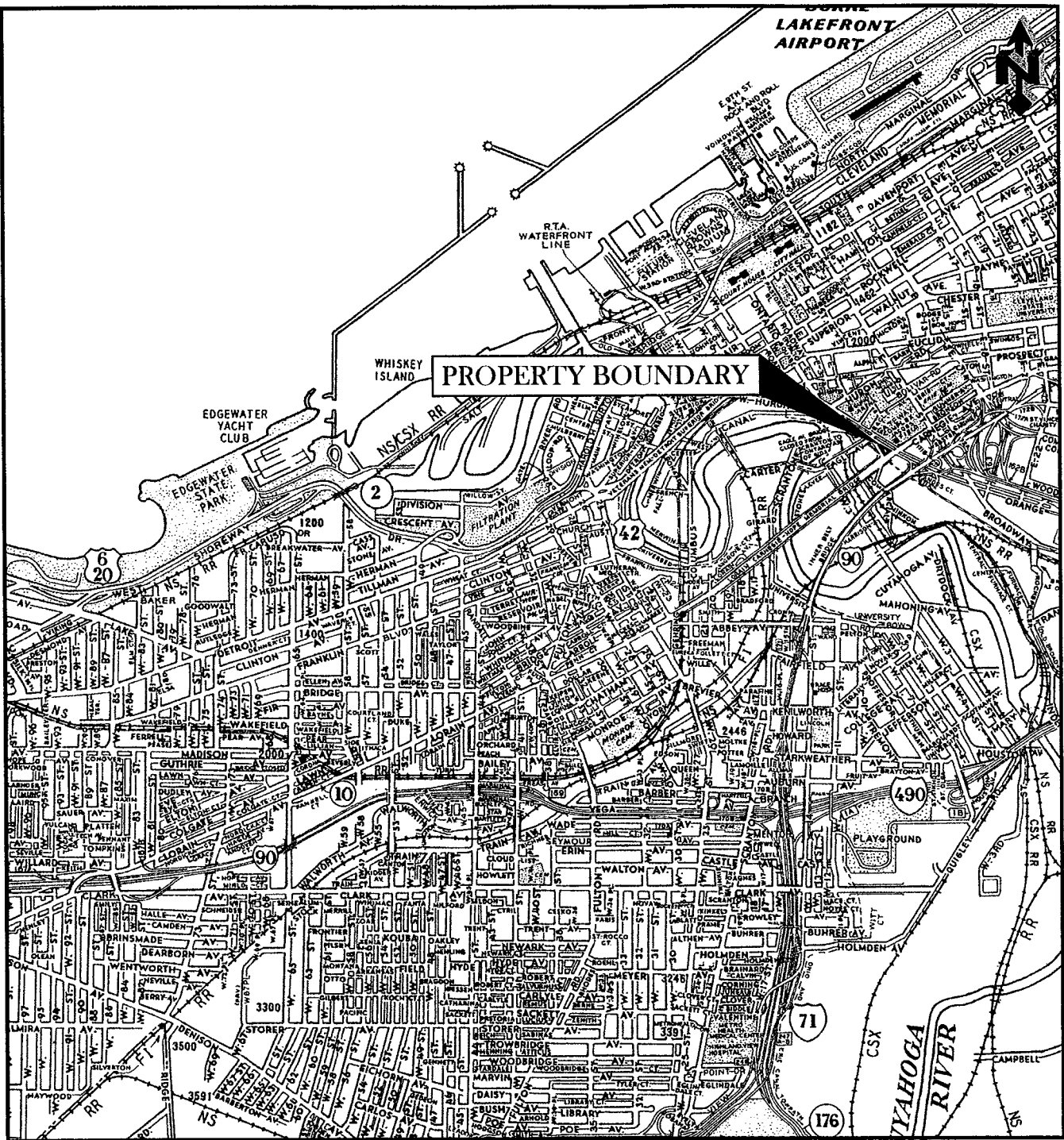
The Property is located between Broadway Avenue and Ontario Street to the northwest of Carnegie Avenue in the City of Cleveland, Cuyahoga County, Ohio. The Property is situated just beyond the boundaries of the ESA Screening performed in 2006 for the ODOT Interbelt project. The majority of the Property will have construction activities including "streetscaping" (i.e. new sidewalk pavers, above ground tree planters, public art, benches, bike rack, etc.) and new roadway pavement.

1.3 Methods of Investigation

This assessment was conducted in accordance with ODOT's "Environmental Site Assessment Guidelines" dated April 2009, and included the following elements:

- A. A review of historical aerial photographs and topographic maps of the Property.
- B. A review of historical fire insurance maps of the Property.
- C. An evaluation of historical property documentation for the Property through the use of historical ownership information, city directories and/or title searches, as appropriate.
- D. An evaluation of the geography/geology of the Property using topographic maps, soil surveys, bedrock geology maps, flood maps, county radon maps, or other resources available for review.
- E. Contacting the local fire, building, zoning and health departments to obtain information related to the Property.
- F. Conducting a regulatory records database search through a subcontract with FirstSearch Environmental Resources, Inc. (or equivalent) to review available lists from the United States Environmental Protection Agency (USEPA), Ohio EPA (OEPA), and the Ohio State Fire Marshal's Bureau of Underground Storage Tank Regulations (BUSTR) to determine whether the Property, or any property within one-quarter (0.25) mile radius of the Project Area are included on these databases.
- G. A review of existing and/or former oil and gas well locations within and in the vicinity of the Property on-file with the Ohio Department of Natural Resources (ODNR).
- H. A physical survey around the Property to note current conditions, and prepare a photographic log.
- I. Conducting interviews with the owner and/or tenant of the Property regarding operations that may have involved hazardous materials and/or petroleum products.

1:12 SITE PLAN Drawing Number Date: 04.2009



HzW ENVIRONMENTAL
CONSULTANTS, LLC

6105 Heisley Rd. • Mentor, OH 44060
440-357-1260 • Fax 440-357-1510

FIGURE 1
SITE LOCATION MAP
PPN 101-32-038
CLEVELAND, CUYAHOGA COUNTY, OHIO

2.0 GEOGRAPHICAL AND GEOLOGIC SETTING

2.1 Physiography

According to the *Physiographic Regions of Ohio* map, published by the ODNR, the Property is located within the Erie Lake Plain of the Huron-Erie Lake Plains. The Erie Lake Plain of the Huron-Erie Lake Plains is underlain by Pleistocene-age lacustrine sand, silt, clay and wave-planed till over Devonian and Mississippian-age shales and sandstones. This region is the edge of Ice-Age lake basin separated from modern Lake Erie by shoreline cliffs and has major streams in deep gorges, very low relief and has an elevation of 570 to 800 feet. A copy of the Physiographic Regions of Ohio map is included as **Appendix A**.

2.2 Topography

According to the 1994 Cleveland South, Ohio quadrangle USGS topographic map, the topography of the Property is level with an elevation of approximately 670 feet above National Geodetic Vertical Datum (NGVD). The regional topography in the vicinity of the Property slopes southwest towards the Cuyahoga River. No bodies of water and/or wet areas are depicted on the Property. A copy of the USGS topographic map representing the Property is included as **Appendix B**.

2.3 Bedrock Geology

According to the *Bedrock Geologic Map of Ohio*, published by the Ohio Department of Natural Resources (ODNR), bedrock beneath the Project Area consists of Upper Devonian Ohio Shale consisting of three members; Cleveland, Chagrin and Huron Members. A copy of the *Bedrock Geologic Map of Ohio* is included as **Appendix C**.

2.4 Bedrock Topography

According to the 1983 (revised 1996) Cleveland South, Ohio quadrangle United States Geological Survey (USGS) bedrock topography map, the bedrock beneath the Property is at an elevation of approximately 450 feet above NGVD. Bedrock slopes southwest in the vicinity of the Property. A copy of the 1983 (Revised 1996) Cleveland South, Ohio quadrangle USGS bedrock topography map is included as **Appendix D**.

2.5 Hydrology

According to the *Principal Streams and Their Drainage Areas Map*, published by the ODNR, the Project Area is located within the 809 square mile drainage basin of the Cuyahoga River, which discharges to Lake Erie. Although topography indicates local surface water runoff from the Property is anticipated to be towards the Cuyahoga River, development on the Property suggests that man-made conveyances provide drainage of surface water runoff. A copy of the *Principal Streams and Their Drainage Areas Map* is included as **Appendix E**.

2.6 Hydrogeology

According to the *Ground Water Resources Map of Cuyahoga County, Ohio*, published by the ODNR, the Property is located in an area which yields 3 to 10 gallons of groundwater per minute. The Property is underlain by buried valleys containing 200 to 300 feet of fine sand, silt and clay. Drilled wells yield meager supplies unless encountering thin, isolated sand and gravel lenses. No groundwater wells are depicted on the Property on the Ground Water Resources Map. A copy of the Ground Water Resources Map representing the Property is included as **Appendix F**.

2.7 Soils

According to the *Soil Survey of Cuyahoga County, Ohio*, published by the United States Department of Agriculture, the Property is underlain by one (1) soil type, Urban land (Ub). This soil type consists of areas where more than 80 percent of the surface is covered by asphalt, concrete, buildings, and other manmade surfaces. Areas are 10 acres or more in size, are nearly level and gently sloping. Included in this soil type are large areas that are mostly miscellaneous materials placed in fills and almost totally covered with roads, buildings and other structures. The fill along the shore of Lake Erie consists of dredgings from Lake Erie and the Cuyahoga River and areas along the Cuyahoga River contain waste material from steel mills.

No streams, bodies of water, and/or wet areas are depicted on the Property. A copy of the Soil Survey Map representing the Property is included as **Appendix G**.

2.8 Oil and Gas Wells

According to the ODNR's Oil and Gas Well map for Cleveland, Cuyahoga County, Ohio, obtained from the ODNR Oil and Gas Well Interactive Map website (<http://www.dnr.state.oh.us/website/geosurvey/oilgas/disclaimer.htm>) Division of Oil and Gas, no oil and/or gas wells are depicted on or in the vicinity of the Property. A copy of the ODNR's oil and gas well map is included as **Appendix H**.

3.0 HISTORICAL INFORMATION

Historical land use of the Property was determined through a review of “practically reviewable” and “reasonably ascertainable” resources. Further discussion of historical land use of the Property is presented in separate subsections below.

3.1 Tax Map

A current tax map for the Property is available from the Map Info ProViewer 8.5 provided by the Cuyahoga County Department of Development. A copy of the tax map is included as **Appendix I**. Historical and current ownership was obtained by reviewing historical tax maps at the Cuyahoga County Auditor’s Tax Map Room and on the Cuyahoga County Auditor’s website (<http://auditor.cuyahogacounty.us>). According to the current tax map, the Property consists of one (1) parcel designated permanent parcel number (PPN) 101-32-038. Current and historical ownership of the parcel comprising the Property is presented below.

<i>PPN 101-32-038</i>	
<u>Owner</u>	<u>Dates of Ownership</u>
Ontario Pointe LLC	06/17/2005 – Present
John L Macdonald	02/05/1999 – 06/17/2005
Harris J Miller Roxine M Weinthal	09/08/1992 – 02/05/1999
Frieda H Miller	08/15/1947 – 09/08/1992
KE Harris F Miller	10/02/1941 – 08/15/1947

3.2 Aerial Photographs

Historical aerial photographs are available from the ODOT Office of Aerial Engineering for the years indicated: 1950, 1958, 1963, 1966, 1969, 1972, 1974, 1977, 1986, 1989, 1995, 1999, 2000 and 2004. Copies of the aerial photographs provided by ODOT are included as **Appendix J**. Historical land use of the Property, as depicted on the available aerial photographs, is discussed below.

1950, 1958 and 1963

According to the 1950, 1958 and 1963 aerial photographs, the Property is depicted as developed consisting of one (1) small structure in the southeastern portion of the Property. Pavement surrounds the structure and grassland is depicted in the northwestern portion of the Property.

1966, 1969, 1972 and 1974

According to the 1966, 1969, 1972 and 1974 aerial photographs, the Property is depicted as developed consisting of a structure centrally located on the Property. The remainder of the Property consists of pavement. The previously depicted structure is no longer present.

1977

According to the 1977 aerial photograph, the Property is depicted as developed; however, based on the clarity of the photograph the number and location of the structures cannot be determined.

1986, 1989 and 1995

According to the 1986, 1989 and 1995 aerial photographs, the Property is depicted as developed with a structure centrally located on the Property. It should be noted this structure is oriented in a different direction than the previously depicted structure, which is no longer present on the Property. The remainder of the Property consists of pavement surrounding the structure and grassland in the northwestern corner.

1999

According to the 1999 aerial photograph, the Property is depicted as undeveloped land.

2000

According to the 2000 aerial photograph, the Property is depicted as developed consisting of a structure centrally located, surrounded by pavement.

2004

According to the 2004 aerial photograph, the Property is depicted as undeveloped land.

3.3 Sanborn Fire Insurance Maps

As part of this investigation, HzW contacted FirstSearch to request available historical Sanborn fire insurance (Sanborn) maps for the Property. According to FirstSearch, Sanborn map coverage is available for the Property for the following years: 1886, 1896, 1912, 1951, 1969 and 1972. A copy of the Sanborn fire insurance maps provided by FirstSearch is included as **Appendix K**. Historical land use of the Property as depicted on the available Sanborn maps is discussed below.

1886

According to the 1886 Sanborn map, the Property is depicted as developed consisting of the following structures from the southeast portion of the Property to the northwest corner of the Property: "Holly Building", tin shop (south of the Holly Building), a three-story drug store in the southeastern corner, a one story dwelling, a one story Chinese laundry, a two-story dwelling, a three story "Cold Storage" structure and a label "Paints & Oils" in the northwestern corner. The northwestern corner is labeled Broadway & Central Block. It should be noted some areas on the Sanborn map are illegible.

1896

According to the 1896 Sanborn map, the Property is depicted as developed consisting of the following structures from the southeastern portion of the Property to the northwest corner of the Property: seven (7) three-story stores line the southeastern border, a label of "Holly Building" is located in the southeastern corner, three (3) unlabeled small structures to the northwest of the stores, three (3) three-story structures labeled "Marble Head Block" and "Commis'n", two (2) three-story buildings labeled "Commis'n Tenements", a one-and-a-half story repair shop, a one-and-a-half story blacksmith, three (3) two-story stores and the northwest corner is a three-story structure labeled "Paints & Oils & Hardware" and "Broadway & Central Block".

1912

According to the 1912 Sanborn map, the Property is depicted as developed consisting of nine (9) one-story stores along the southeastern border. Moving northwest the following structures are depicted: a six-story “Carriages & Wagons” structure with an open elevator, a three-story hardware store with an open elevator, two (2) three-story stores, three (3) two-story stores and a three-story bank in the northwestern corner.

1951

According to the 1951 Sanborn map, the Property is depicted as developed consisting of one (1) structure in the southeastern portion of the Property labeled as a filling station constructed from cinder block walls and a concrete floor and a three-story store in the northwest corner.

1969 and 1972

According to the 1969 and 1972 Sanborn maps, the Property is depicted as developed consisting of a one-story structure centrally located on the Property labeled filling station. It should be noted the structure depicted in the 1951 Sanborn map is no longer depicted.

3.4 Topographic Maps

The same topographic map referenced in **Section 2.2** was reviewed to evaluate historical land use of the Property. Refer to **Appendix B** for a copy of the 1994 Cleveland South, Ohio USGS 7.5-minute topographic quadrangle map. According to the 1994 Cleveland South, Ohio topographic map, the Property is depicted as undeveloped land.

3.5 City/Street Directories

According to Cuyahoga County resources, the Property has been assigned a street address of 501 Carnegie Avenue. In addition, according to historical Sanborn maps reviewed, the Property was historically assigned the addresses of 420, 430 and 440 Broadway and 2475 and 2490 Ontario Avenue. Haines Criss-Cross Directories for the City of Cleveland were available for review at the Cleveland Public Library in Cleveland, Ohio, for the years 1923 to 1926 and 1961 to 2009 (not inclusive). Polk City Directories for the City of Cleveland were available for the years 1932 to 1960 (not inclusive). According to city directories reviewed, 420, 430 and 440 Broadway and 2475 and 2490 Ontario Avenue were not listed. Historical occupancy of 501 Carnegie Avenue, as indicated in the city directories, is presented below.

<i>501 Carnegie Avenue</i>	
<u>Occupant</u>	<u>Years of Occupancy</u>
No Listing	1996 – 2009
Adams Shell	1986 – 1992
Bankheads Shell	1981
Terminal Oil Company (service station)	1977
Burchs Downtown Shell	1972
Seaway Shell Service	1967
Hanks Shell Service	1962
Jon’s Shell Service Station	1957
Whiteman Louis (filling station)	1953
No Listing	1923 – 1947

4.0 REGULATORY RECORDS REVIEW

As part of this Phase I ESA, a review of federal, state and local regulatory databases and/or agencies was conducted by FirstSearch Technology Corporation (FirstSearch) and HzW. A list of the federal, state and local records reviewed is presented in the following subsections. File reviews with the corresponding regulatory agencies were conducted for the Property to determine the potential impact to the Property. Information obtained during the supplemental file reviews is presented in the following subsections. A copy of the FirstSearch report dated November 24, 2009, is included as **Appendix L**.

4.1 Federal Records

The standard federal environmental record sources reviewed as part of this Phase I ESA included the most recent version of the following:

- The Federal National Priorities Listing (NPL) sites list for all sites within an approximate minimum search distance of 0.25-miles.
- The Federal Comprehensive Environmental Response and Liability Information System (CERCLIS) list for all sites within an approximate minimum search distance of 0.25-miles.
- The Federal CERCLIS No Further Remedial Action Planned (NFRAP Archive) sites list for all sites within an approximate minimum search distance of 0.25-miles.
- The Federal Resource Conservation and Recovery Act (RCRA) Corrective Action Sites Lists (CORRACTS) for all sites within an approximate minimum search distance of 0.25-miles.
- The Federal RCRA non-CORRACTS transfer, storage, and disposal (TSD) facilities list for all sites within an approximate minimum search distance of 0.25-miles.
- The Federal RCRA generators list for all sites within an approximate minimum search distance of 0.25-miles.
- The Federal Emergency Response Notification System (ERNS) list for all sites within an approximate minimum search distance of 0.25-miles.

According to the FirstSearch report, the Property was not identified on any of the federal databases reviewed. However, the FirstSearch report identified 11 federal database records associated with 10 facilities located within the standard minimum search distances relative to the Property. Further discussion of the facilities identified on the specific databases is presented below.

ERNS Database

According to the FirstSearch report, one (1) facility, Cannal Road Steam Plant, 2274 Cannal Road, Cleveland, Ohio (0.16-miles NW) located within 0.25-mile of the Property is included on the USEPA's ERNS database with one (1) incident described as a flare stack, initial, plant operations. According to the FirstSearch report, the incident type is continuous with an incident date of April 7, 2000. The FirstSearch report indicates other material information regarding the ERNS incident as nitrogen dioxide and nitrogen oxide. Based on the nature of the incident listed on the ERNS database and the topographic location of this facility (cross gradient) relative to the Property, the inclusion of this facility on the ERNS database, is not believed to have impacted the Property.

RCRA Generator List

According to the FirstSearch report, 10 facilities located within 0.25-mile of the Property were identified on the USEPA's RCRA Generators list. The FirstSearch report indicates that no violations and/or enforcement actions have been issued for the 10 facilities. Based on the lack of violations and/or enforcement actions and/or the distance of the facility from the Property, the following facilities are not believed to have impacted the Property.

1. Cleveland Black Oxide, 836 Broadway Avenue, Cleveland, Ohio (SQG; 0.05-mile SE)
2. Alroy Printing Corporation, 737 Carnegie Avenue, Cleveland, Ohio (SQG; 0.13-mile NE)
3. Gillota Inc., 300 Central Via Duct, Cleveland, Ohio (Transporter; 0.13-mile SW)
4. Dominion Cleveland Thermal, Inc., 2274 Canal Road, Cleveland, Ohio (CESQG; 0.16-mile NW)
5. Gund Arena, 1 Center Court, Cleveland, Ohio (SQG; 0.17-mile NW)
6. Zaremba, 737 Bolivar Road, Cleveland, Ohio (CEG; 0.18-miles NE)
7. Tower City Parking Garage, 230 Huron Road, Cleveland, Ohio (LQG; 0.22-miles NW)
8. BP Oil Co. Site 04385, 900 Carnegie Avenue, Cleveland, Ohio (CEG; 0.23-miles NE)
9. AT&T Corporation, 700 Huron Road, Cleveland, Ohio (SQG; 0.25-miles NW)
10. Plastic Finishers, 1978 West Third Street, Cleveland, Ohio (SQG; 0.25-miles SW)

4.2 State Records

The standard state environmental record sources reviewed as part of this ESA included the most recent version of the following:

- OEPA's Master Sites List (MSL)/Division of Emergency and Remedial Response (DERR) database; for all sites within an approximate minimum search distance of 0.25-miles.
- OEPA's Solid Waste Facilities (SWF) list for all sites within an approximate minimum search distance of 0.25-miles.
- BUSTR's Leaking Registered Storage Tank Sites (LUST) list for all sites within an approximate minimum search distance of 0.25-miles.
- BUSTR's Registered Underground Storage Tank (RUST) lists for all sites within an approximate minimum search distance of 0.25-miles.

According to the FirstSearch report, the Property was identified on the LUST database. In addition, the FirstSearch report identified 35 state database records associated with 20 facilities located within the standard minimum search distances relative to the Property. Further discussion of the Property and the facilities identified on the specific databases is presented below.

Property

BUSTR's LUST List

1. Shell Ohio Company, 501 Carnegie, Cleveland, Ohio

According to the FirstSearch report, this facility is included on BUSTR's LUST list with one (1) release incident, release #18000287-N00001, as a result of a suspected or confirmed release from a regulated UST. The FirstSearch report indicates that a No Further Action (NFA) status was issued for this incident.

As part of the Phase I ESA activities, BUSTR was contacted for information pertaining to the Property. A discussion of the findings provided by BUSTR is presented below. It should be noted copies of the chain of custodies, lab data presented in data tables and QA/QC reports were provided by BUSTR, but due to the quantity are not included with this report. Refer to **Appendix M** for a copy of the report obtained from BUSTR.

Release #18000287-N00001

11/05/1992 – Suspected Release Report – a leak is reported in a line due to a failed line tightness test.

- 12/1992 – Site Check conducted to determine whether subsurface soils or groundwater on the Property were impacted by the release. Analytical results indicate the soil subsurface and groundwater were impacted.
- 02/16/1993 – Correspondence from Shell Oil Company (Shell) to BUSTR indicating a Site Assessment will be conducted for the Property.
- 04/23/1993 – Site Assessment submitted for the Property to delineate the vertical and horizontal extent of residual hydrocarbons off the site. Shell indicated the extent of residual hydrocarbons was adequately defined in both soil and groundwater and based upon approval of the site assessment a Remedial Action Plan (RAP) will be provided.
- 11/30/1994 – RAP submitted to BUSTR with Shell requesting a monitoring only program be granted for the Property as outlined in the RAP.
- 07/28/1995 – Correspondence from Shell to BUSTR indicating a modification to the RAP. Oxygen Release Compounds (ORC) will be installed in monitoring wells (MW) MW002, MW003 and MW006 in addition to the quarterly groundwater sampling described in the RAP.
- 10/30/1995 – Correspondence from EMPACO Equipment Corporation to BUSTR indicating a contract to remove two (2) 10,000-gallon gasoline and one (1) 8,000-gallon gasoline USTs from the Property. It should be noted the permit indicates EMPACO was permitted to raze all structures, tanks and piping.
- 12/07/1995 – Quarterly groundwater sampling letter indicating monitoring only plan will continue at a reduced frequency of semi-annually.
- 06/10/1996 – Gasoline UST System Closure Report indicating the removal of two (2) 10,000-gallon USTs, one (1) 8,000-gallon UST, four (4) dispensers and associated piping on March 22, 1996.
- 12/16/1996 – Second Annual Progress Report indicating semi-annual groundwater sampling was performed on April 30, 1996, and October 2, 1996. Shell will continue the RAP of semi-annual groundwater sampling and prepare a Risk Assessment Evaluation Report.
- 11/17/1997 – Third Annual Progress Report indicating semi-annual groundwater sampling was performed on February 21, 1997, and October 2, 1997. Shell will continue with the semi-annual groundwater sampling.
- 11/18/1998 – Annual progress report indicating groundwater sampling was performed on April 17, 1998, and September 14, 1998. Based on analytical results semi-annual groundwater sampling will continue.
- 12/17/1999 – Annual progress report indicating groundwater sampling was performed on February 18, 1999, and September 14, 1999. Based on analytical results semi-annual groundwater sampling will continue.
- 01/25/1999 – Correspondence from BUSTR to Equilon Enterprises (Equilon) indicating additional site assessment is required. The full extent of groundwater contamination has not been defined and the increasing amounts of groundwater contamination seem to indicate an additional release has occurred.
- 03/10/1999 – Response letter from Equilon to BUSTR indicating the proper documents were submitted to BUSTR; however, BUSTR never responded to the report submittals and plans no further investigatory work until reviewing a report for a release incident which occurred upgradient to the Property.
- 06/08/1999 – Correspondence from BUSTR to Equilon indicating downgradient wells show benzene concentrations higher than the upgradient wells and BUSTR stated it would be necessary to address the deficiencies outlined in the January 25, 1999, letter.
- 12/20/2000 – Hydrogeologic Site Assessment Addendum addressing the deficiencies outlined in the January 25, 1999, letter.

- 01/03/2001 – Correspondence from BUSTR to Equilon indicating the full extent of soil and groundwater contamination, on-site and off-site, have been defined in the Hydrogeologic Site Assessment Addendum. BUSTR indicated a RAP would have to be submitted for the Property.
- 06/19/2001 – Correspondence from Equiva Services LLC (Equiva) to BUSTR indicating their election to conduct corrective actions with the “new” rule (March 31, 1999, rule).
- 09/24/2001 – Tier Evaluation Report submitted to BUSTR with Equilon requesting a no further action status for the Property.
- 09/26/2001 – Correspondence from BUSTR to Equilon indicating additional information requested including: MTBE analytical results for soil borings B1 - B9 need to be submitted; and MW will need to be replaced. In addition, BUSTR indicated any “located” drinking water wells that have not been properly abandoned still exist; therefore, the Property would be considered a drinking water scenario.
- 03/29/2002 – Tier Evaluation Addendum submitted to BUSTR indicating analytical results indicate a Tier 2 Evaluation is needed for the Property.
- 04/19/2002 – Correspondence from BUSTR to Equilon indicating a tier evaluation is required for the Property.
- 07/01/2002 – Tier 2 Evaluation submitted to BUSTR with Equiva requesting a no further action status for the Property.
- 07/17/2002 – Correspondence from BUSTR to Equilon indicating additional information is requested including sampling all monitoring wells to determine current levels of groundwater contamination and defining the source area for the groundwater contamination in MW-7A.
- 09/18/2002 – Tier 2 Addendum letter to BUSTR responding to the additional information request dated July 17, 2002. All monitoring wells were sampled and analyzed and the source of groundwater contamination for MW-7A was determined to be the former UST pit area located along the northern portion of the Property.
- 03/20/2003 – Correspondence from BUSTR to Equilon indicating additional information is requested including the proper calculation for soil leaching to groundwater value, which when recalculated, exceeds the allowable soil to indoor air concentration and an additional MW needs to be installed 30 feet northeast of MW-7A to evaluate groundwater contaminant levels in the tank cavity (source area).
- 05/14/2003 – Response correspondence from Shell to BUSTR for the BUSTR letter dated March 20, 2003. Based on the responses provided by Shell, Shell requested a no further action status be granted for the Property.
- 12/01/2003 – No further action status granted for Release #18000287-N00001.

Property/Facilities Located within 0.25-Miles of the Property

BUSTR's LUST List

According to the FirstSearch report, 20 release incidents, which occurred at 13 facilities within 0.25-mile of the Property, are included on BUSTR's LUST list. Eighteen (18) release incidents are listed with a No Further Action (NFA) status. An NFA status is defined as a release was confirmed and initial and/or long-term corrective actions have been conducted, and BUSTR has determined that further corrective actions are not necessary for the incident. Therefore, based on the NFA status, the release incidents at the following facilities are not believed to have impacted the Property.

1. City of Cleveland Fire Alarm, 310 Carnegie Avenue, Cleveland, Ohio (0.04-miles SE; Release #1800067-N00001)
2. Norfolk and Western Railway Co., 308 Central Via Duct, Cleveland, Ohio (0.10-miles SW, Release #18006841-N00001)
3. Terminal Oil, 300 Central Via Duct, Cleveland, Ohio (0.13-miles SW; Release #18006838-N00001, 18006838-N00002 and 18006838-N00003)(3 Incidents)
4. Gillota Inc., 300 Central Via Duct, Cleveland, Ohio (0.13-miles SW; Release #182175503)
5. W&W Meats, 2394 Canal Road, Cleveland, Ohio (0.16-miles SW; Release #18010062-N00001)
6. Gateway Baseball Stadium, Carnegie Ave (players parking lot), Cleveland, Ohio (0.17-miles NW; Release #183248900)
7. Cavaliers Operating Company LLC, 1 Center Court, Cleveland, Ohio (0.17-miles NW; Release #18000974-N00001, 18000974-N00002, 18000974-N00003 and 18000974-N00004)(4 Incidents)
8. United Church of Christ, 600 Block of East Huron Street, Cleveland, Ohio (0.22-miles NW; Release #18010441-N00001)
9. Design Union, 1902 W 3rd Street, Cleveland, Ohio (0.22-miles SW; Release #18002517-N00001)
10. Former Cleveland Plant and Flower, 2419 East 9th Street, Cleveland, Ohio (0.23-miles NE; Release #18011038-N00001)
11. Carnegie Energy Inc., 900 Carnegie Avenue, Cleveland, Ohio (0.23-miles NE; Release #18002109-N00001)
12. Interstate Agency Building, 1978 West 3rd Street, Cleveland, Ohio (0.25-miles SW; Release #18010130-n00001)

The remaining three (3) release incidents have not received an NFA and are discussed further below.

1. Terminal Oil Co., 300 Central Via Duct, Cleveland, Ohio (0.13-miles SW, Release #182175501 and #18006838-N00004)

According to the FirstSearch report, incident #182175501 is a known/suspected or confirmed source and responsible person is proceeding voluntarily. This release has a status of a possible incident with initial corrective actions completed. Release #18006838-N00004 is a suspected or confirmed release from a regulated UST. Based on the topographic location (down-gradient) and distance relative to the Property, the release incidents for this facility are not believed to have impacted the Property.

2. Carnegie Energy Inc., 900 Carnegie Avenue, Ohio (0.23-miles NW; Incident #18002109-N00002)

According to the FirstSearch report, Release #18002109-N00002 is a suspected or confirmed release from a regulated UST with a status of a release is disproved. Based on the topographic location (cross-gradient) and distance relative to the Property, this facility is not believed to have impacted the Property.

3. City of Cleveland, Bollivar and East 9th Street, Cleveland, Ohio (0.24-miles NE; Release #183131400)

According to the FirstSearch report, Release #183131400 is an unknown source and/or responsible person with a status of reported. Based on the distance relative to the Property, this facility is not believed to have impacted the Property.

BUSTR's RUST List

According to the FirstSearch report, six (6) facilities located within 0.25-mile of the Property are included on BUSTR's RUST list with one (1) or more registered USTs. The RUST list, which is maintained by BUSTR, is an inventory of facilities that have on-site USTs. A listing of the six (6) facilities is presented below.

1. Ohio Bell Telephone Co., 739 South Broadway, Bedford, Ohio (0.03-miles NE; one (1) UST)
2. City of Cleveland Fire Alarm, 310 Carnegie Avenue, Cleveland, Ohio (0.04-miles SE; one (1) UST)
3. Terminal Oil, 300 Central Via Duct, Cleveland, Ohio (0.13-miles SW; six (6) USTs)
4. Cavaliers Operating Company, LLC, 1 Center Court, Cleveland, Ohio (0.17-miles NW; one (1) UST)
5. Carnegie Energy Inc., 900 Carnegie Avenue, Cleveland, Ohio (0.23-miles NE; three (3) USTs)
6. AT&T, 700 Huron, Cleveland, Ohio (0.25-miles NW; one (1) UST)

OEPA DERR's SPILL Database

According to the FirstSearch report, seven (7) SPILL incidents have occurred within 0.25-mile of the Property. Based upon the type of material, no spill listed in FirstSearch Report, topographic location and/or distance from the Property, the seven (7) SPILL incidents at the following locations are not believed to have impacted the Property.

1. Cleveland Black Oxide, 836 Broadway, Cleveland, Ohio (0.05-miles SE; cross gradient)
2. Clean Harbors, 1200 Broadway Street, Cleveland, Ohio (0.06-miles SE; cross gradient)
3. Chemalloy Corp., 2338 Canal Road, Cleveland, Ohio (0.12-miles SW; down-gradient)
4. Undetermined, 300 Central Via Duct, Cleveland, Ohio (0.13-miles SW; down-gradient)
5. Cleveland Thermal Energy Corp., 2274 Canal Road, Cleveland, Ohio (0.16-miles NW; cross-gradient)(2 Incidents)
6. Cleveland Public Power, 824 Carnegie, Cleveland, Ohio (0.19-miles NE; up-gradient)

MSL/DERR Database

The MSL was created in 1988 for the listing, tracking and reporting of potentially contaminated sites in Ohio and managed by the OEPA's Division of Emergency and Remedial Response. Currently, the MSL no longer exists, having been last updated in 1997 and last published in 1999. The MSL has been incorporated into the DERR database, which is an index of facilities for which the Ohio EPA retains files.

According to the FirstSearch report, one (1) facility, Koblitz Kohn, Cleveland, 2380 Canal Road, Cleveland, Ohio (0.14-miles SW), is included on the Ohio EPA's MSL/DERR database. No additional information is included in the FirstSearch report. Based on the topographic location of the facility relative to the Property (down-gradient), the inclusion of the Koblitz Kohn. facility on the MSL/DERR database is not believed to have impacted the Property.

4.3 Local Records

Cleveland Fire Prevention

As part of this investigation, HzW conducted a file review at the Cleveland Fire Prevention Bureau (CFPB) on December 9, 2009, to obtain available information pertaining to the Property, 501 Carnegie Avenue. A list of the pertinent documents reviewed for the Property at the CFPB is discussed below. It should be noted additional documents not discussed below were included in the files reviewed, including but not limited to inspections, sprinkler tests and fire alarm tests.

A sheet describing inspections lists the following pertinent information:

- 04/14/1965 – Approved application to erect service station with one (1) bay, dispensing pumps, one (1) 6,000-gallon gasoline, two (2) 4,000-gallon gasoline and one (1) 1,000-gallon oil USTs. Existing station to be razed, tanks removed.
- 08/27/1970 – Approved application for 8,000-gallon gasoline UST.
- Sometime between 1970 and 04/04/1977 – Raze building, construct building and drain oil tank (1,000-gallon) being removed.
- 07/20/1977 – Approved application for underground tank.
- 08/02/1977 – Building to be razed and erect a gasoline kiosk.
- 08/22/1977 – Construct kiosk and two (2) pump islands. Remove one (1) 6,000-gallon, two (2) 4,000-gallon and one (1) 1,000-gallon USTs. One (1) 8,000-gallon UST to remain and two (2) 10,000-gallon USTs to be installed.
- 08/25/1977 – Four (4) USTs removed and one (1) 8,000-gallon gasoline UST remains.
- 08/26/1977 – Two (2) 10,000-gallon tanks set, backfilled and tested.
- 01/30/1989 – Received registration permit application for underground tank.
- 03/22/1996 – Tank removed.

In addition, additional documents were available for review:

- 05/03/1951 – Permit Application for Hazardous Substances listing 4,000-gallons gasoline in USTs, 60-gallons kerosene in lubster, 60-gallons alcohol in drum and 150-gallons of drain oil.
- 12/06/1963 – Inspection report indicating poor housekeeping in rear room. The building inspected will be replaced after the 1st of the year, including new tanks. Two (2) 2,000-gallon gasoline, one (1) 1,000-gallon gasoline and one (1) 250-gallon shop oil USTs are listed.
- 10/01/1964 – Permit application for hazardous substances listing one (1) 2,000-gallon and two (2) 1,000-gallon USTs.
- 04/14/1965 – Permit #2636 for one (1) 6,000-gallon gasoline, two (2) 4,000-gallon gasoline and one (1) 1,000-gallon drain oil USTs.
- 09/21/1965 – Inspection report indicating an inspection of the UST piping, no violations noted, leaks repaired to conform to test requirements.
- 08/27/1970 – Permit #3665 to install one (1) 8,000-gallon gasoline UST.
- 03/22/1971 – Inspection report indicating one (1) 8,000-gallon gasoline, one (1) 6,000-gallon gasoline, two (2) 4,000-gallon gasoline and one (1) 1,000-gallon waste oil UST are present. The Property is listed as a retail gas service station where minor repair work is done with no welding or burning done inside. A violation indicating a metal can is required for oil rags.
- 04/22/1971 – Permit Application for Hazardous Substances listing one (1) 8,000-gallon gasoline, one (1) 6,000-gallon gasoline, two (2) 4,000-gallon gasoline USTs and 50-gallons kerosene.

- 03/07/1977 – Permit Application # 4762 to install two (2) 10,000-gallon gasoline USTs. Remove one (1) 1,000-gallon, two (2) 4,000-gallon and one (1) 6,000-gallon USTs. A map is included indicating the location of the tanks to be removed and the USTs to be installed. A copy of this permit is included as marked “VOID Tanks Removed 03/22/1996”, the map included with this copy indicates the location of the removed 1,000-gallon UST.
- 07/20/1977 – Inspection report indicating razing current structure, constructing new sales kiosk, remove two (2) 4,000-gallon, one (1) 6,000-gallon and one (1) 1,000-gallon USTs and install two (2) 10,000-gallon USTs.
- 08/25/1977 – Inspection report indicating one (1) 6,000-gallon, two (2) 4,000-gallon and one (1) 1,000-gallon USTs were removed, one (1) 8,000-gallon UST remains and two (2) 10,000-gallon USTs will be installed.
- 01/18/1978 – Inspection report indicating a complaint of gasoline odor in underground vault from Ohio Bell crewmen. A stripped threaded union was found at the submerged pump at the westerly 10,000-gallon UST and was replaced. Inventory showed 2,336 gallons of unleaded gasoline unaccounted for. A sample of the liquid on the floor of the vault was collected and no visible evidence of product was observed and the liquid was pumped out.
- 01/27/1980 – Registration Permit Application for USTs indicating one (1) 8,000-gallon gasoline UST installed in December 1970 and two (2) 10,000-gallon gasoline USTs installed in October 1977.
- 11/03/1995 – Permit #0982 to remove two (2) 10,000-gallon gasoline USTs and one (1) 8,000-gallon gasoline UST.
- 03/22/1996 – Inspection report indicating the removal of two (2) 10,000-gallon and one (1) 8,000-gallon USTs.
- 03/22/1996 – BUSTR Permit #04713 for USTs for the removal of two (2) 10,000-gallon and one (1) 8,000-gallon USTs.

Refer to **Appendix N** for copies of reports obtained from the CFPB file review.

Cleveland Department of Public Health

As part of this investigation, HzW contacted the Cleveland Department of Public Health (CDPH), to request records pertaining to the Property. A response was not received from CDPH at the time of report preparation.

Cleveland Department of Building and Housing

As part of this investigation, HzW conducted a file review at the Cleveland Department of Building and Housing (CDBH) on December 9, 2009. According to Cuyahoga County resources, the Property has been assigned a street address of 501 Carnegie Avenue. In addition, according to historical Sanborn maps reviewed, the Property was historically assigned the addresses of 420, 430 and 440 Broadway and 2475 and 2490 Ontario Avenue. All addresses were researched; however, records only existed for 501 Carnegie Avenue. Additional permits for plumbing & sewer, electrical and other miscellaneous permits for non-environmental issues were reviewed during the file review and are not listed below. Information obtained from the CDBH is included as **Appendix O**. It should be noted maps are included in CDBH records which indicate the location of the pump islands and USTs, however, copies of all the permits could not be located. CDBH records indicate that the following permits have been issued for the Property:

501 Carnegie Avenue			
Permit #	Owner	Type	Date
E 21633	Shell Petroleum	Service Station	10/13/1937
D 21817	Shell Petroleum	3 Concrete Pump Islands	11/23/1937
E 21806	Shell Petroleum	3 Gas Tanks (2-1,000-gallon and 1-2,000-gallon)	11/29/1937
K 19300	Shell Oil Company	Concrete Pump Island	05/18/1961
K 62413		Raze 1-story Masonry Service Station	05/05/1965
K 62414		1-story Brick Gasoline Service Station	05/05/1965
K 62416		One Concrete Pump Island	05/05/1965
M 59087	Shell Oil Company	Raze Service Station Building	07/26/1977
M 59088	Shell Oil Company	Erect Gasoline Sales Kiosk	07/26/1977
M 59089	Shell Oil Company	Erect 2 pump islands	07/26/1977
M 112797	Shell Oil Company	Remove existing pump islands and install two (2) 5' x 8' and one (1) 5' X 12' pump island	05/10/1985

A Notice of Violation of Building Ordinances (File Number 63513), dated February 23, 1973, was reviewed indicating Forest City Trucks were being parked/stored on the Property; no junk cars or other junk shall be stored, parked or allowed to stand upon the Property as a service station; remove all such vehicles and discontinue this practice; and remove all automobile debris. In addition, an Investigation Report dated January 28, 1975, indicates violations of damaged non-running automobiles stored or parked on premises and automobile debris. Permit number M 59087 indicates the existing building was to be removed to grade, all debris is to be removed and all "apparatuses" are to be removed. A note included in permit number M 59087 states "remove four (4) tanks as per drawing". A map is included with permit number M 59087 indicating the location of the building to be demolished, the new kiosk building, new pump islands and new USTs, one (1) 8,000-gallon and two (2) 10,000-gallon.

4.4 Additional Environmental Records Sources

No additional historical resources were reviewed as part of the Phase I ESA activities.

5.0 PARCEL RECONNAISSANCE

5.1 Methodology and Limiting Conditions

On December 12, 2009, Ms. Kathlyn Evilsizer, Environmental Scientist I, of HzW conducted a physical site inspection of the Property. The site inspection consisted of a visual and physical observation of the Property and the periphery from all adjacent public thoroughfares. A photographic log depicting current site conditions was prepared during the physical site inspection and is included as **Appendix P**.

At the time of the site inspection, cool and rainy conditions prevailed, as the weather was cloudy with an ambient air temperature of approximately 36 degrees Fahrenheit. No limiting conditions were observed on the Property during the physical site inspection.

5.2 General Site Settings

The Property is located between Broadway Avenue and Ontario Street to the northwest of Carnegie Avenue in the City of Cleveland, Cuyahoga County, Ohio. Refer to **Figure 1** for a site location map showing the general location of the Property. The Property is currently undeveloped, consisting of manicured grass and concrete sidewalks.

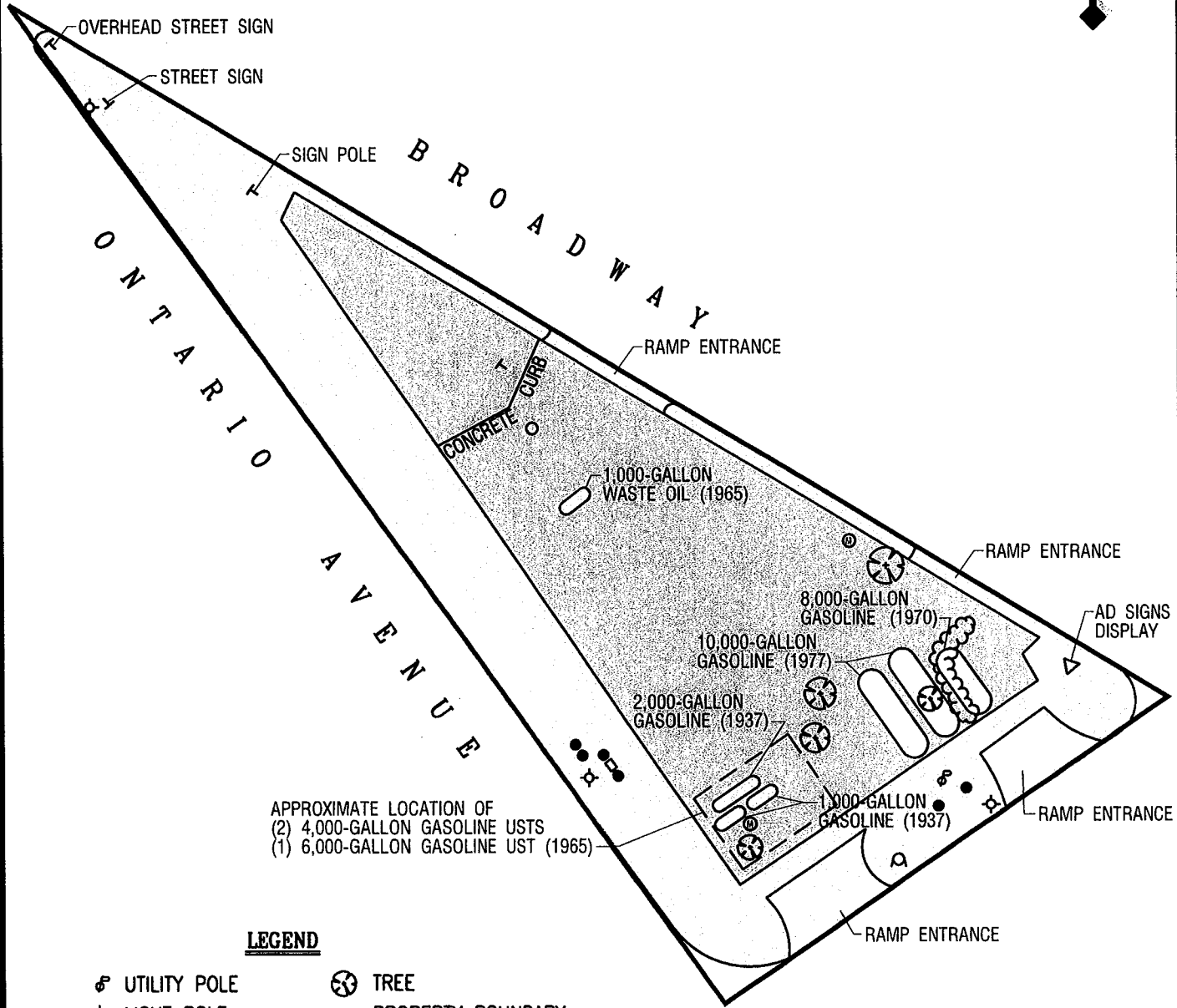
In general, local topographic conditions encountered on the Property during the site inspection corresponded with those depicted on the USGS topographic map, as the Property exhibited level topography.

5.3 Observations

The Property is undeveloped with the majority of the Property consisting of manicured grass surrounded by concrete sidewalks. An overhead street sign, street sign, light pole and a sign pole were observed in the northwestern corner of the Property. A concrete curb is situated in the northwestern portion of the manicured grass with a sewer drain situated to the southeast of the curb. Six (6) trees and a small area of bushes were observed in the southeastern portion of the Property. Two (2) concrete pads with metal circular access ports to water meters are situated to the northwest of the trees. An ad display device was observed in the southeastern corner of the Property. A light pole, utility pole, a fire hydrant and two (2) circular metal plates are located along the southeastern sidewalk. A light pole, four (4) circular metal plates and one (1) square metal plate are located in the southwestern portion of the Property. Two (2) former ramp entrances were observed along the northeastern border and two (2) along the southeastern border of the Property. Refer to **Figure 2** for a site sketch of the property.



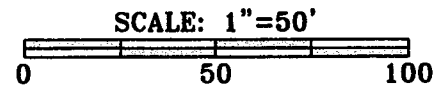
REVISIONS: 01/26/2010



APPROXIMATE LOCATION OF
 (2) 4,000-GALLON GASOLINE USTs
 (1) 6,000-GALLON GASOLINE UST (1965)

LEGEND

- | | |
|-----------------|---|
| ⊕ UTILITY POLE | ⊗ TREE |
| ◇ LIGHT POLE | — PROPERTY BOUNDARY |
| ● SEWER MANHOLE | ▨ GRASS |
| ○ STORM DRAIN | □ CONCRETE |
| ⊕ FIRE HYDRANT | ○ APPROXIMATE LOCATION OF FORMER UST (YEAR INSTALLED) |
| T SIGN | |
| Ⓜ WATER METER | |



HzW ENVIRONMENTAL
 CONSULTANTS, LLC
 6105 Heisley Rd. • Mentor, OH 44060
 440-357-1260 • Fax 440-357-1510

FIGURE 2
 SITE SKETCH
 PPN 101-32-038
 CLEVELAND, CUYAHOGA COUNTY, OHIO

6.0 INTERVIEWS

As part of this investigation, HzW attempted to conduct interviews with owners and/or site managers of the Property; however, due to the Property being undeveloped a site manager was unable to be reached and no contact information was available for the owner, no interviews were conducted as part of this Phase I ESA.

7.0 CONCLUSIONS

7.1 Conclusions

HzW has performed this Phase I Environmental Site Assessment in accordance with ODOT's "Environmental Site Assessment Guidelines" dated April 2009. The findings and conclusions for the Property are discussed below.

According to historical Sanborn maps reviewed the Property was developed prior to 1886. The 1886 Sanborn map depicts the Property as occupied by a Chinese laundry, tin shop and a store labeled as "Paints & Oils". According to a file review conducted at the CDBH a service station with three (3) USTs was constructed in 1937. City directories reviewed, documents reviewed during file reviews and Sanborn maps indicated the Property was occupied by a service station until 1996 when the final structure constructed was razed and all USTs and associated piping were removed from the Property.

A file review conducted at the CFPB indicates two (2) 1,000-gallon and one (1) 2,000-gallon USTs were installed in 1937. No record for the removal of these USTs was found in any of the file reviews conducted; however, documents included in the CFPB file review indicate two (2) 4,000-gallon gasoline, one (1) 6,000-gallon gasoline and one (1) 1,000-gallon waste oil USTs were installed in 1965. The 4,000-gallon and 6,000-gallon USTs are situated in the same location as the USTs installed in 1937; therefore, it can be assumed these USTs were removed. CFPB records indicate one (1) 8,000-gallon gasoline UST was installed in 1970. According to CFBP records the two (2) 4,000-gallon gasoline, one (1) 6,000-gallon gasoline and one (1) 1,000-gallon waste oil USTs were removed in 1977 and two (2) 10,000-gallon gasoline USTs were installed. In 1996, the one (1) 8,000-gallon gasoline and two (2) 10,000-gallon USTs were removed.

According to the FirstSearch, report the Property is listed on the LUST database with one (1) Release #18000287-N00001, as a result of a suspected or confirmed release from a regulated UST. The FirstSearch report indicates that a No Further Action (NFA) status was issued for this incident. HzW obtained all available records through BUSTR regarding this release. Documents provided by BUSTR indicate a suspected release was reported on November 5, 1992, due to a leak reported in a line due to a failed line tightness test. BUSTR documents indicate a site check, site assessment, RAP, groundwater monitoring, hydrogeologic site assessment addendum, Tier Evaluation, Tier 2 Evaluation and a Tier 2 Addendum letter have been performed for the Property. Several soil borings and groundwater monitoring wells were installed on the Property during the performance of the above mentioned investigations. The NFA for Release #18000287-N00001 was issued on December 1, 2003. Based on the "Standard Practice for Environmental Site Assessment Process" as set forth by the American Society for Testing and Materials (ASTM) in ASTM Designation "E 1527-05" the inclusion of the Property on the LUST state database is considered a "historical recognized environmental condition" in connection with the Property.

The ASTM Practice E 1527-05 standard defines a "historical recognized environmental condition" as:

“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. 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 (for example, as evidenced by the issuance of a no further action letter or equivalent), this condition shall be considered an historical recognized environmental condition.”

Based on the historical use and occupancy of the Property including a Chinese laundry (1886), tin shop (1886), paint & oil storage (1886-1896), service station and gasoline filling station (1937-1995), the Property is recommended for inclusion in Phase II ESA activities.

8.0 RECOMMENDATIONS

Based on the findings of this Phase I ESA, the Property is recommended for inclusion in Phase II ESA activities. Further description of the recommendations for the Property is provided below:

If construction activities are to include any soil removal from the Property, install soil borings, in the area where soil removal is projected, to ten (10) feet, ground water, probe refusal or two (2) feet below anticipated depth of construction. Soil samples will be collected continuously at 0.6-meter intervals from land surface to terminal depth. The one (1) sample from each boring that exhibits the highest concentration of VOCs, as measured on the PID, will be submitted to an independent laboratory for analysis of VOCs by EPA Method 8260, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270, total petroleum hydrocarbons (TPH-GRO, DRO) by EPA Method 8015 and RCRA Metals by EPA Method 6010. Should field screening or other physical evidence (odors, staining, etc.) indicate that soils from a particular boring may be contaminated, a maximum of two (2) soil samples from that boring would be submitted for analysis. If petroleum products are detected in the soil samples analyzed, the soil will need to be handled as petroleum contaminated soil.

Additionally, should evidence of ground water be encountered in any soil boring, convert two (2) of the soil bores to temporary well points. Each temporary well point will consist of 1.0 inch polyvinylchloride (PVC) screen and riser. Upon collection of a ground water sample, the temporary well points will be removed and the open boreholes abandoned using bentonite chips and asphalt or concrete to match the current ground surface. Ground water samples will be submitted for analysis of VOCs by EPA Method 8260.

It should be noted a map depicting specific soil boring locations is not included due to lack of construction plan mapping for the Property.

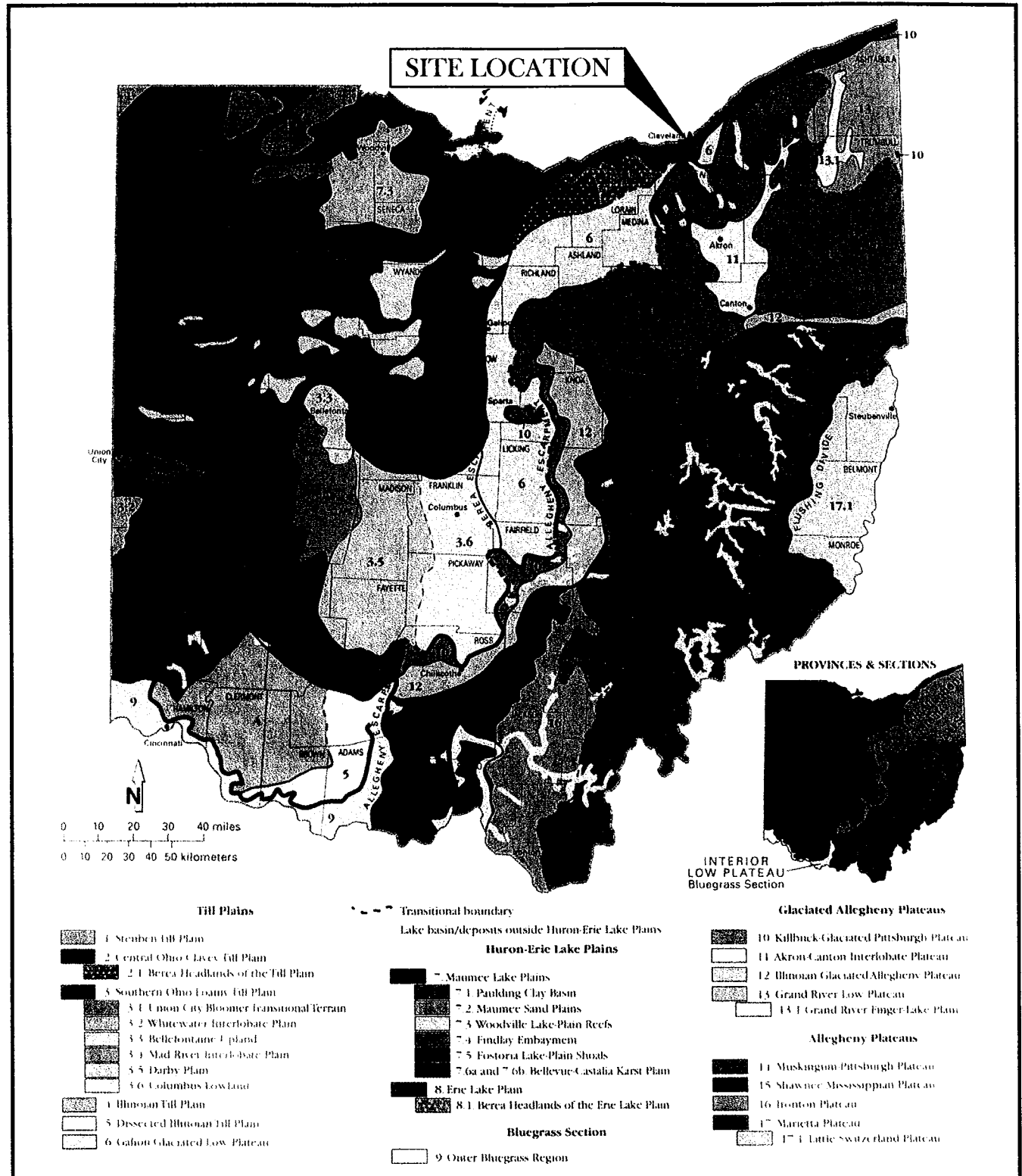
If construction activities do not include any soil removal no further investigation is recommended.

APPENDIX A

PHYSIOGRAPHIC REGIONS MAP OF OHIO

PHYSIOGRAPHIC REGIONS OF OHIO

H:\WORK\09\09004-1701\04-12-Physiographic Regions Dec 04, 2009

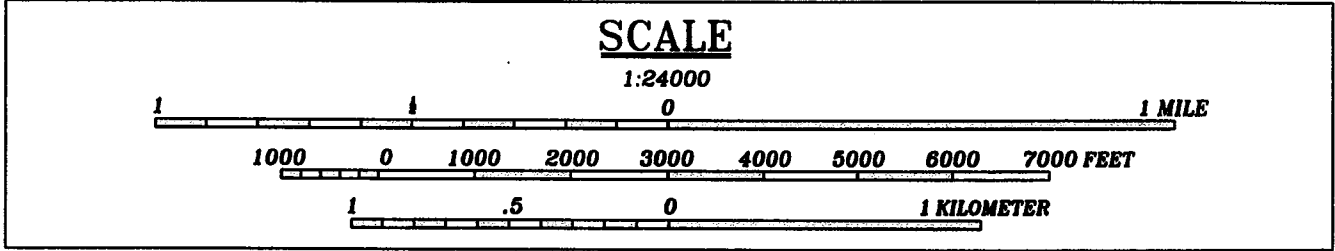
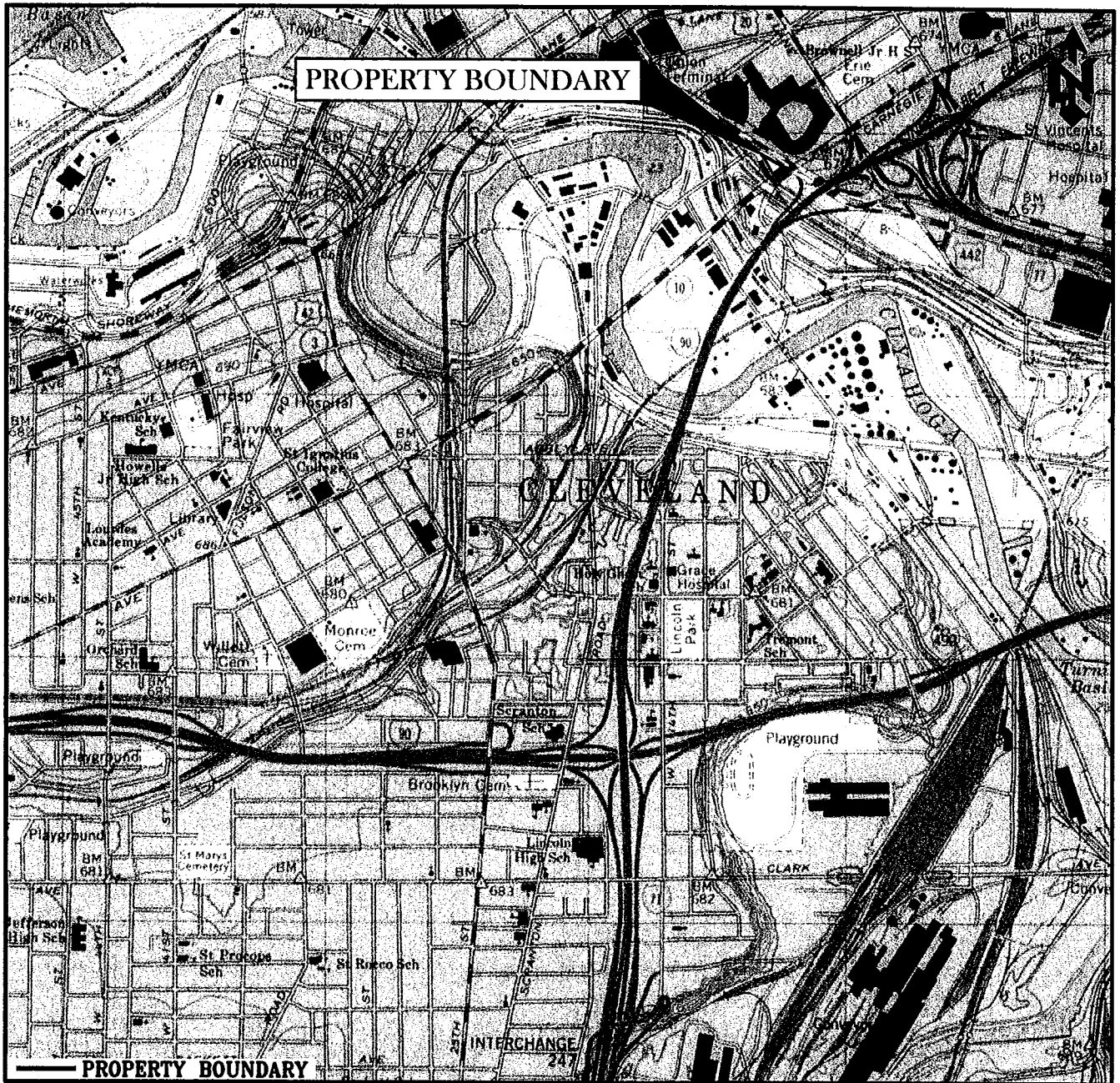


APPENDIX B

USGS TOPOGRAPHIC MAP

USGS TOPOGRAPHIC MAP

1994 CLEVELAND SOUTH, OHIO QUADRANGLE

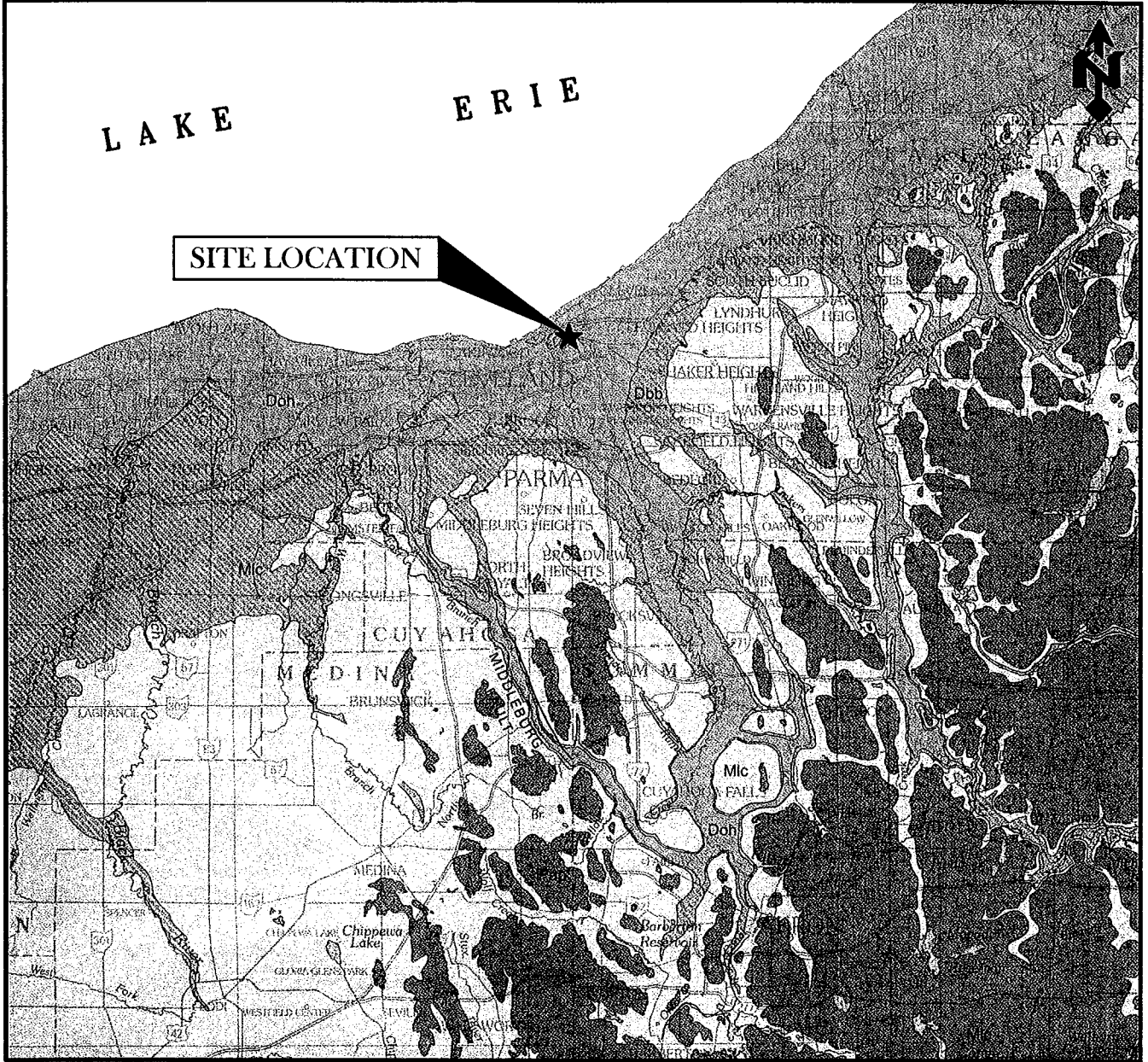


APPENDIX C

GEOLOGIC MAP OF OHIO

2006 BEDROCK GEOLOGIC MAP OF OHIO

PPN 101-32-038 12/2006



LEGEND



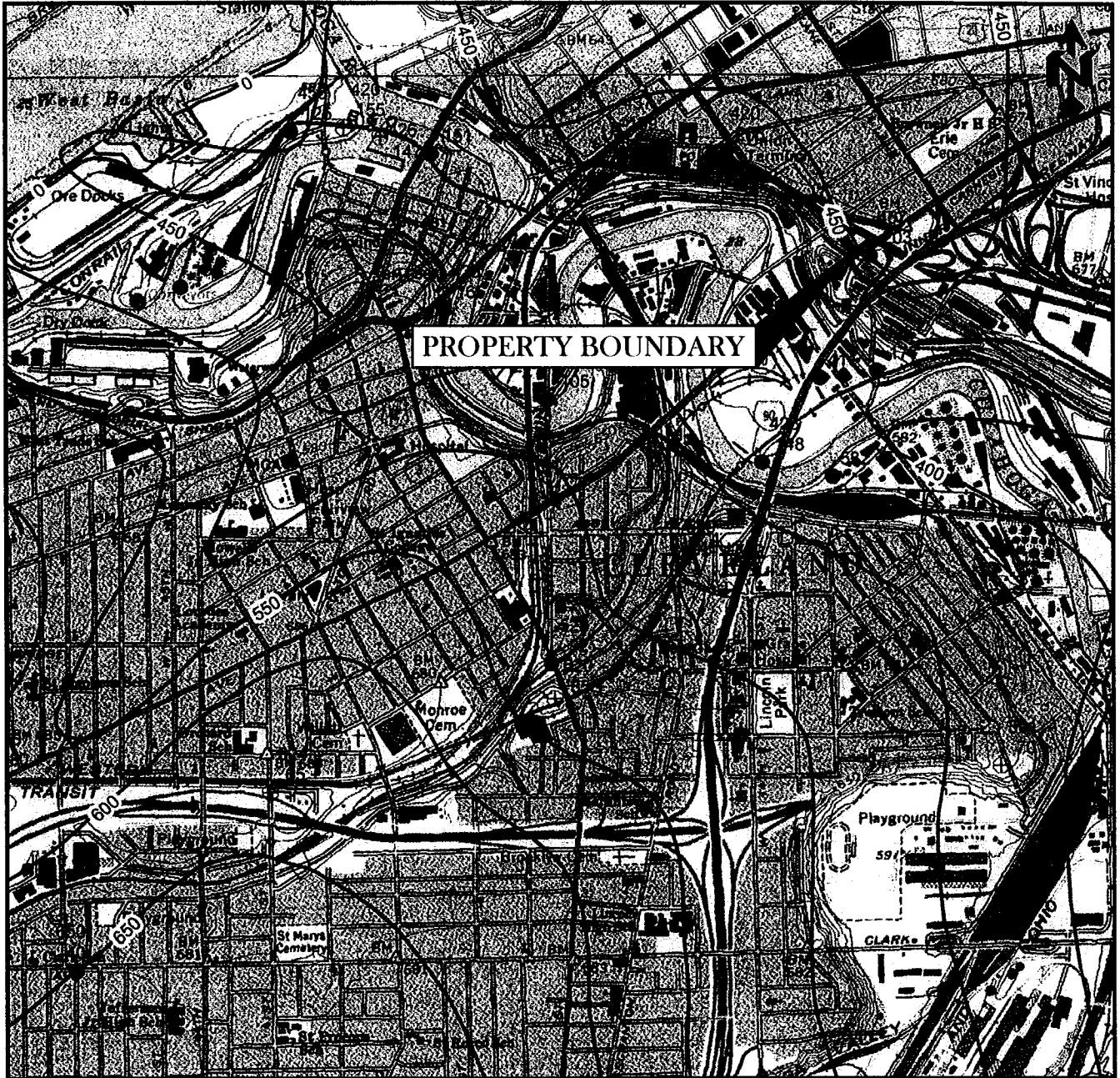
Ohio Shale (Upper Devonian) (mapped interval includes Olentangy Shale south of central Delaware County)—Unit consists generally of three members, in descending order: Cleveland, Chagrin, and Huron Members. Cleveland Member, shale; black; thickest in north-central portion of state; thins south and eastward; absent in northeastern portion of state. Chagrin Member, shale, siltstone, and very fine-grained sandstone; gray to greenish gray, thickest in northeastern portion of state; grades into underlying and overlying black shale members; thins southwestward, becomes Three Lick Bed in southern portion of state. Huron Member, shale; mostly black; carbonaceous; calcareous concretions common in lower portion. Olentangy Shale, mostly upper portion; thin; present but not mapped as separate unit south of central Delaware County; absent on Bellefontaine Outlier; see Olentangy Shale for description. Unit structurally deformed in Serpent Mound Impact Structure (see fig. 3).

APPENDIX D

BEDROCK TOPOGRAPY MAP

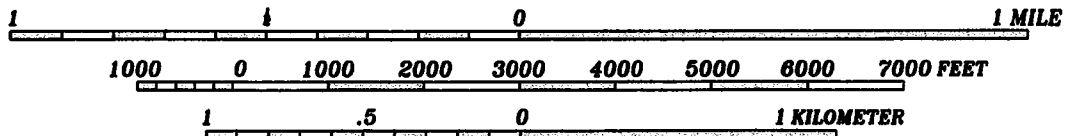
BEDROCK TOPOGRAPHY MAP

1983 (REVISED 1996) CLEVELAND SOUTH, OHIO QUADRANGLE



SCALE

1:24000



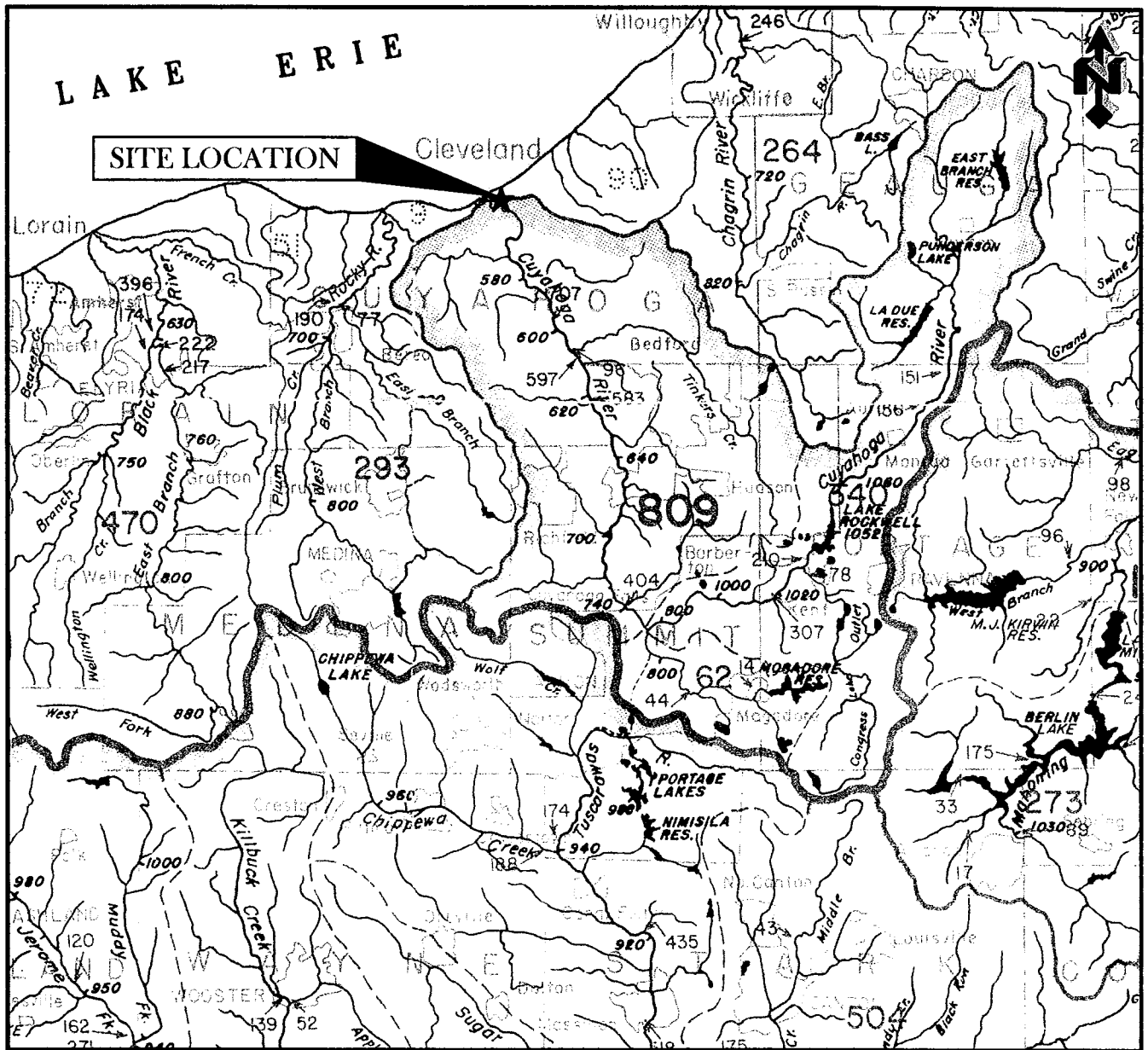
HZW ENVIRONMENTAL
CONSULTANTS, LLC

PPN 101-32-038
CLEVELAND, CUYAHOGA COUNTY, OHIO

APPENDIX E

PRINCIPAL STREAMS AND THEIR DRAINAGE AREAS MAP

PRINCIPAL STREAMS AND DRAINAGE AREAS



LEGEND

Areas of drainage basins, in square miles, are shown by red figures as follows:

- 1757** Areas enclosed by shaded red lines
- 517** Areas enclosed by unshaded red lines
- 313** Auxiliary land areas within the limits of the State.
- 5715** Drainage areas above points indicated by arrows

- Approximate low-water elevation in feet above sea level.
- Navigation lock and dam.
- Reservoir
- Selected urbanized areas, communities, and county seats chosen to aid in map orientation.



APPENDIX F

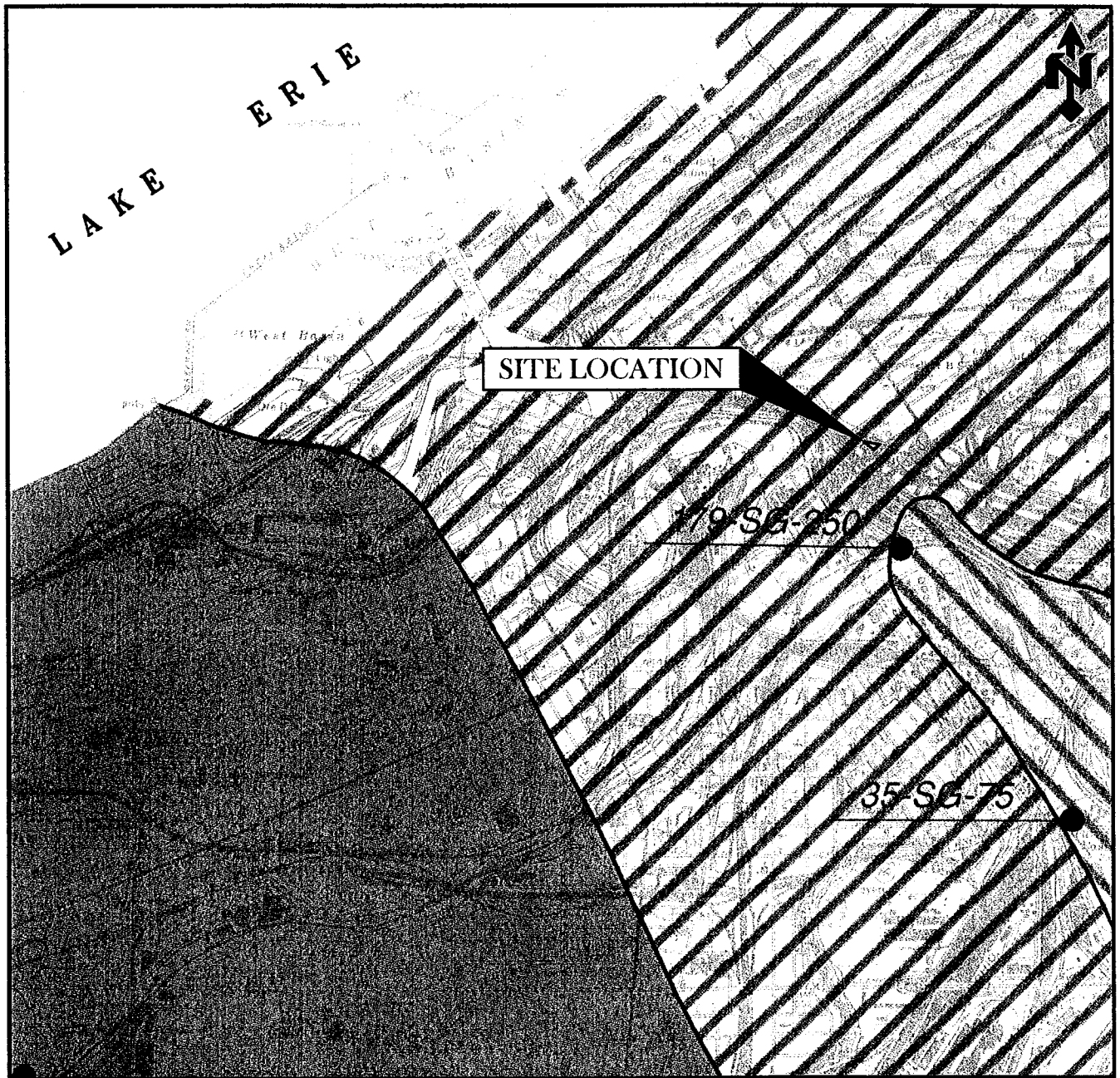
CUYAHOGA COUNTY GROUND WATER RESOURCES MAP

GROUND WATER RESOURCES MAP

1992 CUYAHOGA COUNTY, OHIO

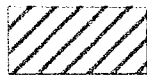
PPN 101-32-038

PPN 101-32-038



LEGEND

AREAS IN WHICH 3 TO 10 GALLONS PER MINUTE MAY BE DEVELOPED



Buried valleys contain 200 to 300 feet of fine sand, silt, and clay. Drilled wells yield meager supplies unless encountering thin, isolated sand and gravel lenses.

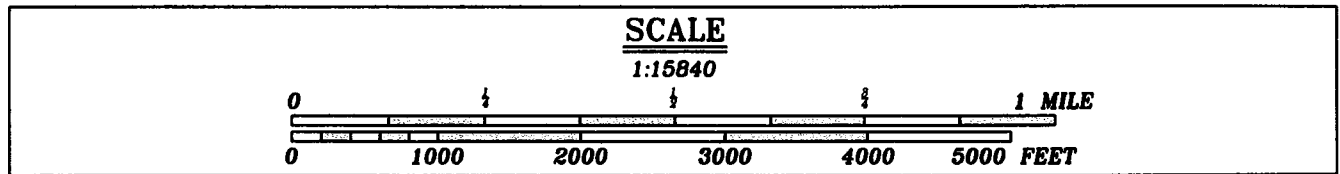
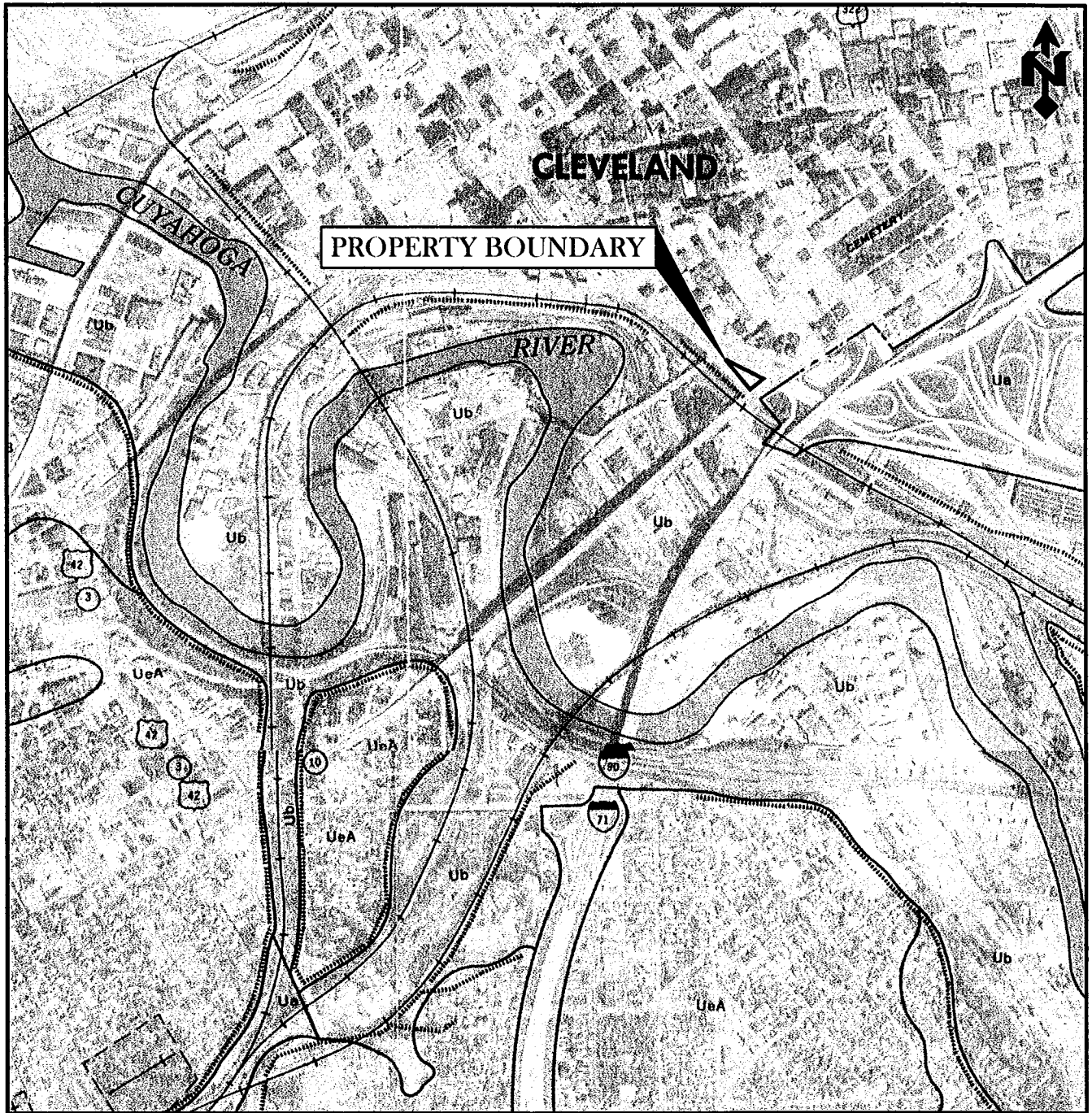
APPENDIX G

SOIL SURVEY OF CUYAHOGA COUNTY

SOIL SURVEY MAP

1980 CUYAHOGA COUNTY, OHIO

N:\2003\2003HRS004-12047\004-12 SOIL Map layout Dec 04 2003



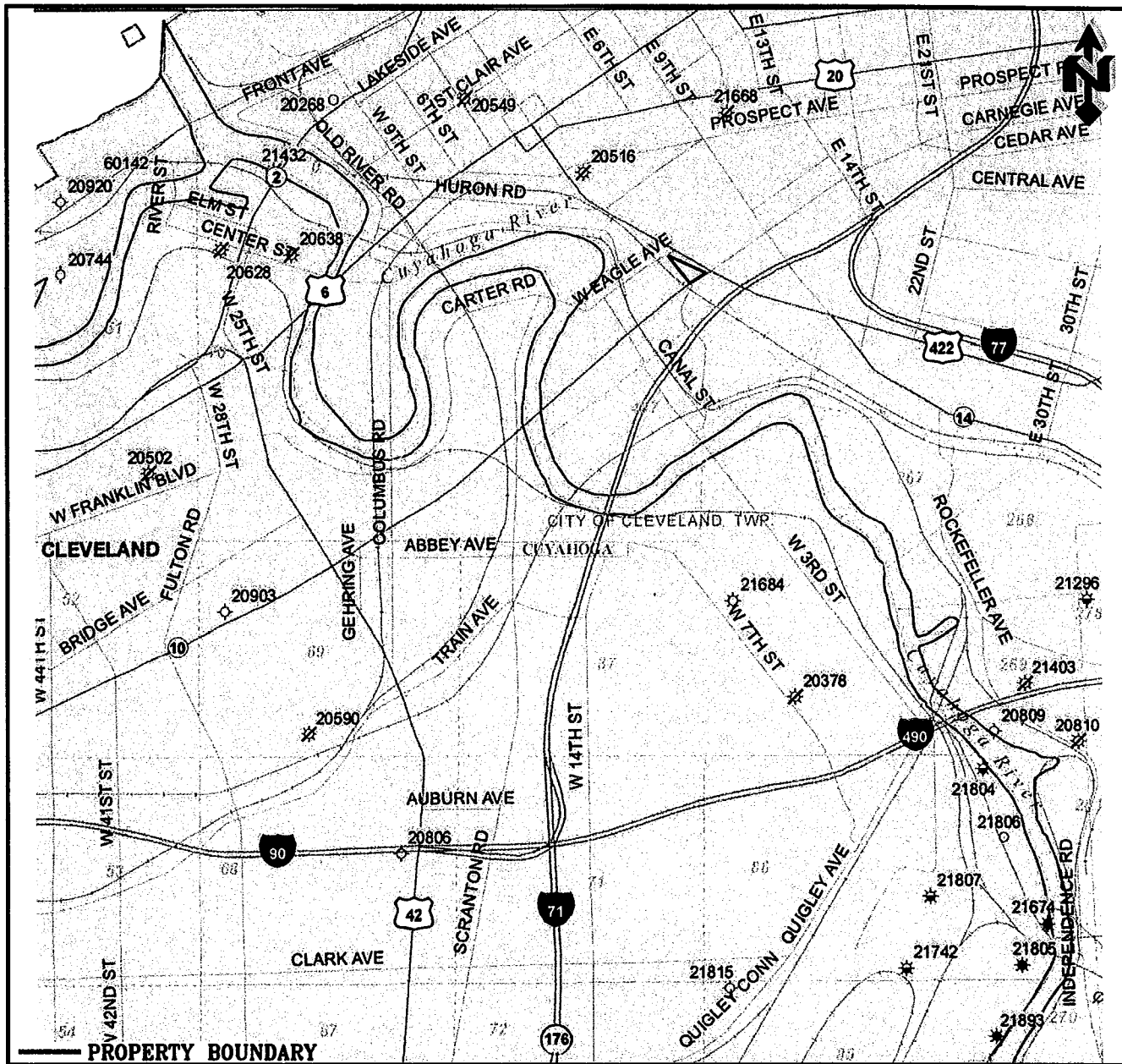
APPENDIX H

ODNR'S OIL AND GAS WELL MAP

OIL AND GAS WELL MAP

CLEVELAND, CUYAHOGA COUNTY, OHIO

H:\2009\09\0904-1204
 04-12-09 9:55 AM Monday Dec 04, 2009



PROPERTY BOUNDARY

WELL SYMBOLS

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> ★ UNKNOWN STATUS □ BRINE FOR DUST CONTROL ✱ COALBED METHANE ◇ DRY HOLE ⊙ DRY HOLE WITH GAS SHOW ✱ DRY HOLE WITH OIL AND GAS SHOW ◆ DRY HOLE WITH OIL SHOW ⊘ EXPIRED PERMIT LOCATION ⊙ GAS ✱ GAS WITH OIL SHOW ⊙ GAS SHOW | <ul style="list-style-type: none"> ✱ GAS AND OIL SHOW ◇ INJECTION ⊘ LOST HOLE ⊙ OBSERVATION ⊙ OIL AND GAS CONVERTED TO WATER ● OIL ✱ OIL AND GAS ✱ OIL WITH GAS SHOW ● OIL SHOW ⊙ PERMITTED LOCATION ⊘ PLUGGED BRINE FOR DUST CONTROL | <ul style="list-style-type: none"> ✱ PLUGGED GAS ✱ PLUGGED GAS WITH OIL SHOW ⊘ PLUGGED INJECTION ● PLUGGED OIL ✱ PLUGGED OIL AND GAS ✱ PLUGGED OIL WITH GAS SHOW ⊘ RADIOACTIVE TOOL LOST IN HOLE ⊙ SOLUTION MINING ⊘ GAS STORAGE ⊘ STRATIGRAPHY TEST ● WATER SUPPLY |
|--|--|--|



HZW ENVIRONMENTAL
 CONSULTANTS, LLC

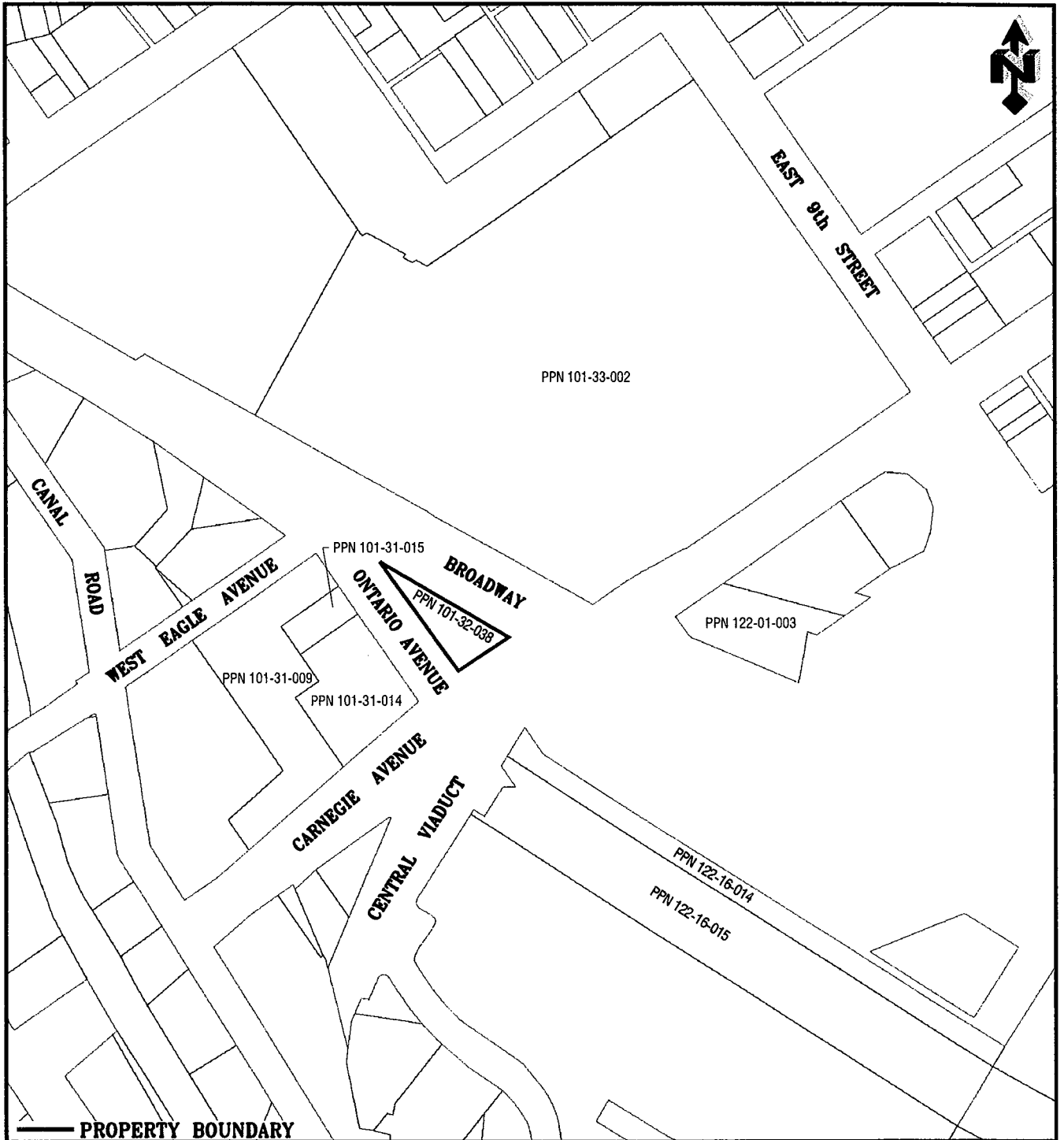
PPN 101 - 32 - 038
 CLEVELAND, CUYAHOGA COUNTY, OHIO

APPENDIX I

CURRENT TAX MAP

TAX MAP

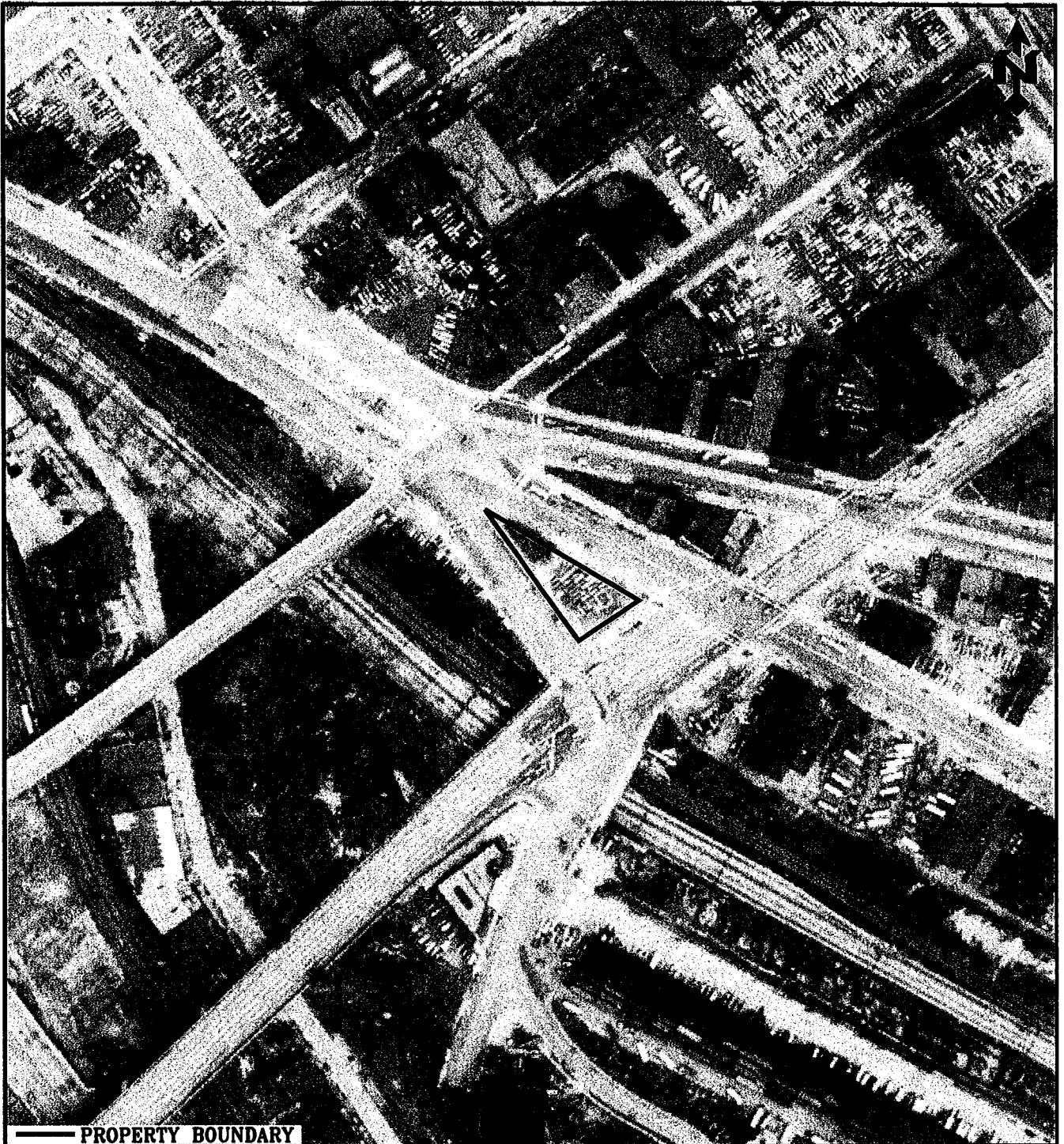
1:2009 H98004-12-CAD0000055 - TAX MAP - Interim - Jan 26, 2010



APPENDIX J

AERIAL PHOTOGRAPHS

1950 AERIAL PHOTOGRAPH



PROPERTY BOUNDARY

SCALE: 1"=300'



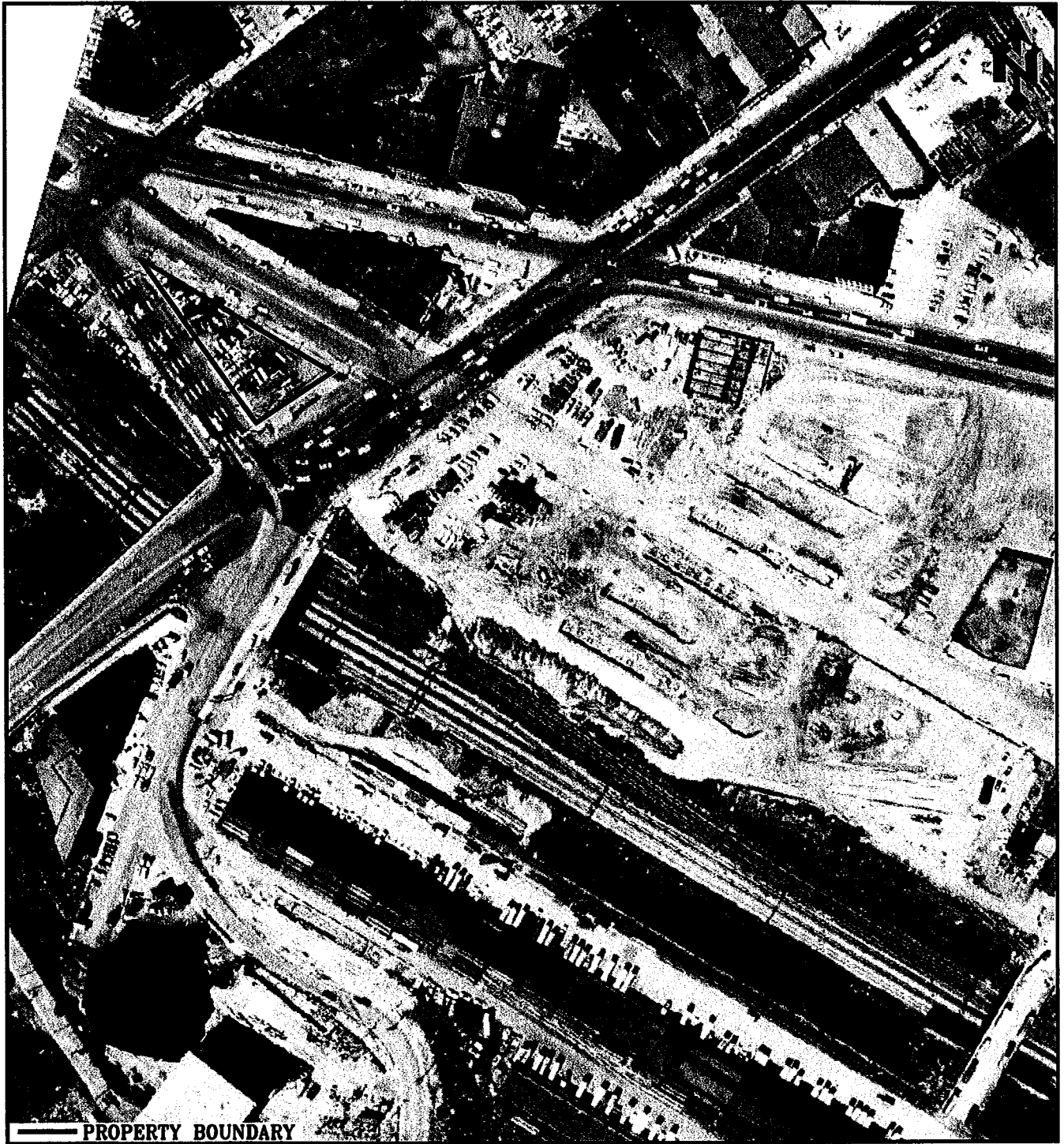
HZW ENVIRONMENTAL
CONSULTANTS, LLC

PPN 101 - 32 - 038
CLEVELAND, CUYAHOGA COUNTY, OHIO

14-12-103-33-004-1204

14-12-103-33-004-1204

1958 AERIAL PHOTOGRAPH

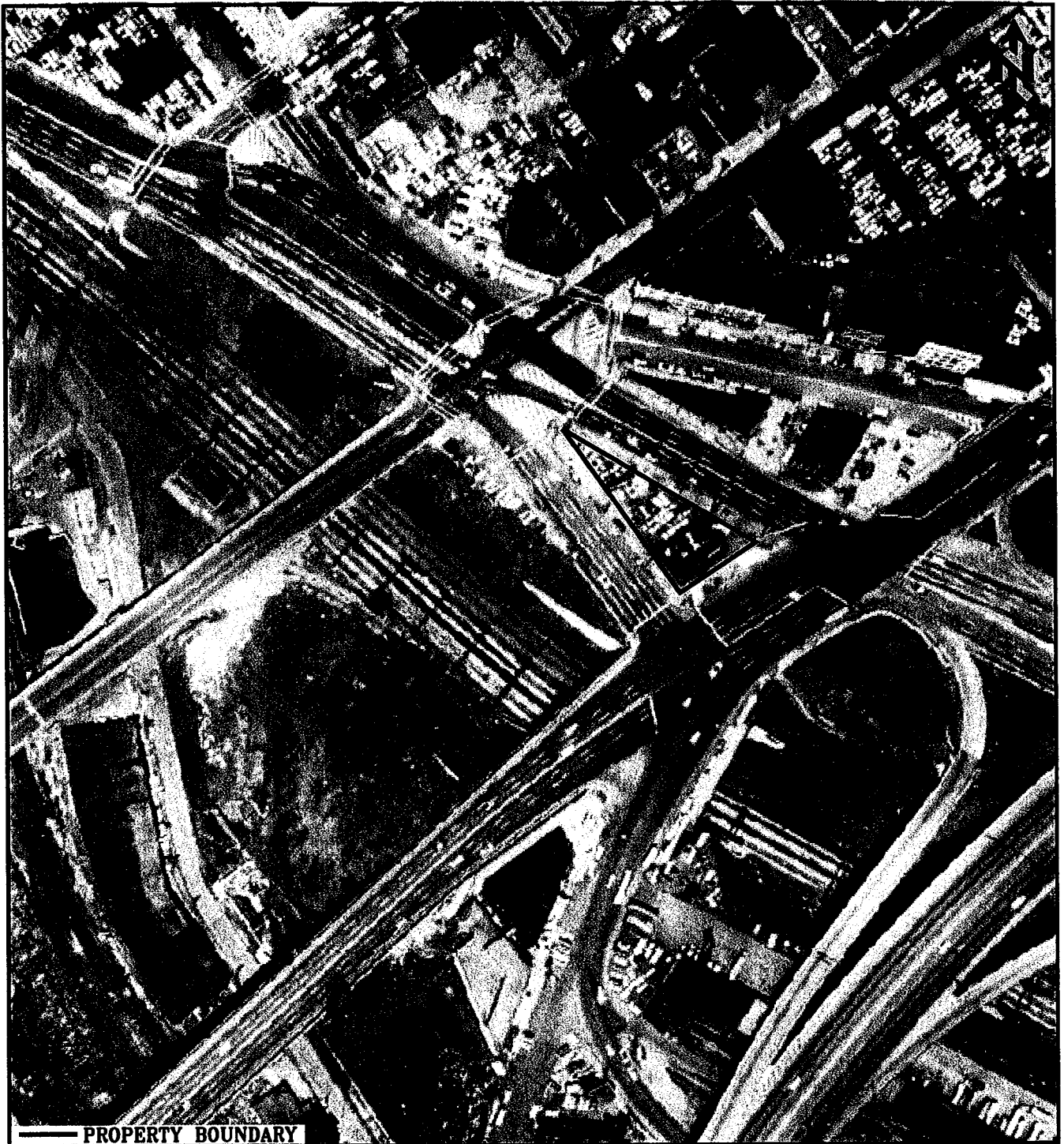


PROPERTY BOUNDARY

SCALE: 1"=200'

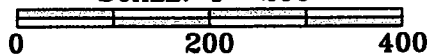


1963 AERIAL PHOTOGRAPH



PROPERTY BOUNDARY

SCALE: 1"=200'



HZW ENVIRONMENTAL
CONSULTANTS, LLC

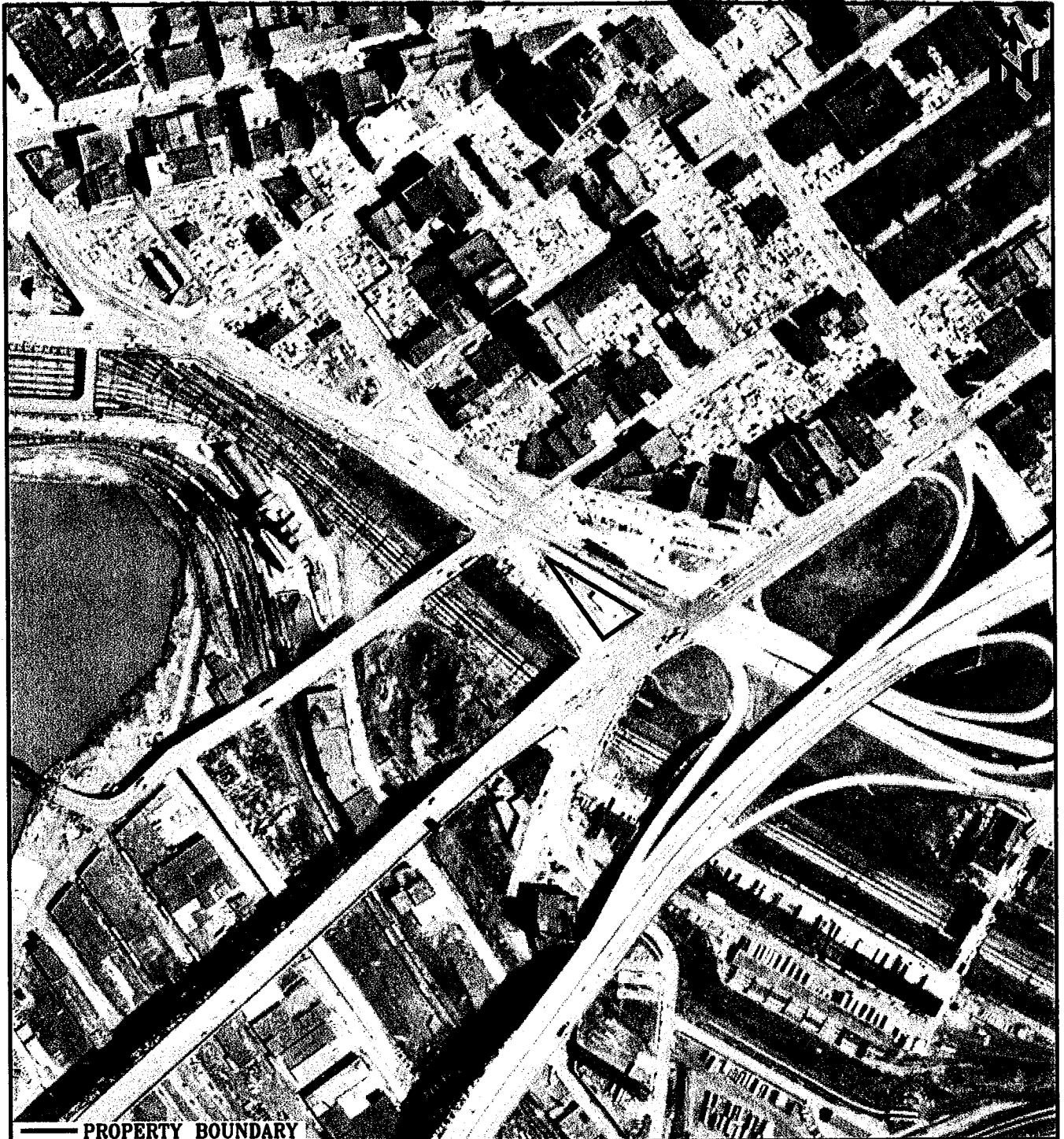
PPN 101 - 32 - 038
CLEVELAND, CUYAHOGA COUNTY, OHIO

2-11-2010 10:50:12 AM Monday Jan 07, 2010

1:00091098004-1:230400W

2: AERIAL PHOTOGRAPH
Jan. 07, 2010

1966 AERIAL PHOTOGRAPH



PROPERTY BOUNDARY

SCALE: 1"=400'

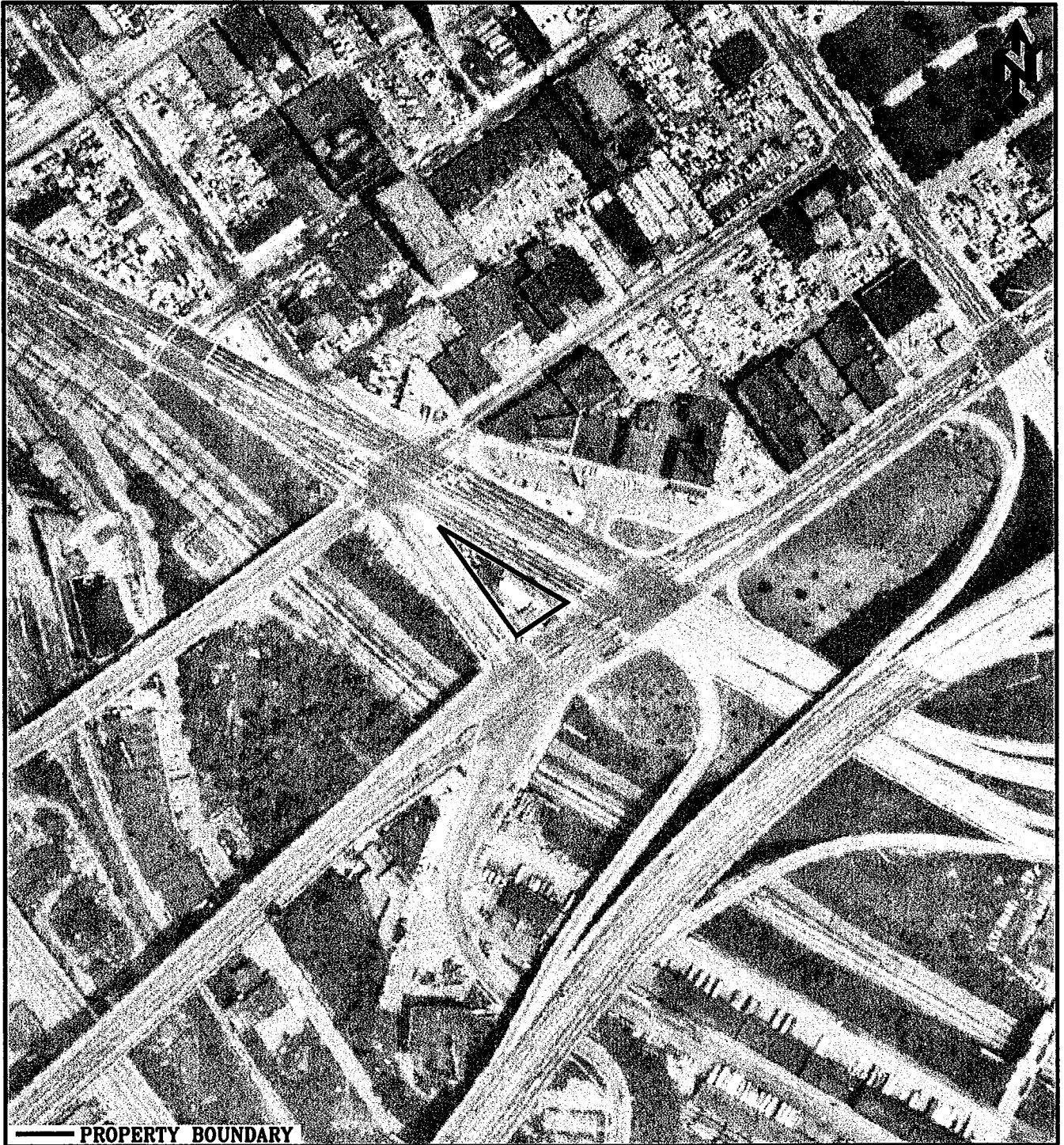


HZW ENVIRONMENTAL
CONSULTANTS, LLC

PPN 101-32-038
CLEVELAND, CUYAHOGA COUNTY, OHIO

13209146904-1264005
A-EE-89 Data Intersect Jan 07 2010

1969 AERIAL PHOTOGRAPH



PROPERTY BOUNDARY

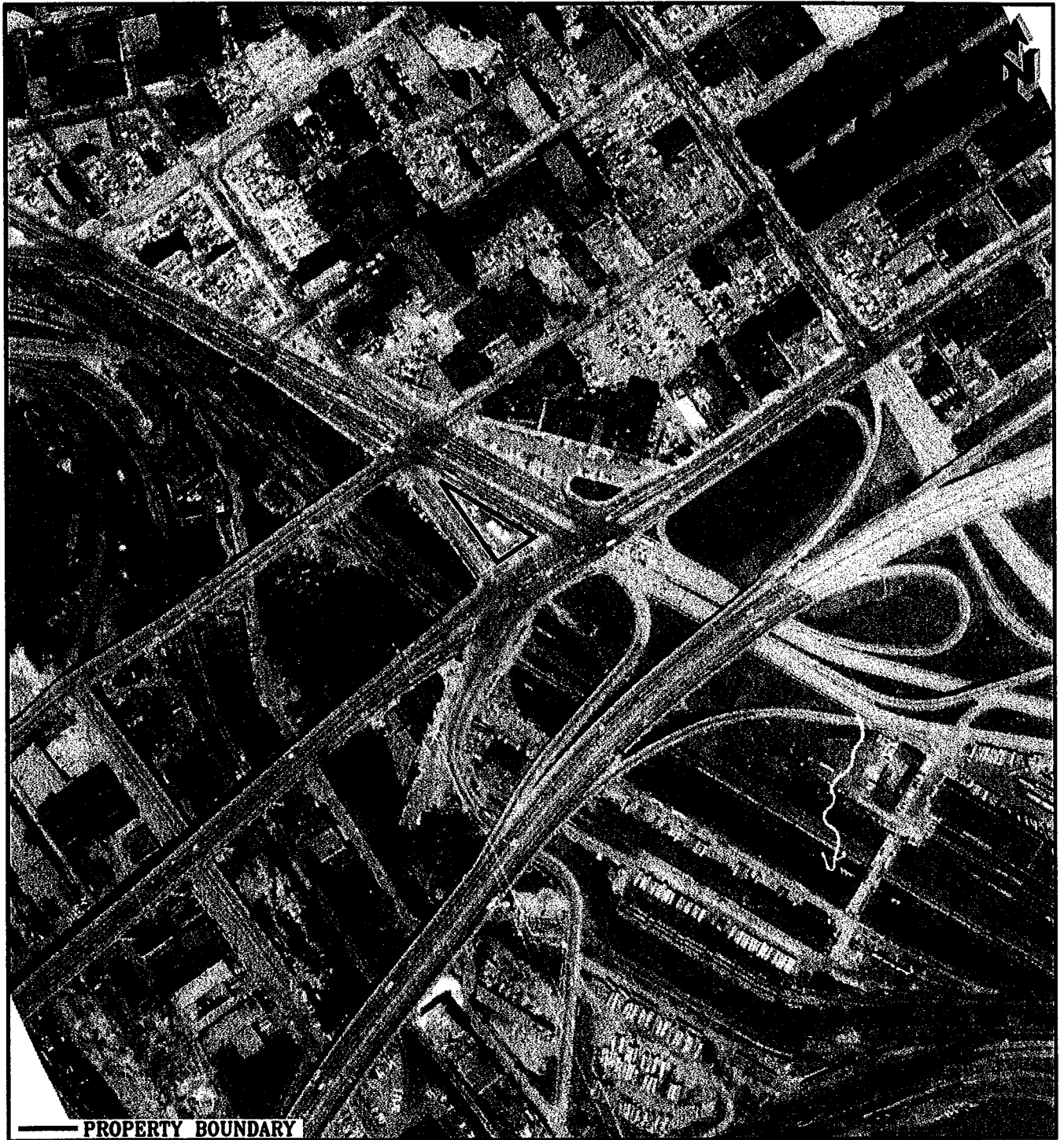
SCALE: 1"=300'



HZW ENVIRONMENTAL
CONSULTANTS, LLC

PPN 101 - 32 - 038
CLEVELAND, CUYAHOGA COUNTY, OHIO

1972 AERIAL PHOTOGRAPH



PROPERTY BOUNDARY

SCALE: 1"=400'

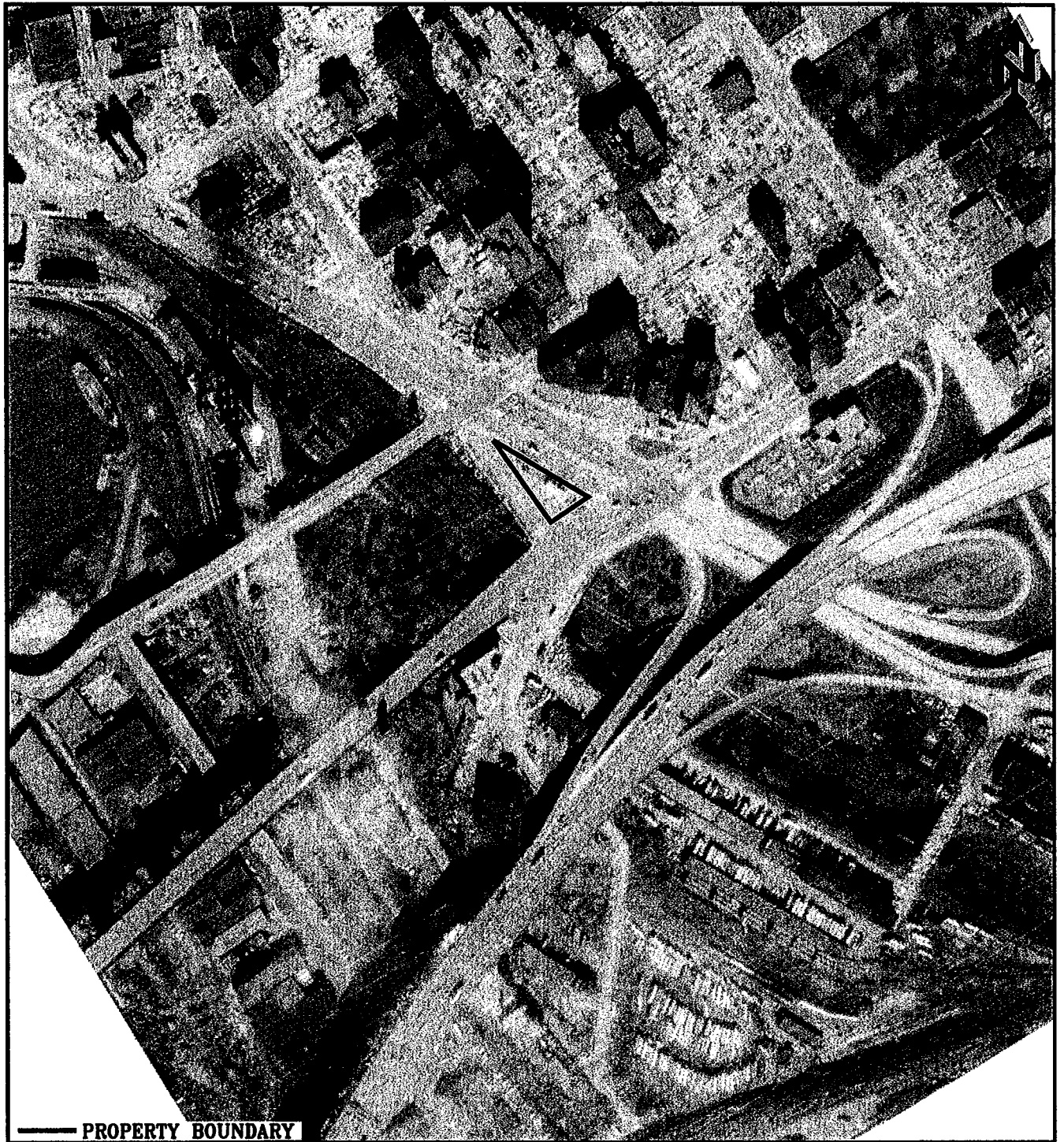


HzW ENVIRONMENTAL
CONSULTANTS, LLC

PPN 101-32-038
CLEVELAND, CUYAHOGA COUNTY, OHIO

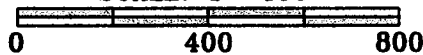
11/20/2009 10:30:41-12:04
104-12-ABF-74.dwg Sunday, Dec 06, 2009

1974 AERIAL PHOTOGRAPH



PROPERTY BOUNDARY

SCALE: 1"=400'



HzW ENVIRONMENTAL
CONSULTANTS, LLC

PPN 101 - 32 - 038
CLEVELAND, CUYAHOGA COUNTY, OHIO

12-APR-77 09:00A-12:00PM Jan 07, 2010

1977 AERIAL PHOTOGRAPH



SCALE: 1"=400'



HZW ENVIRONMENTAL
CONSULTANTS, LLC

PPN 101 - 32 - 038
CLEVELAND, CUYAHOGA COUNTY, OHIO

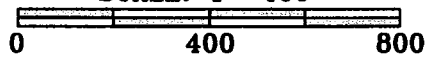
13039163004.12610005

2485-58 Ave. Monday Jan 07 2010

1986 AERIAL PHOTOGRAPH



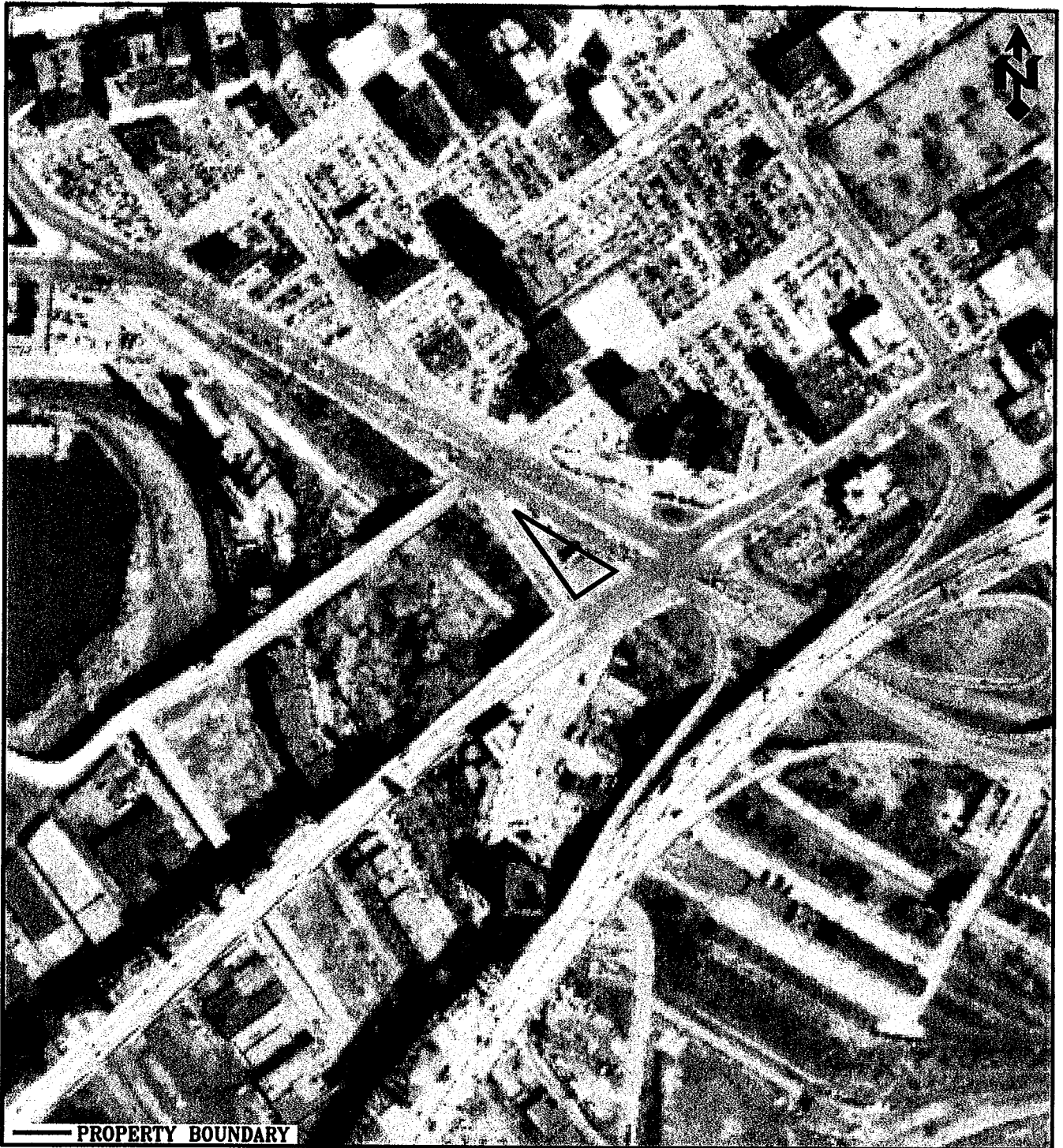
SCALE: 1"=400'



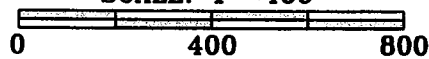
12099103004-12040006

3-8-89 8:46am mrschry Jan 07, 2010

1989 AERIAL PHOTOGRAPH



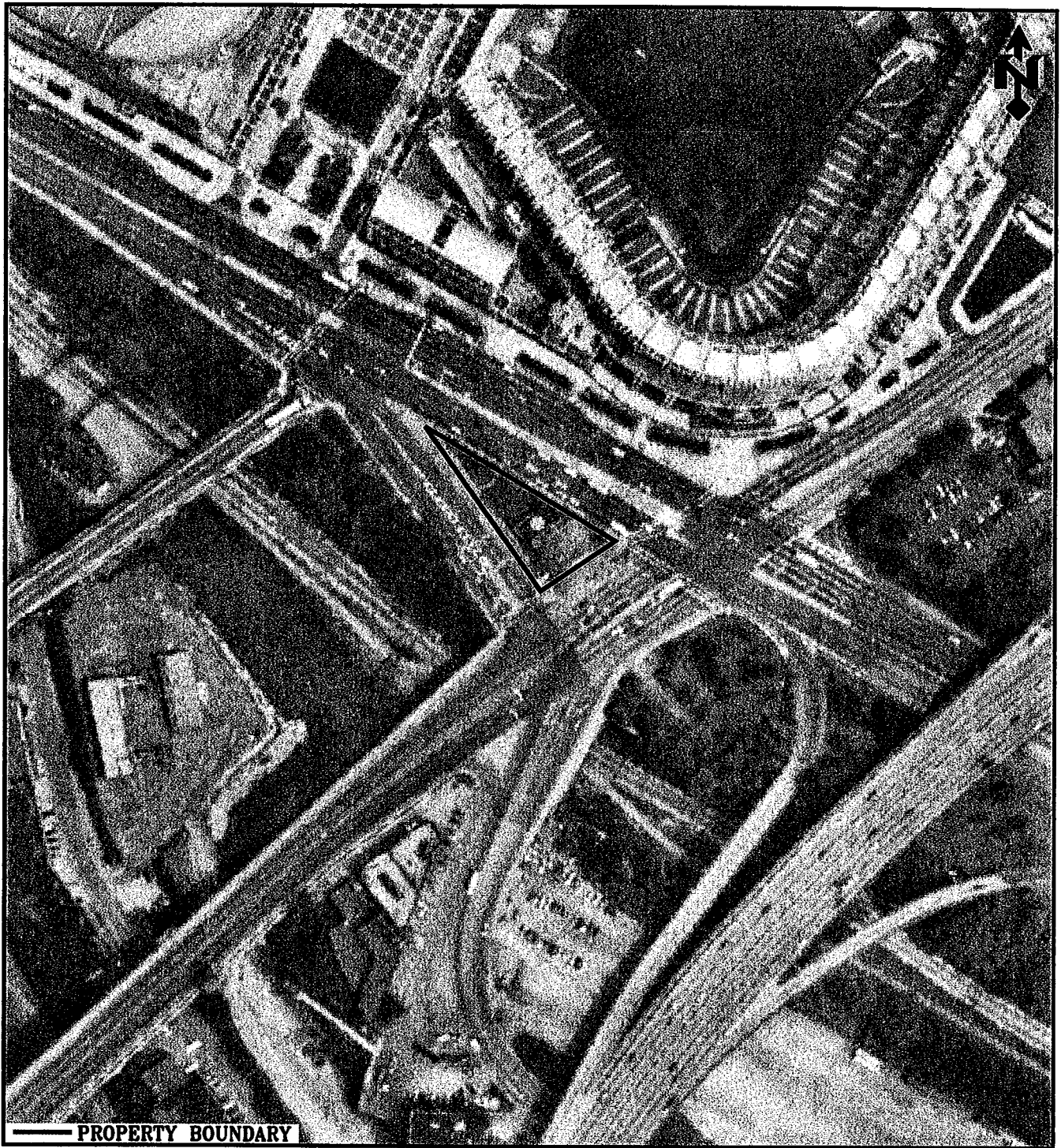
SCALE: 1"=400'



1:20918304-12340006

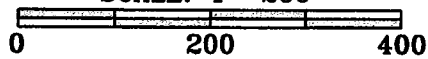
148R-55-AMW Intersecting Jan 07, 2010

1995 AERIAL PHOTOGRAPH



PROPERTY BOUNDARY

SCALE: 1"=200'



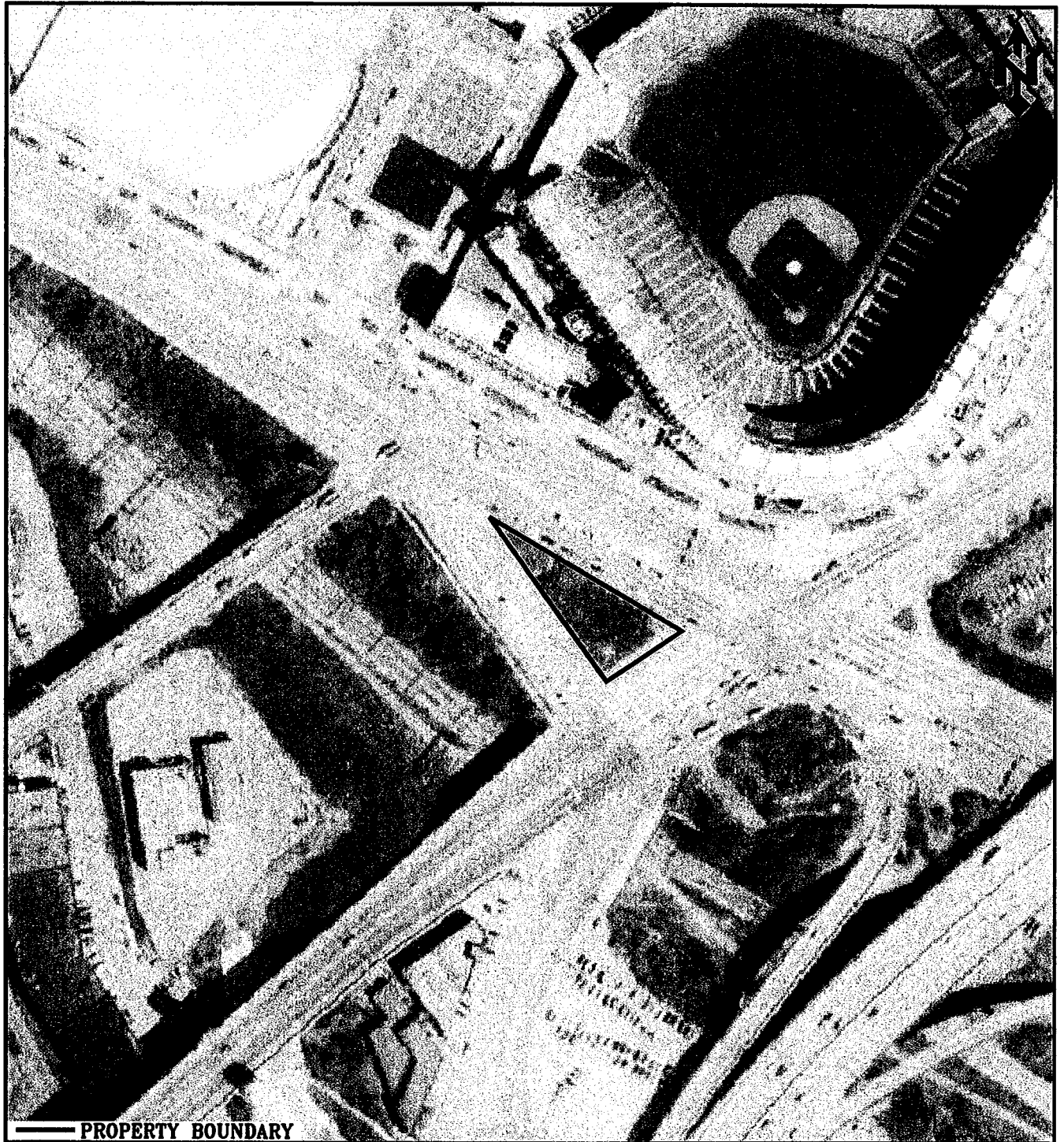
HZW ENVIRONMENTAL
CONSULTANTS, LLC

PPN 101 - 32 - 038
CLEVELAND, CUYAHOGA COUNTY, OHIO

132091H9004-12CA004W

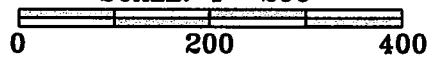
7-459-99.dwg mshdwy Jan 07, 2010

1999 AERIAL PHOTOGRAPH



PROPERTY BOUNDARY

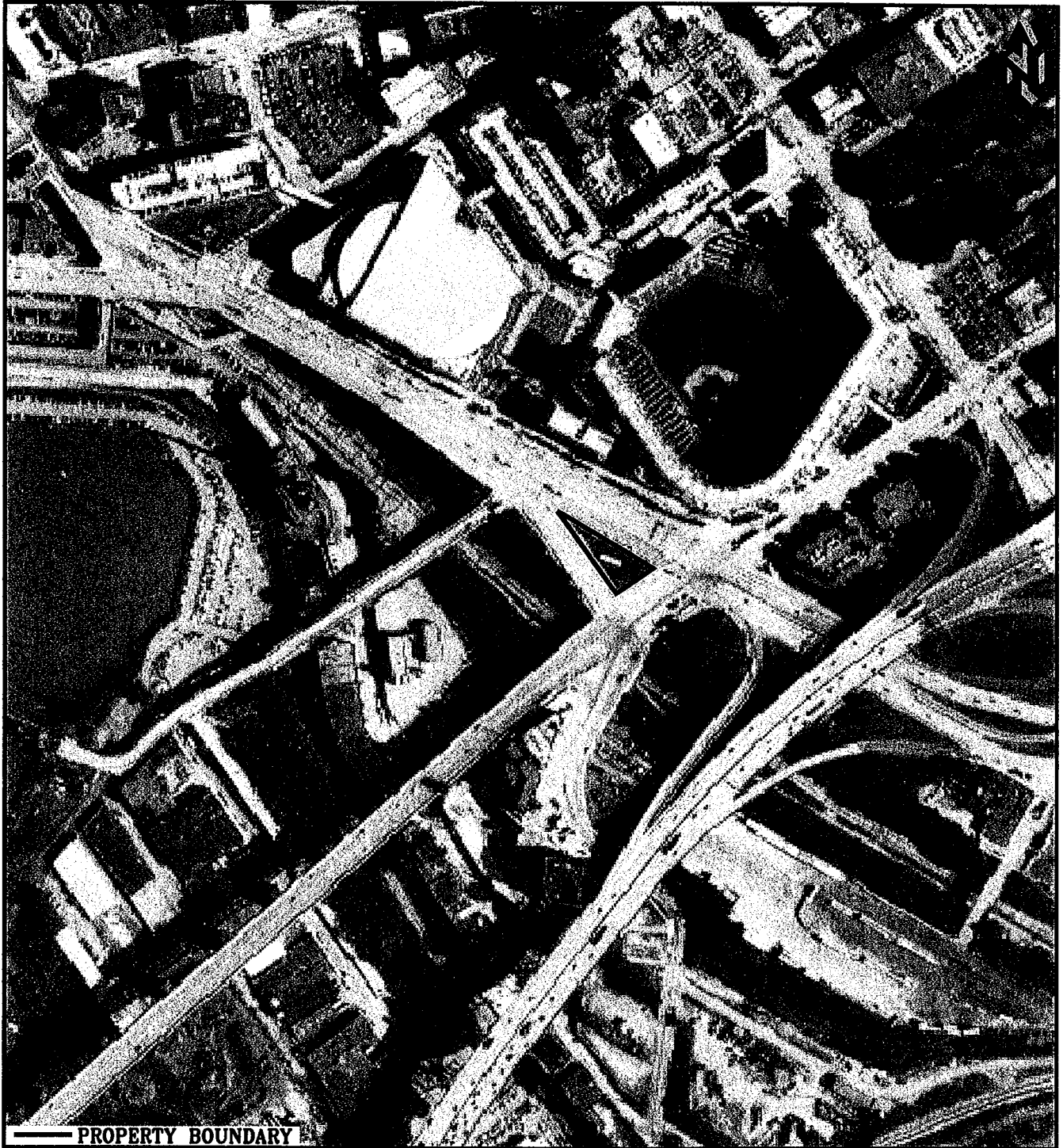
SCALE: 1"=200'



HZW ENVIRONMENTAL
CONSULTANTS, LLC

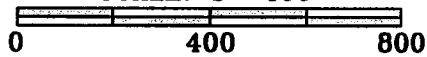
PPN 101 - 32 - 038
CLEVELAND, CUYAHOGA COUNTY, OHIO

2000 AERIAL PHOTOGRAPH



PROPERTY BOUNDARY

SCALE: 1"=400'



HZW ENVIRONMENTAL
CONSULTANTS, LLC

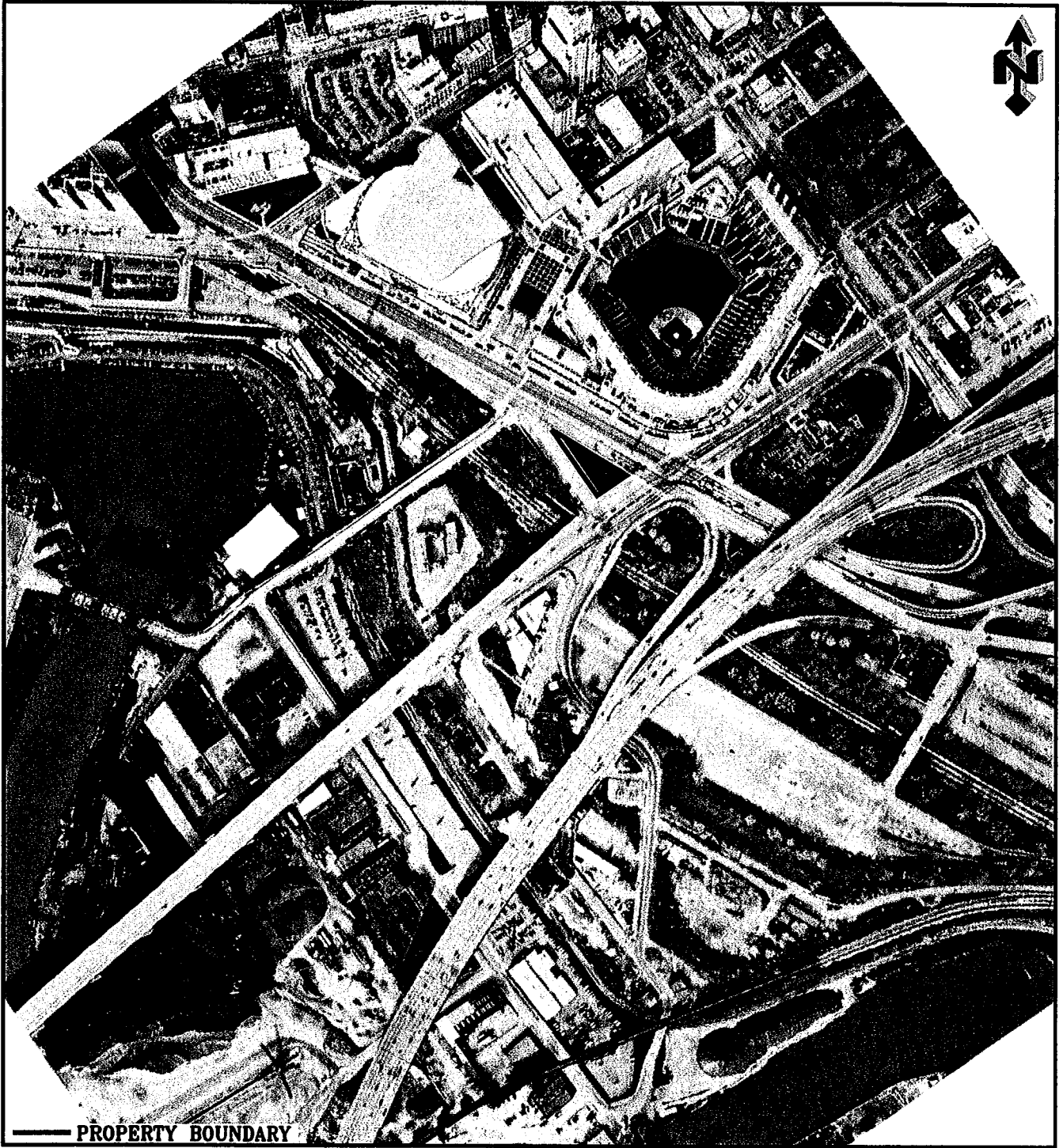
PPN 101 - 32 - 038
CLEVELAND, CUYAHOGA COUNTY, OHIO

2488700.dwg Monday, Jan 07, 2010

14200000910000112004

04-12-AERIAL.dwg
Project: Dec 08, 2008

2004 AERIAL PHOTOGRAPH



PROPERTY BOUNDARY

SCALE: 1"=500'



HzW ENVIRONMENTAL
CONSULTANTS, LLC

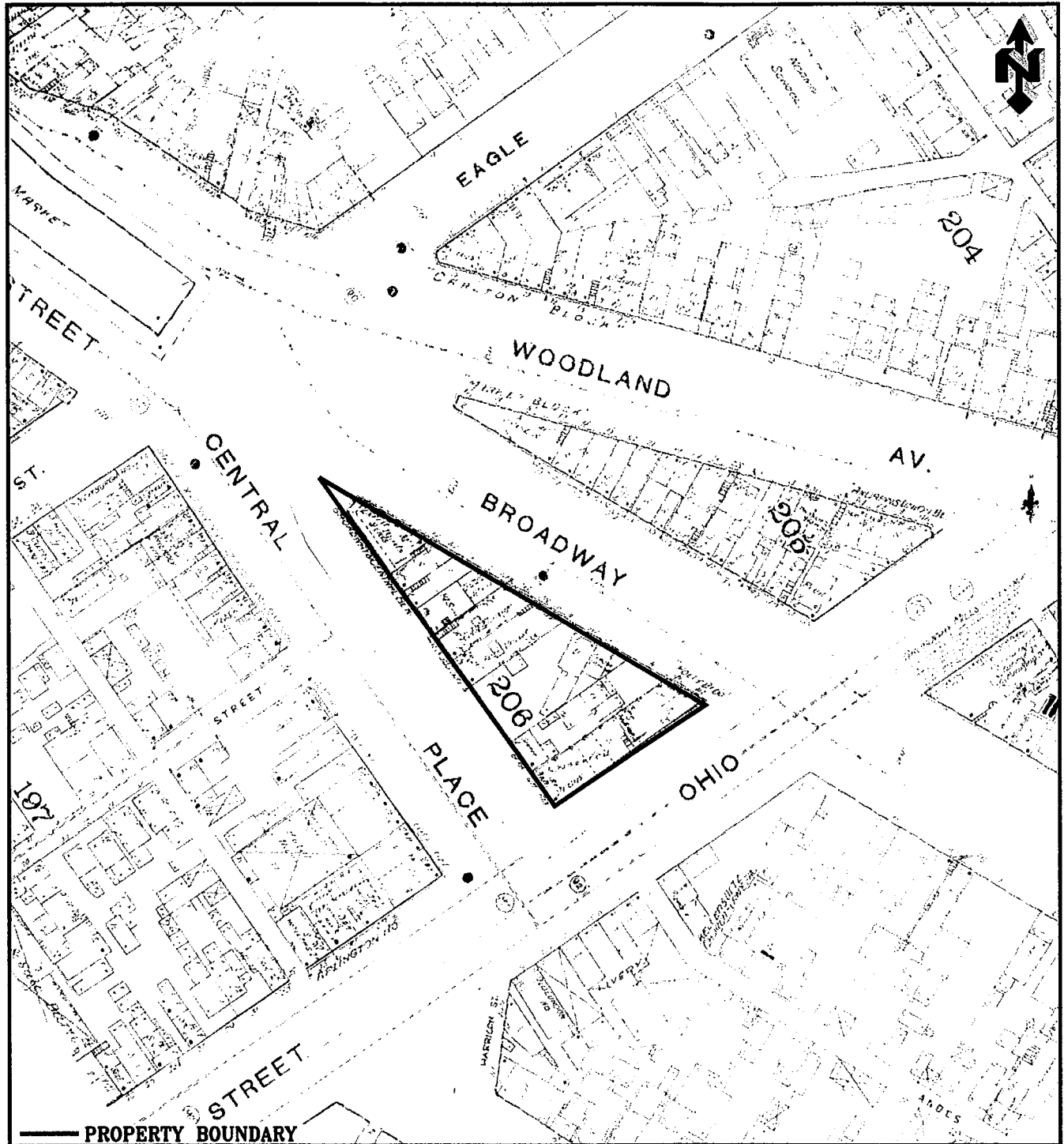
PPN 101 - 32 - 038
CLEVELAND, CUYAHOGA COUNTY, OHIO

APPENDIX K

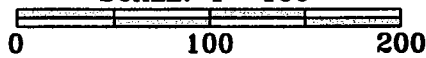
SANBORN FIRE INSURANCE MAPS

1886 SANBORN INSURANCE MAP

14-12-SP-1886.dwg January Dec 04, 2009

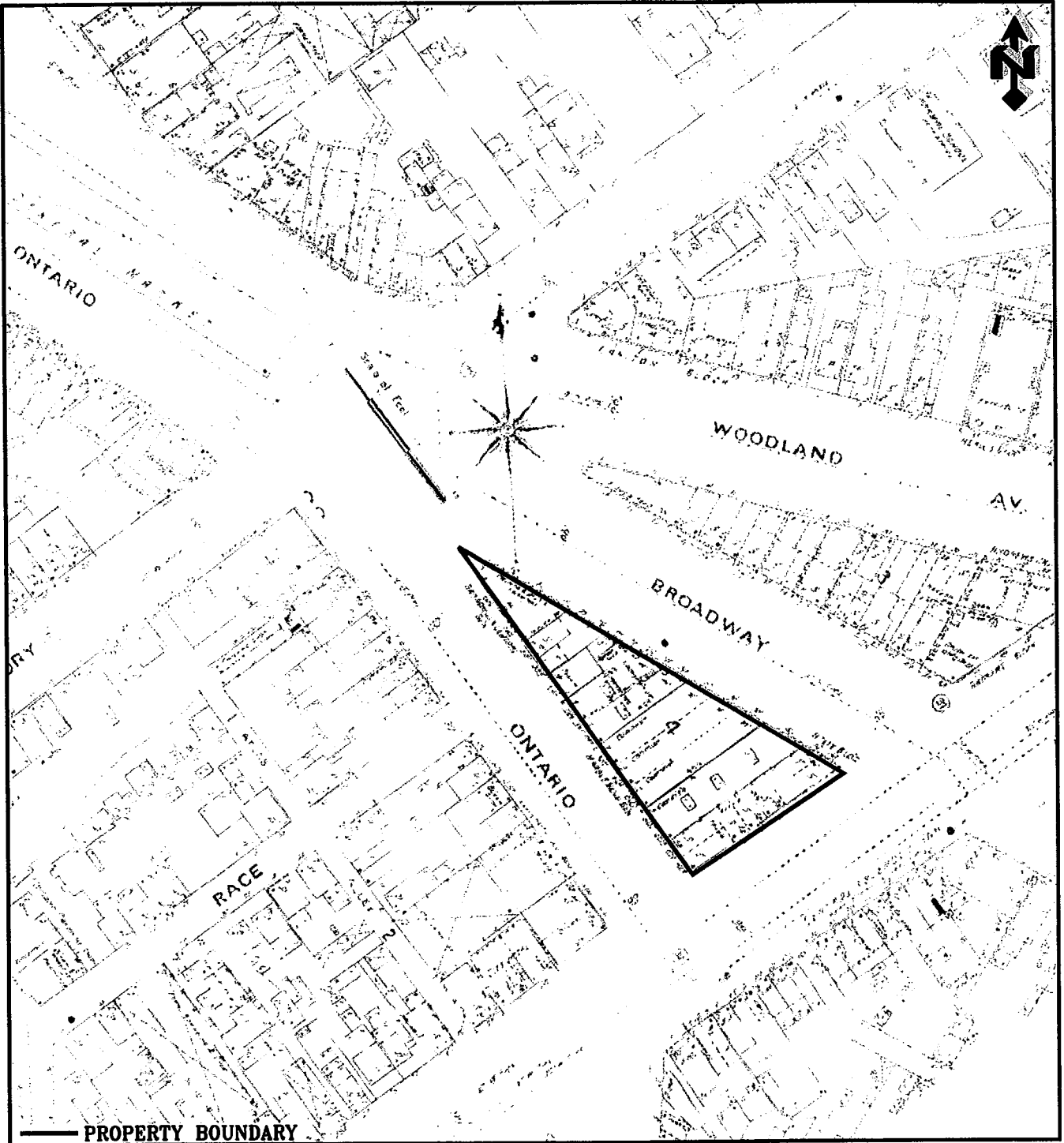


SCALE: 1"=100'

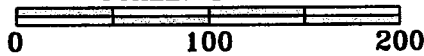


1896 SANBORN INSURANCE MAP

14-12-SE-1896.dwg (sanborn) Date: 04/20/09

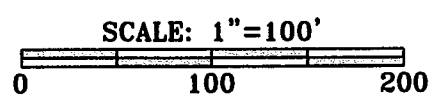
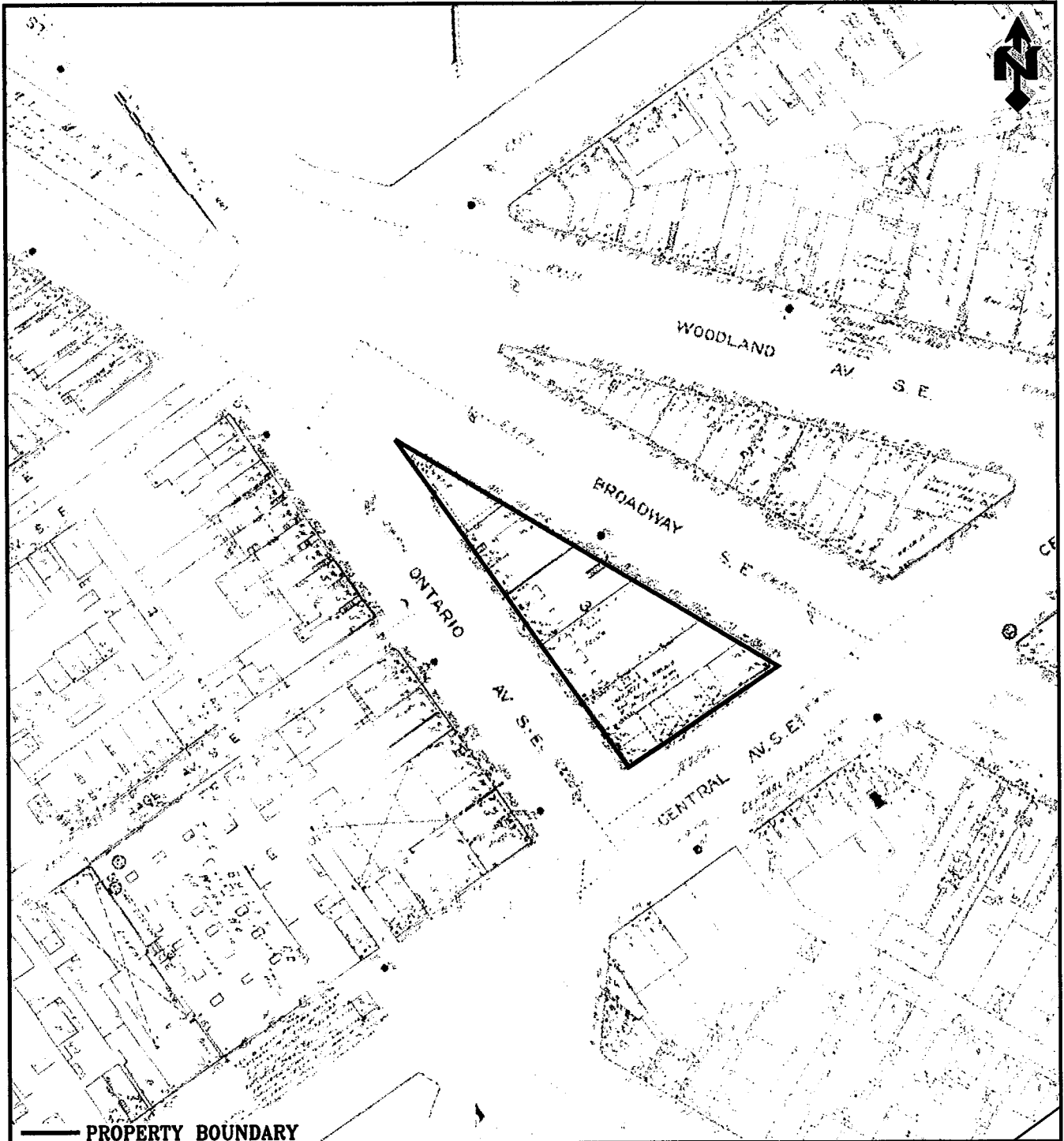


SCALE: 1"=100'



1912 SANBORN INSURANCE MAP

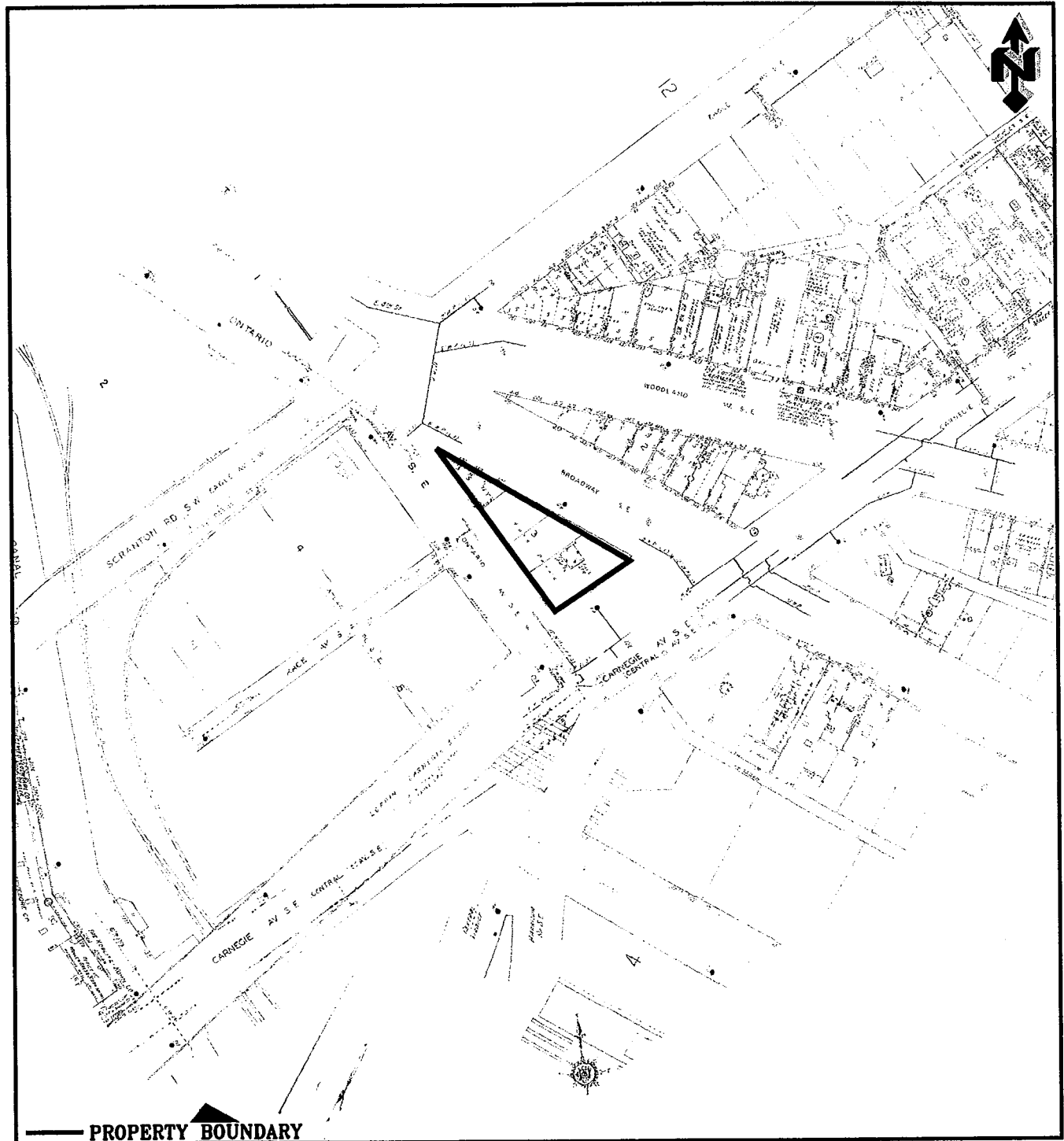
14-12-SB-12.dwg Rev 04-12-04
14-12-SB-12.dwg Rev 04-12-04
14-12-SB-12.dwg Rev 04-12-04



1951 SANBORN INSURANCE MAP

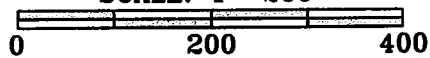
N:\2009\2009-10-03\1-20-09

04-12-SB-51.dwg
Author: Dec 04, 2009



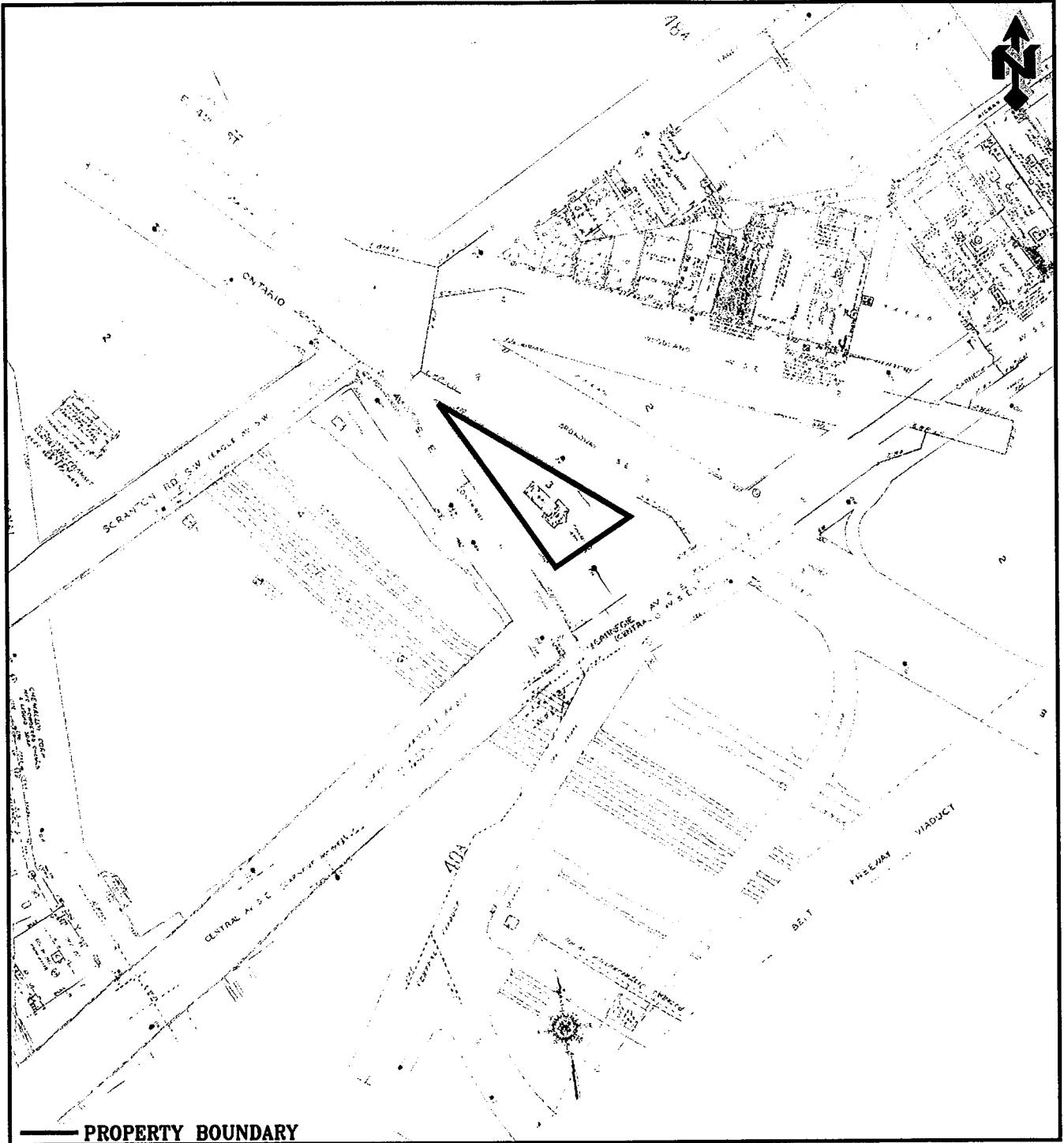
PROPERTY BOUNDARY

SCALE: 1"=200'

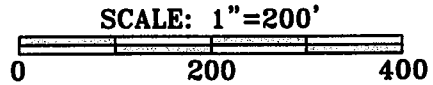


1969 SANBORN INSURANCE MAP

PL 12 SEP 59 dmj Lender Dec 04 2009

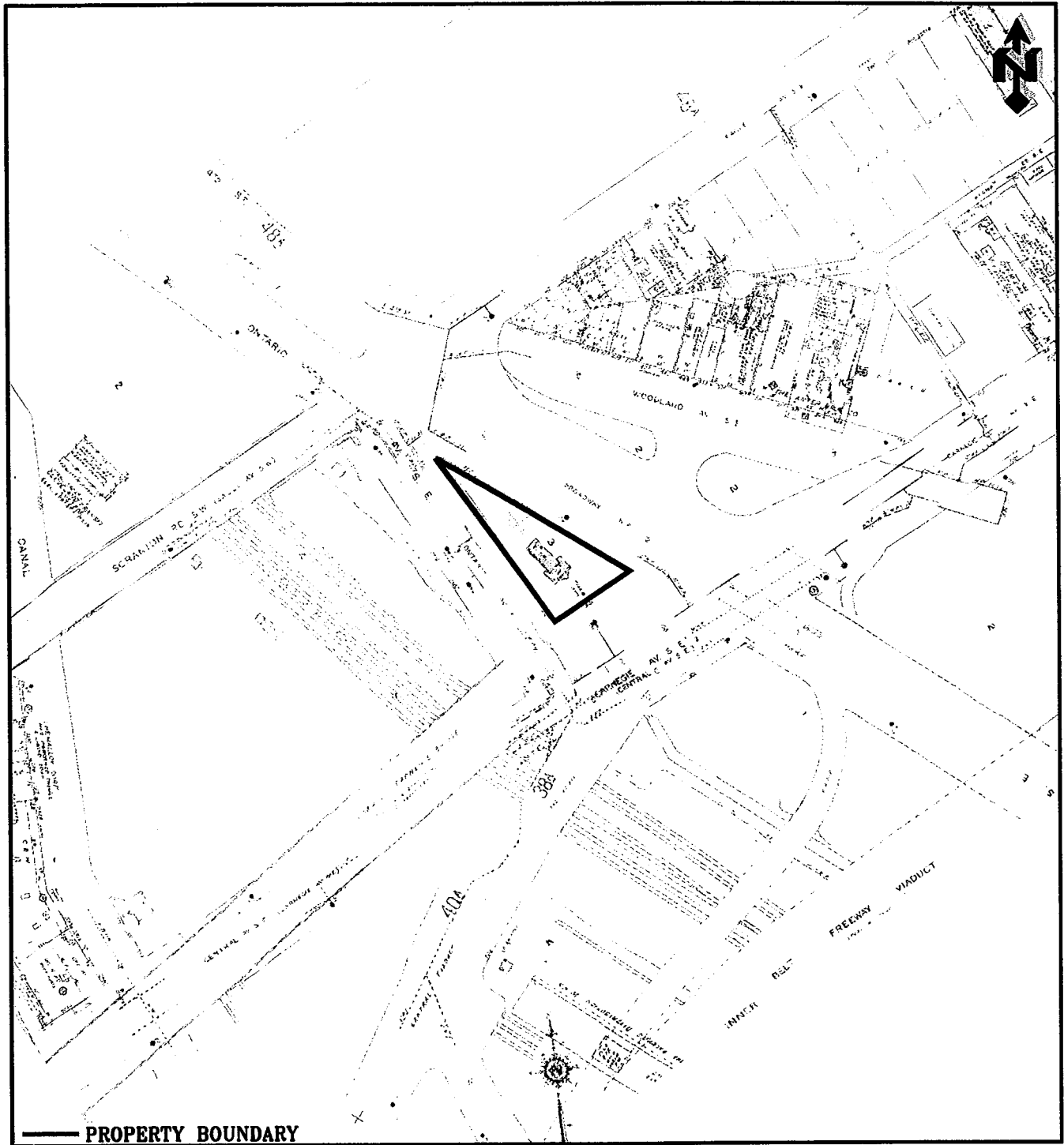


PROPERTY BOUNDARY



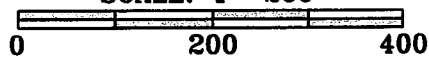
1972 SANBORN INSURANCE MAP

11-12-SB-72.dwg Revisey Dec 04, 2009



PROPERTY BOUNDARY

SCALE: 1"=200'



APPENDIX L

FIRSTSEARCH REPORT

FirstSearch Technology Corporation

Environmental FirstSearch™ Report

Target Property:

**2432 ONTARIO ST
CLEVELAND OH 44115**

Job Number: H09004-12

PREPARED FOR:

HZW Environmental
6105 Heisley Rd
Mentor, OH 44060

11-24-09



Tel: (317) 823-3500

Fax: (317) 823-3535

**Environmental FirstSearch
Search Summary Report**

**Target Site: 2432 ONTARIO ST
CLEVELAND OH 44115**

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	09-11-09	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	09-11-09	0.50	0	0	0	0	-	0	0
CERCLIS	Y	10-01-09	0.50	0	0	0	0	-	0	0
NFRAP	Y	10-01-09	0.50	0	0	0	5	-	0	5
RCRA COR ACT	Y	10-14-09	1.00	0	0	0	0	4	0	4
RCRA TSD	Y	10-14-09	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	10-14-09	0.25	0	1	9	-	-	1	11
Federal IC / EC	Y	10-01-09	0.25	0	2	0	-	-	0	2
ERNS	Y	09-13-09	0.25	0	0	1	-	-	2	3
Tribal Lands	Y	12-01-05	1.00	0	0	0	0	0	0	0
State/Tribal Sites	Y	07-30-09	1.00	0	0	1	6	19	1	27
State Spills 90	Y	09-16-09	0.25	0	3	4	-	-	22	29
State/Tribal SWL	Y	02-27-09	0.50	0	0	0	0	-	0	0
State/Tribal LUST	Y	11-10-09	0.50	0	3	19	22	-	3	47
State/Tribal UST/AST	Y	11-10-09	0.25	0	2	4	-	-	0	6
State/Tribal EC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal IC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	02-02-09	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	08-01-09	0.50	0	0	0	0	-	0	0
- TOTALS -				0	11	38	33	23	29	134

Notice of Disclaimer

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: 11-24-09
Requestor Name: Kattie Evilsizer
Standard: ASTM-05

Search Type: COORD
Job Number: H09004-12
Filtered Report

Target Site: 2432 ONTARIO ST
 CLEVELAND OH 44115

Demographics

Sites: 134	Non-Geocoded: 29	Population: NA
Radon: NA		

Site Location

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>	<u>UTMs</u>
Longitude:	-81.686595	-81:41:12	Easting: 442688.382
Latitude:	41.494593	41:29:41	Northing: 4593678.721
			Zone: 17

Comment

Comment: ODOT PPN 101-32-038

Additional Requests/Services

Adjacent ZIP Codes: 1 Mile(s)					Services:																																									
<table border="1"> <thead> <tr> <th>ZIP Code</th> <th>City Name</th> <th>ST</th> <th>Dist/Dir</th> <th>Sel</th> </tr> </thead> <tbody> <tr> <td>44113</td> <td>CLEVELAND</td> <td>OH</td> <td>0.06 NW</td> <td>Y</td> </tr> <tr> <td>44114</td> <td>CLEVELAND</td> <td>OH</td> <td>0.39 NW</td> <td>Y</td> </tr> </tbody> </table>					ZIP Code	City Name	ST	Dist/Dir	Sel	44113	CLEVELAND	OH	0.06 NW	Y	44114	CLEVELAND	OH	0.39 NW	Y	<table border="1"> <thead> <tr> <th></th> <th>Requested?</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Sanborns</td> <td>Yes</td> <td>11-24-09</td> </tr> <tr> <td>Aerial Photographs</td> <td>No</td> <td></td> </tr> <tr> <td>Historical Topos</td> <td>No</td> <td></td> </tr> <tr> <td>City Directories</td> <td>No</td> <td></td> </tr> <tr> <td>Title Search/Env Liens</td> <td>No</td> <td></td> </tr> <tr> <td>Municipal Reports</td> <td>No</td> <td></td> </tr> <tr> <td>Online Topos</td> <td>No</td> <td></td> </tr> </tbody> </table>				Requested?	Date	Sanborns	Yes	11-24-09	Aerial Photographs	No		Historical Topos	No		City Directories	No		Title Search/Env Liens	No		Municipal Reports	No		Online Topos	No	
ZIP Code	City Name	ST	Dist/Dir	Sel																																										
44113	CLEVELAND	OH	0.06 NW	Y																																										
44114	CLEVELAND	OH	0.39 NW	Y																																										
	Requested?	Date																																												
Sanborns	Yes	11-24-09																																												
Aerial Photographs	No																																													
Historical Topos	No																																													
City Directories	No																																													
Title Search/Env Liens	No																																													
Municipal Reports	No																																													
Online Topos	No																																													



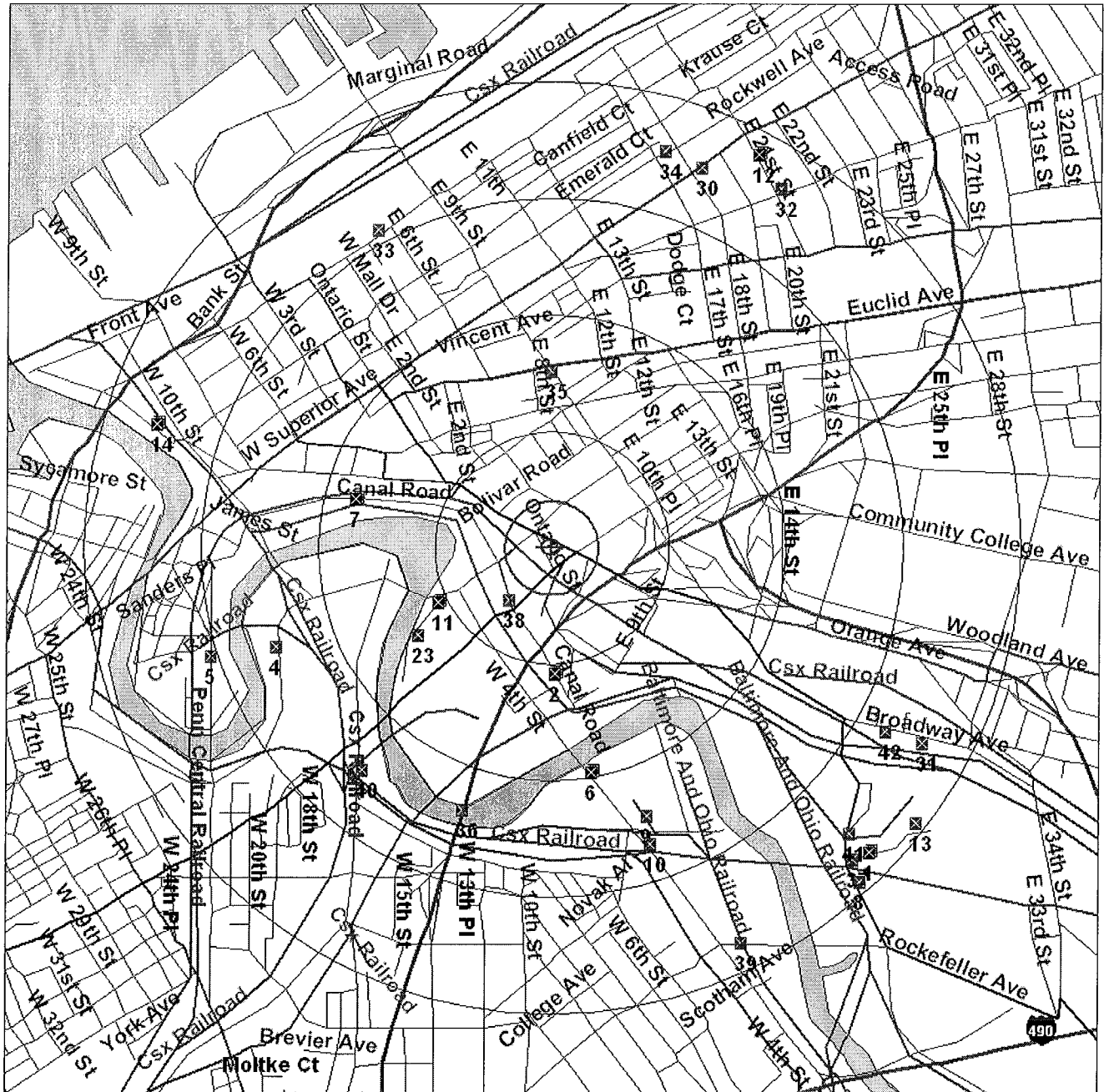
Environmental FirstSearch

1 Mile Radius

ASTM-05: NPL, RCRACOR, STATE



2432 ONTARIO ST, CLEVELAND OH 44115



Source: 2002 U.S. Census TIGER Files

Target Site (Latitude: 41.494593 Longitude: -81.686595)

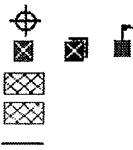
Identified Site, Multiple Sites, Receptor

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

T:

Railroads

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



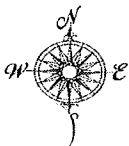
Environmental FirstSearch

.5 Mile Radius

ASTM-05: Multiple Databases

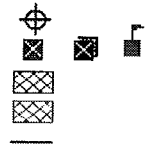


2432 ONTARIO ST, CLEVELAND OH 44115



Source: 2002 U.S. Census TIGER Files

- Target Site (Latitude: 41.494593 Longitude: -81.686595)
- Identified Site, Multiple Sites, Receptor
- NPI DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste
T₁
- Railroads



Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

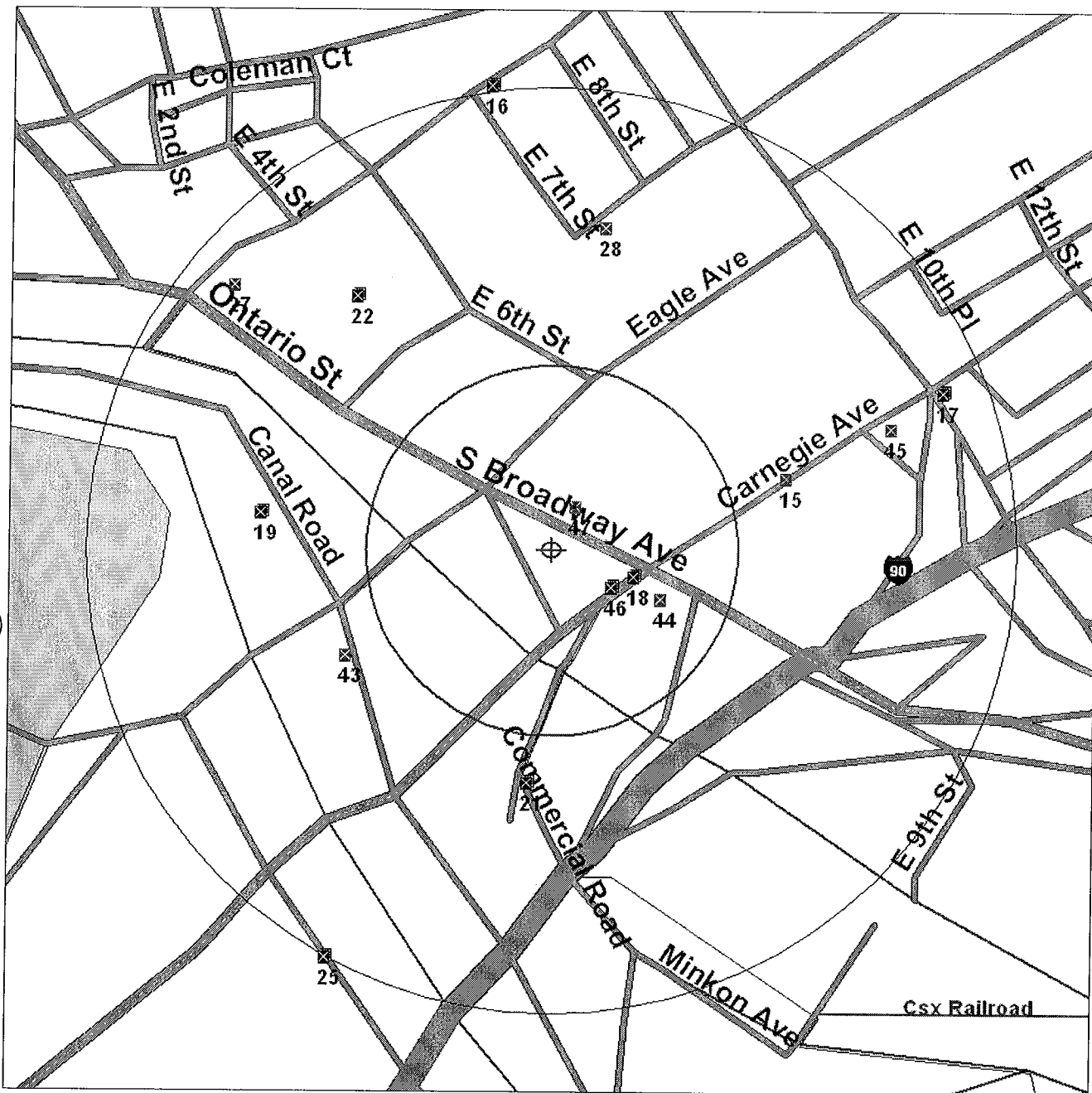


Environmental FirstSearch

.25 Mile Radius
ASTM-05: SPILLS90, RCRAGEN, ERNS, UST



2432 ONTARIO ST, CLEVELAND OH 44115



Source: 2002 U.S. Census TIGER Files

Target Site (Latitude: 41.494593 Longitude: -81.686595)

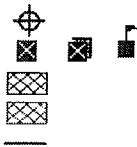
Identified Site, Multiple Sites, Receptor

NPI DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

T:

Railroads

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



Environmental FirstSearch Sites Summary Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

TOTAL: 134 **GEOCODED:** 105 **NON GEOCODED:** 29 **SELECTED:** 0

Page No.	ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	91	LUST	SHELL OIL CO. 23416661595 18000287-N00001/FACILITY INACTIVE	501 CARNEGIE CLEVELAND OH 44115	0.02 NW	67
1	58	UST	OHIO BELL TELEPHONE CO. L28101 18000737/CURRENTLY IN USE	739 S BROADWAY CLEVELAND OH 44115	0.03 NE	47
2	106	FEDBROWNFIELD	WESTERN RESERVE FIRE MUSEUM AT CLE 69597513-15574/EPA BROWNFIELD	310 CARNEGIE AVENUE CLEVELAND OH 44115	0.04 SE	46
3	105	FEDBROWNFIELD	WESTERN RESERVE FIRE MUSEUM AT CLE 69597513-3/EPA BROWNFIELD	310 CARNEGIE AVENUE CLEVELAND OH 44115	0.04 SE	46
3	71	LUST	CITY OF CLEVELAND FIRE ALARM 18000667-N00001/FACILITY INACTIVE	310 CARNEGIE AVE CLEVELAND OH 44115	0.04 SE	46
4	57	UST	CITY OF CLEVELAND FIRE ALARM 18000667	310 CARNEGIE AVE CLEVELAND OH 44115	0.04 SE	46
5	13	RCRAGN	CLEVELAND BLACK OXIDE OHD016150062/LGN	836 BROADWAY AVE CLEVELAND OH 44115	0.05 SE	18
7	49	SPILLS	CLEVELAND BLACK OXIDE 1992-1750	836 BROADWAY CLEVELAND OH 44115	0.05 SE	18
7	48	SPILLS	CLEAN HARBORS 1998-1881	1200 BROADWAY ST CLEVELAND OH 44115	0.06 SE	44
8	85	LUST	NORFOLK and WESTERN RAILWAY CO. 18006841-N00001/FACILITY INACTIVE	308 CENTRAL VIADUCT CLEVELAND OH 44113	0.10 SW	64
8	47	SPILLS	CHEMALLOY CORP 1997-4959	2338 CANAL RD CLEVELAND OH 44113	0.12 SW	43
9	10	RCRAGN	ALROY PRINTING CORP OHD004156964/SGN	737 CARNEGIE AVE CLEVELAND OH 44115	0.13 NE	15
11	97	LUST	TERMINAL OIL 18006838-N00003/FACILITY ACTIVE	300 CENTRAL VIADUCT CLEVELAND OH 44113	0.13 SW	21
11	96	LUST	TERMINAL OIL 18006838-N00002/FACILITY ACTIVE	300 CENTRAL VIADUCT CLEVELAND OH 44113	0.13 SW	21
12	99	LUST	TERMINAL OIL 18006838-N00001/FACILITY ACTIVE	300 CENTRAL VIADUCT CLEVELAND OH 44113	0.13 SW	21
12	100	LUST	TERMINAL OIL CO 182175501/INITIAL CORRECTIVE A	300 CENTRAL VIADUCT (GILLOT CLEVELAND OH 44113	0.13 SW	21
13	78	LUST	GILLOTA INC 182175503/NO FURTHER ACTION	300 CENTRAL VIADUCT CLEVELAND OH 44113	0.13 SW	21
14	98	LUST	TERMINAL OIL 18006838-N00004/FACILITY ACTIVE	300 CENTRAL VIADUCT CLEVELAND OH 44113	0.13 SW	21
15	15	RCRAGN	GILLOTA INC OHD027382589/TRANSPORTER	300 CENTRAL VIADUCT CLEVELAND OH 44113	0.13 SW	21
16	53	SPILLS	UNDETERMINED 2001-4194	300 CENTRAL VIA DUCT CLEVELAND OH 44113	0.13 SW	21
17	59	UST	TERMINAL OIL 18006838/CURRENTLY IN USE	300 CENTRAL VIADUCT CLEVELAND OH 44113	0.13 SW	21

Environmental FirstSearch Sites Summary Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

TOTAL: 134 **GEOCODED:** 105 **NON GEOCODED:** 29 **SELECTED:** 0

Page No.	ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
19	34	STATE	KOBLITZ KOHN, CLEVELAND DERR-218-2371/DERR DATABASE	2380 CANAL RD CLEVELAND OH 44113	0.14 SW	38
20	20	ERNS	NRC-525361/CONTINUOUS	CANNAL ROAD STEAM PLANT 227 CLEVELAND OH 44113	0.16 NW	19
23	14	RCRAGN	DOMINION CLEVELAND THERMAL, INC OHD980278428/VGN	2274 CANAL RD CLEVELAND OH 44113	0.16 NW	19
24	52	SPILLS	CLEVELAND THERMAL ENERGY CORP 1991-3638	2274 CANAL RD CLEVELAND OH 44113	0.16 NW	19
24	50	SPILLS	CLEVELAND ENERGY 1999-362	2274 CANAL RD CLEVELAND OH 44113	0.16 NW	19
25	104	LUST	WandW MEATS 18010062-N00001/FACILITY INACTIVE	2394 CANAL RD CLEVELAND OH 44113	0.16 SW	69
25	77	LUST	GATEWAY BASEBALL STADIUM 183248900/NO FURTHER ACTION	CARNEGIE AVE (PLAYERS PARKI CLEVELAND OH 44115	0.17 NW	22
26	69	LUST	CA VALIERS OPERATING COMPANY LLC 18000974-N00002/FACILITY INACTIVE	1 CENTER COURT CLEVELAND OH 44115	0.17 NW	22
26	67	LUST	CA VALIERS OPERATING COMPANY LLC 18000974-N00004/FACILITY INACTIVE	1 CENTER COURT CLEVELAND OH 44115	0.17 NW	22
27	68	LUST	CA VALIERS OPERATING COMPANY LLC 18000974-N00001/FACILITY INACTIVE	1 CENTER COURT CLEVELAND OH 44115	0.17 NW	22
27	66	LUST	CA VALIERS OPERATING COMPANY LLC 18000974-N00003/FACILITY INACTIVE	1 CENTER COURT CLEVELAND OH 44115	0.17 NW	22
28	16	RCRAGN	GUND ARENA OHR000117705/SGN	1 CENTER CT CLEVELAND OH 44115	0.17 NW	22
29	56	UST	CA VALIERS OPERATING COMPANY LLC 18000974/CURRENTLY IN USE	1 CENTER COURT CLEVELAND OH 44115	0.17 NW	22
30	19	RCRAGN	ZAREMBA OHR000103473/VGN	737 BOLIVAR RD, 1ST-3RD FLR CLEVELAND OH 44115	0.18 NE	28
31	51	SPILLS	CLEVELAND PUBLIC POWER 1991-556	824 CARNEGIE CLEVELAND OH 44115	0.19 NE	45
31	101	LUST	UNITED CHRUCH OF CHRIST 18010441-N00001/FACILITY INACTIVE	600 BLOCK OF EAST HURON ST CLEVELAND OH 44115	0.22 NW	68
32	18	RCRAGN	TOWER CITY PARKING GARAGE OHR000026021/LGN	230 HURON RD CLEVELAND OH 44115	0.22 NW	27
33	73	LUST	DESIGN UNION 18002517-N00001/FACILITY INACTIVE	1902 W 3RD ST CLEVELAND OH 44113	0.22 SW	55
33	64	LUST	CARNEGIE ENERGY INC 18002109-N00002/FACILITY INACTIVE	900 CARNEGIE AVE CLEVELAND OH 44115	0.23 NE	17
34	76	LUST	FORMER CLEVELAND PLANT and FLOWER 18011038-N00001/FACILITY INACTIVE	2419 E 9 ST CLEVELAND OH 44115	0.23 NE	58

**Environmental FirstSearch
Sites Summary Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

TOTAL: 134 **GEOCODED:** 105 **NON GEOCODED:** 29 **SELECTED:** 0

Page No.	ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
34	63	LUST	CARNEGIE ENERGY INC 18002109-N00001/FACILITY INACTIVE	900 CARNEGIE AVE CLEVELAND OH 44115	0.23 NE	17
35	12	RCRAGN	BP OIL CO SITE 04385 OHD987026234/VGN	900 CARNEGIE AVE CLEVELAND OH 44115	0.23 NE	17
36	55	UST	CARNEGIE ENERGY INC 18002109/CURRENTLY IN USE	900 CARNEGIE AVE CLEVELAND OH 44115	0.23 NE	17
37	70	LUST	CITY OF CLEVELAND 183131400/REPORTED	BOLLIVAR and E 9TH CLEVELAND OH 44115	0.24 NE	53
38	11	RCRAGN	ATandT CORPORATION OHT400013991/SGN	700 HURON RD CLEVELAND OH 44115	0.25 NW	16
39	54	UST	ATandT OH7110 18010799/CURRENTLY IN USE	700 HURON CLEVELAND OH 44115	0.25 NW	16
39	82	LUST	INTERSTATE AGENCY BLDG 18010130-N00001/FACILITY INACTIVE	1978 W 3RD ST CLEVELAND OH 44113	0.25 SW	25
40	17	RCRAGN	PLASTIC FINISHERS OHR000012724/SGN	1978 W THIRD ST CLEVELAND OH 44113	0.25 SW	25
41	86	LUST	OHIO BELL TELEPHONE CO. L23105 18000747-N00001/FACILITY INACTIVE	750 HURON RD CLEVELAND OH 44115	0.26 NW	24
41	84	LUST	NORFOLK and SOUTHERN RAILWAY CO 18010026-N00001/FACILITY INACTIVE	840 MINKON AVE CLEVELAND OH 44113	0.27 SE	63
42	1	NFRAP	ARNSON BARREL COMPANY OHD017708249/NFRAP-N	2484 CANAL ROAD CLEVELAND OH 44113	0.27 SE	2
43	21	STATE	ARNSON BARREL CO DERR-218-0054/DERR DATABASE	2484 CANAL RD CLEVELAND OH 44113	0.27 SE	2
44	5	NFRAP	WAREHOUSE OHD980704712/NFRAP-N	280 STONES LEVEE CLEVELAND OH 44113	0.27 SW	11
45	46	STATE	WHSE DERR-218-0889/DERR DATABASE	280 STONE LEVEE CLEVELAND OH 44113	0.27 SW	11
46	90	LUST	PIPING EQUIPMENT 18002238-N00001/FACILITY INACTIVE	2769 COMMERCIAL RD CLEVELAND OH 44113	0.28 SE	66
46	2	NFRAP	CHEMICAL and MINERALS RECLAMATION OHD980704233/NFRAP-N	401 STONE S LEVEE CLEVELAND OH 44113	0.28 SW	3
47	80	LUST	HIGH STREET PROPERTIES 18010898-N00001/FACILITY INACTIVE	211 HIGH ST CLEVELAND OH 44115	0.29 NW	60
47	61	LUST	AMERITRUST CORP 18010219-N00001/FACILITY INACTIVE	1124 BOLIVAR AVE CLEVELAND OH 44115	0.33 NE	50
48	24	STATE	CHEMICAL and MINERALS RECLAMATION DERR-218-0154/DERR DATABASE	601 STONES LEVEE CLEVELAND OH 44113	0.34 SW	23
49	102	LUST	UNITED GARAGE and SERVICE CORP. 18002210-N00001/FACILITY ACTIVE	2069 W 3RD ST CLEVELAND OH 44113	0.35 SW	48

**Environmental FirstSearch
Sites Summary Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

TOTAL: 134 **GEOCODED:** 105 **NON GEOCODED:** 29 **SELECTED:** 0

Page No.	ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
50	30	STATE	DOWNTOWN BLDG COMPLEX CLEVELAND - DERR-218-2126/DERR DATABASE	EUCLID AVE and E 9TH ST CLEVELAND OH 44115	0.38 NW	35
54	94	LUST	STANDARD LAFARGE 18000176-N00002/FACILITY INACTIVE	2100 W 3RD ST CLEVELAND OH 44113	0.38 SW	29
54	95	LUST	STANDARD LAFARGE 18000176-N00001/FACILITY ACTIVE	2100 W 3RD ST CLEVELAND OH 44113	0.38 SW	29
55	88	LUST	OSF PROPERTIES 18011027-N00001/FACILITY ACTIVE	515 EUCLID AVE CLEVELAND OH 44114	0.39 NW	65
55	60	LUST	AMERICAN RED CROSS 18010103-N00001/FACILITY INACTIVE	1227 PROSPECT AVE CLEVELAND OH 44115	0.40 NE	49
56	72	LUST	CLEVELAND BUILDERS SUPPLY 18010167-N00001/FACILITY INACTIVE	2146 W 3RD ST CLEVELAND OH 44113	0.40 SE	54
56	62	LUST	BP OIL CO. 54182 18002142-N00001/FACILITY INACTIVE	1335 CARNEGIE AVE CLEVELAND OH 44115	0.41 NE	51
57	4	NFRAP	SHERWIN-WILLIAMS CO THE OHD074552258/NFRAP-N	601 CANAL RD CLEVELAND OH 44113	0.43 NW	7
58	40	STATE	SHERWIN-WILLIAMS CO, CLEVELAND - 6 DERR-218-0733/DERR DATABASE	601 CANAL RD CLEVELAND OH 44113	0.43 NW	7
59	75	LUST	FERRUM MATERIALS 18010538-N00001/FACILITY INACTIVE	1896 SCRANTON RD CLEVELAND OH 44113	0.43 SW	57
59	83	LUST	MORGAN LINEN SERVICE 188153500/REPORTED	1548 CARTER RD CLEVELAND OH 44113	0.43 SW	62
60	65	LUST	CATON COURT PARKING 18010899-N00001/FACILITY INACTIVE	2171 E 14TH ST CLEVELAND OH 44115	0.45 NE	52
60	103	LUST	VACANT BUILDING 18010916-N00001/FACILITY INACTIVE	2215 E 14TH ST CLEVELAND OH 44115	0.46 NE	20
61	74	LUST	DINDIA and ASSOC 184145200/REPORTED	2245 E 14TH ST CLEVELAND OH 44115	0.47 NE	56
62	79	LUST	HANNA PARKING 18010121-N00001/FACILITY INACTIVE	1405 PROSPECT RD CLEVELAND OH 44115	0.48 NE	59
63	87	LUST	ONE PLAYHOUSE SQUARE BUILDING 189026300/REPORTED	1375 EUCLID AVE CLEVELAND OH 44115	0.48 NE	26
64	92	LUST	SHELL OIL CO. TERMINAL 18007608-N00002/FACILITY INACTIVE	2201 W 3RD ST CLEVELAND OH 44113	0.49 SE	6
64	93	LUST	SHELL OIL CO. TERMINAL 18007608-N00001/FACILITY INACTIVE	2201 W 3RD ST CLEVELAND OH 44113	0.49 SE	6
65	3	NFRAP	SHELL OIL CO MARKETING OHD000609149/NFRAP-N	2201 W THIRD ST CLEVELAND OH 44113	0.49 SE	6
66	39	STATE	SHELL OIL CO MARKETING, CLEVELAND DERR-218-0729/DERR DATABASE	2201 W THIRD ST CLEVELAND OH 44113	0.49 SE	6

**Environmental FirstSearch
Sites Summary Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

TOTAL: 134 **GEOCODED:** 105 **NON GEOCODED:** 29 **SELECTED:** 0

Page No.	ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
67	81	LUST	INDEPENDENT TOWEL 18002519-N00001/FACILITY ACTIVE	1802 CENTRAL AVE CLEVELAND OH 44115	0.50 NE	61
68	32	STATE	I-490 ODOT, CLEVELAND - PIER 14N I DERR-218-1059/DERR DATABASE	PIER 14 N I-490 BRIDGE CLEVELAND OH 44113	0.60 SW	36
69	42	STATE	TEXACO INC, CLEVELAND - 250 MAHONI DERR-218-0798/DERR DATABASE	250 MAHONING AVE CLEVELAND OH 44113	0.61 SE	9
70	27	STATE	CLEVELAND NUT and BOLT DIV - 1970 DERR-218-0185/DERR DATABASE	1970 CARTER RD CLEVELAND OH 44113	0.62 SW	4
71	37	STATE	RIVERSIDE LANDING, CLEVELAND DERR-218002534/DERR DATABASE	2033 and 2065 SCRANTON RD CLEVELAND OH 44113	0.63 SW	40
73	45	STATE	USHER WASTE OIL SERVICE, CLEVELAND DERR-218-0873/DERR DATABASE	2205 W THIRD ST CLEVELAND OH 44113	0.67 SE	10
74	31	STATE	GIBSON and PRICE WORKS, CLEVELAND DERR-218-0334/DERR DATABASE	1786 COLUMBUS RD CLEVELAND OH 44113	0.76 SW	5
75	28	STATE	CUYAHOGA CO BROWNFIELD DERR-218-1978/DERR DATABASE	401 LAKESIDE AVE CLEVELAND OH 44114	0.78 NW	33
76	44	STATE	US STEEL CORP LORAIN CUYAHOGA WORK DERR-218-0953/DERR DATABASE	CENTRAL FURNACES 2650 BROAD CLEVELAND OH 44115	0.82 SE	42
77	22	STATE	AVON DRIVE-IN LAUNDRY and DRY CLEA DERR-218002667/DERR DATABASE	1830 - 1850 SUPERIOR AVE CLEVELAND OH 44114	0.88 NE	30
78	29	STATE	DIAL SERVICES MFG CO, CLEVELAND DERR-218-1597/DERR DATABASE	1741 ROCKWELL AVE CLEVELAND OH 44114	0.88 NE	34
80	9	RCRACOR	SAMSEL SERVICE CO OHD017831488/CA	1285 OLD RIVER RD CLEVELAND OH 44113	0.88 NW	14
81	38	STATE	SAMSEL SERVICE CO, CLEVELAND DERR-218-1133/DERR DATABASE	1285 OLD RIVER RD CLEVELAND OH 44113	0.88 NW	14
82	43	STATE	TRANSPORT RD REFINERY NO 1 BP OIL DERR-218-2010/DERR DATABASE	2635 BROADWAY RD CLEVELAND OH 44115	0.89 SE	41
83	23	STATE	CHEM-CLEAR INC, CLEVELAND DERR-218-1132/DERR DATABASE	2900 BROADWAY CLEVELAND OH 44115	0.90 SE	31
84	26	STATE	CHILCOTE CO, CLEVELAND - 2103 PAYN DERR-218-1914/DERR DATABASE	2103 PAYNE AVE CLEVELAND OH 44114	0.91 NE	32
85	33	STATE	KINGSBURY RUN, CLEVELAND DERR-218-1052/DERR DATABASE	NEAR BROADWAY and TRANSPORT CLEVELAND OH 44115	0.93 SE	37
86	8	RCRACOR	ROBERT KATULLA PROPERTY (W-2 TANK OHR000111021/CA	2655 TRANSPORT RD CLEVELAND OH 44115	0.94 SE	1
86	35	STATE	LAUREL PIPE LINE CO CLEVELAND MS DERR-218-0459/DERR DATABASE	250 JEFFERSON AVE CLEVELAND OH 44113	0.94 SE	39
87	36	STATE	RESEARCH OIL CO PLT 1, CLEVELAND - DERR-218-1078/DERR DATABASE	2655 TRANSPORT RD CLEVELAND OH 44115	0.94 SE	1

**Environmental FirstSearch
Sites Summary Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

TOTAL: 134 **GEOCODED:** 105 **NON GEOCODED:** 29 **SELECTED:** 0

Page No.	ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
88	6	RCRACOR	BARKER PRODUCTS CO OHD049386022/CA	1563 E 21ST ST CLEVELAND OH 44114	0.95 NE	12
89	25	STATE	CHILCOTE CO, CLEVELAND - 1545and15 DERR-218-1993/DERR DATABASE	1545 and 1563 E 21ST ST CLEVELAND OH 44114	0.95 NE	12
91	7	RCRACOR	GENERAL ENVIRONMENTAL MANAGEMENT L OHD004178612/CA	2727 TRANSPORT ROAD CLEVELAND OH 44115	0.98 SE	13
92	41	STATE	SOHIO NO 1 REF, CLEVELAND - 2635 B DERR-218-0747/DERR DATABASE	2635 BROADWAY AVE CLEVELAND OH 44115	0.98 SE	8

Environmental FirstSearch Sites Summary Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

TOTAL: 134 **GEOCODED:** 105 **NON GEOCODED:** 29 **SELECTED:** 0

Page No.	ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
93	109	ERNS	CLEV ELEC ILLUMINATING 526445/UNKNOWN	EAST BOUND RAMP TO I-90 OFF CLEVELAND OH 44113	NON GC	
93	108	ERNS	CARNEGIE SHELL 3020 CARNEGIE AVE NRC-913568/FIXED	CARNEGIE SHELL 3020 CARNEGI CLEVELAND OH	NON GC	
94	89	LUST	PARKING LOT 77002274-N00001/FACILITY INACTIVE	764 S BROADWAY CLEVELAND OH 44115	NON GC	
94	133	LUST	CIRCLE 118 CONSTRUCTION PROJECT 18011207-N00001/FACILITY INACTIVE	11801 EUCLID AVE CLEVELAND OH	NON GC	
95	134	LUST	WARNER and SWASEY 18010166-N00001/FACILITY ACTIVE	CARNEGIE AVE CLEVELAND OH 44114	NON GC	
96	107	RCRAGN	CAMERA CITY and AUDIO OHR000143099/VGN	820 HURON RD SE CLEVELAND OH 44115	NON GC	
97	113	SPILLS	NATURAL 2002-904	CANAL RD and STRONTON LANE CLEVELAND OH	NON GC	
97	116	SPILLS	UNK 2001-2004	I-90 WB and I-77 CLEVELAND OH	NON GC	
98	114	SPILLS	NERSD WWTP 2001-4679	CANAL RD CLEVELAND OH	NON GC	
98	115	SPILLS	PROSO CO 1991-3718	I-90 NEAR E 55 CLEVELAND OH	NON GC	
99	112	SPILLS	CLEVELAND WWTP 2001-4727	CANAL RD CLEVELAND OH	NON GC	
99	111	SPILLS	CLEVELAND CITY 2001-3448	LORAIN CARNEGIE BRIDGE CLEVELAND OH	NON GC	
100	118	SPILLS	YUASA EXIDE INC 1994-1031	ONTARIO and CARNEGIE STS CLEVELAND OH	NON GC	
100	125	SPILLS	2004-5154	I-90 EB MP 174 CLEVELAND OH	NON GC	
101	124	SPILLS	2005-691	I-90 EB TO OUTER BELT RAMP CLEVELAND OH	NON GC	
102	123	SPILLS	OHSP-0506-554	I-90 EAST OF EDDY RD CLEVELAND OH	NON GC	
102	122	SPILLS	OHSP-0307-25	I-90 WB EXIT 169. CLEVELAND OH	NON GC	
103	121	SPILLS	OHSP-0308-4352	CANAL RD CLEVELAND OH	NON GC	
103	130	SPILLS	JF TRUCKING 1999-343	W 3RD ST and LAKESIDE DR CLEVELAND OH 44113	NON GC	
104	119	SPILLS	2005-1008	I-90 EB AT RT 2 WB LANE CLEVELAND OH	NON GC	

**Environmental FirstSearch
Sites Summary Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

TOTAL: 134 **GEOCODED:** 105 **NON GEOCODED:** 29 **SELECTED:** 0

Page No.	ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
104	132	SPILLS	UNK 1999-4378	WEST 18TH UNDER LORAIN CARN CLEVELAND OH 44113	NON GC	
105	117	SPILLS	UNK 1990-3093	I-90 WB (I M E OF MLK BLVD CLEVELAND OH	NON GC	
105	126	SPILLS	2004-414	CANAL RD W THIRD ST CLEVELAND OH	NON GC	
106	127	SPILLS	OHSP-2009-3-648	1215 W 3RD ST CLEVELAND OH	NON GC	
106	128	SPILLS	OHSP-2009-9-2629	100 CARNEGIE ST CLEVELAND OH	NON GC	
107	129	SPILLS	OHSP-2009-9-2655	I-90 AT DRAWBRIDGE CLEVELAND OH	NON GC	
107	131	SPILLS	KALISH 2003-3111	W 44TH N OF I-90 WB CLEVELAND OH 44113	NON GC	
108	120	SPILLS	OHSP-1008-1593	W 3RD ST BRIDGE CLEVELAND OH	NON GC	
109	110	STATE	CLEVELAND CITY-WIDE USD DERR-218002661/DERR DATABASE	601 LAKESIDE AVE, RM 210 AL CLEVELAND OH 44114	NON GC	

***Environmental FirstSearch
Site Detail Report***

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

FED BROWNFIELD

SEARCH ID: 106

DIST/DIR: 0.04 SE

MAP ID: 46

NAME: WESTERN RESERVE FIRE MUSEUM AT CLEVELAND, INC.
ADDRESS: 310 CARNEGIE AVENUE
CLEVELAND OH 44115
CUYAHOGA

REV: 10/1/09
ID1: 69597513-15574
ID2: 15574
STATUS: EPA BROWNFIELD
PHONE:

CONTACT:

SITE INFORMATION:

PROPERTY SIZE (acres): 0.28
PARCEL NUMBER: 112-16-017
CURRENT OWNER: CITY OF CLEVELAND
OWNERSHIP ENTITY: GOVERNMENT

MEDIA FOUND

SOIL:	AIR:
SURFACE WATER:	GROUND WATER:
DRINKING WATER:	SEDIMENTS:

CONTAMINANTS CLEANED UP

PETROLEUM:	CONTROLLED SUB:
ASBESTOS:	PCB:
VOC:	LEAD:
OTHER METAL:	PAHS:
OTHER:	UNKNOWN:
NONE:	

MEDIA CLEANED UP

SOIL:	AIR:
SURFACE WATER:	GROUND WATER:
DRINKING WATER:	SEDIMENTS:
UNKNOWN:	NONE:

STATE/TRIBAL PROG ID:
STATE/TRIBE PROG ENROLL:
NOT ENROLLED: Y
NFA ISSUE DATE:
IC REQUIRED: N
IC IN PLACE: U
IC IN PLACE DATE:
PROPRIETARY CONTROLS:
GOVERNMENTAL CONTROLS:
ENFORCE PERM TOOLS:
INFORM DEVICES:
IC DATA ADDRESS:
PHOTO AVAIL: Y
VIDEO AVAIL: N

PROPERTY DESC/ FORMER USE: The building formerly was utilized as a fire station. The building was being utilized by the City of Cleveland for the Safety Signal Department at the time of the application. The applicants hope to redevelop the structure into a Fire Museum.

***Environmental FirstSearch
Site Detail Report***

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

FED BROWNFIELD

SEARCH ID: 105 **DIST/DIR:** 0.04 SE **MAP ID:** 46

NAME:	WESTERN RESERVE FIRE MUSEUM AT CLEVELAND, INC.	REV:	5/5/09
ADDRESS:	310 CARNEGIE AVENUE CLEVELAND OH 44115 CUYAHOGA	ID1:	69597513-3
		ID2:	3
CONTACT:		STATUS:	EPA BROWNFIELD
		PHONE:	

SITE INFORMATION:

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 71 **DIST/DIR:** 0.04 SE **MAP ID:** 46

NAME:	CITY OF CLEVELAND FIRE ALARM	REV:	11/10/09
ADDRESS:	310 CARNEGIE AVE CLEVELAND OH 44115 CUYAHOGA	ID1:	18000667-N00001
CONTACT:		ID2:	
		STATUS:	FACILITY INACTIVE
		PHONE:	

SITE INFORMATION

RELEASE NUMBER:	18000667-N00001
RELEASE DATE:	2003-05-28 00:00:00
PRIORITY:	2
REVIEW DATE:	
LTF STATUS:	Closure of regulated UST
FR STATUS:	NFA: No Further Action

*Environmental FirstSearch
Site Detail Report*

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 13 **DIST/DIR:** 0.05 SE **MAP ID:** 18

NAME:	CLEVELAND BLACK OXIDE	REV:	10/14/09
ADDRESS:	836 BROADWAY AVE CLEVELAND OH 44115 CUYAHOGA	ID1:	OHD016150062
CONTACT:		ID2:	
		STATUS:	LGN
		PHONE:	

SITE INFORMATION

CONTACT INFORMATION: KENNETH SCHULZ
836 BROADWAY AVE
CLEVELAND OH 44115

PHONE: 2168614431

CONTACT INFORMATION: DAVID TATHAM
836 BROADWAY AVE
CLEVELAND OH 44115

PHONE: 2168614431

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

<i>GPRA PERMIT:</i>	N - NO
<i>GPRA POST CLOSURE:</i>	N - NO
<i>GPRA CA:</i>	N - NO
<i>GPRA COMPLIANCE MONITORING and ENFORCEMENT:</i>	N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

<i>SUBJCA:</i>	N - NO
<i>SUBJCA TSD 3004:</i>	N - NO
<i>SUBJCA NON TSD:</i>	N - NO

<i>SIGNIFICANT NON-COMPLIANCE(SNC):</i>	N - NO
<i>BEGINNING OF THE YEAR SNC:</i>	N - NO
<i>PERMIT WORKLOAD:</i>	----
<i>CLOSURE WORKLOAD:</i>	----
<i>POST CLOSURE WORKLOAD:</i>	----
<i>PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:</i>	----
<i>CORRECTIVE ACTION WORKLOAD:</i>	N - NO
<i>GENERATOR STATUS:</i>	SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000
<i>KG/MONTH OF HAZARDOUS WASTE</i>	

NAIC INFORMATION

332813 - ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING

ENFORCEMENT INFORMATION:

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 13

DIST/DIR: 0.05 SE

MAP ID: 18

NAME: CLEVELAND BLACK OXIDE
ADDRESS: 836 BROADWAY AVE
CLEVELAND OH 44115
CUYAHOGA

REV: 10/14/09
ID1: OHD016150062
ID2:
STATUS: LGN
PHONE:

CONTACT:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Spent cyanide plating bath solutions from electroplating operations.
Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel;
Reactive waste
Ignitable waste
D000
Corrosive waste
Chromium

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 10 **DIST/DIR:** 0.13 NE **MAP ID:** 15

NAME:	ALROY PRINTING CORP	REV:	10/14/09
ADDRESS:	737 CARNEGIE AVE CLEVELAND OH 44115 CUYAHOGA	ID1:	OHD004156964
CONTACT:		ID2:	
		STATUS:	SGN
		PHONE:	

SITE INFORMATION

CONTACT INFORMATION: DONALD KEST
737 CARNEGIE AVE
CLEVELAND OH 44115

PHONE: 2162415508

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT:	N - NO
GPRA POST CLOSURE:	N - NO
GPRA CA:	N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT:	N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO

SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	N - NO

PERMIT WORKLOAD: -----

CLOSURE WORKLOAD: -----

POST CLOSURE WORKLOAD: -----

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: -----

CORRECTIVE ACTION WORKLOAD:	N - NO
------------------------------------	--------

GENERATOR STATUS: SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000

KG/MONTH OF HAZARDOUS WASTE

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends containing, b

The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and nitropropane; all spent solvent mixtures/blends containing, before use, a to

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 10

DIST/DIR: 0.13 NE

MAP ID: 15

NAME: ALROY PRINTING CORP
ADDRESS: 737 CARNEGIE AVE
CLEVELAND OH 44115
CUYAHOGA

REV: 10/14/09
ID1: OHD004156964
ID2:
STATUS: SGN
PHONE:

CONTACT:

The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichlorethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures/bl
Ignitable waste

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 97 **DIST/DIR:** 0.13 SW **MAP ID:** 21

NAME: TERMINAL OIL	REV: 11/10/09
ADDRESS: 300 CENTRAL VIADUCT CLEVELAND OH 44115 CUYAHOGA	ID1: 18006838-N00003
CONTACT:	ID2:
	STATUS: FACILITY ACTIVE
	PHONE:

SITE INFORMATION

RELEASE NUMBER:	18006838-N00003
RELEASE DATE:	1995-09-25 00:00:00
PRIORITY:	
REVIEW DATE:	
LTF STATUS:	Closure of regulated UST
FR STATUS:	NFA: No Further Action

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 96 **DIST/DIR:** 0.13 SW **MAP ID:** 21

NAME: TERMINAL OIL	REV: 11/10/09
ADDRESS: 300 CENTRAL VIADUCT CLEVELAND OH 44115	ID1: 18006838-N00002
CONTACT:	ID2:
	STATUS: FACILITY ACTIVE
	PHONE:

SITE INFORMATION

RELEASE NUMBER:	18006838-N00002
RELEASE DATE:	1992-08-29 00:00:00
PRIORITY:	2
REVIEW DATE:	
LTF STATUS:	Closure of regulated UST
FR STATUS:	NFA: No Further Action

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 99 **DIST/DIR:** 0.13 SW **MAP ID:** 21

NAME: TERMINAL OIL **REV:** 11/10/09
ADDRESS: 300 CENTRAL VIADUCT **ID1:** 18006838-N00001
CLEVELAND OH 44115 **ID2:**
CUYAHOGA **STATUS:** FACILITY ACTIVE
CONTACT: **PHONE:**

SITE INFORMATION

RELEASE NUMBER: 18006838-N00001
RELEASE DATE:
PRIORITY: 2
REVIEW DATE:
LTF STATUS: Suspected or Confirmed release from regulated UST
FR STATUS: NFA: No Further Action

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 100 **DIST/DIR:** 0.13 SW **MAP ID:** 21

NAME: TERMINAL OIL CO **REV:** 08-25-99
ADDRESS: 300 CENTRAL VIADUCT (GILLOTA SER **ID1:** 182175501
CLEVELAND OH 44115 **ID2:** 182175501
CUYAHOGA **STATUS:** INITIAL CORRECTIVE ACTIONS COM
CONTACT: **PHONE:**

REPORT 1821755 **TRACKING** 1 **FACILITY ID:** 186838 **PRIORITY:** LOW
INCIDENT: PETROLEUM RELEASE FROM A REGULATED UST - ELIGIBLE FOR LUST TRUST FUND
CLASS: KNOWN/SUSPECTED OR CONFIRMED SOURCE AND RESPONSIBLE PERSON IS PROCEEDING VOLUNTARILY
STATUS: INITIAL CORRECTIVE ACTIONS COMPLETED

OPERATOR: **OWNER:**
ADDRESS: **ADDRESS:**
OH OH
PHONE: **PHONE:**

INSPECTOR: **COORDINATOR:** NECA
AUTHORIZED BY: ORD **AUTH DATE:** 06/01/95
REVISED: 06/01/95
EMERGENCY RESPONSE:

REMARKS:

SUMMARY: CLOS RPT RECD

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 78 **DIST/DIR:** 0.13 SW **MAP ID:** 21

NAME: GILLOTA INC **REV:** 08-25-99
ADDRESS: 300 CENTRAL VIADUCT **ID1:** 182175503
CLEVELAND OH 44115 **ID2:** 182175503
CUYAHOGA **STATUS:** NO FURTHER ACTION
CONTACT: **PHONE:**

REPORT 1821755 **TRACKING** 3 **FACILITY ID:** 186838 **PRIORITY:** LOW
INCIDENT: DESIGNATES THE CLOSURE OF A UST
CLASS: KNOWN/SUSPECTED OR CONFIRMED SOURCE AND RESPONSIBLE PERSON IS PROCEEDING VOLUNTARILY
STATUS: NO FURTHER ACTION

OPERATOR: **OWNER:**
ADDRESS: **ADDRESS:**
PHONE: OH **PHONE:** OH

INSPECTOR: **COORDINATOR:** NECL
AUTHORIZED BY: MCCLURE **AUTH DATE:** 10/02/95
REVISED: 10/03/95
EMERGENCY RESPONSE:

REMARKS:

SUMMARY:

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 98

DIST/DIR: 0.13 SW

MAP ID: 21

NAME: TERMINAL OIL
ADDRESS: 300 CENTRAL VIADUCT
CLEVELAND OH 44115
CUYAHOGA

REV: 11/10/09
ID1: 18006838-N00004
ID2:
STATUS: FACILITY ACTIVE
PHONE:

CONTACT:

SITE INFORMATION

RELEASE NUMBER: 18006838-N00004
RELEASE DATE: 2009-09-10 00:00:00
PRIORITY: 3
REVIEW DATE:
LTF STATUS: Suspected or Confirmed release from regulated UST
FR STATUS: SUS: a suspected release or source is identified

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 15 **DIST/DIR:** 0.13 SW **MAP ID:** 21

NAME: GILLOTA INC	REV: 10/14/09
ADDRESS: 300 CENTRAL VIADUCT	ID1: OHD027382589
CLEVELAND OH 44115	ID2:
CUYAHOGA	STATUS: TRANSPORTER
CONTACT:	PHONE:

SITE INFORMATION

CONTACT INFORMATION: JOHN GILLOTA
300 CENTRAL VIADUCT
CLEVELAND OH 44115

PHONE: 2162413428

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT:	N - NO
GPRA POST CLOSURE:	N - NO
GPRA CA:	N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT:	N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO
SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	N - NO
PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	----
CORRECTIVE ACTION WORKLOAD:	N - NO
GENERATOR STATUS:	N

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

*Environmental FirstSearch
Site Detail Report*

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE SPILLS SITE

SEARCH ID: 53

DIST/DIR: 0.13 SW

MAP ID: 21

NAME: UNDETERMINED
ADDRESS: 300 CENTRAL VIA DUCT
CLEVELAND OH
CUYAHOGA

REV: 4/22/04
ID1: 2001-4194
ID2: 4194.00
STATUS:
PHONE:

CONTACT:

SITE INFORMATION

SPILL YEAR: 2001
SPILL NUMBER: 4194
REPORT DATE: 11/2/2001
PRODUCT: GASOLINE
AMOUNT:
SIZE: UNKNOWN
TYPE: HYDROCARBON
WATERWAY: GROUND WATER
STREAM MILES:

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 59

DIST/DIR: 0.13 SW

MAP ID: 21

NAME: TERMINAL OIL
ADDRESS: 300 CENTRAL VIADUCT
CLEVELAND OH 44115
CUYAHOGA

REV: 11/10/09
ID1: 18006838
ID2:
STATUS: CURRENTLY IN USE
PHONE:

CONTACT:

SITE INFORMATION

TOTAL NUMBER OF TANKS: 6

TANK INFORMATION

TANK ID: T00017
INSTALLED: 1992-09-01 00:00:00
CONTENT: GASOLINE
CAPACITY: 8000
TANK TYPE: CATHODICALLY PROTECTED STEEL
STATUS: CIU - Currently In Use

TANK ID: T00018
INSTALLED: 1992-09-01 00:00:00
CONTENT: DIESEL
CAPACITY: 8000
TANK TYPE: CATHODICALLY PROTECTED STEEL
STATUS: CIU - Currently In Use

TANK ID: T00019
INSTALLED: 1992-09-01 00:00:00
CONTENT: GASOLINE
CAPACITY: 6000
TANK TYPE: CATHODICALLY PROTECTED STEEL
STATUS: CIU - Currently In Use

TANK ID: T00020
INSTALLED: 1992-09-01 00:00:00
CONTENT: KEROSENE
CAPACITY: 4000
TANK TYPE: CATHODICALLY PROTECTED STEEL
STATUS: CIU - Currently In Use

TANK ID: T00021
INSTALLED: 1995-07-01 00:00:00
CONTENT: DIESEL
CAPACITY: 6000
TANK TYPE: CATHODICALLY PROTECTED STEEL
STATUS: CIU - Currently In Use

TANK ID: T00022
INSTALLED: 1995-07-01 00:00:00
CONTENT: DIESEL
CAPACITY: 6000
TANK TYPE: CATHODICALLY PROTECTED STEEL
STATUS: CIU - Currently In Use

- Continued on next page -

*Environmental FirstSearch
Site Detail Report*

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 59

DIST/DIR: 0.13 SW

MAP ID: 21

NAME: TERMINAL OIL
ADDRESS: 300 CENTRAL VIADUCT
CLEVELAND OH 44115
CUYAHOGA

REV: 11/10/09
ID1: 18006838
ID2:
STATUS: CURRENTLY IN USE
PHONE:

CONTACT:

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 34 **DIST/DIR:** 0.14 SW **MAP ID:** 38

NAME:	KOBLITZ KOHN, CLEVELAND	REV:	7/30/09
ADDRESS:	2380 CANAL RD CLEVELAND OH 44113 CUYAHOGA	ID1:	DERR-218-2371
CONTACT:		ID2:	218002371
		STATUS:	DERR DATABASE
		PHONE:	

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID:	218002371	CERCLIS ID:	
ALIAS:		PROGRAM:	SA - SITE ASSESSMENT

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE
CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

OF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

Environmental FirstSearch Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 20 **DIST/DIR:** 0.16 NW **MAP ID:** 19

<p>NAME: ADDRESS: CANNAL ROAD STEAM PLANT 2274 CANNAL ROAD CLEVELAND OH 44113 CUYAHOGA CONTACT: CHARLES SINATRA</p>	<p>REV: 12/31/00 ID1: NRC-525361 ID2: STATUS: CONTINUOUS PHONE: 2162414342</p>
--	---

<p>PIPELINE ABOVE GROUND: ABOVE PIPELINE COVERED: U GRADE CROSSING: N RAILROAD MILEPOST: CROSSING DEVICE TYPE:</p> <p>DOT CROSSING NUMBER: TANK ABOVE GROUND: ABOVE TANK REGULATED: U TANK ID: CAPACITY OF TANK UNITS: ACTUAL AMOUNT UNITS: PLATFORM LETTER: LOCATION BLOCK ID:</p>	<p>EXPOSED UNDERWATER: N RAILROAD HOTLINE: N LOCATION SUBDIVISION: TYPE VEHICLE INVOLVED: DEVICE OPERATIONAL: Y</p> <p>BRAKE FAILURE: N TRANSPORTABLE CONTAINER: U TANK REGULATED BY: CAPACITY OF TANK: ACTUAL AMOUNT: PLATFORM RIG NAME: LOCATION AREA ID:</p>	
--	---	--

DESCRIPTION OF TANK:

<p>CSG NUMBER: STATE LEASE NUMBER: BERTH SLIP NUMBER: INITIAL CONT RELEASE NUM: ALLISION: N STRUCTURE NAME: AIRBAG DEPLOYED: SERVICE DISRUPT TIME: TRANSIT BUS FLAG: CR END DATE:</p>	<p>OCSF NUMBER: PIER DOCK NUMBER: CONTIN RELEASE TYPE: INITIAL CONT RELEASE PERMIT: TYPE OF STRUCTURE: STRUCT OPERATIONAL: U DATE NORMAL SERVICE: SERVICE DISRUPT UNITS: CR BEGIN DATE: CR CHANGE DATE:</p>
---	---

<p>FIRE INVOLVED: ANY EVACUATIONS: WHO EVACUATED: ANY INJURIES: NUMBER HOSPITALIZED: NUMBER FATALITIES: DAMAGE AMOUNT: AIR CORRIDOR DESC: WATERWAY CLOSED: WATERWAY CLOSURE TIME: ROAD DESC: CLOSURE DIRECTION:</p>	<p>FIRE EXTINGUISHED: NUMBER EVACUATED: RADIUS OF EVACUATION: NUMBER INJURED: ANY FATALITIES: ANY DAMAGES: AIR CORRIDOR CLOSED: AIR CLOSURE TIME: WATERWAY DESC: ROAD CLOSED: ROAD CLOSURE TIME: MAJOR ARTERY:</p>
---	--

<p>TRACK CLOSED: TRACK CLOSURE TIME: MEDIUM DESC: BODY OF WATER: NEAREST RIVER MILE MARK: EST DUR OF RELEASE: TRACK CLOSE DIR: ST AGENCY RPT NUM: WEATHER CONDITIONS: WIND SPEED: WATER SUPPLY CONTAM: SHEEN COLOR:</p>	<p>TRACK DESC: MEDIA INTEREST: ADDTL MEDIUM INFO: TRIBUTARY OF: RELEASE SECURED: RELEASE RATE: ST AGENCY ON SCENE: OTHER AGENCY NOTIFIED: AIR TEMPERATURE: WIND DIRECTION: SHEEN SIZE: DIR OF SHEEN TRAVEL:</p>
---	---

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 20 **DIST/DIR:** 0.16 NW **MAP ID:** 19

NAME:
ADDRESS: CANNAL ROAD STEAM PLANT 2274 CANNAL ROAD
CLEVELAND OH 44113
CUYAHOGA
CONTACT: CHARLES SINATRA
REV: 12/31/00
ID1: NRC-525361
ID2:
STATUS: CONTINUOUS
PHONE: 2162414342

SHEEN ODOR DESCRIPTION:
CURRENT SPEED:
WATER TEMPERATURE:
WAVE CONDITION:
CURRENT DIRECTION:

DESC OF REMEDIAL ACTION:

EMPL FATALITY:	PASS FATALITY:
COMMUNITY IMPACT:	WIND SPEED UNITS:
EMPLOYEE INJURIES:	PASSENGER INJURIES:
OCCUPANT FATALITY:	CURRENT SPEED UNITS:
ROAD CLOSURE UNITS:	TRACK CLOSURE UNITS:
SHEEN SIZE UNITS:	STATE AGENCY NOTIFIED:
FED AGENCY NOTIFIED:	STRUCTURE NAME:
TYPE OF STRUCTURE:	ALLISION:
STRUCTURE OPERATIONAL:	NEAREST RIVER MILE MARK:
SHEEN SIZE LENGTH:	SHEEN SIZE LENGTH UNITS:
SHEEN SIZE WIDTH:	SHEEN SIZE WIDTH UNITS:
FFSHORE:	DURATION UNIT:
RELEASE RATE UNIT:	RELEASE RATE RATE:

ADDITIONAL INFO:

MATERIAL INFORMATION

OTHER MATERIAL INFORMATION

CHRIS CODE: NCC **CAS NUMBER:** 000000-00-0

NAME OF MATERIAL: NITROGEN DIOXIDE
UPPER BOUNDS: 338 POUND(S)
UPPER BOUNDS RATE: UNKNOWN

CHRIS CODE: NCC **CAS NUMBER:** 000000-00-0

NAME OF MATERIAL: NITROGEN OXIDE / 1 STACK, BOILERS 34 THROUGH 38
UPPER BOUNDS: 6413 POUND(S)
UPPER BOUNDS RATE: UNKNOWN

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 14 **DIST/DIR:** 0.16 NW **MAP ID:** 19

NAME: DOMINION CLEVELAND THERMAL, INC	REV: 10/14/09
ADDRESS: 2274 CANAL RD	ID1: OHD980278428
CLEVELAND OH 44113	ID2:
CUYAHOGA	STATUS: VGN
CONTACT:	PHONE:

SITE INFORMATION

CONTACT INFORMATION: BARRY WISNER
2274 CANAL RD
CLEVELAND OH 44113

PHONE: 2162416723

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT:	N - NO
GPRA POST CLOSURE:	N - NO
GPRA CA:	N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT:	N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO

SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	N - NO
PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	----
CORRECTIVE ACTION WORKLOAD:	N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZA

NAIC INFORMATION

2211 - ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION
221 - UTILITIES

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Corrosive waste

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE SPILLS SITE			
SEARCH ID: 52	DIST/DIR: 0.16 NW	MAP ID: 19	
NAME: CLEVELAND THERMAL ENERGY CORP	REV: 4/22/04		
ADDRESS: 2274 CANAL RD	ID1: 1991-3638		
CLEVELAND OH	ID2: 3638.00		
CUYAHOGA	STATUS:		
CONTACT:	PHONE:		
 <u>SITE INFORMATION</u>			
SPILL YEAR:	1991		
SPILL NUMBER:	3638		
REPORT DATE:	8/27/1991		
PRODUCT:	COAL		
AMOUNT:	0		
SIZE:	UNKNOWN		
TYPE:	OTHER		
WATERWAY:	N/A		
STREAM MILES:			

STATE SPILLS SITE			
SEARCH ID: 50	DIST/DIR: 0.16 NW	MAP ID: 19	
NAME: CLEVELAND ENERGY	REV: 4/22/04		
ADDRESS: 2274 CANAL RD	ID1: 1999-362		
CLEVELAND OH	ID2: 362.00		
CUYAHOGA	STATUS:		
CONTACT:	PHONE:		
 <u>SITE INFORMATION</u>			
SPILL YEAR:	1999		
SPILL NUMBER:	362		
REPORT DATE:	1/27/1999		
PRODUCT:	WASTE WATER		
AMOUNT:			
SIZE:	UNKNOWN		
TYPE:	WASTE WATER		
WATERWAY:	CUYAHOGA RIVER		
STREAM MILES:			

Environmental FirstSearch Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 68 **DIST/DIR:** 0.17 NW **MAP ID:** 22

NAME: CAVALIERS OPERATING COMPANY LLC	REV: 11/10/09
ADDRESS: 1 CENTER COURT	ID1: 18000974-N00001
CLEVELAND OH 44115	ID2:
CUYAHOGA	STATUS: FACILITY INACTIVE
CONTACT:	PHONE:

SITE INFORMATION

RELEASE NUMBER:	18000974-N00001
RELEASE DATE:	
PRIORITY:	2
REVIEW DATE:	
LTF STATUS:	Suspected or Confirmed release from regulated UST
FR STATUS:	NFA: No Further Action

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 66 **DIST/DIR:** 0.17 NW **MAP ID:** 22

NAME: CAVALIERS OPERATING COMPANY LLC	REV: 11/10/09
ADDRESS: 1 CENTER COURT	ID1: 18000974-N00003
CLEVELAND OH 44115	ID2:
CUYAHOGA	STATUS: FACILITY INACTIVE
CONTACT:	PHONE:

SITE INFORMATION

RELEASE NUMBER:	18000974-N00003
RELEASE DATE:	1992-04-20 00:00:00
PRIORITY:	2
REVIEW DATE:	
LTF STATUS:	Suspected or Confirmed release from regulated UST
FR STATUS:	NFA: No Further Action

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 16

DIST/DIR: 0.17 NW

MAP ID: 22

NAME: GUND ARENA
ADDRESS: 1 CENTER CT
CLEVELAND OH 44115
CUYAHOGA

REV: 10/14/09
ID1: OHR000117705
ID2:
STATUS: SGN
PHONE:

CONTACT:

SITE INFORMATION

CONTACT INFORMATION: PATRICK FITZGERALD
1 CENTER CT
CLEVELAND OH 44115

PHONE: 2164202000

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT: N - NO
GPRA POST CLOSURE: N - NO
GPRA CA: N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT: N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: N - NO
SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO

SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC: N - NO

PERMIT WORKLOAD: ----
CLOSURE WORKLOAD: ----
POST CLOSURE WORKLOAD: ----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: ----

CORRECTIVE ACTION WORKLOAD: N - NO
GENERATOR STATUS: SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000
KG/MONTH OF HAZARDOUS WASTE

NAIC INFORMATION

71131 - PROMOTERS OF PERFORMING ARTS, SPORTS, AND SIMILAR EVENTS WITH FACILITIES

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Corrosive waste

*Environmental FirstSearch
Site Detail Report*

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 56 **DIST/DIR:** 0.17 NW **MAP ID:** 22

NAME:	CAVALIERS OPERATING COMPANY LLC	REV:	11/10/09
ADDRESS:	1 CENTER COURT	ID1:	18000974
	CLEVELAND OH 44115	ID2:	
	CUYAHOGA	STATUS:	CURRENTLY IN USE
CONTACT:		PHONE:	

SITE INFORMATION

TOTAL NUMBER OF TANKS: 1

TANK INFORMATION

TANK ID:	T00002
INSTALLED:	1993-08-01 00:00:00
CONTENT:	DIESEL
CAPACITY:	1000
TANK TYPE:	DOUBLE WALLED FIBERGLASS
STATUS:	CIU - Currently In Use

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 19 **DIST/DIR:** 0.18 NE **MAP ID:** 28

<p>NAME: ZAREMBA ADDRESS: 737 BOLIVAR RD, 1ST-3RD FLRS CLEVELAND OH 44115 CUYAHOGA CONTACT:</p>	<p>REV: 10/14/09 ID1: OHR000103473 ID2: STATUS: VGN PHONE:</p>
--	---

SITE INFORMATION

CONTACT INFORMATION: RACHEL RODGERS
23340 MILES RD
CLEVELAND OH 44128

PHONE: 2164757800

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT:	N - NO
GPRA POST CLOSURE:	N - NO
GPRA CA:	N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT:	N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO

SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	N - NO
PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	----
CORRECTIVE ACTION WORKLOAD:	N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZA

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Lead

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE SPILLS SITE

SEARCH ID: 51 **DIST/DIR:** 0.19 NE **MAP ID:** 45

NAME: CLEVELAND PUBLIC POWER	REV: 4/22/04
ADDRESS: 824 CARNEGIE CLEVELAND OH CUYAHOGA	ID1: 1991-556 ID2: 556.00
CONTACT:	STATUS: PHONE:

SITE INFORMATION

SPILL YEAR:	1991
SPILL NUMBER:	556
REPORT DATE:	2/22/1991
PRODUCT:	OIL MINERAL
AMOUNT:	1
SIZE:	SMALL = 0-499 GALLONS OR 0-3,999 LBS
TYPE:	GRANT CHEMICAL
WATERWAY:	N/A
STREAM MILES:	

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 101 **DIST/DIR:** 0.22 NW **MAP ID:** 68

NAME: UNITED CHRUCH OF CHRIST	REV: 11/10/09
ADDRESS: 600 BLOCK OF EAST HURON ST CLEVELAND OH	ID1: 18010441-N00001 ID2:
CONTACT:	STATUS: FACILITY INACTIVE PHONE:

SITE INFORMATION

RELEASE NUMBER:	18010441-N00001
RELEASE DATE:	
PRIORITY:	3
REVIEW DATE:	
LTF STATUS:	Closure of regulated UST
FR STATUS:	NFA: No Further Action

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 73 **DIST/DIR:** 0.22 SW **MAP ID:** 55

NAME:	DESIGN UNION	REV:	11/10/09
ADDRESS:	1902 W 3RD ST CLEVELAND OH 44111 CUYAHOGA	ID1:	18002517-N00001
CONTACT:		ID2:	
		STATUS:	FACILITY INACTIVE
		PHONE:	

SITE INFORMATION

RELEASE NUMBER:	18002517-N00001
RELEASE DATE:	
PRIORITY:	3
REVIEW DATE:	
LTF STATUS:	Closure of regulated UST
FR STATUS:	NFA: No Further Action

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 64 **DIST/DIR:** 0.23 NE **MAP ID:** 17

NAME:	CARNEGIE ENERGY INC	REV:	11/10/09
ADDRESS:	900 CARNEGIE AVE CLEVELAND OH 44115 CUYAHOGA	ID1:	18002109-N00002
CONTACT:		ID2:	
		STATUS:	FACILITY INACTIVE
		PHONE:	

SITE INFORMATION

RELEASE NUMBER:	18002109-N00002
RELEASE DATE:	2004-10-12 00:00:00
PRIORITY:	2
REVIEW DATE:	
LTF STATUS:	Suspected or Confirmed release from regulated UST
FR STATUS:	DIS: a release is disproved

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 12 **DIST/DIR:** 0.23 NE **MAP ID:** 17

NAME: BP OIL CO SITE 04385	REV: 6/6/06
ADDRESS: 900 CARNEGIE AVE	ID1: OHD987026234
CLEVELAND OH 44115	ID2:
CUYAHOGA	STATUS: VGN
CONTACT: PETE PAONESSA	PHONE: 2162718739

SITE INFORMATION

CONTACT INFORMATION: PETE PAONESSA
4440 WARRENSVILLE CENTER RD
WARRENSVILLE HTS OH 441282837

PHONE: 2162718739

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT:	N - NO
GPRA POST CLOSURE:	N - NO
GPRA CA:	N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT:	N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO

SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	N - NO
PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	----
CORRECTIVE ACTION WORKLOAD:	N - NO

GENERATOR STATUS: CEG - CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/MONTH OF HAZA

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Benzene
Lead

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 55

DIST/DIR: 0.23 NE

MAP ID: 17

NAME: CARNEGIE ENERGY INC
ADDRESS: 900 CARNEGIE AVE
CLEVELAND OH 44115

REV: 11/10/09
ID1: 18002109
ID2:
STATUS: CURRENTLY IN USE
PHONE:

CONTACT:

SITE INFORMATION

TOTAL NUMBER OF TANKS: 3

TANK INFORMATION

TANK ID: T00001
INSTALLED: 1984-01-01 00:00:00
CONTENT: GASOLINE
CAPACITY: 10000
TANK TYPE: FIBERGLASS REINFORCED PLASTIC
STATUS: CIU - Currently In Use

TANK ID: T00002
INSTALLED: 1984-01-01 00:00:00
CONTENT: GASOLINE
CAPACITY: 10000
TANK TYPE: FIBERGLASS REINFORCED PLASTIC
STATUS: CIU - Currently In Use

TANK ID: T00003
INSTALLED: 1984-01-01 00:00:00
CONTENT: GASOLINE
CAPACITY: 10000
TANK TYPE: FIBERGLASS REINFORCED PLASTIC
STATUS: CIU - Currently In Use

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 11 **DIST/DIR:** 0.25 NW **MAP ID:** 16

<p>NAME: ATandT CORPORATION ADDRESS: 700 HURON RD CLEVELAND OH 44115 CUYAHOGA CONTACT:</p>	<p>REV: 10/14/09 ID1: OHT400013991 ID2: STATUS: SGN PHONE:</p>
---	---

SITE INFORMATION

CONTACT INFORMATION: TERRY KINGSMILL
700 HURON RD
CLEVELAND OH 44115

PHONE: 2165893344

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT:	N - NO
GPRA POST CLOSURE:	N - NO
GPRA CA:	N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT:	N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO

SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	N - NO
PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	----
CORRECTIVE ACTION WORKLOAD:	N - NO
GENERATOR STATUS:	SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000

KG/MONTH OF HAZARDOUS WASTE

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichlorethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures/bl

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 17 **DIST/DIR:** 0.25 SW **MAP ID:** 25

NAME:	PLASTIC FINISHERS	REV:	10/14/09
ADDRESS:	1978 W THIRD ST CLEVELAND OH 44113 CUYAHOGA	ID1:	OHR000012724
CONTACT:		ID2:	
		STATUS:	SGN
		PHONE:	

SITE INFORMATION

CONTACT INFORMATION: JOHN HULL
1978 W THIRD ST
CLEVELAND OH 44113

PHONE: 2164431700

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT:	N - NO
GPRA POST CLOSURE:	N - NO
GPRA CA:	N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT:	N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA:	N - NO
SUBJCA TSD 3004:	N - NO
SUBJCA NON TSD:	N - NO

SIGNIFICANT NON-COMPLIANCE(SNC):	N - NO
BEGINNING OF THE YEAR SNC:	N - NO

PERMIT WORKLOAD:	----
CLOSURE WORKLOAD:	----
POST CLOSURE WORKLOAD:	----
PERMITTING /CLOSURE/POST-CLOSURE PROGRESS:	----

CORRECTIVE ACTION WORKLOAD:	N - NO
GENERATOR STATUS:	SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000
KG/MONTH OF HAZARDOUS WASTE	

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Ignitable waste
Methyl ethyl ketone
The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends containing, b

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 86 **DIST/DIR:** 0.26 NW **MAP ID:** 24

NAME: OHIO BELL TELEPHONE CO. L23105	REV: 11/10/09
ADDRESS: 750 HURON RD	ID1: 18000747-N00001
CLEVELAND OH 44114	ID2:
CUYAHOGA	STATUS: FACILITY INACTIVE
CONTACT:	PHONE:

SITE INFORMATION

RELEASE NUMBER:	18000747-N00001
RELEASE DATE:	
PRIORITY:	3
REVIEW DATE:	
LTF STATUS:	Closure of regulated UST
FR STATUS:	NFA: No Further Action

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 84 **DIST/DIR:** 0.27 SE **MAP ID:** 63

NAME: NORFOLK and SOUTHERN RAILWAY CO	REV: 11/10/09
ADDRESS: 840 MINKON AVE	ID1: 18010026-N00001
CLEVELAND OH 44101	ID2:
CUYAHOGA	STATUS: FACILITY INACTIVE
CONTACT:	PHONE:

SITE INFORMATION

RELEASE NUMBER:	18010026-N00001
RELEASE DATE:	1990-09-04 00:00:00
PRIORITY:	3
REVIEW DATE:	
LTF STATUS:	Closure of regulated UST
FR STATUS:	NFA: No Further Action

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

CERCLIS NFRAP

SEARCH ID: 1 **DIST/DIR:** 0.27 SE **MAP ID:** 2

<p>NAME: ARNISON BARREL COMPANY ADDRESS: 2484 CANAL ROAD CLEVELAND OH 44113 CUYAHOGA</p> <p>CONTACT:</p>	<p>REV: 1/22/09 ID1: OHD017708249 ID2: 0504291 STATUS: NFRAP-N PHONE:</p>
---	--

DESCRIPTION:

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
ARCHIVE SITE	EPA In-House		03-28-1990
DISCOVERY	EPA Fund-Financed		10-01-1980
PRELIMINARY ASSESSMENT NFRAP: No further Remedial Action planned	EPA Fund-Financed		03-28-1990
PRELIMINARY ASSESSMENT Low priority for further assessment	State, Fund Financed		09-01-1984

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 80 **DIST/DIR:** 0.29 NW **MAP ID:** 60

NAME: HIGH STREET PROPERTIES	REV: 11/10/09
ADDRESS: 211 HIGH ST	ID1: 18010898-N00001
CLEVELAND OH	ID2:
CUYAHOGA	STATUS: FACILITY INACTIVE
CONTACT:	PHONE:

SITE INFORMATION

RELEASE NUMBER:	18010898-N00001
RELEASE DATE:	2000-02-01 00:00:00
PRIORITY:	2
REVIEW DATE:	
LTF STATUS:	Closure of regulated UST
FR STATUS:	NFA: No Further Action

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 61 **DIST/DIR:** 0.33 NE **MAP ID:** 50

NAME: AMERITRUST CORP	REV: 11/10/09
ADDRESS: 1124 BOLIVAR AVE	ID1: 18010219-N00001
CLEVELAND OH 44115	ID2:
CONTACT:	STATUS: FACILITY INACTIVE
	PHONE:

SITE INFORMATION

RELEASE NUMBER:	18010219-N00001
RELEASE DATE:	
PRIORITY:	3
REVIEW DATE:	
LTF STATUS:	Closure of regulated UST
FR STATUS:	NFA: No Further Action

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 24

DIST/DIR: 0.34 SW

MAP ID: 23

NAME: CHEMICAL and MINERALS RECLAMATION INC - STONES LEVEE	REV: 7/30/09
ADDRESS: 601 STONES LEVEE	ID1: DERR-218-0154
CLEVELAND OH 44072	ID2: 218000154
CUYAHOGA	STATUS: DERR DATABASE
CONTACT:	PHONE:

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218000154	CERCLIS ID: OHD980704233
ALIAS:	PROGRAM: SA - SITE ASSESSMENT

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

OF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 102 **DIST/DIR:** 0.35 SW **MAP ID:** 48

NAME: UNITED GARAGE and SERVICE CORP.
ADDRESS: 2069 W 3RD ST
CLEVELAND OH 44113
CUYAHOGA

REV: 11/10/09
ID1: 18002210-N00001
ID2:
STATUS: FACILITY ACTIVE
PHONE:

CONTACT:

SITE INFORMATION

RELEASE NUMBER: 18002210-N00001
RELEASE DATE: 1994-07-12 00:00:00
PRIORITY: 2
REVIEW DATE:
LTF STATUS: Closure of regulated UST
FR STATUS: NRD: No response to DEF letter sent

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 30 **DIST/DIR:** 0.38 NW **MAP ID:** 35

NAME: DOWNTOWN BLDG COMPLEX CLEVELAND - EUCLID and 9TH	REV: 7/30/09
ADDRESS: EUCLID AVE and E 9TH ST CLEVELAND OH 44115 CUYAHOGA	ID1: DERR-218-2126 ID2: 218002126
CONTACT:	STATUS: DERR DATABASE PHONE:

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218002126 **CERCLIS ID:**
ALIAS: ROTUNDA BLDG and AMERITRUST TOWER **PROGRAM:** COF - CLEAN OHIO FUND

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE
CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218002126 **CERCLIS ID:**
ALIAS: ROTUNDA BLDG **PROGRAM:** COF - CLEAN OHIO FUND

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE
CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218002126 **CERCLIS ID:**
ALIAS: DOWNTOWN BLDG COMPLEX - PROSPECT and HURON **PROGRAM:** COF - CLEAN OHIO FUND

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 30

DIST/DIR: 0.38 NW

MAP ID: 35

NAME: DOWNTOWN BLDG COMPLEX CLEVELAND - EUCLID and 9TH
ADDRESS: EUCLID AVE and E 9TH ST
CLEVELAND OH 44115
CUYAHOGA

REV: 7/30/09
ID1: DERR-218-2126
ID2: 218002126
STATUS: DERR DATABASE
PHONE:

CONTACT:

SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218002126 **CERCLIS ID:**
ALIAS: HURON BLDG **PROGRAM:** COF - CLEAN OHIO FUND

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT - 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218002126 **CERCLIS ID:**
ALIAS: 1010 BLDG **PROGRAM:** COF - CLEAN OHIO FUND

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT - 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 30

DIST/DIR: 0.38 NW

MAP ID: 35

NAME: DOWNTOWN BLDG COMPLEX CLEVELAND - EUCLID and 9TH
ADDRESS: EUCLID AVE and E 9TH ST
CLEVELAND OH 44115
CUYAHOGA

REV: 7/30/09
ID1: DERR-218-2126
ID2: 218002126
STATUS: DERR DATABASE
PHONE:

CONTACT:

SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218002126 **CERCLIS ID:**
ALIAS: NINTH ST and EUCLID AVE PROJECT, CLEVELAND PROGRAM: COF - CLEAN OHIO FUND

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 94 **DIST/DIR:** 0.38 SW **MAP ID:** 29

NAME:	STANDARD LAFARGE	REV:	11/10/09
ADDRESS:	2100 W 3RD ST CLEVELAND OH 44113 CUYAHOGA	ID1:	18000176-N00002
CONTACT:		ID2:	
		STATUS:	FACILITY INACTIVE
		PHONE:	

SITE INFORMATION

RELEASE NUMBER:	18000176-N00002
RELEASE DATE:	1992-10-09 00:00:00
PRIORITY:	3
REVIEW DATE:	
LTF STATUS:	Closure of regulated UST
FR STATUS:	NFA: No Further Action

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 95 **DIST/DIR:** 0.38 SW **MAP ID:** 29

NAME:	STANDARD LAFARGE	REV:	12/9/01
ADDRESS:	2100 W 3RD ST CLEVELAND OH 44113 CUYAHOGA	ID1:	18000176-N00001
CONTACT:		ID2:	
		STATUS:	FACILITY ACTIVE
		PHONE:	

SITE INFORMATION

FORMER LUST ID:	180004100.0
OLD FACILITY ID:	180176
LTF STATUS:	CLOSURE OF REGULATED UST
FR STATUS:	RELEASE REPORTED BUT NOT EXAMINED OR INVESTIGATED -OR- RELEASE REPORTED BUT
SOURCE NOT KNOWN	
OWNER:	Unknown Unknown Unknown

***Environmental FirstSearch
Site Detail Report***

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS		
SEARCH ID: 88	DIST/DIR: 0.39 NW	MAP ID: 65
NAME: OSF PROPERTIES ADDRESS: 515 EUCLID AVE CLEVELAND OH 44115 CUYAHOGA CONTACT:	REV: 11/10/09 ID1: 18011027-N00001 ID2: STATUS: FACILITY ACTIVE PHONE:	
<u>SITE INFORMATION</u>		
RELEASE NUMBER: RELEASE DATE: PRIORITY: REVIEW DATE: LTF STATUS: FR STATUS:	 18011027-N00001 2004-05-03 00:00:00 2 Closure of regulated UST RPT: a possible incident is reported	

LEAKING UNDERGROUND STORAGE TANKS		
SEARCH ID: 60	DIST/DIR: 0.40 NE	MAP ID: 49
NAME: AMERICAN RED CROSS ADDRESS: 1227 PROSPECT AVE CLEVELAND OH 44114 CONTACT:	REV: 11/10/09 ID1: 18010103-N00001 ID2: STATUS: FACILITY INACTIVE PHONE:	
<u>SITE INFORMATION</u>		
RELEASE NUMBER: RELEASE DATE: PRIORITY: REVIEW DATE: LTF STATUS: FR STATUS:	 18010103-N00001 2 Suspected or Confirmed release from regulated UST NFA: No Further Action	

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 72 **DIST/DIR:** 0.40 SE **MAP ID:** 54

NAME: CLEVELAND BUILDERS SUPPLY	REV: 11/10/09
ADDRESS: 2146 W 3RD ST	ID1: 18010167-N00001
CLEVELAND OH 44113	ID2:
CUYAHOGA	STATUS: FACILITY INACTIVE
CONTACT:	PHONE:

SITE INFORMATION

RELEASE NUMBER: 18010167-N00001
RELEASE DATE:
PRIORITY: 2
REVIEW DATE:
LTF STATUS: Suspected or Confirmed release from regulated UST
FR STATUS: NFA: No Further Action

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 62 **DIST/DIR:** 0.41 NE **MAP ID:** 51

NAME: BP OIL CO. 54182	REV: 11/10/09
ADDRESS: 1335 CARNEGIE AVE	ID1: 18002142-N00001
CLEVELAND OH 44115	ID2:
CONTACT:	STATUS: FACILITY INACTIVE
	PHONE:

SITE INFORMATION

RELEASE NUMBER: 18002142-N00001
RELEASE DATE:
PRIORITY: 2
REVIEW DATE:
LTF STATUS: Suspected or Confirmed release from regulated UST
FR STATUS: NFA: No Further Action

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 79

DIST/DIR: 0.48 NE

MAP ID: 59

NAME: HANNA PARKING
ADDRESS: 1405 PROSPECT RD
CLEVELAND OH 44115

REV: 11/10/09
ID1: 18010121-N00001
ID2:
STATUS: FACILITY INACTIVE
PHONE:

CONTACT:

SITE INFORMATION

RELEASE NUMBER: 18010121-N00001
RELEASE DATE:
PRIORITY: 3
REVIEW DATE:
LTF STATUS: Closure of regulated UST
FR STATUS: NFA: No Further Action

*Environmental FirstSearch
Site Detail Report*

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 31

DIST/DIR: 0.76 SW

MAP ID: 5

NAME: GIBSON and PRICE WORKS, CLEVELAND
ADDRESS: 1786 COLUMBUS RD
CLEVELAND OH 44113

REV: 7/30/09
ID1: DERR-218-0334
ID2: 218000334
STATUS: DERR DATABASE
PHONE:

CONTACT:

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218000334 **CERCLIS ID:** OHD980611099
ALIAS: **PROGRAM:** SA - SITE ASSESSMENT

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 28

DIST/DIR: 0.78 NW

MAP ID: 33

NAME: CUYAHOGA CO BROWNFIELD
ADDRESS: 401 LAKESIDE AVE
CLEVELAND OH 44113
CUYAHOGA

REV: 7/30/09
ID1: DERR-218-1978
ID2: 218001978
STATUS: DERR DATABASE
PHONE:

CONTACT:

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218001978 **CERCLIS ID:**
ALIAS: **PROGRAM:**

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE
CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

OF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 22

DIST/DIR: 0.88 NE

MAP ID: 30

NAME: AVON DRIVE-IN LAUNDRY and DRY CLEANING CO/ 1850 SUPE
ADDRESS: 1830 - 1850 SUPERIOR AVE
CLEVELAND OH 44114
CUYAHOGA

REV: 7/30/09
ID1: DERR-218002667
ID2: 218002667
STATUS: DERR DATABASE
PHONE:

CONTACT:

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218002667 **CERCLIS ID:**
ALIAS: **PROGRAM:**

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT - 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 29 **DIST/DIR:** 0.88 NE **MAP ID:** 34

NAME: DIAL SERVICES MFG CO, CLEVELAND	REV: 7/30/09
ADDRESS: 1741 ROCKWELL AVE CLEVELAND OH 44114	ID1: DERR-218-1597
	ID2: 218001597
CONTACT:	STATUS: DERR DATABASE
	PHONE:

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218001597	CERCLIS ID: OH0000429803
ALIAS: SKILJAN RESIDENCE	PROGRAM: SA - SITE ASSESSMENT

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218001597	CERCLIS ID: OH0000429803
ALIAS: DIAL SERVICES MFG CO, CLEVELAND	PROGRAM: SA - SITE ASSESSMENT

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218001597	CERCLIS ID: OH0000429803
ALIAS:	PROGRAM: SA - SITE ASSESSMENT

- Continued on next page -

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 29

DIST/DIR: 0.88 NE

MAP ID: 34

NAME: DIAL SERVICES MFG CO, CLEVELAND
ADDRESS: 1741 ROCKWELL AVE
CLEVELAND OH 44114

REV: 7/30/09
ID1: DERR-218-1597
ID2: 218001597
STATUS: DERR DATABASE
PHONE:

CONTACT:

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE
CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA COR SITE

SEARCH ID: 9

DIST/DIR: 0.88 NW

MAP ID: 14

NAME: SAMSEL SERVICE CO
ADDRESS: 1285 OLD RIVER RD
CLEVELAND OH 44113

REV: 10/14/09
ID1: OHD017831488
ID2:
STATUS: CA
PHONE:

CONTACT:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA PERMIT: N - NO
GPRA POST CLOSURE: N - NO
GPRA CA: N - NO
GPRA COMPLIANCE MONITORING and ENFORCEMENT: N - NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: Y - SUBJECT TO CORRECTIVE ACTION
SUBJCA TSD 3004: N - NO
SUBJCA NON TSD: N - NO

SIGNIFICANT NON-COMPLIANCE(SNC): N - NO
BEGINNING OF THE YEAR SNC: N - NO

PERMIT WORKLOAD: ----
CLOSURE WORKLOAD: ----
POST CLOSURE WORKLOAD: ----

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: ---S-

CORRECTIVE ACTION WORKLOAD: N - NO

GENERATOR STATUS: LQG - LARGE QUANTITY GENERATORS: GENERATES MORE THAN 1000
KG/MONTH OF HAZARDOUS WASTE

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 38

DIST/DIR: 0.88 NW

MAP ID: 14

NAME: SAMSEL SERVICE CO, CLEVELAND
ADDRESS: 1285 OLD RIVER RD
CLEVELAND OH 44113

REV: 7/30/09
ID1: DERR-218-1133
ID2: 218001133
STATUS: DERR DATABASE
PHONE:

CONTACT:

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218001133 **CERCLIS ID:** OHD017831488
ALIAS: **PROGRAM:** SA - SITE ASSESSMENT

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT - 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA COR SITE

SEARCH ID: 6

DIST/DIR: 0.95 NE

MAP ID: 12

NAME: BARKER PRODUCTS CO
ADDRESS: 1563 E 21ST ST
CLEVELAND OH 44114
CUYAHOGA

REV: 10/14/09
ID1: OHD049386022
ID2:
STATUS: CA
PHONE:

CONTACT:

DETAILS NOT AVAILABLE

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 25

DIST/DIR: 0.95 NE

MAP ID: 12

NAME: CHILCOTE CO, CLEVELAND - 1545and1563 E 21ST ST
ADDRESS: 1545 and 1563 E 21ST ST
CLEVELAND OH 44114
CUYAHOGA

REV: 7/30/09
ID1: DERR-218-1993
ID2: 218001993
STATUS: DERR DATABASE
PHONE:

CONTACT:

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE
CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT- 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

*Environmental FirstSearch
Site Detail Report*

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 41 **DIST/DIR:** 0.98 SE **MAP ID:** 8

NAME: SOHIO NO 1 REF, CLEVELAND - 2635 BROADWAY AVE	REV: 7/30/09
ADDRESS: 2635 BROADWAY AVE	ID1: DERR-218-0747
CLEVELAND OH 44115	ID2: 218000747
CONTACT:	STATUS: DERR DATABASE
	PHONE:

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218000747	CERCLIS ID: OHD000773085
ALIAS: TRANSPORT RD REFINERY NO 1 BP OIL	PROGRAM: VAP - VOLUNTARY ACTION PROGRAM

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT - 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218000747	CERCLIS ID: OHD000773085
ALIAS: TRANSPORT RD PARCEL	PROGRAM: VAP - VOLUNTARY ACTION PROGRAM

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300
NORTHEAST DISTRICT - 1-800-686-6330
NORTHWEST DISTRICT - 1-800-686-6930
SOUTHEAST DISTRICT - 1-800-686-7330
SOUTHWEST DISTRICT - 1-800-686-8930
CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND
ER - EMERGENCY RESPONSE
RR - REMEDIAL RESPONSE
SA - SITE ASSESSMENT
VAP - VOLUNTARY ACTION PROGRAM

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 109 **DIST/DIR:** NON GC **MAP ID:**

NAME: CLEV ELEC ILLUMINATING **REV:** 01-20-98
ADDRESS: EAST BOUND RAMP TO I-90 OFF LORAIN RD **ID1:** 526445
CLEVELAND OH 44113 **ID2:**
CUYAHOGA **STATUS:** UNKNOWN
CONTACT: **PHONE:**

CERCLIS (Y/N):

MAT: OIL, MISC: MINERAL **QUANT:** 30 GALLONS

LOCATION: EAST BOUND RAMP TO I-90 OFF LORAIN RD
CITY: CLEVELAND OH 44113 **REPORTED:** 02/26/97

SOURCE: UNKNOWN **MEDIUM:** LAND
TRANSFORMER FELL OVER IN BACK OF TRUCK BREAKING A BUSHING. OIL LEAKING FROM B
CAUSE: UNKNOWN
USHING.

ACT: CLEAN UP CREW ON SCENE. SAMSEL SERVICES OF CLEVELAND.
BY:

EMERGENCY RESPONSE NOTIFICATION SITE

SEARCH ID: 108 **DIST/DIR:** NON GC **MAP ID:**

NAME: CARNEGIE SHELL 3020 CARNEGIE AVE **REV:** 9/13/09
ADDRESS: CARNEGIE SHELL 3020 CARNEGIE AVE **ID1:** NRC-913568
CLEVELAND OH **ID2:**
Cuyahoga **STATUS:** FIXED
CONTACT: **PHONE:**

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

INCIDENT DATE: 02-AUG-2009 13:47
REPORTED DATE: 02-AUG-2009 18:13
TYPE OF INCIDENT: FIXED
CAUSE OF INCIDENT: EQUIPMENT FAILURE
MEDIUM AFFECTED: LAND
MATERIAL NAME: GASOLINE: AUTOMOTIVE (UNLEADED)
LOCATION: CARNEGIE SHELL 3020 CARNEGIE AVE
SUSPECTED COMPANY: CARNEGIE SHELL

DESCRIPTION: CALLER IS REPORTING A SPILL OF 15 GALLONS OF GASOLINE FROM A PUMP DUE TO THE PUMP SHUT OFF LATCH NOT OPERATING PROPERLY.

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 134

DIST/DIR: NON GC

MAP ID:

NAME: WARNER and SWASEY
ADDRESS: CARNEGIE AVE
CLEVELAND OH 44114

REV: 11/10/09
ID1: 18010166-N00001
ID2:
STATUS: FACILITY ACTIVE
PHONE:

CONTACT:

SITE INFORMATION

RELEASE NUMBER: 18010166-N00001
RELEASE DATE: 1991-02-04 00:00:00
PRIORITY: 2
REVIEW DATE:
LTF STATUS: Suspected or Confirmed release from regulated UST
FR STATUS: CON: a release is confirmed

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

RCRA GENERATOR SITE

SEARCH ID: 107

DIST/DIR: NON GC

MAP ID:

NAME: CAMERA CITY and AUDIO
ADDRESS: 820 HURON RD SE
CLEVELAND OH 44115

REV: 10/14/09
ID1: OHR000143099
ID2:
STATUS: VGN
PHONE:

CONTACT:

CONTACT INFORMATION:

MARK BRODSKY
2166210471
CAMERACITYAUDIO AOL.COM

UNIVERSE INFORMATION:

GOVERNMENT PERFORMANCE AND RESULTS ACT (GPRA)

GPRA CA BASELINE UNIVERSE: NO
GPRA CA 2008: NO

SUBJECT TO CORRECTIVE ACTION (SUBJCA)

SUBJCA: NO
SUBJCA TSD 3004: NO
SUBJCA NON TSD: NO
SUBJCA TSD DISCRETION: NO

PERMIT WORKLOAD: ----
CLOSURE WORKLOAD: ----
POST CLOSURE WORKLOAD: ----

PERMITTING /CLOSURE/POST-CLOSURE PROGRESS: ----

CORRECTIVE ACTION WORKLOAD: NO
GENERATOR STATUS: CEG
TRANSPORTER: NO
UNIVERSAL WASTE: NO
RECYCLER: NO
USED OIL: NO
IMPORTER: NO
MIXED WASTE GENERATOR: NO
ONSITE BURNER EXEMPT: NO
FURNACE EXEMPTION: NO
UNDERGROUND INJECTION: NO

NAIC 1: One-Hour Photofinishing
NAIC 2:
NAIC 3:
NAIC 4:

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE SPILLS SITE

SEARCH ID: 113 **DIST/DIR:** NON GC **MAP ID:**

NAME: NATURAL	REV: 4/22/04
ADDRESS: CANAL RD and STRONTON LANE	ID1: 2002-904
CLEVELAND OH	ID2: 904.00
CUYAHOGA	STATUS:
CONTACT:	PHONE:

SITE INFORMATION

SPILL YEAR:	2002
SPILL NUMBER:	904
REPORT DATE:	3/16/2002
PRODUCT:	DEAD FISH
AMOUNT:	
SIZE:	NO SPILL
TYPE:	NO SPILL
WATERWAY:	CUYAHOGA RIVER
STREAM MILES:	

STATE SPILLS SITE

SEARCH ID: 116 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNK	REV: 4/22/04
ADDRESS: I-90 WB and I-77	ID1: 2001-2004
CLEVELAND OH	ID2: 2004.00
CUYAHOGA	STATUS:
CONTACT:	PHONE:

SITE INFORMATION

SPILL YEAR:	2001
SPILL NUMBER:	2004
REPORT DATE:	6/5/2001
PRODUCT:	SULFURIC ACID
AMOUNT:	3
SIZE:	SMALL = 0-499 GALLONS OR 0-3,999 LBS
TYPE:	OTHER
WATERWAY:	N/A
STREAM MILES:	

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE SPILLS SITE

SEARCH ID: 114 **DIST/DIR:** NON GC **MAP ID:**

NAME: NERSD WWTP	REV: 4/22/04
ADDRESS: CANAL RD	ID1: 2001-4679
CLEVELAND OH	ID2: 4679.00
CUYAHOGA	STATUS:
CONTACT:	PHONE:

SITE INFORMATION

SPILL YEAR:	2001
SPILL NUMBER:	4679
REPORT DATE:	12/11/2001
PRODUCT:	SEWAGE
AMOUNT:	
SIZE:	LARGE = GREATER THAN 2,500 GALLONS OR GREATER THAN 20,000 LBS
TYPE:	SEWAGE
WATERWAY:	CUYAHOGA RIVER
STREAM MILES:	

STATE SPILLS SITE

SEARCH ID: 115 **DIST/DIR:** NON GC **MAP ID:**

NAME: PROSO CO	REV: 4/22/04
ADDRESS: I-90 NEAR E 55	ID1: 1991-3718
CLEVELAND OH	ID2: 3718.00
CUYAHOGA	STATUS:
CONTACT:	PHONE:

SITE INFORMATION

SPILL YEAR:	1991
SPILL NUMBER:	3718
REPORT DATE:	8/30/1991
PRODUCT:	HYDROCHLORIC ACID
AMOUNT:	1
SIZE:	SMALL = 0-499 GALLONS OR 0-3,999 LBS
TYPE:	CHEMICAL
WATERWAY:	N/A
STREAM MILES:	

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE SPILLS SITE			
SEARCH ID:	DIST/DIR:	MAP ID:	
112	NON GC		
NAME:	CLEVELAND WWTP	REV:	4/22/04
ADDRESS:	CANAL RD	ID1:	2001-4727
	CLEVELAND OH	ID2:	4727.00
	CUYAHOGA	STATUS:	
CONTACT:		PHONE:	
<u>SITE INFORMATION</u>			
SPILL YEAR:	2001		
SPILL NUMBER:	4727		
REPORT DATE:	12/15/2001		
PRODUCT:	SEWAGE		
AMOUNT:			
SIZE:	LARGE = GREATER THAN 2,500 GALLONS OR GREATER THAN 20,000 LBS		
TYPE:	SEWAGE		
WATERWAY:	CUYAHOGA RIVER		
STREAM MILES:			

STATE SPILLS SITE			
SEARCH ID:	DIST/DIR:	MAP ID:	
111	NON GC		
NAME:	CLEVELAND CITY	REV:	4/22/04
ADDRESS:	LORAIN CARNEGIE BRIDGE	ID1:	2001-3448
	CLEVELAND OH	ID2:	3448.00
	CUYAHOGA	STATUS:	
CONTACT:		PHONE:	
<u>SITE INFORMATION</u>			
SPILL YEAR:	2001		
SPILL NUMBER:	3448		
REPORT DATE:	9/11/2001		
PRODUCT:	ASPHALT		
AMOUNT:			
SIZE:	UNKNOWN		
TYPE:	OTHER		
WATERWAY:	N/A		
STREAM MILES:			

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE SPILLS SITE

SEARCH ID: 118

DIST/DIR: NON GC

MAP ID:

NAME: YUASA EXIDE INC
ADDRESS: ONTARIO and CARNEGIE STS
CLEVELAND OH
CUYAHOGA

REV: 4/22/04
ID1: 1994-1031
ID2: 1031.00
STATUS:
PHONE:

CONTACT:

SITE INFORMATION

SPILL YEAR: 1994
SPILL NUMBER: 1031
REPORT DATE: 3/14/1994
PRODUCT: BATTERIES,ACID
AMOUNT: 24
SIZE: SMALL = 0-499 GALLONS OR 0-3,999 LBS
TYPE: OTHER
WATERWAY: N/A
STREAM MILES: 0

STATE SPILLS SITE

SEARCH ID: 125

DIST/DIR: NON GC

MAP ID:

NAME:
ADDRESS: I-90 EB MP 174
CLEVELAND OH
CUYAHOGA

REV: 4/25/05
ID1: 2004-5154
ID2: 5154.00
STATUS:
PHONE:

CONTACT:

SITE INFORMATION

SPILL YEAR: 2004
SPILL NUMBER: 5154
REPORT DATE: 12/15/2004 11:36:33
PRODUCT: DIESEL FUEL
REPORTER NAME: STEVE BLASSINGAME
SUSPECTED SPILLER:

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE SPILLS SITE

SEARCH ID: 124

DIST/DIR: NON GC

MAP ID:

NAME:
ADDRESS: I-90 EB TO OUTER BELT RAMP
CLEVELAND OH
CUYAHOGA

REV: 4/25/05
ID1: 2005-691
ID2: 691.00
STATUS:
PHONE:

CONTACT:

SITE INFORMATION

SPILL YEAR: 2005
SPILL NUMBER: 691
REPORT DATE: 2/1/2005 07:14:33
PRODUCT: DIESEL FUEL
REPORTER NAME: OLLIE ZAHORADONI
SUSPECTED SPILLER:

SPILL YEAR: 2005
SPILL NUMBER: 691
REPORT DATE: 2/1/2005 07:14:33
PRODUCT: DIESEL FUEL
REPORTER NAME: OLLIE ZAHORADONI
SUSPECTED SPILLER:

SPILL YEAR: 2005
SPILL NUMBER: 691
REPORT DATE: 2/1/2005 07:14:33
PRODUCT: DIESEL FUEL
REPORTER NAME: OLLIE ZAHORADONI
SUSPECTED SPILLER:

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE SPILLS SITE

SEARCH ID: 121 **DIST/DIR:** NON GC **MAP ID:**

NAME:		REV:	3/30/08
ADDRESS:	CANAL RD	ID1:	OHSP-0308-4352
	CLEVELAND OH	ID2:	4352
	CUYAHOGA	STATUS:	
CONTACT:		PHONE:	

SITE INFORMATION

SPILL YEAR:	2007
SPILL NUMBER:	4352
DATE REPORTED:	11/27/2007 13:17:45
PRODUCT:	SEWAGE
REPORTED BY:	TOMMY PLANK
SUSPECTED SPILLER:	NERSD WWTP

STATE SPILLS SITE

SEARCH ID: 130 **DIST/DIR:** NON GC **MAP ID:**

NAME:	JF TRUCKING	REV:	4/22/04
ADDRESS:	W 3RD ST and LAKESIDE DR	ID1:	1999-343
	CLEVELAND OH	ID2:	343.00
	CUYAHOGA	STATUS:	
CONTACT:		PHONE:	

SITE INFORMATION

SPILL YEAR:	1999
SPILL NUMBER:	343
REPORT DATE:	1/26/1999
PRODUCT:	DIESEL FUEL
AMOUNT:	100
SIZE:	SMALL = 0-499 GALLONS OR 0-3,999 LBS
TYPE:	HYDROCARBON
WATERWAY:	N/A
STREAM MILES:	

Environmental FirstSearch
Site Detail Report

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE SPILLS SITE			
SEARCH ID: 129	DIST/DIR: NON GC	MAP ID:	
NAME:		REV:	9/16/09
ADDRESS: I-90 AT DRAWBRIDGE CLEVELAND OH CUYAHOGA		ID1:	OHSP-2009-9-2655
		ID2:	2655
CONTACT:		STATUS:	
		PHONE:	
 <u>SITE INFORMATION</u>			
SPILL YEAR:	2009		
SPILL NUMBER:	2655		
DATE REPORTED:	9/9/2009 13:57:42		
PRODUCT:	HYDRAULIC FLUID		
REPORTED BY:	LISA RAMIREZ		
SUSPECTED SPILLER:	NORFOLK SOUTHERN RR		

STATE SPILLS SITE			
SEARCH ID: 131	DIST/DIR: NON GC	MAP ID:	
NAME: KALISH		REV:	4/22/04
ADDRESS: W 44TH N OF I-90 WB CLEVELAND OH CUYAHOGA		ID1:	2003-3111
		ID2:	3111.00
CONTACT:		STATUS:	
		PHONE:	
 <u>SITE INFORMATION</u>			
SPILL YEAR:	2003		
SPILL NUMBER:	3111		
REPORT DATE:	8/12/2003		
PRODUCT:	DIESEL FUEL		
AMOUNT:	50		
SIZE:	SMALL = 0-499 GALLONS OR 0-3,999 LBS		
TYPE:	HYDROCARBON		
WATERWAY:	N/A		
STREAM MILES:			

*Environmental FirstSearch
Site Detail Report*

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE SPILLS SITE

SEARCH ID: 120

DIST/DIR: NON GC

MAP ID:

NAME:
ADDRESS: W 3RD ST BRIDGE
CLEVELAND OH
CUYAHOGA

REV: 10/22/08
ID1: OHSP-1008-1593
ID2: 1593
STATUS:
PHONE:

CONTACT:

SITE INFORMATION

SPILL YEAR: 2008
SPILL NUMBER: 1593
DATE REPORTED: 4/4/2008 11:25:38
PRODUCT: SHEEN
REPORTED BY: NICOLE STARR
SUSPECTED SPILLER: UNDETERMINED PF

**Environmental FirstSearch
Site Detail Report**

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

STATE

SEARCH ID: 110

DIST/DIR: NON GC

MAP ID:

NAME: CLEVELAND CITY-WIDE USD

REV: 7/30/09

ADDRESS: 601 LAKESIDE AVE, RM 210 ALL PARCELS W/I CITY OF CLEVELAND S BOUNDARIES

ID1: DERR-218002661

CLEVELAND OH 44114

ID2: 218002661

CUYAHOGA

STATUS: DERR DATABASE

CONTACT:

PHONE:

DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE

SITE INFORMATION

DERR ID: 218002661

CERCLIS ID:

ALIAS:

PROGRAM:

VAP - VOLUNTARY ACTION PROGRAM

FOR MORE INFORMATION PLEASE CONTACT THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY S LOCAL DISTRICT OFFICE

CENTRAL DISTRICT - 1-800-686-2300

NORTHEAST DISTRICT - 1-800-686-6330

NORTHWEST DISTRICT - 1-800-686-6930

SOUTHEAST DISTRICT - 1-800-686-7330

SOUTHWEST DISTRICT - 1-800-686-8930

CENTRAL OFFICE - (614) 644-2752

PROGRAM DESCRIPTIONS

COF - CLEAN OHIO FUND

ER - EMERGENCY RESPONSE

RR - REMEDIAL RESPONSE

SA - SITE ASSESSMENT

VAP - VOLUNTARY ACTION PROGRAM

Environmental FirstSearch Descriptions

NPL: EPA NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.

A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

FINAL - Currently on the Final NPL

PROPOSED - Proposed for NPL

NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

DELISTED - Deleted from the Final NPL

CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

PART OF NPL- Site is part of NPL site

DELETED - Deleted from the Final NPL

FINAL - Currently on the Final NPL

NOT PROPOSED - Not on the NPL

NOT VALID - Not Valid Site or Incident

PROPOSED - Proposed for NPL

REMOVED - Removed from Proposed NPL

SCAN PLAN - Pre-proposal Site

WITHDRAWN - Withdrawn

NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and 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.

NFRAP - No Further Remedial Action Plan

P - Site is part of NPL site

D - Deleted from the Final NPL

F - Currently on the Final NPL

N - Not on the NPL

O - Not Valid Site or Incident

P - Proposed for NPL

R - Removed from Proposed NPL

S - Pre-proposal Site

W - Withdrawn

RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. Facilities that generate or transport hazardous waste or meet other RCRA requirements.

LGN - Large Quantity Generators

SGN - Small Quantity Generators

VGN - Conditionally Exempt Generator.

Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

Federal IC / EC: EPA BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs.

FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.

ERNS: EPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: DOI/BIA INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

State/Tribal Sites: OH EPA DIVISION OF EMERGENCY AND REMEDIAL RESPONSE DATABASE(DERR) - database of basic information regarding name and status in the Voluntary Action Program, for potentially contaminated sites that are maintained by district offices in Ohio.

State Spills 90: OH EPA SPILL LOCATIONS - database of spills reported to the Ohio Environmental Protection Agency since 1990.

State/Tribal SWL: OH EPA WASTE FACILITIES - The Database of all Compost and Demolition Debris, Industrial and Residual Waste, Municipal Solid Waste Landfills and Municipal and Solid Waste Transfer Facilities are maintained by the Division of Solid and Infectious Waste Management.

State/Tribal LUST: OH FMO FACILITIES WITH ACTIVE RELEASES FROM REGULATED TANKS - database of leaking underground storage tanks reported to the Ohio Fire Marshal's office.

State/Tribal UST/AST: OH FMO LIST OF ACTIVE REGISTERED FACILITIES - database of all registered underground storage tanks.

State/Tribal VCP: OH EPA BROWNFIELD INVENTORY (Subset)- database of sites that have voluntary submitted information to the inventory as part of the Site Assessment and Brownfield Revitalization Program (SABR) and over seen by the Voluntary Action Program .

State/Tribal Brownfields: OH EPA BROWNFIELD INVENTORY - database of sites that have voluntary submitted information to the inventory as part of the Site Assessment and Brownfield Revitalization Program (SABR).

RADON: NTIS NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

Environmental FirstSearch
Street Name Report for Streets within 1 Mile(s) of Target Property

Target Property: 2432 ONTARIO ST
 CLEVELAND OH 44115

JOB: H09004-12
 ODOT PPN 101-32-038

Street Name	Dist/Dir	Street Name	Dist/Dir
Abbey Ave	0.71 SW	Hickory Ct	0.45 NE
Access Rd	0.46 NE	High St	0.26 NW
Alpha Ct	0.32 NW	Huntington Ct	0.45 NE
Bank St	0.86 NW	Huron Rd E	0.22 NW
Barn Ct	0.34 NE	I-77	0.36 NE
Bethel Ct	0.81 NW	I-90	0.13 SE
Blackstone Ct	0.56 NW	James St	0.62 NW
Blee Ct	0.53 NE	Jefferson Ave	0.93 SE
Bolivar Rd	0.13 NW	Johnson Ct	0.78 NW
Bradford Ave	0.77 SW	Kramer Ct	0.83 SW
Bridge Ave	0.95 SW	Lakeside Ave E	0.76 NW
British St	0.75 SW	Leonard St	0.75 SW
Broadway Ave	0.73 SE	Literary Rd	0.63 SE
Bronson Ct	0.25 NE	Lorain Ave	0.72 SW
Broom Ct	0.64 NW	Mahoning Ave	0.62 SE
Brownell Ct	0.40 NE	Main Ave	0.97 NW
Canal Rd	0.12 SW	Mayflower Rd	0.82 SE
Canfield Ct	0.76 NW	Merwin Ave	0.76 NW
Carnegie Ave	0.04 SE	Miller Ct	0.89 SE
Carter Rd	0.22 SW	Minkon Ave	0.18 SE
Carter St	0.65 NW	Moore Ct	0.86 SW
Cartwright Ct	0.86 SW	Novak Aly	0.75 SE
Caton Ct	0.46 NE	Old River Rd	0.84 NW
Cedar Ave	0.64 NE	Ontario St	0.01 SW
Center St	0.72 SW	Orange Ave	0.37 SE
Central Ave	0.50 NE	Payne Ave	0.60 NE
Central Viaduct	0.04 SE	Pelton Ct	0.74 SW
Chester Ave	0.45 NW	Professor Ave	0.83 SW
Cleveland Memorial S	0.86 NW	Prospect Ave E	0.29 NW
Coleman Ct	0.28 NW	Public Sq	0.46 NW
College Ave	0.92 SE	Riverbed St	0.85 NW
Collins Ct	0.81 NE	Robt Lockwood Dr	0.64 NW
Columbus Rd	0.65 NW	Rockefeller Ave	0.73 SE
Commerce Ct	0.61 NW	Rockwell Ave	0.56 NW
Commercial Rd	0.12 SW	S Broadway Ave	0.01 NE
Community College Av	0.64 NE	Saint Clair Ave NE	0.73 NW
Crawford Ct	0.71 SW	Sanders Pl	0.80 SW
Croton Ave	0.84 SE	Scranton Rd	0.35 SW
Crown Ave	0.73 SW	Simms St	0.82 SW
Detroit Ave	0.91 SW	Smith Ct	0.83 SW
Dodge Ct	0.56 NE	St Clair Ave NE	0.63 NW
Drydock Ave	0.44 SE	Stones Levee	0.25 SW
E 10th Pl	0.25 NE	Sumner Ave	0.21 NE
E 10th St	0.25 NE	Superior Ave	0.65 NW
E 11th	0.80 NW	Superior Ave E	0.50 NW
E 11th St	0.50 NE	Superior Via	0.87 NW
E 12th Pl	0.39 NE	Swingos Ct	0.58 NE
E 12th St	0.31 NE	Sycamore St	0.98 NW

Environmental FirstSearch
Street Name Report for Streets within 1 Mile(s) of Target Property

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

Street Name	Dist/Dir	Street Name	Dist/Dir
E 13th St	0.38 NE	Theresa Ct	0.60 NW
E 14th St	0.45 NE	Thurman Ave	0.75 SW
E 16th Pl	0.48 NE	Transport Rd	0.92 SE
E 16th St	0.97 NE	Tremont Ave	0.99 SW
E 17th St	0.56 NE	University Rd	0.68 SW
E 18th St	0.46 NE	Vincent Ave	0.46 NW
E 19th Pl	0.52 NE	W 10th St	0.69 NW
E 19th St	0.55 NE	W 11th Pl	0.69 SW
E 1st St	0.31 NW	W 11th St	0.69 SW
E 20th St	0.70 NE	W 12th St	0.72 SW
E 21st St	0.57 NE	W 13th Pl	0.73 SW
E 22nd St	0.59 SE	W 14th St	0.69 SW
E 23rd St	0.93 NE	W 15th St	0.75 SW
E 24th St	0.76 NE	W 16th Pl	0.99 SW
E 25th Pl	0.86 NE	W 17th St	0.71 SW
E 25th St	0.79 SE	W 18th St	0.76 SW
E 27th St	0.84 SE	W 19th Pl	0.78 SW
E 28th St	0.98 NE	W 19th St	0.76 SW
E 29th St	0.92 SE	W 20th Pl	0.85 SW
E 2nd St	0.29 NW	W 20th St	0.83 SW
E 30th St	0.97 SE	W 21st Pl	0.85 SW
E 3rd St	0.33 NW	W 22nd St	0.95 SW
E 4th St	0.22 NW	W 23rd St	1.00 SW
E 6th St	0.09 NE	W 2nd St	0.39 NW
E 7th St	0.17 NE	W 3rd St	0.22 SW
E 8th St	0.20 NE	W 4th St	0.33 SW
E 9th Pl	0.23 NE	W 5th St	0.72 SE
E 9th St	0.21 NE	W 6th St	0.55 NW
E Mall Dr	0.57 NW	W 7th Pl	0.70 SE
Eagle Ave	0.05 NW	W 7th St	0.69 SW
Elm Ave	0.87 NW	W 9th St	0.66 NW
Emerald Ct	0.74 NE	W Eagle Ave	0.05 NW
Erie Ct	0.23 NE	W Huron Rd	0.27 NW
Erievue Plz	0.77 NW	W Lakeside Ave	0.78 NW
Euclid Ave	0.38 NW	W Mall Dr	0.56 NW
Fairfield Ave	0.85 SW	W Prospect Ave	0.37 NW
Fall St	0.77 SW	W St Clair Ave	0.65 NW
Frankfort Ave	0.58 NW	W Superior Ave	0.51 NW
Franklin Ave	0.82 SW	Walnut Ave	0.50 NW
Freeman Ave	0.97 SW	Walworth Ave	0.91 SW
French St	0.75 SW	Wand Ave	0.78 SW
Front Ave	0.97 NW	Washington Ave	0.93 NW
Gardner Ct	0.26 NE	Webster Ave	0.24 NE
Girard St	0.51 SW	West Ave	0.76 NW
Goodrich	0.62 NW	West St	0.67 NW
Granger Ct	0.65 NE	Winslow Ave	0.98 NW
Hamilton Ave	0.72 NW	Winter St	0.73 SW
Harrison St	0.31 SW	Woodland Ave	0.59 SE

Environmental FirstSearch
Street Name Report for Streets within 1 Mile(s) of Target Property

Target Property: 2432 ONTARIO ST
CLEVELAND OH 44115

JOB: H09004-12
ODOT PPN 101-32-038

Street Name	Dist/Dir	Street Name	Dist/Dir
Herschel Ct	0.82 SE		

APPENDIX M

BUSTR DOCUMENTS

18000287 01

SUSPECTED RELEASE REPORT

REPORT # 1152758131001FY1913

DATE: 11/5/92
TIME: 11:53

[1] PERSON REPORTING THE RELEASE
NAME: WARREN LUCY

TITLE: Health subject

PHONE: (573) 476-5609

AGENCY/COMPANY: Shell Oil

RELATION TO SITE: Site

ST: OH ZIP: 45429

ADDRESS: 2777 Washington Village Dr

CITY: Dayton

REMARKS:
[2] SUSPECTED RELEASE LOCATION

MULTIPLE SUSPECTED SOURCES? YES NO UNDETERMINED

COUNTY: Cuyahoga
FACILITY ID#: 150387

FACILITY: Shell Service Station

ADDRESS: 501 Carnegie St

CITY: CLEVELAND ZIP: 44115

UST OWNER: Warren Lucy

UST OPERATOR: SAMIR MOHAMMED

PHONE: (216) 696-9099

REMARKS: Inventory - test tank & three line - oil with a 0.5 gph leak
Water Mgmt. Dept. - test tank & three line - oil with a 0.5 gph leak
Merger & operations - test tank & three line - oil with a 0.5 gph leak

FIRE DEPT: Cleveland CONTACT: William Zimmerman PHONE: (216) 669-6605

- [3] CONDITIONS LEADING TO REPORT OF SUSPECTED RELEASE (Check all that apply)
- Inventory control results indicate a release may have occurred.
 - Testing, monitoring or sampling results indicate a release may have occurred.
 - Unusual operating conditions observed (e.g., sudden drop in tank volume).
 - Impacts noticed in area surrounding tank (e.g., vapors, well contaminated, run-off).
 - Spill or overflow of petroleum in excess of 25 gallons.
 - Soil/Groundwater contamination discovered during non-closure related investigation.
 - Closure (or replacement) assessment results indicate that a release has occurred.
- OTHER CONDITIONS: _____

*****COMPLETE REVERSE SIDE*****

[10] REPORT DISPOSITION (Indicate actions taken on reverse side)
EPCRA: 112 YES NO EPCRA ()
EMERGENCY ACTION? YES NO EPCRA ()
REPORT/ACTION APPROVED: [Signature] DATE: 11/9/92

ENTERED BY: [Signature] DATE: 11/9/92
CLASS: A B C (D) (LIT) NON-LIT
PRIORITY: 1 2 3 4
LE STATUS: RPT SUS/DIS CON ICA ICR
ICG SAS SAC CAS CAP NFA

Shell Oil Company

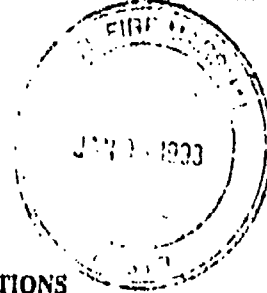


1415 West 22nd Street
Oak Brook, Illinois 60522-9008

0193DFC/244-156#W9

January 4, 1993

FEDEX OVERNIGHT



Mr. Mazibur Rahman
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
7221 Ravenna Road, Suite D-7
Twinsburg, Ohio 44087-2443

Reference: Shell Retail Facility
501 Carnegie Avenue at Ontario
Cleveland, Ohio
Incident # 182288300

Dear Mr. Rahman:

Pursuant to the guidelines established in Ohio Administrative Code (OAC) 1301:7-9-13(D), the attached report partially fulfills the site investigation requirements at the referenced facility. Engineering-Science (ES) of Cleveland, Ohio was contracted to complete the site investigation.

Based upon OAC 1301:7-9-13(I)(1), a site assessment will be conducted and a report issued, 180 days following the suspect release reported on November 5, 1992. The Site Assessment Report due date is May 1, 1993.

If you have any questions or need additional information, please do not hesitate to contact Margaret Andrews of Engineering-Science at (216) 486-9005 or me at (708) 572-5640.

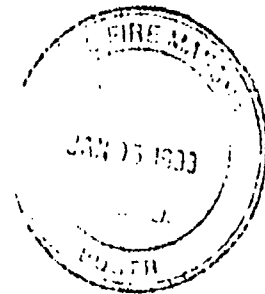
Sincerely,

Martin Mohr
Environmental Engineer
MM/

cc: Laurie Cook, HS&E Coordinator, Ohio
M. M. Andrews, Project Manager, Engineering-Science

1822-883-70

00001362



SITE CHECK
SHELL RETAIL FACILITY
501 CARNEGIE AVENUE AT ONTARIO
CLEVELAND, OHIO

DECEMBER 1992

Prepared by:
ENGINEERING-SCIENCE
19101 Villaview Road, Suite 301
Cleveland, Ohio 44119

ES Job No. CD-418.09
(CD339)

1232DFC/24-126-0WS

18,283 c 3

00000053

THE FOLLOWING REPORT HAS BEEN PREPARED ON BEHALF OF, AND EXCLUSIVELY FOR THE USE OF, SHELL OIL COMPANY. THE REPORT AND THE FINDINGS CONTAINED HEREIN SHALL NOT, IN WHOLE OR IN PART, BE DISSEMINATED OR CONVEYED TO ANY OTHER PARTY, EXCEPT BY SHELL OIL COMPANY, WITHOUT CONSULTANT'S PRIOR WRITTEN CONSENT. FURTHERMORE, ANY RELIANCE ON THIS REPORT BY THIRD PARTIES BEYOND ITS INTENDED PURPOSE AND IN CONSIDERATION OF THE STATED LIMITATIONS AND/OR QUALIFICATIONS OF THE REPORT SHALL BE AT SUCH PARTY'S SOLE RISK.

1297DFC/248-150-00W3

00000054

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
SITE BACKGROUND	3
SITE SURVEY	6
PURPOSE AND SCOPE OF WORK	7
SUBSURFACE INVESTIGATION	8
Soil Borings	8
Monitor Wells	9
Groundwater Sampling	9
RESULTS	10
Hydrogeology	10
HUSTR Site Score	10
Soils Analysis	10
Groundwater Analysis	10
CONCLUSIONS	15

LIST OF FIGURES

Number	Page
1 Site Location Map	4
2 Site Plan	5

LIST OF TABLES

Number	Page
1 Groundwater Elevation Data	11
2 Soil Headspace Organic Vapor Analysis	12
3 Analytical Results of Soil Samples	13
4 Analytical Results of Groundwater Samples	14

LIST OF APPENDICES

Appendix A - Site Vicinity Sketch
Appendix B - HUSTR Release Investigation
Appendix C - ODNR Well Logs
Appendix D - Laboratory Reports
Appendix E - Monitor Well Logs
Appendix F - HUSTR Site Feature Scoring System Chart

EXECUTIVE SUMMARY

Engineering Science (ES) conducted a site check at the Shell Retail Facility located at 501 Carnegie Avenue and Ontario in Cleveland, Ohio on 23 and 24 November 1992, and 2 December 1992. It was intended as a follow-up investigation to a site survey conducted on 5, 6 and 7 November 1992. The site survey was in response to a loss of inventory and failed line tightness test at the flex connectors of the submersible pump for each product UST. A suspected release was reported to the Bureau of Underground Storage Tank Regulations (BUSTR), Division of State Fire Marshal on 5 November 1992.

A site check was conducted pursuant to Ohio Administrative Code (OAC) 1301:7-9-13(D) and was prompted by the initial release and site survey. The purpose of the site check was to determine whether subsurface soils or groundwater on the site have been impacted by the release.

During the November site check, three soil borings were advanced to depths between 32 feet and 34 feet. All borings were completed as monitor wells. Soil samples were collected on 23 and 24 November 1992 and submitted for laboratory analysis of total petroleum hydrocarbons (TPH, SW846-Method 8015) and benzene, toluene, ethylbenzene and xylenes (BTEX, SW846-Method 8020). Residual hydrocarbons were detected in soil samples collected from MW002 and MW003. The TPH and BTEX concentrations in MW001 were below laboratory detection limits. Groundwater samples were collected from the monitor wells on 2 December 1992, and submitted for laboratory analysis of BTEX (EPA Method 602). Dissolved hydrocarbons were detected in groundwater from MW002 and MW003. MW001 concentrations were below laboratory detection limits.

Based on the results of this investigation, the following conclusions should be considered in the environmental evaluation of the site:

- No phase-separated hydrocarbon (PSH) was encountered in any of the three soil borings.
- The soils at the site consist of predominantly moist fine to medium sands with some to trace amounts of silt and clay.
- Concentrations of volatile organic compounds (VOCs) in the headspace of soil samples ranged from 0.0 to 5,860 parts per million (ppm).
- Laboratory analysis of four soil samples collected indicate concentrations of TPH ranged from less than 0.05 milligrams per kilogram (mg/kg) to 260 mg/kg. Total concentrations of BTEX ranged from less than 12 micrograms per kilogram ($\mu\text{g}/\text{kg}$) to less than 20,900 $\mu\text{g}/\text{kg}$.

- Laboratory analysis of groundwater samples collected indicate total BTEX concentrations ranged from less than 5 micrograms per liter ($\mu\text{g/L}$) to 229 $\mu\text{g/L}$.
- The concentration of benzene detected in MW002 (5 $\mu\text{g/L}$) and MW013 (20 $\mu\text{g/L}$) are at or above the Maximum Contaminant Level (MCL) for benzene (5.0 $\mu\text{g/L}$) established for U.S. EPA Drinking Water Standards.
- A water well search conducted through the Ohio Department of Natural Resources (ODNR), Division of Water located three potable wells within a one-half mile radius of the site. The area is currently supplied by municipal water.
- The site was scored using the BUSTR Site Feature Scoring System. The total score for the site was 50 points, therefore, the site is subject to Category 2 Action Levels under Ohio Administrative Code (OAC) 1301:7-9-13.

Release Quantity:	Suspected release reported to the State Fire Marshal following a line tightness test failure on November 5, 1992.
Monitor Wells:	Three.
Soil Borings:	Three. One drilled to 32 feet, one to a depth of 33 feet and one to a depth of 34 feet. All four were completed as monitor wells.
Soil Description:	Fine to medium sands with some to a trace of silt and clay.
Groundwater:	Encountered between 28 and 31 feet below grade. The local groundwater flow direction is towards the north-northwest.
Soil Hydrocarbon:	The TPH concentrations ranged from less than 0.05 mg/kg to 260 mg/kg. Total BTEX concentrations ranged from less than 12 $\mu\text{g/kg}$ to less than 20,900 $\mu\text{g/kg}$.
Phase-Separated Hydrocarbon:	No PSH encountered.
Soluble Hydrocarbon:	Total BTEX concentrations ranged from less than 5 $\mu\text{g/L}$ to 229 $\mu\text{g/L}$.
Receptors:	Underground utilities and water wells.

SITE BACKGROUND

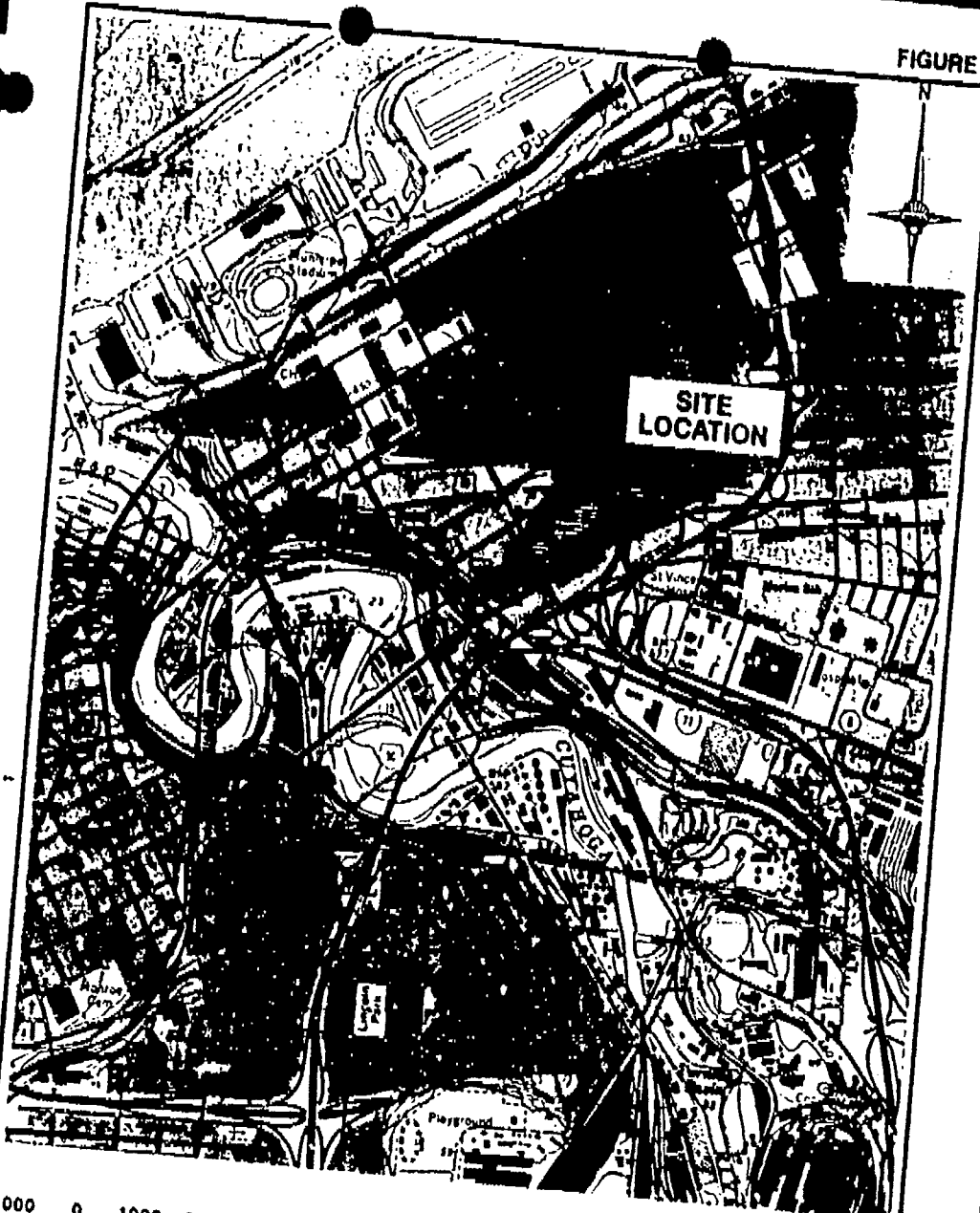
Engineering Science (ES) was requested by the Shell Oil Company to conduct a site survey at the Shell Retail Facility located at the intersection of Carnegie Avenue and Ontario Street in Cleveland, Ohio. The site location is shown in Figure 1. The site plan showing details related to the site is included in Figure 2. Land use in the vicinity of the site is commercial. A site vicinity sketch is included as Appendix A.

A suspected release based on a failed line tightness test was reported to BUSTR by the Shell Oil Company on 5 November 1992. A site survey was conducted on 5, 6 and 7 November 1992 in response to the release report. One soil sample was collected from the manways containing the submersible pumps above each tank and field screened for VOCs with a photoionization detector (PID). One sample exhibiting the highest VOC was submitted for laboratory analysis of BTEX and TPH. All three product lines failed the tightness tests due to faulty flex connectors. The flex connectors for each pump were replaced. A final inspection was performed to confirm line tightness after repairs were finished. Impacted soils were stockpiled and disposed of properly to a sanitary landfill. The excavations were backfilled with clean sand to grade. The cement tank pad was repaired to prior condition around existing manways.

A BUSTR Release Investigation was conducted and found no other known leaking underground storage tanks in the vicinity. The Release Investigation has been included as Appendix B.

According to the ODNR, Division of Water, there are three potable water wells which are located within a one-half mile radius of the site. The area is currently served by public water supply. ODNR well logs for these wells are included in Appendix C.

FIGURE 1



1000 0 1000 2000 FEET
 SCALE



QUADRANGLE LOCATION

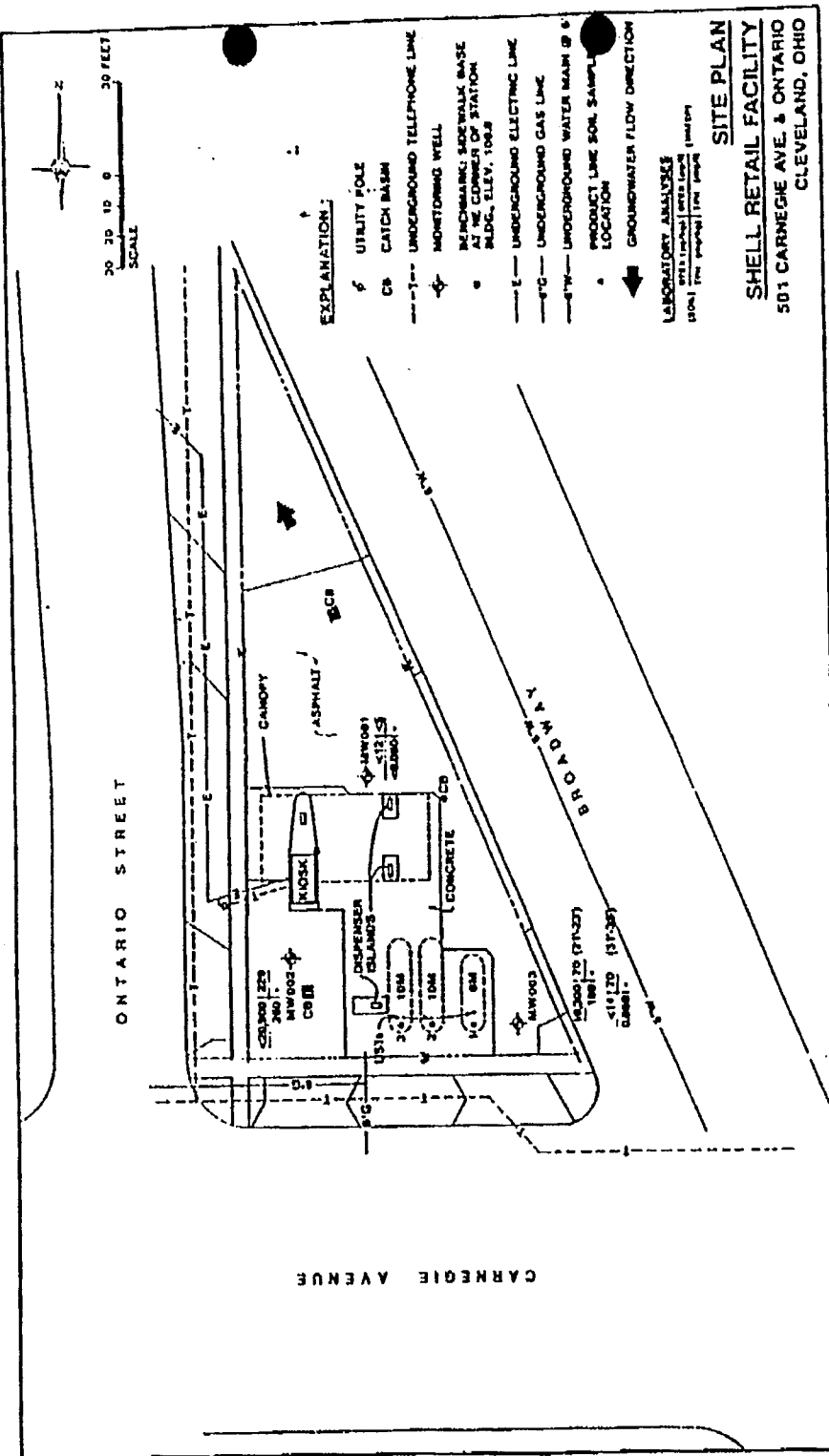
CD418.09 (CD339)
 JGD
 12/18/92

SITE LOCATION MAP
SHELL RETAIL FACILITY
501 CARNEGIE AVE. & ONTARIO
CLEVELAND, OHIO

ES ENGINEERING-SCIENCE

00000059

FIGURE 2



CD-18-87 (CD-379)
 JCD
 12/11/92

00000060

SITE SURVEY

Engineering-Science (ES) conducted a site check at the Shell Retail Facility located at 501 Carnegie Avenue and Ontario in Cleveland, Ohio on 23, 24 November 1992, and 2 December 1992 as a follow-up investigation to a site survey conducted on 5, 6 and 7 November 1992. The site survey was a response to a loss of inventory and failed line tightness test. A suspected release was reported to BUSTR, Division of State Fire Marshal on 5 November 1992.

During the site survey, three soil samples were taken; one from each submersible pump manway excavation directly above their respective UST. The samples were taken using a stainless-steel hand auger. The hand auger was decontaminated between sampling with a Liquinox™ and water solution followed by tap water, distilled water, and methanol rinses.

All samples were field-screened for the presence of hydrocarbons using a Photovac Microtip™ PID. In this test, each sample was split into two halves. One-half of each sample was placed into a clean, air-tight jar, the mouth of which was covered with aluminum foil, then secured with a screw-on metal lid. The other half of the sample was placed in a 500 milliliter (ml) soil sample jar fitted with a Teflon™-lined lid, placed on ice and saved for possible laboratory analysis. The PID was calibrated with a 100 ppm isobutylene-in-air commercial gas standard, and used in accordance with the manufacturer's operating instructions. After at least ten minutes holding time, the headspace above the sample within the jar was scanned for VOCs with the PID. This was accomplished by piercing the aluminum foil seal with the instrument probe, and recording the maximum VOC reading observed for the headspace above the sample in the jar. Both soil samples were transported under chain-of-custody procedures to Halliburton, NUS Environmental Laboratories (NUS), Houston, Texas for analysis of TPH (SW846-Method 8015) and BTEX (SW846-Method 8020).

The VOC readings from the product line soil samples (#1, #2 and #3) were 198 ppm, 191 ppm and 269 ppm, respectively. The laboratory analysis of product line soil sample #3 indicated a total BTEX concentration of 349 mg/kg and a TPH concentration of less than 0.050 mg/kg. The laboratory results are presented in Appendix D.

PURPOSE AND SCOPE OF WORK

The purpose of the site check was to investigate the impact of released product on soil and groundwater at the site. The following activities were performed by ES as part of the investigation:

- The Ohio Utility Protection Service (OUPS) was contacted concerning the date and type of work to be performed.
- Three soil borings were advanced on 23 and 24 November 1992 to provide information on soils. All were completed as monitor wells.
- Soil samples were collected from each soil boring, and the headspace was screened for VOCs using a PID.
- One soil sample exhibiting the highest VOC concentration from each boring was submitted for laboratory analysis of TPH and ETEX. The deepest sample from MW003 was also submitted for laboratory analysis for determination of the vertical extent.
- The three monitor wells were developed and sampled on 2 December 1992 for laboratory analysis of BTEX.
- The wells were surveyed with respect to an arbitrary datum reference elevation of 100.00 feet. Water levels were then gauged and relative groundwater elevations calculated. Bolt-down manholes were installed over the monitor wells.
- A water well search was conducted with the Ohio Department of Natural Resources (ODNR) Division of Water. Three potable wells within one-half mile radius of the site were found on record at ODNR.
- A Release Investigation was conducted with the Bureau of Underground Storage Tank Regulations (BUSTR). No other known leaking UST has been reported in the vicinity.

Drilling was performed on 23 and 24 November 1992 at which time soil samples were collected, screened for VOCs and submitted for laboratory analysis. Water samples were collected from the newly installed wells on 2 December 1992.

SUBSURFACE INVESTIGATION

Soil Borings

On 23 and 24 November 1992, three soil borings were advanced using 6.25-inch inside-diameter hollow-stem augers. One was advanced 32 feet below grade, one was advanced 33 feet, and one was advanced 34 feet below grade. All borings were completed as monitor wells. Drilling and well installation was conducted under the supervision of an ES geologist. Soil samples were collected with split-spoon samplers applying the Standard Penetration Test Method (ASTM Method D-1586) continuously for lithologic description and field-screening for VOCs. The field geologist described each soil sample according to a standard visual-manual soil classification scheme designed to assure a high degree of reproducibility, and accurate stratigraphic correlations. The sample descriptions along with blow counts for each sampled interval are located on the monitor well logs included in Appendix E.

In addition to a lithologic description, each split-spoon sample was examined for visual evidence of hydrocarbon contamination. The samples were field-screened for the presence of hydrocarbons using a Photovac Microtip™ PID. In this test, each sample was split into two halves. One-half of each sample was placed into a clean, air-tight jar, the mouth of which was covered with aluminum foil, then secured with a screw-on metal lid. The other half of the sample was placed in a 500 ml soil sample jar fitted with a Teflon™-lined lid, placed on ice and saved for possible laboratory analysis. The PID was calibrated with a 100 ppm isobutylene-in-air commercial gas standard, and used in accordance with the manufacturer's operating instructions. After at least ten minutes holding time, the headspace above the sample within the jar was scanned for VOCs with the PID. This was accomplished by piercing the aluminum foil seal with the instrument probe, and recording the maximum VOC reading observed from the headspace above the sample in the jar. The soil sample with the highest VOC reading from each boring was transported under chain-of-custody procedures to NUS, Houston, Texas for analysis of TPH (SW846 Method 8015) and BTEX (SW846 Method 8020). The deepest soil sample from monitor well MW003 was also submitted.

All drilling equipment that contacted the borings was decontaminated by steam-cleaning prior to the start of each boring. Split-spoon sampling equipment was decontaminated with a Liquinox™ and water solution, followed by tap water, distilled water, and methanol rinses.

Monitor Wells

Monitor wells MW001, MW002 and MW003 were completed to depths of 32 feet, 33 feet and 34 feet, respectively. All were constructed of four-inch diameter, Schedule 40 PVC riser flush-threaded to ten feet of 0.010-inch slotted PVC screen. A sand filter pack was placed in the annular space between each well and borehole from two to two and one-half feet above the screen, followed by one and one-half to two feet of bentonite seal. The remaining annular space was grouted with cement. A bolt-down, flush-mount metal protective manhole was installed in a concrete pad over each well to protect the PVC riser. Each well was secured by a locking monitor well cap. Appendix E contains construction details of each monitor well.

Groundwater Sampling

Prior to the collection of water samples on 2 December 1992, the monitor wells were developed and purged of static water. Development consisted of surging the well by rapidly raising and lowering a surge block to remove any loose material that may have clogged the slotted well screen or the enclosing sand filter pack. The wells were purged by bailing more than three times the well volume, or to dryness. The wells were allowed to recharge to near static level before sampling.

Water samples were collected with a Teflon™ bailer, and placed in two clean 40 ml vials. Sampling protocol was observed as prescribed by the respective laboratory methodology. The samples were placed on ice in a cooler, and transported under chain-of-custody procedures to NUS Laboratories in Houston, Texas. The water samples were analyzed for BTEX (EPA Method 602).

Groundwater sampling equipment was decontaminated before water samples were collected. Decontamination consisted of scrubbing with a Liquinox™ and water solution, followed by rinses with tap water, distilled water, and methanol.

Each well at the site was surveyed with respect to an arbitrary datum reference elevation of 100.00 feet. The benchmark shown in Figure 2 is the arbitrary datum. Water levels were then gauged and a relative groundwater elevation calculated.

RESULTS

Hydrogeology

The soil beneath the site, as indicated by the three borings, consists of predominantly fine to medium sands with some to trace amounts of silt and clay. Detailed descriptions of materials encountered during drilling are included on the well logs in Appendix E.

Groundwater was initially encountered between 28 and 31 feet subgrade. Groundwater measurements obtained from the monitor wells and relative groundwater elevations are summarized in Table 1. Based on relative water elevations, groundwater flow was determined to be towards the north-northwest.

BUSTR Site Score

The site was scored using the BUSTR Site Feature Scoring System. A total score of 50 points was recorded for the site, which designates Category 2 Action Levels under OAC 1301:7-9-13(E)(4). The site feature score is attached in Appendix F.

Soils Analysis

Headspace VOC concentrations in soil from the site, as determined by field-screening with the PID, are summarized in Table 2. The concentrations ranged from 0.0 ppm to 5,860 ppm.

Results of the laboratory analyses of the soil samples are summarized in Table 3 and laboratory reports are included in Appendix D. The TPH concentrations in all three soil borings were below action levels for Category 2 sites (TPH-300 mg/kg). The BTEX concentrations in MW001 and MW003 (33'-35' interval) did not exceed the BTEX action levels for Category 2 sites, however, benzene and toluene from MW002 and MW003 (21'-23' interval) did exceed the action levels.

A sample of the stockpiled soil was also submitted to the laboratory and analyzed for BTEX, TPH (EPA Method 8015), TCLP metals, and flashpoint. Stockpile analysis results are included in Appendix D. Stockpiled soils were transported to Norton Sanitary Landfill in Cleveland, Ohio by the Herb-Kay Company.

Groundwater Analysis

Results of the laboratory analyses of groundwater samples are presented in Table 4, and laboratory reports are included in Appendix D. The BTEX concentrations in the groundwater collected from MW001 and MW002 were below BTEX action levels for Category 2 sites. The concentration of benzene in MW003 (20 µg/L) exceeded the action level for benzene (5 µg/L) in Category 2 sites. Toluene, ethylbenzene, and xylene concentrations in MW003 were below the action levels.

TABLE 1
GROUNDWATER ELEVATION DATA⁽¹⁾
SHELL RETAIL FACILITY
SITE CHECK
501 CARNEGIE AVENUE AND ONTARIO - CLEVELAND, OHIO

Monitoring ⁽²⁾ Well	Reference ⁽³⁾ Elevation (feet)	Depth to Water (feet)	Relative Fluid Elevation (feet)
MW001	99.30	28.74	70.56
MW002	99.12	28.30	70.82
MW003	99.83	28.82	71.01

(1) Water level measurements taken on 2 December 1992.

(2) Well locations are provided on Figure 2.

(3) Reference datum is relative to an arbitrary benchmark assignment of 100 feet to the sidewalk base at the northeast corner of Kiosk.

TABLE 2
 SOIL HEADSPACE ORGANIC VAPOR ANALYSIS⁽¹⁾
 SHELL RETAIL FACILITY
 SITE CHECK
 501 CARNEGIE AVENUE AND ONTARIO - CLEVELAND, OHIO

Approximate Sample Depth (feet)	Sample Location ⁽²⁾		
	MW001 (ppm)	MW002 (ppm)	MW003 (ppm)
1 - 3	15.4	16.3	4.4
3 - 5	7.6	7.9	0.9
5 - 7	12.0	11.8	0.3
7 - 9	8.7	12.1	198
9 - 11	13.9	9.4	305
11 - 13	12.7	27.6	305
13 - 15	31.4	20.5	586
15 - 17	35.2	26.1	1,088
17 - 19	30.4	235	1,526
19 - 21	35.4	236	446
21 - 23	45.5	436	5,860 ⁽³⁾
23 - 25	18.1	2,343	5,428
25 - 27	25.6	4431 ⁽³⁾	1,928
27 - 29	47.8 ⁽³⁾	53.7	1,084
29 - 31	39.4	0.0	1,176
31 - 33	--	0.0	1,011
33 - 35	--	0.0	702 ⁽³⁾

- (1) As determined with a Photovac MicrotipTM PID on 23 and 24 November 1992.
 (2) Sample locations are shown on Figure 2.
 (3) Sample submitted for laboratory analysis of TPH (SW846 Method 8015) and BTEX (SW846 Method 8020).
 -- No sample collected.

TABLE 3
 ANALYTICAL RESULTS OF SOIL SAMPLES
 SHELL RETAIL FACILITY
 SITE CHECK
 501 CARNEGIE AVENUE AND ONTARIO - CLEVELAND, OHIO

Location ⁽¹⁾	Date Sampled	Analytical Parameter					Total BTEX (µg/kg)
		Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Xylenes (µg/kg)	TPH (mg/kg)	
Product line Soil Sample #3	7 Nov 92	18	130	15	186	<0.050	349
MW001 (27'-29' interval)	23 Nov 92	<2	<2	<2	<6	<0.050	<12
MW002 (25'-27' interval)	24 Nov 92	<1,200	<1,200	6,900	11,600	260	<20,900
MW003 (21'-23' interval)	24 Nov 92	<2,500	1,500	3,400	11,900	100	<19,300
MW003 (33'-35' interval)	24 Nov 92	<2	4	<2	<6	0.060	<14
Category 2 Action Level		170	7,000	10,000	47,000	300	--

(1) Sample locations are illustrated on Figure 2.

TABLE 4

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
 SHELL RETAIL FACILITY
 SITE CHECK
 501 CARNEGIE AVENUE AND ONTARIO - CLEVELAND, OHIO

Location ⁽¹⁾	Date Sampled	Analytical Parameter				
		Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	Total BTEX ($\mu\text{g/L}$)
MW001	2 Dec 92	<1	<1	<1	<2	<5
MW002	2 Dec 92	5	2	48	174	229
MW003	2 Dec 92	20	23	4	23	70
Action Levels		5	1,000	700	10,000	11,705

(1) Sample locations are shown on Figure 2.

CONCLUSIONS

Based on the results of this investigation, the following conclusions should be considered in the environmental evaluation of the site:

- No PSH was encountered in any of the three borings.
- Soils at the site consist of predominantly fine to medium sands with some to trace amounts of silt and clay.
- Concentrations of VOCs in the headspace of soil samples ranged from 0.0 to 5,860 ppm.
- Laboratory analysis of the four soil samples collected indicate concentrations of TPH ranged from less than 0.05 mg/kg to 260 mg/kg. Total concentrations of BTEX ranged from less than 12 µg/kg in MW001 (27'-29') to less than 20,900 µg/kg in MW002 (25'-27' interval).
- Laboratory analysis of groundwater samples indicate total BTEX concentrations range from less than 5 µg/L to 229 µg/L.
- The concentration of benzene detected in MW002 (5 µg/L) and MW003 (20 µg/L) are at or above the MCL for benzene (5.0 µg/L) established for U.S. EPA Drinking Water Standards.
- A water well search conducted with the ODNR, Division of Water located three potable wells within a one-half mile radius of the site. The area is currently served by municipal water.
- The site was scored using the BUSTR Site Feature Scoring System. The total score for the site was 50 points; therefore, the site is subject to Category 2 Action Levels under Ohio Administrative Code (OAC) 1301:7-9-13.

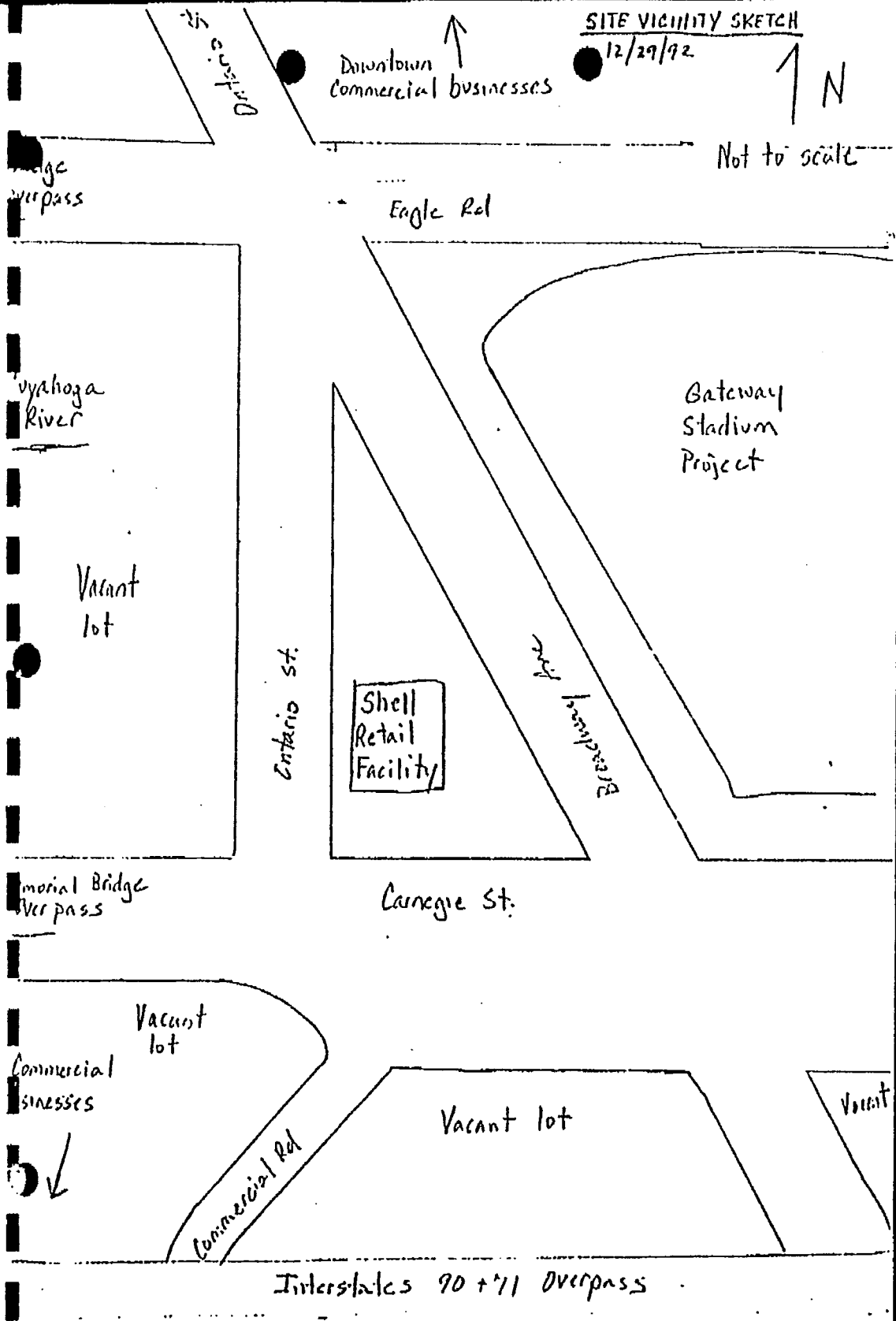
SITE VICINITY SKETCH

12/29/92



Downtown Commercial businesses

Not to scale



Memorial Bridge Overpass

Memorial Bridge Overpass

Vacant lot

Commercial Bridge Overpass

Vacant lot

Commercial businesses

Carnegie St.

Vacant lot

Vacant

Interstates 90 + 71 Overpass

000000

VISION OF STATE FIRE MARSHAL
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
8895 EAST MAIN STREET
P.O. BOX 687
REYNOLDSBURG, OHIO 43068-0687

INVOICE

12/21/92

Invoice Number:

L-001472

ES Engineering
Attn: William Adams
19101 Villaview Rd Suite 301
Cleveland, OH 44119

Terms: Check/M.O.

Your Project #:

Please be advised that a record of a reported leaking underground storage tank was found for the location(s) that you requested (listed below).

182288300
501 Carnegie Ave

For site-specific information about the above, please call our office at 614-752-7938. Be prepared to reference the above incident number to receive information.

To schedule a viewing of the above file, please submit a letter of request to the attention of Karen Gasaway at the above listed address.

Please make check payable to "Treasurer, State of Ohio" and remit to the Bureau of Underground Storage Tanks at the address as above listed. Please remit within 10 days.

Please reference your invoice number on your check and return a copy of the invoice so that your account will be properly credited.

TOTAL DUE:\$30.50

00000000



1000 0 1000 2000 FEET
 SCALE



QUADRANGLE LOCATION

ODNR WELL LOG
SHELL RETAIL FACILITY
501 CARNEGIE AVE. & ONTARIO
CLEVELAND, OHIO

ES ENGINEERING-SCIENCE

CD418.09
 JGD
 12/29/92

00000013

OHIO WATER SURVEY BOARD

Well Record No. 1323

County Guyahoga Twp. Steubensburg Sec. Village View
 Well Location _____ Map Cleveland

Owner Leamanthal Co. Address 2400 Canal Rd.
 Driller Harper Drilling Co. Date 1945

Well Head Elev. or M. P. _____
 Elev. of Ground at Well _____

Pumping Test: 350 GPM

Static Level 41 ft. Date 1945

Normal Pumpage 250 GPM

Quality _____ Use House

Adequacy of supply Good supply

Owner's Well No. or Other Designation _____

Source of Data Harper Drilling Co.
 Collected by LCF Date 11/18/45

STRATA	DEPTH	
	From	To
Clay	0	12
Sand, Gravel	12	25
Clay	25	114
Sand	114	125
Clay	125	130
Sand	136	151
Sandy clay	151	175
Shale	175	179

2 238000
 637000

Chief Aquifer

*check
 what is
 this is
 1200 ft
 1200 ft
 1200 ft
 1200 ft*

3

OHIO WATER SUPPLY BOARD

Well Record No. 103 J.W.

Co. Cuyahoga ¹⁸ City of Cleveland ⁴
 Well Location Cannal St., Cleveland Cleveland
 State Cleveland Map Cleveland

Owner Siegfried Lowenthal Address _____
 Driller Thwing/Distillery Date _____

Well Head Elev. or M. P. _____
 Elev. of Ground at Well _____

Pumping Test:

Static Level: Date _____

Normal Pumpage _____

Quality _____ Use _____

Adequacy of supply _____

Owner's Well No. or Other Designation _____

Source of Data F. H. Thwing
 Collected by M. T. Sturgeon Date 12/44

STRATA	DEPTH	
	From	To
Casing Shale	0 177	177 301
Not much water, some gas.		
South of High Level Bridge on flats near Cannal Rd.		
$X = 2,222,700$ $Y = 665,540-M$		

Chief Aquifer

NO
 (3)

3

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER

Office No. 1042 JW

Log form No.

Quad. Gwynhoga

Co. Gwynhoga¹⁸ Twp. Clave. Sec.

Owner Lakwanthal Distilling Co.

Address 2480 Canal Rd.

Well location Clavaland Ohio

Construction Details	Pumping Test
Casings Diam. _____ length _____	Rate: 250 GPH
Screens: _____	Head: _____
Type of pump: _____	D. D. _____
Capacity: _____	S.L. <input checked="" type="checkbox"/>
Depth of settings: _____	Date _____

Owner's Well No. _____

Driller J/L Harper

Located by JW Date _____

Remarks _____

STRATA	Depth	
	From	To
Elevation _____		
Fill Clay	0	5
Yellow Clay	5	12
Sand and Water	12	35
Blue Clay	35	114
Sand and Water	114	125
Blue Clay	125	136
Sand and Water	136	151
Blue Clay	151	156
Sandy Clay	156	173
Clay and Shale	173	179
Shale	179	

X = 2,222,700
Y = 665,500 - N

* Approximate Location

590
179

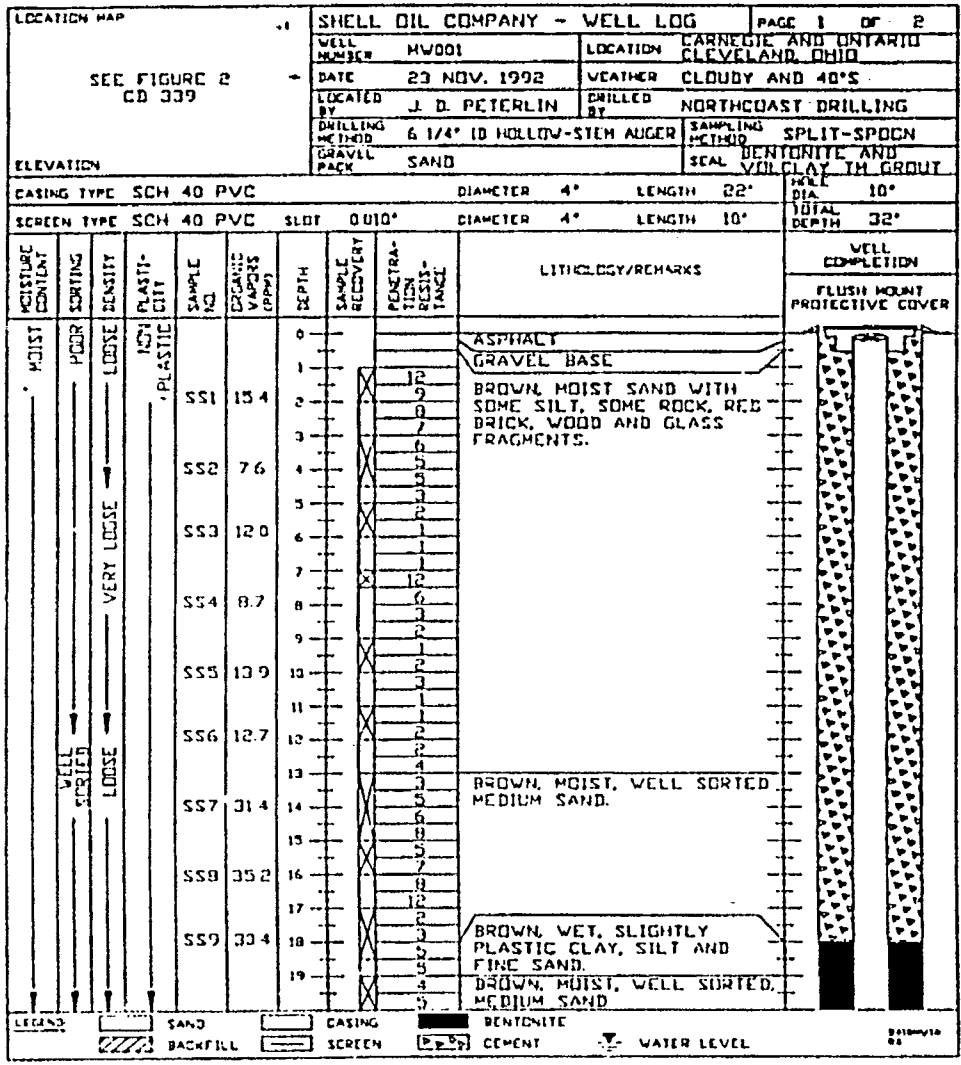
411

(3)

APPENDIX D
LABORATORY REPORTS

1292DPC/348-150-FW6

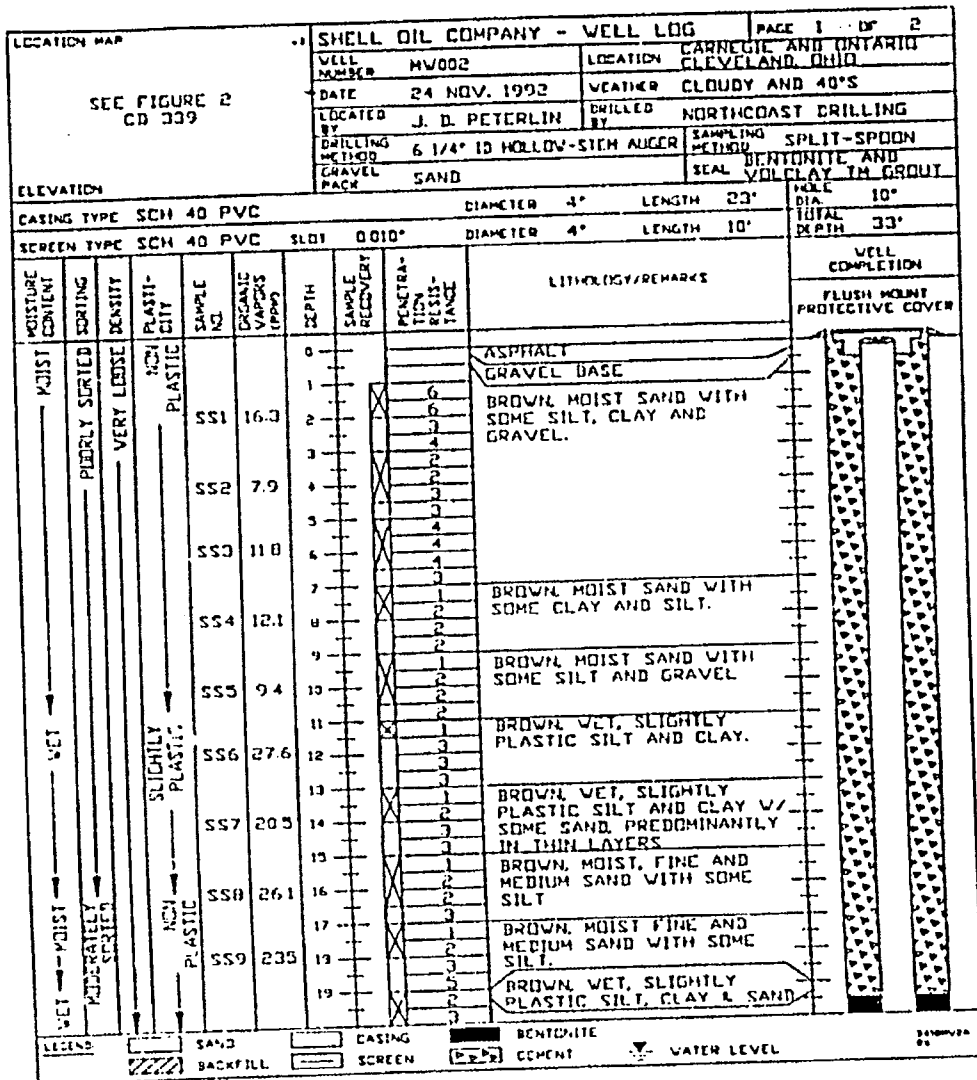
00000000



00000117

LOCATION MAP SEE FIGURE 2 CD 339		SHELL OIL COMPANY - WELL LOG				PAGE 2 OF 2				
DATE 23 NOV. 1992		LOCATION CARNegie AND ONTARIO CLEVELAND, OHIO		WEATHER CLOUDY AND 40'S						
LOCATED BY J. D. PETERLIN		DRILLED BY NORTHCAST DRILLING		SAMPLING METHOD SPLIT-SPOON						
DRILLING METHOD 6 1/4" ID HOLLOW-STEM AUGER		GRAVEL PACK SAND		SEAL BENTONITE AND VCL CLAY TM CROUT						
ELEVATION		CASING TYPE SCH 40 PVC		DIAMETER 4" LENGTH 22'		WELL DIA 10"				
		SCREEN TYPE SCH 40 PVC		SLOT 0.010" DIAMETER 4" LENGTH 10'		TOTAL DEPTH 32'				
POSTURE EDMENT	SPRING	DENSITY	PLASTI- CITY	SAMPLE NO.	ORGANIC VAPOUR UPPER	DEPTH	SAMPLE RECOVERY	PERCENTAGE FINES 75-200 MESH	LITHOLOGY/REMARKS	WELL COMPLETION
				SS10	35.4	23		6		
				SS11	45.5	22		5		
				SS12	101	24		10	BROWN WET, SAND WITH SOME SILT AND CLAY.	
				SS13	25.6	26		8		
				SS14	47.8	27		10		
				SS15	39.4	30		9		
						31		12		
						32		15		
						33				
						34				
						35				
						36				
						37				
						38				
						39				
LEGEND										
SAND		CASING		BENTONITE		WATER LEVEL				
BACKFILL		SCREEN		CEMENT						

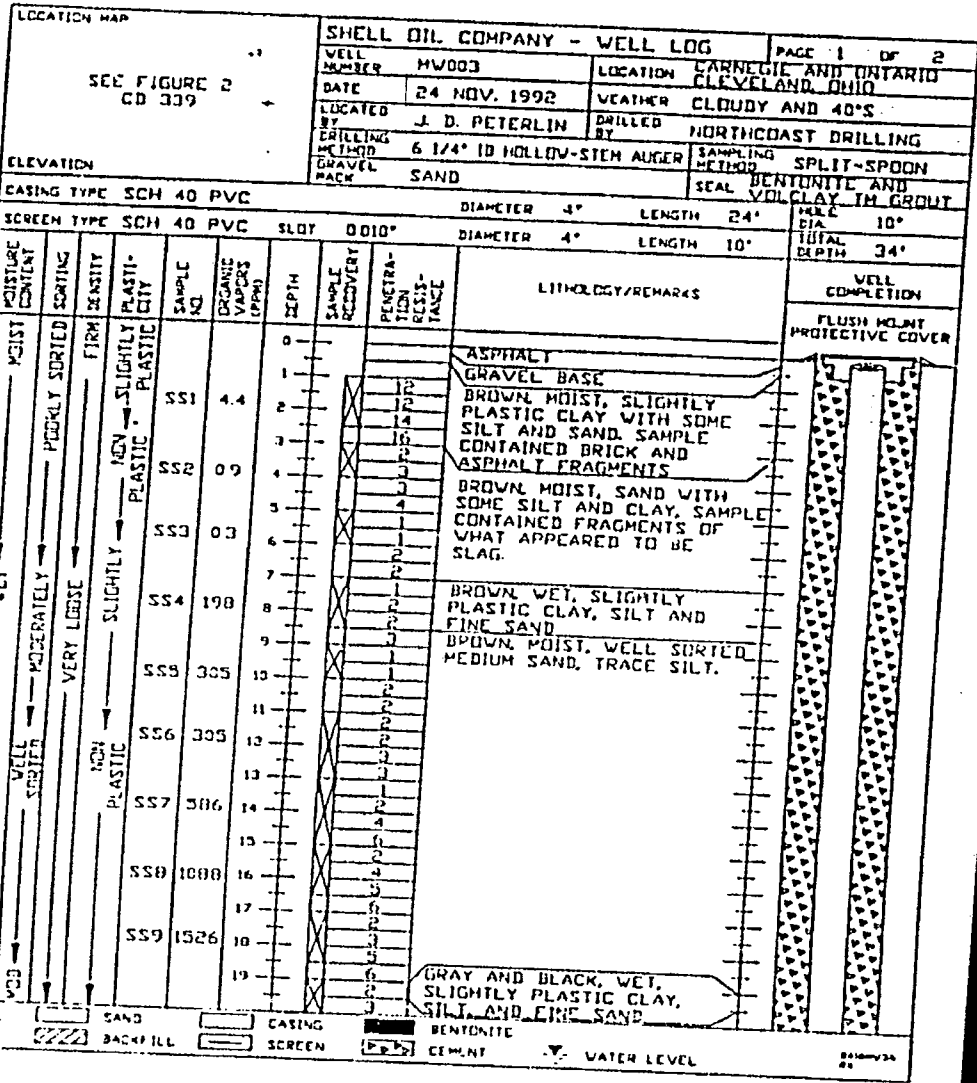
00000118



00000119

LOCATION MAP		SHELL OIL COMPANY - WELL LOG		PAGE 2 OF 2						
SEE FIGURE 2 CD 339		WELL NUMBER	MV002	LOCATION	CARNegie AND ONTARIO CLEVELAND, OHIO					
		DATE	24 NOV. 1992	WEATHER	CLOUDY AND 40'S					
ELEVATION		LOCATED BY	J. D. PETERLIN	DRILLED BY	NORTHCOST DRILLING					
		DRILLING METHOD	6 1/4" ID HOLLOW-STEM AUGER	SAMPLING METHOD	SPLIT-SPOON					
		GRAVEL PACK	SAND	SEAL	BENTONITE AND VCL CLAY IN GROUT					
CASING TYPE		SCH 40 PVC	DIAMETER	4"	LENGTH	23'	WELL DIA.	10"		
SCREEN TYPE		SCH 40 PVC	SLOT	0.010"	DIAMETER	4"	LENGTH	10'		
							TOTAL DEPTH	33'		
MOISTURE CONTENT	WELL SORTING	DENSITY	PLASTICITY	SAMPLE NO.	ORGANIC VAPORS (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS	WELL COMPLETION
MOIST	WELL SORTED	LOOSE		SS10	236	23		5	GRAY, MOIST SAND WITH SOME SILT THINLY LAMINATED WITH THIN BLACK LAYERS.	[Diagram showing well completion details]
				SS11	436	21		5		
						22		5	BROWN, MOIST, WELL SORTED MEDIUM SAND.	
						23		10		
				SS12	2343	24		5		
						25		5	BLACK, MOIST SAND, SILT, AND CLAY.	
				SS13	4431	26		5	BROWN, MOIST, WELL SORTED MEDIUM SAND.	
						27		5		
				SS14	53.7	28		5	BROWN, WET SILT AND SAND	
						29		5		
				SS15	00	30		4		
						31		7		
				SS16	00	32		2	GRAY, WET SAND, SILT, AND CLAY.	
						33		13		
				SS17	00	34		1		
						35		7		
						36				
						37				
						38				
						39				
LEGEND		[Symbol] SAND	[Symbol] CASING	[Symbol] BENTONITE				[Symbol] WATER LEVEL		
		[Symbol] BACKFILL	[Symbol] SCREEN	[Symbol] CEMENT						

00000120



00000121

LOCATION MAP		SHELL OIL COMPANY - WELL LOG		PAGE 2 OF 2						
SEE FIGURE 2 CD 339		WELL NUMBER	MV003	LOCATION	CARNEGIE AND ONTARIO CLEVELAND, OHIO					
		DATE	24 NOV. 1992	WEATHER	CLOUDY AND 40'S					
ELEVATION		LOCATED BY	J. D. PETERLIN	DRIILLED BY	NORTHCOST DRILLING					
		DRILLING METHOD	6 1/4" ID HOLLOW-STEM AUGER	SAMPLING METHOD	SPLIT-SPOON					
		GRAVELL PACK	SAND	SEAL	BENTONITE AND VOLCLAY IN GROUT					
CASING TYPE SCH 40 PVC		DIAMETER	4"	LENGTH	24'					
SCREEN TYPE SCH 40 PVC		SLOT	0010"	DIAMETER	4"					
		LENGTH	10'	WELL DIA	10'					
		TOTAL DEPTH	34'							
MOISTURE CONTENT	WEIGHT SORPTING	DENSITY	PLASTI- CITY	SAMPLE NO	ORGANIC VAPORS (PPM)	DEPTH	SAMPLE RECOVERY	PENETRA- TION RESIST- ANCE	LITHOLOGY/REMARKS	WELL COMPLETION
MOIST	WELL SORTED	LOOSE		SS10	446	20	X	5	BROWN MOIST, WELL SORTED MEDIUM SAND, TRACE SILT.	
				SS11	5860	21	X	6		
				SS12	5426	22	X	7		
				SS13	1928	23	X	8		
				SS14	1084	24	X	9		
				SS15	1176	25	X	10		
				SS16	1011	26	X	11	BROWN, WET, WELL SORTED MEDIUM SAND.	
				SS17	702	27	X	12		
						28		13	GRAY, WET, SAND, SILT, AND CLAY.	
						29		14		
						30		15		
						31		16		
						32		17		
						33		18		
						34		19		
						35		20		
						36		21		
						37		22		
						38		23		
						39		24		
						40		25		
						41		26		
						42		27		
						43		28		
						44		29		
						45		30		
						46		31		
						47		32		
						48		33		
						49		34		
						50		35		
						51		36		
						52		37		
						53		38		
						54		39		
						55		40		

00000122

Site Location SHELL RETAIL FACILITY
 501 Carnegie Avenue at Ontario, Cleveland, OH

BUSTR Incident # 182289300
 Date 22 December 1992

SITE FEATURE SCORING SYSTEM
 OAC 1301:7-9-13(E)(3)(i)

SITE FEATURES	COLUMN A Score 20 If True	Score	COLUMN B Score 15 If True	Score	COLUMN C Score 10 If True	Score	COLUMN D Score 5 If True	Score
1. Distance of UST system from closest drinking water supply well or intake currently in use.	> 1000 feet		301-1000 feet	15	< 301 feet		Inside of designated sensitive area	
2. Average depth to groundwater	> 50 feet		31-50 feet		15-30 feet or unknown	10	< 13 feet	
3. Predominant soil type of substratum	Clay or Shale		Silt or Clayey Sands or Fine Sandstone	15	Silty Sand or Fine Sand or Sandstone or Unknown		Clean Sand or Gravel or Conglomerate	
4. Natural and/or manmade conduits or receptors (points)	< 8		8-10		11-13	10	> 13	
Subtotal:				10		20		
							Total Score	50
							Category	2

SITE FEATURE NUMBER 4 WORKSHEET
 OAC 1301:7-9-13(E)(4)(v)

Basements or subsurface foundations within one hundred feet of UST system	4 points	--
Storm sewer within fifty feet of UST system	4 points	4
Sanitary sewer within fifty feet of UST system	4 points	4
Septic system leach field within fifty feet of UST system	2 points	--
Water line main within fifty feet of UST system	1 point	1
Natural gas line main within fifty feet of UST system	1 point	1
Bedrock area prone to dissolution along joints of fractures (i.e., caves & sink holes) within one hundred feet of UST system	1 point	--
Faults or known fractures within one hundred feet of UST system	1 point	--
Buried telephone/television cable main within fifty feet of UST system	1 point	1
Buried electrical cable main within fifty feet of UST system	1 point	1
TOTAL POINTS		12

11/18/92/11/18/92

00000123

SITE LISTING UPDATE FORM

EXISTING INCIDENT # ~~17~~ ~~18~~ ~~19~~ ~~20~~ ~~21~~ ~~22~~ ~~23~~ ~~24~~ ~~25~~ ~~26~~ ~~27~~ ~~28~~ ~~29~~ ~~30~~ ~~31~~ ~~32~~ ~~33~~ ~~34~~ ~~35~~ ~~36~~ ~~37~~ ~~38~~ ~~39~~ ~~40~~ ~~41~~ ~~42~~ ~~43~~ ~~44~~ ~~45~~ ~~46~~ ~~47~~ ~~48~~ ~~49~~ ~~50~~ ~~51~~ ~~52~~ ~~53~~ ~~54~~ ~~55~~ ~~56~~ ~~57~~ ~~58~~ ~~59~~ ~~60~~ ~~61~~ ~~62~~ ~~63~~ ~~64~~ ~~65~~ ~~66~~ ~~67~~ ~~68~~ ~~69~~ ~~70~~ ~~71~~ ~~72~~ ~~73~~ ~~74~~ ~~75~~ ~~76~~ ~~77~~ ~~78~~ ~~79~~ ~~80~~ ~~81~~ ~~82~~ ~~83~~ ~~84~~ ~~85~~ ~~86~~ ~~87~~ ~~88~~ ~~89~~ ~~90~~ ~~91~~ ~~92~~ ~~93~~ ~~94~~ ~~95~~ ~~96~~ ~~97~~ ~~98~~ ~~99~~ ~~00~~ UPDATE.D01 REV 8/89

FACILITY NAME: Shale NEW FACILITY INFO? YES NO
(Update on back)

-- (1) REASON FOR LISTING UPDATE

- (1) Written report/results received from owner/operator.
- (2) Verbal report/results received from owner/operator.
- (3) Written report received from BUSTR contractor.
- (4) Information collected from BUSTR field examination/inspection.
- (5) Change in site coordinator/contractor assignment.
- (6) Change/delete existing incident number - explain change in remarks section (5).
- (7) Create new incident number for additional suspected facility/location.
- (8) Orders issued.
- (9) Other:

-- (2) NEW SITE LISTING DATA

INCIDENT #: • •
REPORT NUMBER FAC TRGCP SPRC

EMERGENCY RESPONSE: YES NO BY: /M () DEPA USEPA

STATUS: RPT SUS DIS CON ICA ICR ICC SAS SAC CAS CAP NFA

PRIORITY: 1 2 3 4 5

CLASSIFICATION: A B C D LTF ELIGIBILITY: YES (1) NO (2)

SITE COORDINATOR: Rohman CONTRACTOR: _____ WORK ORDER: _____

-- (3) SITE SUMMARY (UPDATE FOR ALL PRIORITY 1 SITES)

51 report submitted (First sentence - why is it a 1? Second sentence - who is doing what at this time)

-- (4) NEW EXCEPTION REPORT DATA

- (1) State plans to obligate over \$100,000 at a site.
- (2) State actually obligated over \$100,000 at a site (cumulative expenses exceeded \$100,000 this quarter).
- (3) State plans to use innovative or experimental technology at the site.
- (4) State plans to provide permanent alternative drinking water supply.
- (5) State plans to permanently relocate residents.
- (6) State reached/received cost recovery settlement; amount: _____.

-- (5) SITE MANAGEMENT REMARKS

(BUSTR actions needed/taken, reports expected, etc.)
Review this report as time permits

-- (6) FOLLOW-UP BUSTR ACTIONS/ASSIGNMENT

(For use by supervisor)

UPDATE SUBMITTED BY: Rohman DATE: 1/16/93
APPROVED: [Signature] DATE: 1/7/93 ENTRY: [Signature] DATE: JAN 15 1993

Shell Oil Company



1415 West 22nd Street
Oak Brook, Illinois 60422-9008

0213DPC/748-99878

FEDEX OVERNIGHT

February 16, 1993

Mr. Mazibur Rahman
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
7221 Ravenna Road, Suite D-7
Twinsburg, Ohio 44087-2443

Reference: Shell Retail Facility
501 Carnegie Avenue at Ontario
Cleveland, Ohio
Incident # 182288300

Dear Mr. Rahmah:

As per the letter submitted 4 January 1993 with the Initial Site Check Report and Ohio Administrative Code (OAC) 1301:7-9-13(I)(1), a Site Assessment will be conducted within the allotted 180 days. The Site Assessment Report due date is May 1, 1993.

Engineering-Science (ES) is currently in the process of obtaining the required right-of-entry permit and is currently conducting a utility search to aid in the process of pre-planning for off-site drilling activities. This letter is submitted as part of the requirement informing the Bureau of Underground Storage Tank Regulations (BUSTR) of the activities currently being conducted to secure off-site access, which will be required to help further define the extent of residual hydrocarbons.

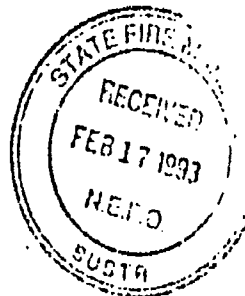
If you have any questions or need additional information, please do not hesitate to contact Margaret Andrews of Engineering-Science at (216) 486-9005 or me at (708) 572-5640.

Sincerely,

Martin Mohr
Environmental Engineer

MM/dee

cc: Laurie Cook, HS&E Coordinator, Ohio
M. M. Andrews, Project Manager, Engineering-Science



0/0001168

Shell Oil Company



1415 West 22nd Street
Oak Brook, Illinois 60522-9008

4931PC/267JW93

April 23, 1993

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**



Mr. A.K.M. Mazihur Rahman
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
9221 Ravenna Road, Suite D7-D8
Twinsburg, Ohio 44087

Reference: Site Assessment - Addendum I
Shell Retail Facility
501 Carnegie Avenue at Ontario
Cleveland, Ohio
Incident # 1822883-00

Dear Mr. Rahman:

Pursuant to the guidelines established in Ohio administrative Code (OAC) 1301:7-9-13(1), the attached referenced report fulfills site assessment requirements at the referenced facility. Engineering-Science (ES) of Cleveland, Ohio was contracted to complete the site investigation.

Shell Oil believes that the extent of residual hydrocarbons is adequately defined in both soil and groundwater. The referenced facility is located in a non-sensitive area and is served by a municipal water supply. The site is subject to Category 2 action levels under OAC 1301:7-9-13. Although dissolved hydrocarbons were detected off-site and in an upgradient well (MW005), installed during this investigation BTEX concentrations were only slightly above MCLs for drinking water standards. Unconfirmed reports indicate that there may have been USTs at the present location of "Gateway", the new stadium construction project, which is located upgradient of the Shell facility. Any additional drilling activities proposed in this upgradient direction would be difficult due to heavy construction activity at Gateway, access problems and politics involved with Gateway.

Upon approval of this site assessment by the State Fire Marshal, Shell Oil will proceed with the Remedial Action Plan (RAP).

If you have any questions or need additional information, please do not hesitate to contact Margaret Andrews of Engineering-Science at (216) 486-9005 or me at (708) 572-5640.

Sincerely,

Martin Mohr
Environmental Engineer

MM/dec

cc: Laurie Cook, HS&E Coordinator, Ohio
Dave Kopp, Shell Real Estate
M.M. Andrews, Project Manager, Engineering-Science

1822883-00.

0000 1054

Site Assessment Checklist and Recommended Table of Contents (Page 1 of 2)
 (Received by the SFM within 100 days of reporting the release)

Date:	<u>APRIL 14, 1993</u>	Facility:	<u>SHELL RETAIL FACILITY</u>
Owner/Operator:	<u>SHELL OIL COMPANY</u>	Address:	<u>501 CARNEGIE AVE AT ONTARIO</u>
Address:	<u>7777 WASHINGTON VILLAGE DR.</u>		<u>CLEVELAND, OHIO</u>
	<u>SUITE 100, DAYTON, OH 45459</u>	County:	<u>CUYAHOGA</u>
Phone #:	<u>1-800-762-6628</u>	Incident #:	<u>182288100</u>

Block | pg #

Each Site Assessment report must include the following:

- A. A brief summary of the activities to date, which includes
 - SITE CHECK1. The nature of the release.
 - SITE CHECK2. Immediate corrective actions taken.
 - N/A 3. Free-product removal activities.
 - PG 14 4. The results of soil/ground-water results from a site check, closure assessment or other assessment (table of sample results and site map depicting location and depth).
- B. A summary of the assessment activities, which includes
 - PG 7 1. An explanation of how soil boring locations were chosen.
 - PG 10 2. A determination of the vertical and horizontal extent of the release in soil and ground water.
 - APP B 3. A description of soil core drilling and monitor well installation (drilling logs and monitor well diagrams included as an appendix).
 - PG 10&11 4. Determination of the direction and gradient of ground-water flow if ground water is encountered.
 - PG 12 5. Data collection for monitoring wells, such as depth to product, product thickness, depth of water from top of casing, elevation to top of casing and location of arbitrary benchmark.
- APP A C. A map that accurately depicts the locations of the UST system, buildings or other structures within 1,000 feet of the suspect UST system, on-site storm sewers, water lines, underground telephone lines, natural gas lines and other structures and utilities which may act as a route of migration for contaminants. In addition, the map must accurately depict the locations of the soil core borings, monitoring well locations and surface water samples.

Circle whichever applies.

8/82

Site Assessment Checklist and Recommended Table of Contents (Page 2 of 2)
 (Received by the SFM within 180 days of reporting the release)

check	pg #	
<input checked="" type="checkbox"/>		D. Results of sampling in table format with actual analytical results for
<input checked="" type="checkbox"/>	pg 14	1. Results of soil samples.
<input checked="" type="checkbox"/>	N/A	2. Results of surface water sampling from ditches, storm sewers, streams, lakes or other surface waters affected by the release.
<input checked="" type="checkbox"/>	pg 15	3. Results of ground-water samples from monitoring wells.
<input checked="" type="checkbox"/>	N/A	4. Results of water samples from private drinking-water wells.
<input checked="" type="checkbox"/>	N/A	E. Any other pertinent information such as access agreements, boring logs and lab data sheets.

Preparer Name MARGARET ANDREWS
 Name MARTIN MOHR
 Title ENVIRONMENTAL ENGINEER
 (708) 372-5640

Preparer Signature Margaret Andrews
 Owner/Operator Signature [Signature]

Date 4-14-93
 Date 4/17/93

* Circle whichever applies.

0000 105

Site Feature Scoring System (SFSS) Checklist and Recommended Table of Contents
 (Submit to SFM as appendix or addendum to site check or site assessment)

Date: APRIL 14, 1993 Facility: SHELL RETAIL FACILITY
 Owner/Operator: SHELL OIL COMPANY Address: 501 CARNEGIE AVE AT ONTARIO
 Address: 7777 WASHINGTON VILLAGE DR. CLEVELAND, OHIO
SUITE 100, DAYTON, OH 45439 County: CUYAHOGA
 Phone #: 1-800-762-6628 Incident #: 182288300

check pg #

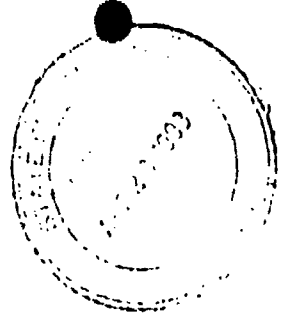
Each SFSS must include the following:

- APP. CA. T.C. completed SFSS table prepared for the site (see Appendix C).
- PG 101. A report on the justification for each score for each site feature, which addresses:
- SITE CHECK. A survey of one-quarter mile radius around the site to determine distances to in-use potable-water supply sources (surface-water bodies, public-water supply wells, private-water wells) and including:
 - SITE CHECK a. Copies of the well logs obtained from ODNR and/or the local health department.
 - COVER LETTER. Whether the site is located within a designated sensitive area as defined in 1301:7-9-09.
 - PG 10&12 2. Average depth to ground water determined from the ground surface to the shallowest zone of saturation, including:
 - APP. B&PG 10 a. Copies of information obtained to determine depth to ground water.
 - PG 10 3. Determination of the predominant soil type of the substratum where the release occurred, including:
 - APP. B a. Documentation of the soil type encountered.
 - FIG. 2 4. Natural and/or man-made conduits or receptors, including:
 - APP. C a. A completed copy of the Site Feature 4 Worksheet.
 - FIG. 2 b. Conduits indicated on a site map.
 - PG 14. C. Soil and/or ground-water sample results in table format, with actual contaminant levels stated (ND is not acceptable).

Preparer Name: MARGARET ANDREWS Preparer Signature: Margaret Andrews Date: 4-14-93
 Owner/Operator Name: MARTIN MOHR Owner/Operator Signature: Martin Mohr Date: 4/17/93
 Name: ENVIRONMENTAL ENGINEER
 (708) 572-5640

* Circle whichever applies.

992



**SITE ASSESSMENT
SHELL RETAIL FACILITY
501 CARNEGIE AVENUE AT ONTARIO
CLEVELAND, OHIO**

APRIL 1993

**Prepared by:
ENGINEERING-SCIENCE
19101 Villaview Road, Suite 301
Cleveland, Ohio 44119**

**ES Job No. CE418.01
(CE339)**

1822883

4400 184

THE FOLLOWING REPORT HAS BEEN PREPARED ON BEHALF OF, AND EXCLUSIVELY FOR THE USE OF, SHELL OIL COMPANY. THE REPORT AND THE FINDINGS CONTAINED HEREIN SHALL NOT, IN WHOLE OR IN PART, BE DISSEMINATED OR CONVEYED TO ANY OTHER PARTY, EXCEPT BY SHELL OIL COMPANY, WITHOUT CONSULTANT'S PRIOR WRITTEN CONSENT. FURTHERMORE, ANY RELIANCE ON THIS REPORT BY THIRD PARTIES BEYOND ITS INTENDED PURPOSE AND IN CONSIDERATION OF THE STATED LIMITATIONS AND/OR QUALIFICATIONS OF THE REPORT SHALL BE AT SUCH PARTY'S SOLE RISK.

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
SITE BACKGROUND	4
PURPOSE AND SCOPE OF WORK	7
SUBSURFACE INVESTIGATION	8
Soil Borings	9
Monitor Wells	9
Groundwater Sampling	10
RESULTS	10
Hydrogeology	10
HUSTR Site Score	10
Soils Analysis	11
Groundwater Analysis	16
CONCLUSIONS	

LIST OF FIGURES

Number	Page
1 Site Location Map	5
2 Site Plan	6

LIST OF TABLES

Number	Page
1 Groundwater Elevation Data	12
2 Soil Headspace Organic Vapor Analysis	13
3 Analytical Results of Soil Samples	14
4 Analytical Results of Groundwater Samples	15

LIST OF APPENDICES

Appendix A - Site Vicinity Sketch
Appendix B - Monitor Well Logs
Appendix C - BUSTR Site Feature Scoring System Chart
Appendix D - Laboratory Reports

EXECUTIVE SUMMARY

Engineering-Science (ES) conducted a site assessment at the Shell Retail Facility located at 501 Carnegie Avenue and Ontario in Cleveland, Ohio on 11, 12 and 15 March 1993. It was intended as a follow-up investigation to a site survey conducted on 5, 6 and 7 November 1992 and a site check conducted on 23 and 24 November and 2 December 1992. The site survey was in response to a loss of inventory and failed line tightness test at the flex connectors of the submersible pump for each product underground storage tank (UST). A suspected release was reported to the Bureau of Underground Storage Tank Regulations (BUSTR), Division of State Fire Marshal on 5 November 1992. The site check was conducted pursuant to Ohio Administrative Code (OAC) 1301:7-9-13(D) and was prompted by the initial release and site survey. The purpose of the site check was to determine whether subsurface soils or groundwater on the site have been impacted by the release.

This site assessment was conducted pursuant to OAC 1301:7-9-13(I) and was prompted by the site check. The purpose of the site assessment was to delineate the vertical and horizontal extent of residual hydrocarbons off the site.

During the March 1993 site assessment, three soil borings were advanced to 35 and 36 feet. All borings were completed as monitor wells. Soil samples were collected on 11 and 12 March 1993 and submitted for laboratory analysis of total petroleum hydrocarbons (TPH, SW846-Method 8015) and benzene, toluene, ethylbenzene and xylenes (BTEX, SW846-Method 8020). Groundwater samples were collected from the monitor wells on 15 March 1993 and submitted for laboratory analysis of BTEX (EPA Method 602). Dissolved hydrocarbons were detected in groundwater from monitor wells MW005 and MW006. Hydrocarbon concentrations in MW004 were below laboratory detection limits.

Based on the results of this investigation, the following conclusions should be considered in the environmental evaluation of the site:

- No phase-separated hydrocarbons (PSH) were encountered in any of the three newly advanced soil borings.

- The soils at the site consist predominantly of moist, fine to medium sands with some to trace amounts of silt and clay.
- Concentrations of volatile organic compounds (VOCs) in the headspace of soil samples ranged from 0.0 to 395 parts per million (ppm).
- Laboratory analysis of the four soil samples collected during this site assessment indicate concentrations of TPH ranged from less than 10 milligrams per kilogram (mg/kg) to 60 mg/kg. Total concentrations of BTEX range from less than 9 micrograms per kilogram ($\mu\text{g}/\text{kg}$) to less than 280 $\mu\text{g}/\text{kg}$.
- Benzene, toluene, ethylbenzene, xylenes and TPH detected in soil samples from all three wells installed during this investigation were below the BUSTR target levels for benzene (170 $\mu\text{g}/\text{kg}$), toluene (7,000 $\mu\text{g}/\text{kg}$), ethylbenzene (10,000 $\mu\text{g}/\text{kg}$), xylenes (47,000 $\mu\text{g}/\text{kg}$), and TPH (300 mg/kg) established for Category 2 sites.
- Laboratory analysis of the groundwater samples collected from the newly installed monitor wells indicate total BTEX concentrations ranged from less than 6 micrograms per liter ($\mu\text{g}/\text{L}$) to less than 42 $\mu\text{g}/\text{L}$.
- The concentration of benzene detected in MW005 (15 $\mu\text{g}/\text{L}$) is above the Maximum Contaminant Level (MCL) for benzene (5.0 $\mu\text{g}/\text{L}$) established for U.S. EPA Drinking Water Standards. BUSTR also uses the MCLs as target levels for groundwater.
- A water well search conducted through the Ohio Department of Natural Resources (ODNR), Division of Water located three potable wells within a one-half mile radius of the site. The area is currently supplied by municipal water.
- The site was scored using the BUSTR Site Feature Scoring System. The total score for the site was 50 points, therefore, the site is subject to Category 2 Action Levels under Ohio Administrative Code (OAC) 1301:7-9-13.

Release Quantity:

Suspected release reported to the State Fire Marshal following a line tightness test failure on 5 November 1992.

Monitor Wells:

Six total. Three installed for this investigation.

Soil Borings:

Six total. Three advanced for this investigation to a depth of 35 or 36 feet. All three were completed as monitor wells.

Soil Description:

Fine to medium sand with some to a trace amount of silt and clay.

Groundwater:

Encountered between 27 and 30 feet below grade. Local groundwater flow direction is estimated to be towards the west.

Soil Hydrocarbon:

TPH concentrations ranged from less than 10 mg/kg to 60 mg/kg. Total BTEX concentrations ranged from less than 9 µg/kg to less than 230 µg/kg.

Phase-separated Hydrocarbon:

No PSH encountered.

Soluble Hydrocarbon:

Total BTEX concentrations ranged from less than 6 µg/L to less than 42 µg/L.

Receptors:

Underground utilities and water wells.

SITE BACKGROUND

Engineering-Science was requested by the Shell Oil Company to conduct a site assessment at the Shell Retail Facility located at the intersection of Carnegie Avenue and Ontario Street in Cleveland, Ohio. The site location is shown in Figure 1. A site plan showing details related to the site is included in Figure 2. Land use in the vicinity of the site is commercial. A site vicinity sketch is included as Appendix A.

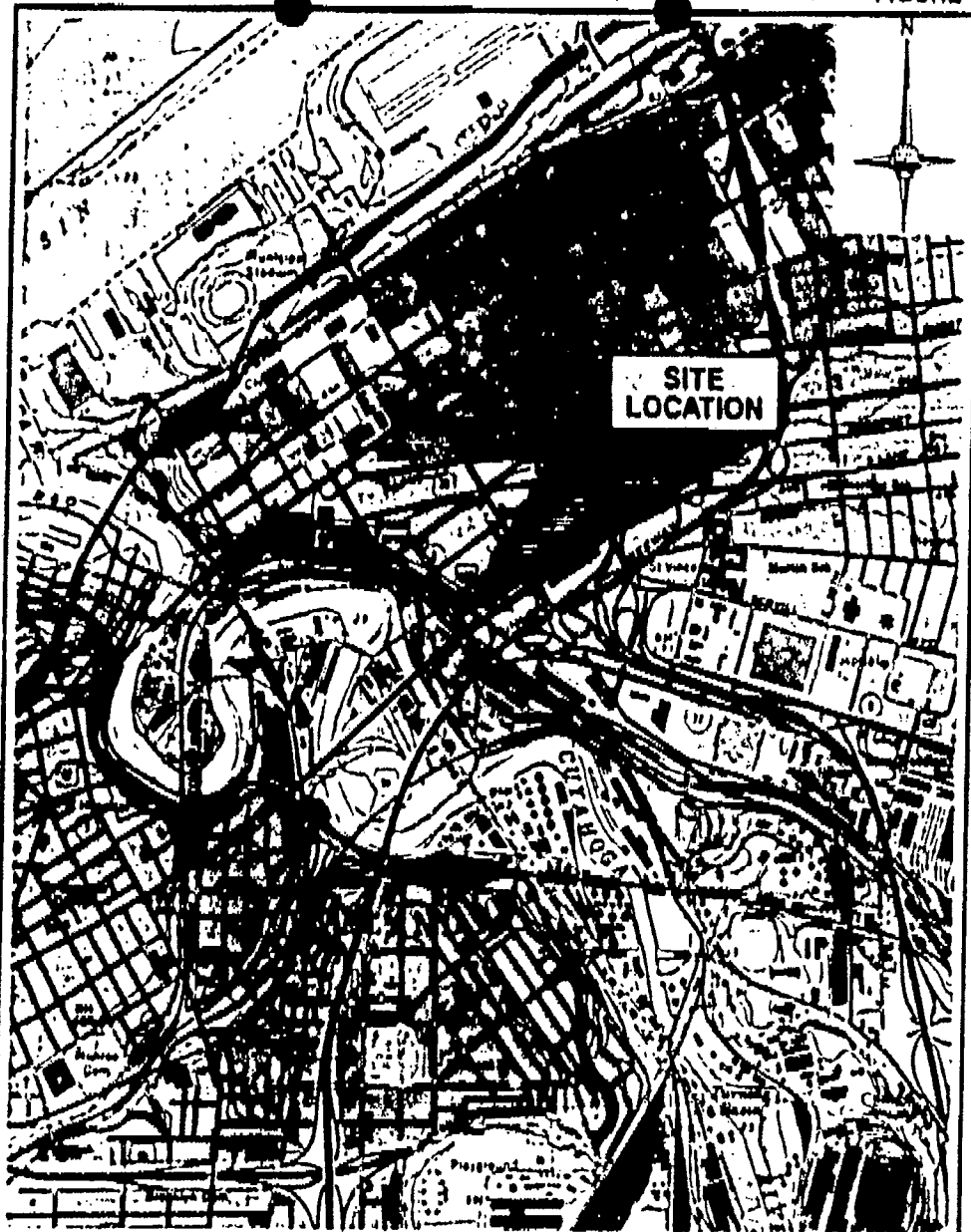
A suspected release based on a failed line tightness test was reported to BUSTR by the Shell Oil Company on 5 November 1992. A site survey was conducted on 5, 6 and 7 November 1992 in response to the release report. One soil sample was collected from the manways containing the submersible pumps above each tank and field screened for VOCs with a photolization detector (PID). One sample exhibiting the highest VOC concentration was submitted for laboratory analysis of BTEX and TPH. All three product lines failed the tightness tests due to faulty flex connectors. The flex connectors for each pump were replaced. A final inspection was performed to confirm line tightness after repairs were completed. Impacted soils were stockpiled and disposed of properly to Norton Sanitary Landfill. The excavations were backfilled with clean sand. The cement tank pad was repaired to prior condition around existing manways.

Engineering-Science conducted a site check on 23 and 24 November 1992 and 2 December 1992 as a follow-up investigation to the site survey to determine whether subsurface soils or groundwater on the site have been impacted by the release. During the site check, three soil borings were advanced with all three completed as monitoring wells. Residual hydrocarbons were detected in both soil and water samples collected from two of the three monitoring wells from that investigation. Further background information can be found in the Site Check Report dated December 1992.

A BUSTR Release Investigation was conducted and found no other known leaking underground storage tanks in the vicinity (Appendix B, Site Check Report).

According to the ODNR, Division of Water, there are three potable water wells which are located within a one-half mile radius of the site. The area is currently served by public water supply. Copies of the located well logs are included in Appendix C in the December 1992 Site Check Report.

FIGURE 1



1000 0 1000 2000 FEET



SCALE



QUADRANGLE LOCATION

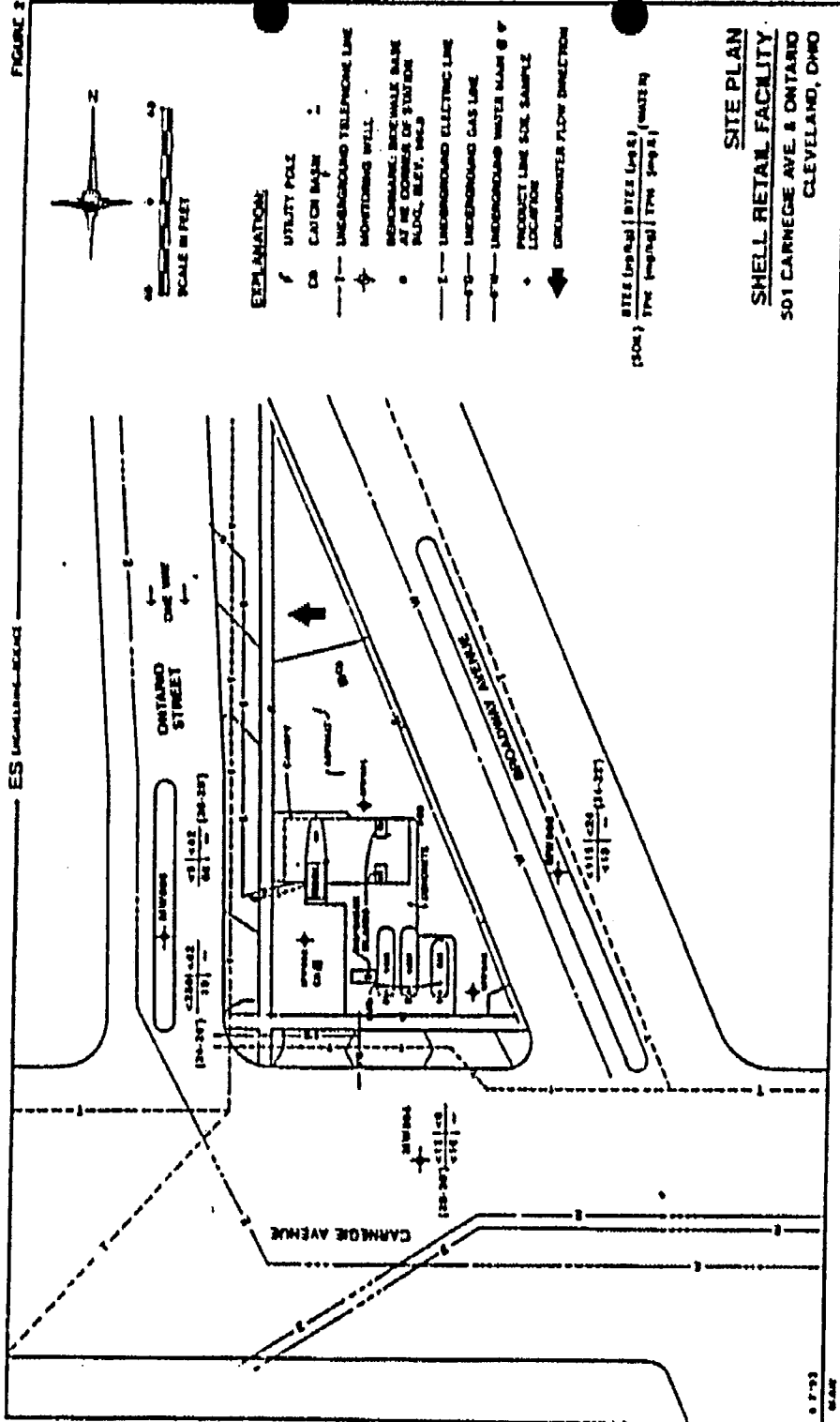
SITE LOCATION MAP
SHELL RETAIL FACILITY
501 CARNEGIE AVE. & ONTARIO
CLEVELAND, OHIO

CD 4 18.09 (CD339)
JGD
12/18/92

ES ENGINEERING-SCIENCE

0009 1878

FIGURE 2



00001871

PURPOSE AND SCOPE OF WORK

The purpose of the site assessment was to determine the horizontal and vertical extent of residual hydrocarbon in soil and groundwater near the site. The following activities were performed by ES as part of the investigation:

- The Ohio Utility Protection Service (OUPS) was contacted concerning the date and type of work to be performed.
- A preliminary off-site investigation was conducted to determine the location of soil borings/monitor wells.
- Right-of-entry was obtained from the City of Cleveland to open the pavement in the right-of-way along Carnegie Avenue, Broadway Avenue and Ontario Street.
- Three soil borings were advanced on 11 and 12 March 1993 to provide information on soils. All were completed as monitor wells.
- Soil samples were collected from each soil boring and the headspace was screened for VOCs using a PID.
- One soil sample exhibiting the highest VOC concentration from each boring was submitted for laboratory analysis of TPH and BTEX. An additional sample from MW006 was also submitted for laboratory analysis for determination of the vertical extent.
- The three monitor wells were purged, developed and sampled on 15 March 1993 for laboratory analysis of BTEX.
- The wells were surveyed with respect to an arbitrary datum reference elevation of 100.00 feet. Water levels were then gauged and relative groundwater elevations calculated. Bolt-down manholes were installed over the monitor wells.

SUBSURFACE INVESTIGATION

Soil Borings

On 11 and 12 March 1993, three soil borings were advanced using 3.25-inch inside-diameter hollow-stem augers. Borings were advanced to 35 or 36 feet below grade and were completed as monitor wells. Drilling and well installation was conducted under the supervision of an ES geologist. Soil samples were collected with split-spoon samplers applying the Standard Penetration Test Method (ASTM Method D-1586) continuously for lithologic description and field-screening for VOCs. The field geologist described each soil sample according to a standard visual-manual soil classification scheme designed to assure a high degree of reproducibility and accurate stratigraphic correlations. The sample descriptions along with blow counts for each sampled interval are located on the monitor well logs included in Appendix B.

In addition to a lithologic description, each split-spoon sample was examined for visual evidence of hydrocarbon contamination. The samples were field-screened for the presence of hydrocarbons using a Photovac Microtip™ PID. In this test, each sample was split into two halves. One-half of each sample was placed into a clean, air-tight jar, the mouth of which was covered with aluminum foil, then secured with a screw-on metal lid. The other half of the sample was placed in a 500 ml soil sample jar fitted with a Teflon™ lined lid, placed on ice and saved for possible laboratory analysis. The PID was calibrated with a 100 ppm isobutylene-in-air commercial gas standard, and used in accordance with the manufacturer's operating instructions. After at least ten minutes holding time, the headspace above the sample within the jar was scanned for VOCs with the PID. This was accomplished by piercing the aluminum foil seal with the instrument probe, and recording the maximum VOC reading observed from the headspace above the sample in the jar. The soil sample with the highest VOC reading from each boring was transported under chain-of-custody procedures to Wadsworth/ALERT Laboratories in North Canton, Ohio for analysis of TPH (SW846 Method 8015) and BTEX (SW846 Method 8020). An additional sample from MW006 was also submitted for laboratory analysis for determination of the vertical extent.

All drilling equipment that contacted the borings was decontaminated by steam-cleaning prior to the start of each boring. Split-spoon sampling equipment was decontaminated with a Liquinox™ and water solution, followed by tap water, distilled water, and methanol rinses.

Monitor Wells

Monitor wells MW004, MW005 and MW006 were completed to depths of 35 or 36 feet. The newly installed wells were constructed of two-inch diameter, Schedule 40 PVC riser flush-threaded to ten feet of 0.010-inch slotted PVC screen. A sand filter pack was placed in the annular space between each well and borehole from one to two feet above the screen, followed by two feet of bentonite seal. The remaining annular space was backfilled and grouted with cement. A bolt-down, flush-mount metal protective manhole was installed in a concrete pad over each well to protect the PVC riser. Each well was secured by a locking monitor well cap. Appendix B contains construction details of each monitor well.

Groundwater Sampling

Prior to the collection of water samples on 15 March 1993, the monitor wells were developed and purged of static water. Development consisted of surging the well by rapidly raising and lowering a surge block to remove any loose material that may have clogged the slotted well screen or the enclosing sand filter pack. The wells were purged by balling more than three times the well volume, or to dryness. The wells were allowed to recharge to near static level before sampling. A two-inch PVC bailer used to conduct development and purging activities decontaminated before and between each well to prevent cross-contamination. Decontamination consisted of scrubbing with a Liquinox™ and water solution, followed by rinses with tap water, distilled water, and methanol.

Water samples were collected with a new, clean, disposable Teflon™ bailer, and placed in two clean 40 ml vials. Sampling protocol was observed as prescribed by the respective laboratory methodology. The samples were placed on ice in a cooler, and transported under chain-of-custody procedures to NUS Laboratories in Pittsburgh, Pennsylvania. The water samples were analyzed for BTEX (EPA Method 602).

Each well at the site was surveyed with respect to an arbitrary datum reference elevation of 100.00 feet. The benchmark shown in Figure 2 is the arbitrary datum. Water levels were then gauged and a relative groundwater elevation calculated.

RESULTS

Hydrogeology

The soil beneath the site, as indicated by the three borings, consists predominantly of fine to medium sands with some to trace amounts of silt and clay. Detailed descriptions of materials encountered during drilling are included on the well logs in Appendix B.

Groundwater was initially encountered between 27 and 30 feet subgrade. Groundwater measurements obtained from the monitor wells and relative groundwater elevations are summarized in Table 1. Based on relative water elevations, groundwater flow was determined to be towards the west.

BUSTR Site Score

The site was scored using the BUSTR Site Feature Scoring System. A total score of 50 points was recorded for the site, which designates Category 2 Action Levels under OAC 1301:7-9-13(E)(4). The site is located in a non-sensitive area. The site feature score is attached in Appendix C.

Soils Analysis

Headspace VOC concentrations in soil from the site, as determined by field-screening with the PID, are summarized in Table 2. The concentrations ranged from 0.0 ppm to 395 ppm.

Results of the laboratory analyses of the soil samples are summarized in Table 3 and laboratory reports are included in Appendix D. The BTEX and TPH detected in soil samples from all three wells installed during this investigation were below the BUSTR target levels for benzene (170 $\mu\text{g}/\text{kg}$), toluene (7,000 $\mu\text{g}/\text{kg}$), ethylbenzene (10,000 $\mu\text{g}/\text{kg}$), xylenes (47,000 $\mu\text{g}/\text{kg}$), and TPH (300 mg/kg) established for Category 2 sites.

A sample of the stockpiled soil was also submitted to the laboratory and analyzed for BTEX, TPH (EPA Method 8015), TCLP metals, TCLP benzene and flashpoint. Stockpile analysis results are included in Appendix D. Stockpiled soils were transported

to Norton Sanitary Landfill in Cleveland, Ohio by the EMPACO Equipment Corporation.

Groundwater Analysis

Results of the laboratory analyses of groundwater samples are presented in Table 4, and laboratory reports are included in Appendix D. The BTEX concentrations in the groundwater samples collected from MW004 and MW006 were below BTEX action levels for Category 2 sites. The concentration of benzene detected in MW005 (15 $\mu\text{g}/\text{L}$) exceeded the maximum contaminant level (MCL) for benzene (5 $\mu\text{g}/\text{L}$) for U.S. EPA Drinking Water Standards.

00001071

TABLE 1
GROUNDWATER ELEVATION DATA⁽¹⁾
SHELL RETAIL FACILITY
301 CARNEGIE AVENUE AND ONTARIO
CLEVELAND, OHIO

Monitoring ⁽²⁾ Well	Reference ⁽³⁾ Elevation (feet)	Depth to Water (feet)	Relative Fluid Elevation (feet)
MW001	99.31	27.77	71.54
MW002	99.11	27.91	71.20
MW003	99.83	27.80	72.03
MW004	100.03	28.22	71.81
MW005	100.46	27.45	73.01
MW006	99.95	29.77	70.18

(1) Water level measurements taken on 16 March 1993.

(2) Well locations are provided on Figure 2.

(3) Reference datum is relative to an arbitrary benchmark assignment of 100 feet to the northeast corner of the block.

TABLE 2
SOIL HEADSPACE ORGANIC VAPOR ANALYSIS⁽¹⁾

SHELL RETAIL FACILITY
501 CARNEGIE AVENUE AND ONTARIO
CLEVELAND, OHIO

Approximate Sample Depth (feet)	Sample Location ⁽²⁾		
	MW004 (ppm)	MW005 (ppm)	MW006 (ppm)
2 - 4	0.0	0.0	0.0
4 - 6	0.0	0.0	0.0
6 - 8	0.0	0.0	0.0
8 - 10	0.0	0.0	1.3
10 - 12	0.0	0.0	0.0
12 - 14	0.0	0.0	0.9
14 - 16	0.0	0.0	0.0
16 - 18	0.0	8.7	0.6
18 - 20	0.0	18.3	0.0
20 - 22	0.0	41.1	0.0
22 - 24	0.0	157	0.3
24 - 26	0.0	283	14.9
26 - 28	0.0	395 ⁽³⁾	281 ⁽³⁾
28 - 30	0.0	163	232 ⁽³⁾
30 - 32	0.0 ⁽³⁾	0.0	166
32 - 34	0.0	0.0	0.5
34 - 36	0.0	0.0	0.8
	0.0	0.0	0.0

(1) As determined with a Photovac Microtip™ PID on 11 and 12 March 1993.

(2) Sample locations are shown on Figure 2.

(3) Sample submitted for laboratory analysis of TPH (SW846 Method 8015) and BTEX (SW846 Method 8020).

TABLE 3
ANALYTICAL RESULTS OF SOIL SAMPLES

SHELL RETAIL FACILITY
501 CARNEGIE AVENUE AND ONTARIO
CLEVELAND, OHIO

Location ⁽¹⁾	Date Sampled	Analytical Parameter					Total BTEX (µg/kg)
		Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Xylenes (µg/kg)	TPH (mg/kg)	
MW004 (23'-30' interval)	11 Mar 93	<2	6	<2	3	<10	<13
MW005 (24'-26' interval)	12 Mar 93	<5	100	<5	<5	<10	<115
MW006 (24'-26' interval)	12 Mar 93	<5	<5	10	260	19	<280
MW006 (26'-28' interval)	12 Mar 93	<2	<2	<2	3	60	<9

(1) Sample locations are illustrated on Figure 2.

TABLE 4

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES

SHELL RETAIL FACILITY
501 CARNEGIE AVENUE AND ONTARIO
CLEVELAND, OHIO

Location ⁽¹⁾	Date Sampled	Analytical Parameter				Total BTEX (µg/L)
		Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	
MW004	15 Mar 93	<1	<1	<1	<3	<6
MW005	15 Mar 93	15	5	<1	<3	<24
MW006	15 Mar 93	1	32	1	<8	<42

(1) Sample locations are shown on Figure 2.

CONCLUSIONS

Based on the results of this investigation, the following conclusions should be considered in the environmental evaluation of the site:

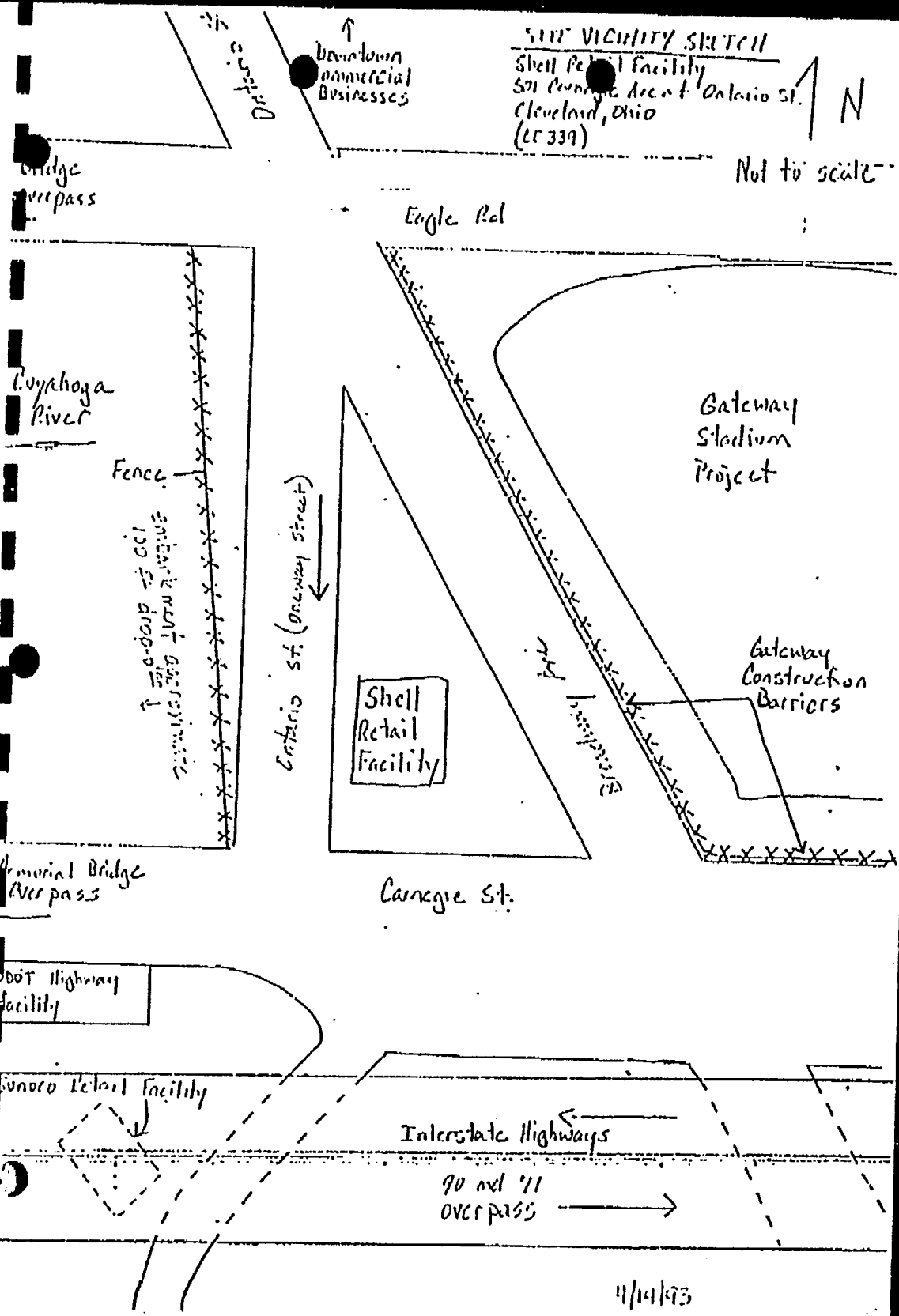
- No PSH was encountered in any of the three newly installed soil borings.
- Soils at the site consist predominantly of fine to medium sands with some to trace amounts of silt and clay.
- The site was scored using the BUSTR Site Feature Scoring System. The total score for the site was 50 points; therefore, the site is subject to Category 2 Action Levels under Ohio Administrative Code (OAC) 1301:7-9-13.
- Concentrations of VOCs in the headspace of soil samples ranged from 0.0 to 395 ppm.
- Laboratory analysis of the four soil samples collected during this site assessment indicate concentrations of TPH ranged from less than 10 mg/kg to 60 mg/kg. Total concentrations of BTEX ranged from less than 9 $\mu\text{g}/\text{kg}$ in MW006 (26'-28') to less than 280 $\mu\text{g}/\text{kg}$ in MW006 (24'-26' interval).
- The BTEX and TPH detected in soil samples from all three wells installed during this investigation were below the BUSTR target levels for benzene (170 $\mu\text{g}/\text{kg}$), toluene (7,000 $\mu\text{g}/\text{kg}$), ethylbenzene (10,000 $\mu\text{g}/\text{kg}$), xylenes (47,000 $\mu\text{g}/\text{kg}$), and TPH (300 mg/kg) established for Category 2 sites.
- Laboratory analysis of the groundwater samples collected from the newly installed monitor wells indicate total BTEX concentrations ranged from less than 6 $\mu\text{g}/\text{L}$ to less than 42 $\mu\text{g}/\text{L}$.
- The concentration of benzene detected in MW005 (15 $\mu\text{g}/\text{L}$) is above the MCL for benzene (5.0 $\mu\text{g}/\text{L}$) established for U.S. EPA Drinking Water Standards. BUSTR also uses the MCLs as target levels for groundwater.
- A water well search conducted with the ODNR, Division of Water located three potable wells within a one-half mile radius of the site. The area is currently served by municipal water.

SITE VICINITY SKETCH

Shell Retail Facility
571 Carnegie Ave. + Ontario St.
Cleveland, Ohio
(CR 339)



Not to scale



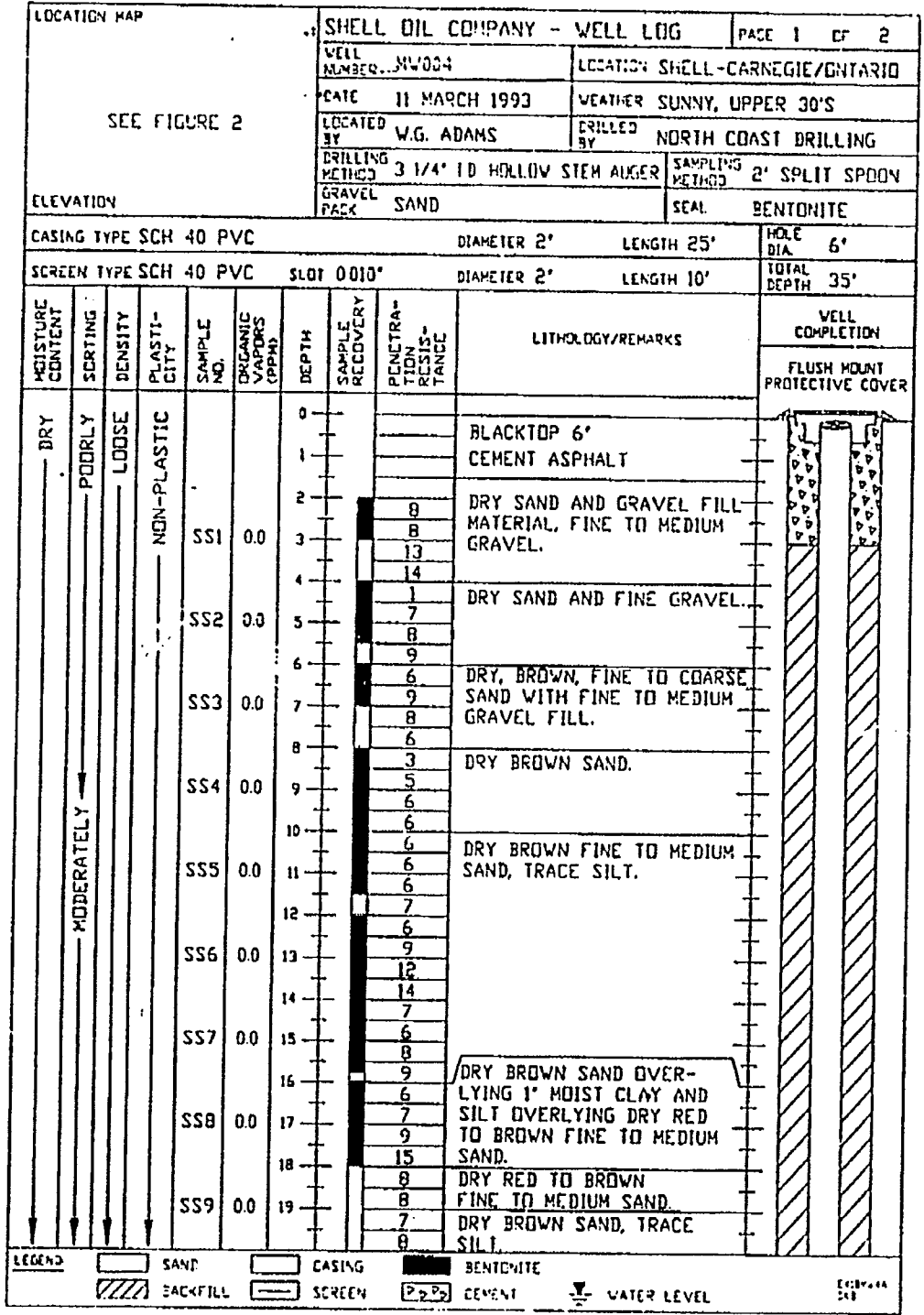
4/14/93

00001881

APPENDIX B
MONITOR WELL LOGS

SM 0815/244-1506#WS

0000 1883



00001884

LOCATION MAP		SHELL OIL COMPANY - WELL LOG		PAGE 2 OF 2						
SEE FIGURE 2		WELL NUMBER: MW004		LOCATION: SHELL-CARNEGIE/ONTARIO						
		DATE: 11 MARCH 1993		WEATHER: SUNNY, UPPER 30'S						
		LOCATED BY: W.G. ADAMS		DRILLED BY: NORTH COAST DRILLING						
		DRILLING METHOD: 3 1/4" ID HOLLOW STEM AUGER		SAMPLING METHOD: 2' SPLIT SPOON						
ELEVATION		GRAVEL PACK: SAND		SEAL: BENTONITE						
CASING TYPE: SCH 40 PVC		DIAMETER: 2"		LENGTH: 25'						
SCREEN TYPE: SCH 40 PVC		SLOT: 0.010"		DIAMETER: 2"						
				LENGTH: 10'						
				TOTAL DEPTH: 35'						
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	ORGANIC MATTER (%)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS	WELL COMPLETION
DRY	MODERATELY LOOSE		NON-PLASTIC	SS10	0.0	20		8	DRY, REDDISH BROWN, FINE TO MEDIUM SAND WITH TRACE SILT.	
				SS11	0.0	21		6	DRY, BROWN, FINE TO MEDIUM SAND, TRACE SILT.	
				SS12	0.0	22		5		
						23		4		
						24		6		
						25		7		
						26		8	DRY, BROWN SAND WITH SOME SILT.	
						27		5	DRY, BROWN SAND AND SILT.	
						28		7	MOIST, BROWN SILT AND CLAY	
						29		9		
						30		16		
						31		17	MOIST, BROWN SAND AND SILT	
						32		14	WET GRAY SILT WITH SOME GRAY SAND.	
						33		16		
						34		17	WET GRAY SILT, SOME SAND.	
						35		10	WET GRAY SAND, SOME SILT.	
						36		15	WET GRAY SAND, SOME SILT.	
						37		17	WET GRAY SAND AND SILT.	
						38		5		
						39		7	WET GRAY SAND AND SILT.	
						40		10		
						41		7		
						42		9	WET GRAY SILT, TRACE SAND.	
						43		17	END OF BORING 35'.	
						44		19		
						45				
						46				
						47				
						48				
						49				
						50				

00001885

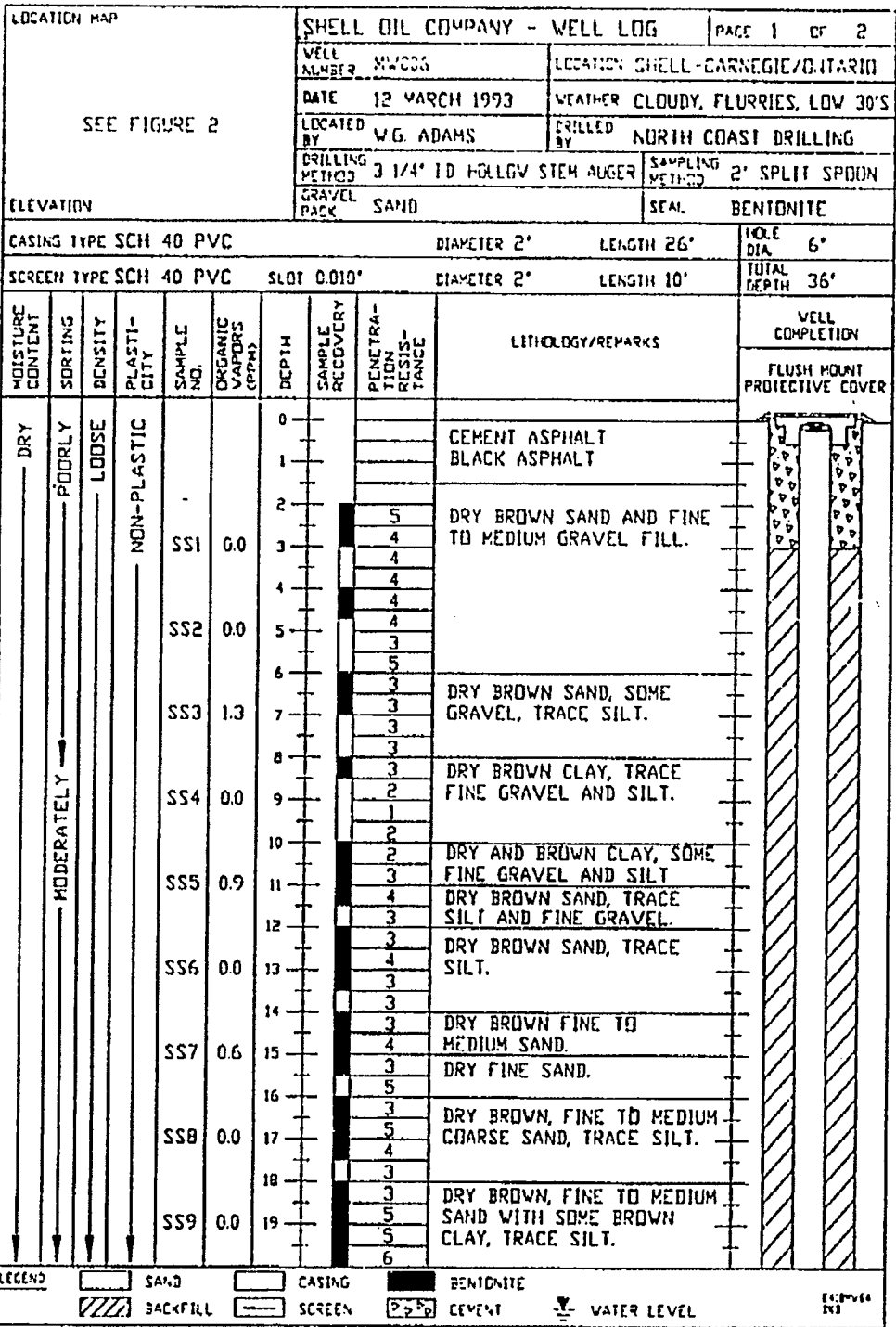
LOCATION MAP		SHELL OIL COMPANY - WELL LOG		PAGE 1 OF 2						
SEE FIGURE 2		WELL NUMBER: MW005		LOCATION: SHELL-CARNEGIE/ONTARIO						
		DATE: 12 MARCH 1993		WEATHER: CLOUDY, FLURRIES, LOV 30'S						
		LOCATED BY: W.G. ADAMS		DRILLED BY: NORTH COAST DRILLING						
		DRILLING METHOD: 3 1/4" 10 HOLLOW STEM ALKER		SAMPLING METHOD: 2" SPLIT SPOON						
ELEVATION		GRAVEL PACK: SAND		SEAL: BENTONITE						
CASING TYPE SCH 40 PVC		DIAMETER 2'		LENGTH 26'						
SCREEN TYPE SCH 40 PVC		SLOT 0.010"		DIAMETER 2'						
				LENGTH 10'						
				TOTAL DEPTH 36'						
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	ORGANIC VAPORS (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS	WELL COMPLETION
DRY	POORLY	LOOSE	NON-PLASTIC			0			CEMENT	
						1			BLACK ASPHALT	
				SS1	0.0	2		5	DRY BROWN SAND AND FINE TO MEDIUM GRAVEL.	
						3		7		
						4		6		
						5		5		
				SS2	0.0	6		3		
						7		4		
						8		4		
						9		4		
				SS3	0.0	10		3		
						11		4	DRY BROWN SAND AND FINE TO MEDIUM GRAVEL WITH TRACE SILT.	
						12		4		
						13		3	DRY BROWN FINE TO MEDIUM SAND, TRACE SILT.	
				SS4	0.0	14		3		
						15		4		
						16		2		
				SS5	0.0	17		3		
						18		3		
						19		3		
				SS6	0.0	20		4		
						21		4		
						22		5		
				SS7	8.7	23		7	DRY BROWN SAND, TRACE SILT AND CLAY.	
						24		5		
						25		6		
				SS8	18.3	26		5		
						27		7		
						28		5		
				SS9	41.1	29		6		
						30		8		
LEGEND										

00001886

LOCATION MAP		SHELL OIL COMPANY - WELL LOG		PAGE 2 OF 2						
SEE FIGURE 2		WELL NUMBER: MW005		LOCATION: SHELL-CARNEGIE/ONTARIO						
		DATE: 12 MARCH 1993		WEATHER: CLOUDY, FLURRIES, LOW 30'S						
ELEVATION		LOCATED BY: W.G. ADAMS		DRILLED BY: NORTH COAST DRILLING						
		DRILLING METHOD: 3 1/4" ID MOLLOW STEEL AUGER		SAMPLING METHOD: 2" SPLIT SPOON						
GRAVEL PACK: SAND		SEAL: BENTONITE								
CASING TYPE: SCH 40 PVC		DIAMETER: 2"		LENGTH: 26'						
SCREEN TYPE: SCH 40 PVC		SLIT: 0010"		DIAMETER: 2"						
				LENGTH: 10'						
				TOTAL DEPTH: 36'						
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	ORGANIC VAPORS (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION TESTS - RESISTANCE	LITHOLOGY/REMARKS	WELL COMPLETION
DRY	MODERATELY	LOOSE	NON-PLASTIC	SS10	157	20		4	DRY BROWN SAND WITH SOME SILT.	[Pattern]
						21		8		
				SS11	283	22		10	DRY BROWN SAND, TRACE SILT.	[Pattern]
						23		12		
				SS12	395	24		11	REDDISH BROWN SAND, TRACE SILT.	[Pattern]
						25		12		
				SS13	163	26		7	DRY BROWN SAND, TRACE SILT.	[Pattern]
						27		11		
				SS14	0.0	28		8	WET BROWN SAND AND TRACE SILT.	[Pattern]
						29		14		
				SS15	0.0	30		14	WET BROWN SAND, TRACE SILT AND CLAY.	[Pattern]
						31		6		
				SS16	0.0	32		8	WET BROWN SAND, TRACE SILT AND CLAY.	[Pattern]
						33		12		
				SS17	0.0	34		5	WET GRAY SILT, TRACE CLAY AND SAND.	[Pattern]
						35		8		
						36		16	END OF BORING 36'	[Pattern]
						37		31		[Pattern]
						38		9		[Pattern]
						39		11		[Pattern]
								13		[Pattern]
								50		[Pattern]

LEGEND: SAND, CASING, BENTONITE, BACKFILL, SCREEN, CEMENT, WATER LEVEL, EQUIPMENT

00001997



00001888

LOCATION MAP		SHELL OIL COMPANY - WELL LOG		PAGE 2 OF 2							
SEE FIGURE 2		WELL NUMBER	NW006		LOCATION	SHELL-CARNEGIE/ONTARIO					
		DATE	12 MARCH 1993		WEATHER	CLOUDY, FLURRIES, LOW 30'S					
		LOCATED BY	W.G. ADAMS		DRILLED BY	NORTH COAST DRILLING					
		DRILLING METHOD	3 1/4" ID. HOLLOW STEEL AUGER		SAMPLING METHOD	2' SPLIT SPOON					
ELEVATION	GRAVEL PACK	SAND		SEAL	BENTONITE						
CASING TYPE SCH 40 PVC		DIAMETER 2"		LENGTH 26'	HOLE DIA. 6'						
SCREEN TYPE SCH 40 PVC		SLOT 0010"		DIAMETER 2"	LENGTH 10'	TOTAL DEPTH 36'					
MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NO.	ORGANIC VAPORS (PPM)	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS	VELL COMPLETION	
DRY MODERATELY LOOSE NON-PLASTIC VELL WET				SS10	0.8	20		3	DRY BROWN SAND, TRACE SILT.		
						21		4	MOIST BROWN SILT, TRACE CLAY.		
					SS11	14.9	22		3	MOIST BROWN SILT, TRACE CLAY, INTERBEDDED WITH FINE TO MEDIUM SAND.	
							23		12		
							24		11		
					SS12	281	25		9	DRY BROWN FINE TO MEDIUM SAND	
							26		6	DRY BROWN FINE SAND	
					SS13	232	27		8	MOIST GREENISH BROWN SILT	
							28		7	DRY BROWN SAND, TRACE SILT, AND CLAY.	
					SS14	166	29		6		
							30		7		
					SS15	0.5	31		4	WET BROWN FINE TO MEDIUM SAND WITH SOME SILT.	
							32		4		
					SS16	0.8	33		5	WET BROWN FINE SAND WITH SOME SILT.	
							34		3	WET SILT WITH TRACE SAND.	
					SS17	0.0	35		7	WET GRAY SILT.	
							36		8		
						37		7			
						38		7			
						39		10			
									END OF BORING 36'		

00001989

APPENDIX C
BUSTR SITE FEATURE SCORING SYSTEM CHART

0433DPC/258-1506#WS

00001290

SFM SITE FEATURE SCORING SYSTEM (SFSS) CHART
 (USE *SFSS GUIDELINES* TO COMPLETE THIS CHART)

I. OWNERSHIP OF TANKS SHELL OIL COMPANY 7777 WASHINGTON VILLAGE DRIVE SUITE 100 DAYTON, OHIO 45459	II. LOCATION OF TANKS 501 CARNEGIE AVENUE AT ONTARIO STREET CLEVELAND, OHIO
---	--

Site Features	COLUMN A		COLUMN B		COLUMN C		COLUMN D	
	Score 20	Enter Score	Score 15	Enter Score	Score 10	Enter Score	Score 5	Enter Score
1. Distance of UST system from closest potable-water supply source currently in use is:	> 1000 ft.		300-1000 ft.	15	< 300 ft.		Inside of designated sensitive area	
2. Depth to groundwater is:	> 50 ft.		31-50 ft.		15-30 ft. or unknown	10	< 15 ft.	
3. Predominant soil type of substratum is:	Clay or shale		Silt or clayey sands or fine sandstone	15	Silty sand or fine sand, unknown, or sandstone		Clean sand, gravel, or conglomerate	
4. Natural and/or man-made conduits or receptors - See Worksheet Below	< 0		4-10		11-13	10	> 13	
Subtotals:		0		30		20		0
TOTAL SCORE (SUBTOTALS)								50

SITE FEATURE 4 WORKSHEET:

Basements or subsurface foundations within 100 feet of UST system	4 points	---
Storm sewer within 50 feet of UST system	4 points	4
Sanitary sewer within 50 feet of UST system	4 points	4
Septic system leach field within 50 feet of UST system	2 points	4
Water line main within 50 feet of UST system	1 point	1
Natural Gas line main within 50 feet of UST system	1 point	1
Bedrock area prone to dissolution along joints or fractures within 100 feet of UST system	1 point	---
Faults or known fractures within 100 feet of UST system	1 point	---
Buried telephone/television cable main within 50 feet of UST system	1 point	1
Buried electrical cable main within 50 feet of UST system	1 point	1
TOTAL POINTS		12

SFSS ACTION LEVELS (PPM)

CONSTITUENT	CATEGORY 1	CATEGORY 2	CATEGORY 3	CATEGORY 4
TOTAL SCORE	< 31	31-50	51-70	> 71
Soil BTEX	.006/4/6/28	.170/7/10/47	.335/9/14/67	.500/12/18/85
Groundwater BTEX	.005/1/700/10	.005/1/700/10	.005/1/700/10	.005/1/700/10
Soil TPH (Gasoline)	105	300	450	600
Soil TPH (Others)	300	642	904	1156

APPENDIX D
LABORATORY REPORTS

SM-94051-912/24110

00001897

SITE LISTING UPDATE FORM

UPDATE.G01 REV 8/89

EXISTING INCIDENT # 11-847215131-1-1-1-1-1-1-1

FACILITY NAME Shill NEW FACILITY INFO? YES NO
(Update on back)

(1) REASON FOR LISTING UPDATE

- (1) Written report/results received from owner/operator.
- (2) Verbal report/results received from owner/operator.
- (3) Written report received from BUSTR contractor.
- (4) Information collected from BUSTR field examination/inspection.
- (5) Change in site coordinator/contractor assignment.
- (6) Change/delete existing incident number - explain change in remarks section (5).
- (7) Create new incident number for additional suspected facility/location.
- (8) Orders issued.
- (9) Other:

(2) NEW SITE LISTING DATA

INCIDENT # 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
REPORT NUMBER FAC TRCG SPC

EMERGENCY RESPONSE: YES NO BY: PH () CEPA USEPA

STATUS: RPT SUS DIS COM ICA ICR ICC SAR SAC CAS CAP NFA

PRIORITY: 1 2 3 4 5

CLASSIFICATION: A B C D LTF ELIGIBILITY: YES (1) NO (2)

SITE COORDINATOR: Rehman CONTRACTOR: WORK ORDER:

(3) SITE SUMMARY (UPDATE FOR ALL PRIORITY 1 SITES)
(first sentence - why is it a 1? second sentence - who is doing what at this time)
SA report submitted

(4) NEW EXCEPTION REPORT DATA

- (1) State plans to obligate over \$100,000 at a site.
- (2) State actually obligated over \$100,000 at a site (cumulative expenses exceeded \$100,000 this quarter).
- (3) State plans to use innovative or experimental technology at the site.
- (4) State plans to provide permanent alternative drinking water supply.
- (5) State plans to permanently relocate residents.
- (6) State reached/received cost recovery settlement; amount: _____.

(5) SITE MANAGEMENT REMARKS

(BUSTR actions needed/taken, reports expected, etc.)

Review the report as time permits.

(6) FOLLOW-UP BUSTR ACTIONS/ASSIGNMENT

(for use by supervisor)

UPDATE SUBMITTED BY: Rehman DATE: 4/26/93
APPROVED: [Signature] DATE: 4/28/93 ENTRY: [Signature] DATE: MAY 6 1993

00001111

COORDINATOR NOTES

REPORT #: 1622283:00

DATE 7/14/00
TIME 1:00

SITE NAME: Oil Service Station
ADDRESS: 111 Commerce & Colville Rd

11-15-92 SPR added in hi 11 down 1 way

Transaction showed liquidation with 1000000

1-5-94 A/C check report

On 11-23-94 total of 13 tanks were inventoried

6.25 in. diameter each. All tanks were completed

on monitoring wells. Oil samples were taken & split open

chime part in case was identified 11.0 ounces

was taken & water and placed in steel sink and stored

in a box.

Hydrocarbon

Oil sample was obtained on 11-23-94 (11-23-94)

PIPETE A/C check

Time is 150 and entry 2

Oil Sample

Oil Log #18

	15 ^B	130 ^T	15 [#]	186 ^X	200 TH
MW001	15 ^B	130 ^T	15 [#]	186 ^X	200 TH
MW002	22	22	22	4	2.05
* MW003	41.000	41.200	6.900	11.000	260
* MW004	8.500	1.500	4.400	11.900	100
MW005	22	22	22	4	2.00

COORDINATOR: (Signature)

COORDINATOR NOTES

REPORT # 1228883:00

DATE 7/11/94
TIME

SITE NAME:
ADDRESS:

General Samples

MUCO1 21¹⁵ 21^T 21^E 22^X

MUCO2 5 2 18 17

* MUCO3 20 23 4 23

No site map showing locations of various monitoring well locations

1-15-93 ALL

2-17-93 Letter (Right of Entry)

4-26-93 SA Rpt

On 5-11-93, the soil borings were advanced using a 5 in bitumen auger. Soil samples were collected at split spoon samples and placed in clean 500 ml plastic bags and placed on ice. H₂O samples were collected on 5-15-93 in a bucket and placed in clean 500 ml plastic

Water bucket

General site map was determined to be closed to the W

FIRST Site Base.

AFB3 area is FO private and walk in a category 2

Soil Samples

MUCO4 22¹⁵ 22^T 22^E 3^A 10TH

COORDINATOR: [Signature]

COORDINATOR NOTES

REPORT # 1E22883

DATE 7/14/94
TIME

SITE NAME, ADDRESS

Unrec	<5	100	<5	<10
Unrec	<5	<5	210	19
Unrec	<5	<2	3	60
H.C. Anderson				
Unrec	<1 ^B	<1 ^T	<1 ^E	<3 ^X
*Unrec	75	5	<1	<3
Unrec	7	32	1	<5

Direct horizontal involved with the Contingency project and
 drilling on property will be denied.

COORDINATOR: F. Chatham

Shell Oil Company

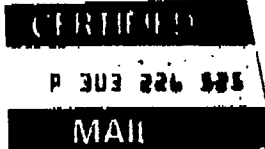


1415 West 22nd Street
Oak Brook, Illinois 60522-9008

1194DPC/KMF-281d2

November 30, 1994

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**



Mr. Raymond Roe
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
8895 East Main Street
P.O. Box 687
Reynoldsburg, Ohio 43068-0687

Reference: Shell Retail Facility - WIC #234-1666-1504
501 Carnegie Avenue @ Ontario
Cleveland, Ohio
Incident #1822883

Dear Mr. Roe:

Attached is one copy of the Remedial Action Plan (RAP) for the referenced site prepared in accordance with Ohio Administrative Code (OAC) 1301:7-9-13(J)(4). Based upon the information included in the attached RAP, the Shell Oil Company requests a monitoring only program be granted for this site as outlined in the RAP.

Review of the regulations, specifically OAC Rule 1301:7-9-13(J)(4), indicates that the referenced site qualifies for a remedial program consisting of monitoring only. No free product has been observed in any of the monitoring wells at the site. Soil samples from the referenced site indicate soil concentrations do not exceed twice the sum of BTEX target levels. The site is located in a non-sensitive area, therefore, condition (ii) of the referenced rule is applicable. The concentrations of total BTEX in the groundwater is less than the sum of the target levels for each constituent in the wells on and off the site. Based on the Site Feature Scoring System (SFSS), the total score for the referenced site is 45 and, therefore, qualifies for a Category 2 designation.

If you have any questions, please feel free to contact Gary Wm. Gray of Engineering-Science at (216) 486-9005 or me at (708) 572-5954.

Sincerely,

Stephen C. Lewis
Environmental Engineer

SCL/ns

cc: PUSTRCB, 22 W Gay Street, P.O. Box 163186, Columbus, OH
Gary Wm. Gray, Project Manager, Engineering-Science (w/ attachments)

00001357

Remedial Action Plan (RAP) Checklist and Recommended Table of Contents (Page 1 of 2)

Date	<u>21 November 1994</u>	Facility	<u>Shell Retail Facility</u>
Owner/Operator	<u>Shell Oil Company</u>	Address	<u>501 Carnegie Avenue at Ontario</u>
Address	<u>7777 Washington Village Dr</u>		<u>Cleveland, Ohio</u>
	<u>Dayton, Ohio 45459</u>	County	<u>Cuyahoga</u>
Phone #	<u>1-800-762-6678</u>	Incident #	<u>1822883</u>

check	pg #	
	<u>pgs 1&4</u>	A. Each Remedial Action Plan report must include, at a minimum, the following:
	<u>tbl 2&3</u>	1. A summary of the site assessment results and conclusions.
	<u>tbl 3</u>	2. If applicable, a table with a complete round of ground-water sampling results obtained within six months prior to submitting the plan.
	<u>pg 9</u>	3. A description of remedial alternatives considered.
	<u>pg 9</u>	4. A brief comparison of reliability, feasibility, effectiveness, cost and time needed for completion of the recommended program and for the identified alternatives.
	<u>pg 9</u>	5. A description of the remediation techniques to be implemented.
	<u>NA</u>	6. A description and results of any pilot studies conducted.
	<u>NA</u>	7. A schematic drawing of the remedial system.
	<u>NA</u>	8. A detailed diagram of the placement of the remedial system on site, including proposed locations of equipment, pumps, recovery systems, etc.
	<u>pg 10</u>	9. A description of permits or other approvals required for implementation of the plan.
	<u>pg 6, App B</u>	10. Proposed target levels to be achieved.
	<u>Fig 2, Pg 9</u>	11. A description of a monitoring/sampling plan to be used during the implementation of the RAP, including a site diagram that indicates the locations where soil and/or ground water will be sampled.
	<u>pg 9 & 10</u>	12. An implementation schedule and the projected completion date.
	<u>pg 10</u>	13. A description of the content and frequency of progress reports (i.e. monthly or quarterly).

* Circle whichever applies.

00001258

Remedial Action Plan (RAP) Checklist and Recommended Table of Contents (Page 2 of 2)

check	PG #	
	NA	<p>B. Upon RAP approval by the SFM and implementation, progress reports must be submitted regularly which include</p> <ol style="list-style-type: none"> 1. A status report of the system's performance. 2. A site diagram, if the placement of the remedial system is altered from that submitted in the RAP. 3. Air, soil and/or water monitoring analysis submitted in table format. 4. Monthly/quarterly quantity and disposition of soil treated and/or removed. 5. Monthly/quarterly quantity and disposition of water treated and/or discharged. 6. Depth to liquid and thickness of free product recovered (if applicable). 7. Quantity and disposition of free product recovered (if applicable). 8. Sampling methodology as outlined in Appendix A. 9. Any other additional information necessary to evaluate the effectiveness of the RAP.
	NA	
	NA	
	NA	
	NA	
	NA	
	NA	
	NA	
	NA	
	NA	
	NA	<p>C. Once MCL target or action levels have been attained and remediation completed, a completion report must be submitted to the SFM which includes at a minimum</p> <ol style="list-style-type: none"> 1. A summary of all remedial activities. 2. Tabled or graphical results showing the effectiveness of the RAP over time. 3. A table with a complete round of recent ground water and soil sampling in appropriate locations demonstrating that acceptable levels have been attained. 4. A complete site map showing all sampling locations. 5. A discussion of wastes generated during all remedial activities including cumulative totals and final disposition. 6. Other information which demonstrates that the remedial objectives of the RAP have been met.
	NA	
	NA	
	NA	
	NA	
	NA	
		<p>D. If monitoring only is selected as a remedial option, the same sequence of reports above should be submitted with remedial systems, RAP or techniques replaced by monitoring plans or options, whichever is more appropriate.</p>

Preparer Name Bill Adams - IIS
 Owner/Operator* Steve Lewis
 Name Environmental Engineers
 708-572-5954

Preparer Signature Bill Adams
 Owner/Operator* Steve Lewis
 Signature

Date 2/21/94
 Date 12/16/94

* Circle whichever applies.

00001269

11/15/94
11/15/94 11:27
11/15/94

**REMEDIAL ACTION PLAN
SHELL RETAIL FACILITY
501 CARNEGIE AVENUE @ ONTARIO
CLEVELAND, OHIO**

**BUSTK INCIDENT #182283
WIC #234-1666-1504**

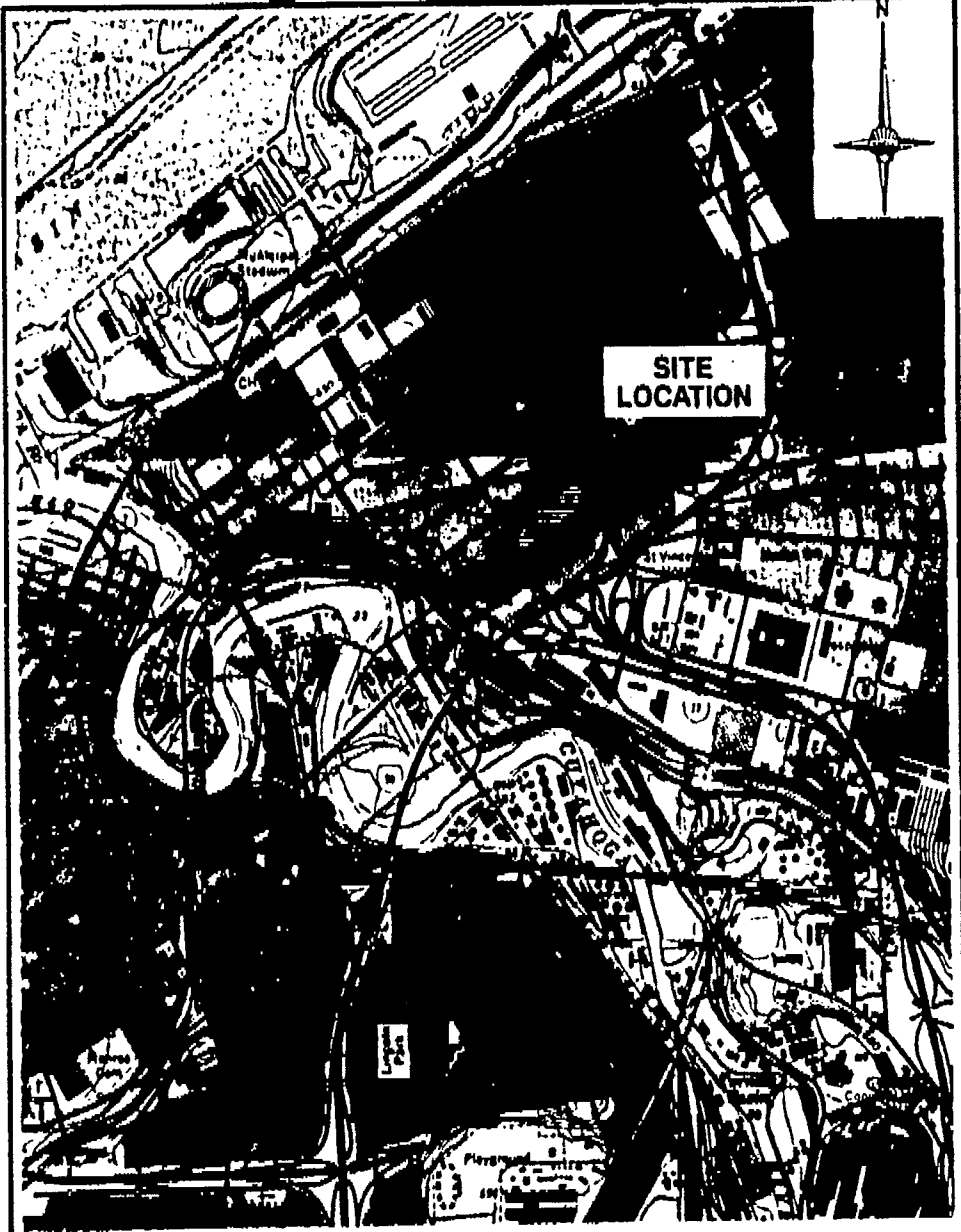
NOVEMBER 1994

**Prepared by:
ENGINEERING-SCIENCE
19101 Villaview Road, Suite 301
Cleveland, Ohio 44119**

ES Job No. 725364

00001815

FIGURE 1



1000 0 1000 2000 FEET
SCALE



QUADRANGLE LOCATION

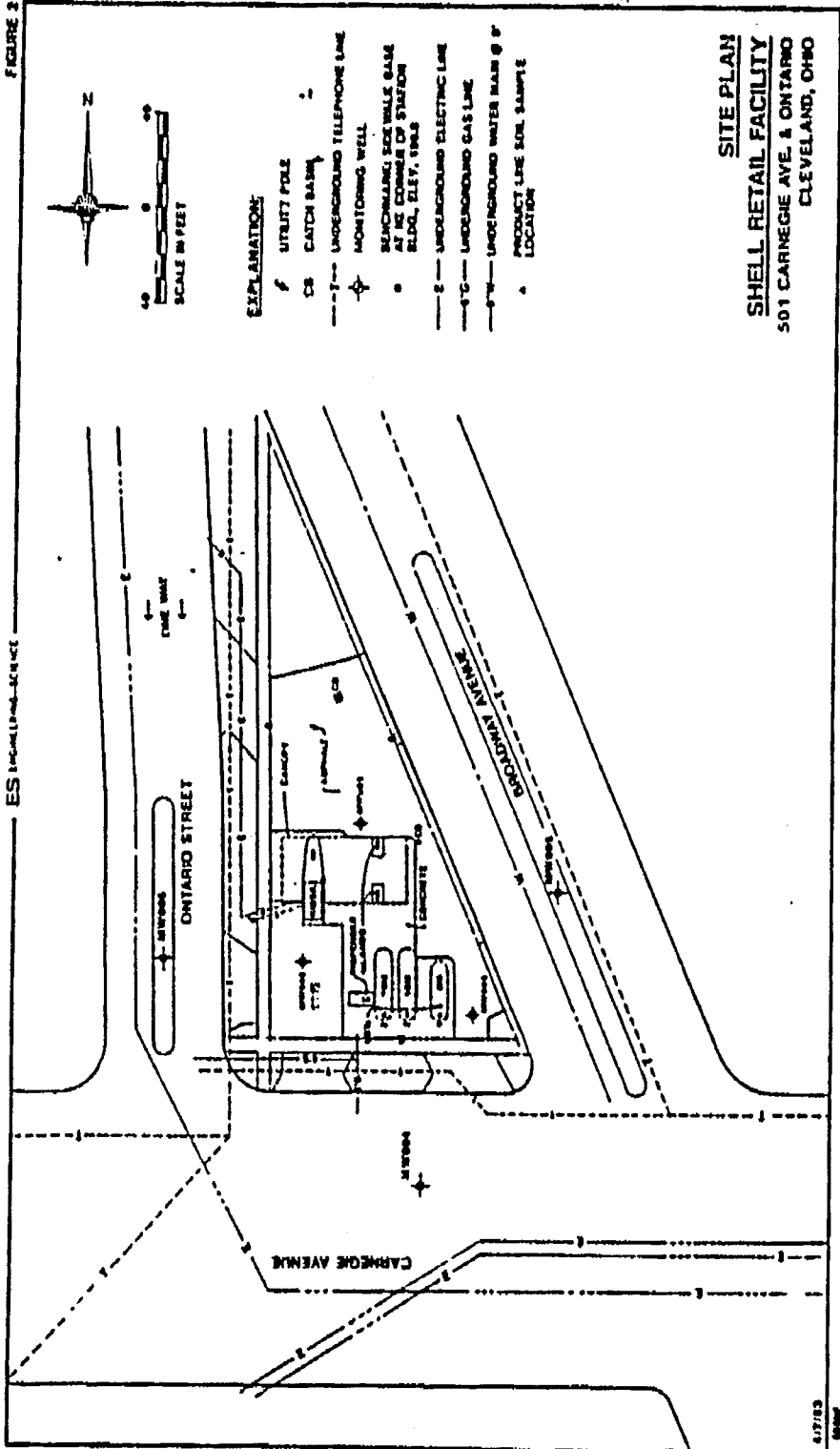
SITE LOCATION MAP
SHELL RETAIL FACILITY
501 CARNEGIE AVE. & ONTARIO
CLEVELAND, OHIO

CD418.09 (CD339)
JGD
12/16/92

ES ENGINEERING-SCIENCE

00001821

FIGURE 3



000018

REMEDIAL ACTION PLAN
.....
SHELL RETAIL FACILITY
501 CARNEGIE AVENUE @ ONTARIO
CLEVELAND, OHIO

BUSTR INCIDENT #1822883

INTRODUCTION

This Remedial Action Plan (RAP) was prepared by Engineering-Science (ES) on behalf of the Shell Oil Company (Shell) for the referenced site. This plan was prepared in accordance with Ohio Administrative Code (OAC) 1301:7-9-13(J). It is based on data collected from November 1992 to the present and it includes an evaluation of remedial alternatives.

BACKGROUND

The Shell Retail Facility is located at the intersection of Carnegie Avenue and Ontario Street in Cleveland, Ohio. The site location is shown in Figure 1. A site plan showing details related to the site is included in Figure 2. Land use in the vicinity of the site is commercial and industrial. A site vicinity sketch is included as Appendix A.

A suspected release, based on a failed line tightness test, was reported to the Bureau of Underground Storage Tank Regulations (BUSTR) by the Shell Oil Company on 5 November 1992. A site survey was conducted by ES, at the request of Shell, on 5, 6 and 7 November 1992 in response to the release report. All three product lines failed the tightness tests due to faulty flex connectors. The flex connectors for each pump were replaced. A final inspection was performed to confirm line tightness after repairs were completed. Impacted soils were stockpiled and disposed of properly in the Norton Sanitary Landfill. The excavations were backfilled with clean sand.

Engineering-Science conducted a site check on 23 and 24 November 1992 and 2 December 1992 as a follow-up investigation to the site survey to determine whether subsurface soils or groundwater on the site had been impacted by the release. During the site check, three soil borings were advanced with all three completed as monitoring wells.

On 11, 12 and 15 March 1993, ES conducted an off-site investigation in which three soil borings were advanced with all three completed as monitoring wells. This investigation was performed to delineate the vertical and horizontal extent of residual petroleum hydrocarbons. In April 1994, additional groundwater samples were collected from all six monitoring wells and submitted for laboratory analysis.

A BUSTR Release Investigation was conducted and found no other known leaking underground storage tank (USTs) in the vicinity (Appendix B, Site Check Report). A copy of the BUSTR Release Investigation Report is included as Appendix B of the December 1992 Site Check Report. Additional background information may be found in the Site Check Report dated December 1992 and the Site Assessment Report dated April 1993.

GEOLOGY/HYDROGEOLOGY

The soil beneath the site, as indicated by the six borings, consists predominantly of fine to medium sands with variable amounts of silt and clay. Detailed descriptions of materials encountered during drilling are included on the well logs in Appendix B of the 1993 Site Assessment and Appendix E of the 1992 Site Check.

Groundwater was initially encountered, during monitoring well installation, between 26 and 29 feet subgrade. Static groundwater measurements obtained from the monitor wells and relative groundwater elevations are summarized in Table 1. Based on relative water elevations, groundwater flow was determined to be towards the west.

BUSTR SITE FEATURE SCORING SYSTEM (SFSS)

The site was scored using the BUSTR Site Feature Scoring System. A total score of 45 points was recorded for the site, which designates Category 2 Action Levels under OAC 1301:7-9-13(E)(4). The Site Feature Scoring System (SFSS) Chart is attached in Appendix B.

A potable water well search was conducted through the Ohio Department of Natural Resources (ODNR), Division of Water, located three potable water wells within a one-half mile radius of the site. Copies of the well logs are included in Appendix C of the December 1992 Site Check Report. The area is served by public water supply. The site is not located within a sensitive area as designated in OAC 1301:7-9-09. A score of 15 points was recorded for Site Feature Number 1.

TABLE 1
 GROUNDWATER ELEVATION DATA⁽¹⁾
 SHELL RETAIL FACILITY
 501 CARNEGIE AVENUE AND ONTARIO
 CLEVELAND, OHIO

Monitoring ⁽²⁾ Well	Reference ⁽³⁾ Elevation	Total Depth (feet)	Depth to Water (feet)	Relative Fluid Elevation (feet)
MW001	99.31	31.80	26.26	73.05
MW002	99.11	32.70	26.50	72.61
MW003	99.83	34.00	26.31	73.52
MW004	100.03	34.50	26.85	73.18
MW005	100.46	36.50	26.90	73.56
MW006	99.95	36.10	28.52	71.43

- (1) Water level measurements taken on 21 April 1994.
- (2) Well locations are provided on Figure 2.
- (3) Reference datum is relative to an arbitrary benchmark assignment of 100 feet to the northeast corner of the kiosk.

During installation of monitoring wells, groundwater was encountered between 26 and 29 feet below grade. Static water levels within the monitoring wells range from 26.26 to 28.52 feet below grade. A score of 10 points was recorded for Site Feature Number 2.

The predominant soil type encountered during drilling was fine to medium sand with variable amounts of silt and clay. A score of 15 points was recorded for Site Feature Number 3.

The station building has a subsurface foundation. Land use in the vicinity of the site is commercial and industrial. Utilities at the site, as determined from the Ohio Utility Protection Service (OUPS), and utility site plans supplied by OUPS member utility companies suggest that underground storm sewer, sanitary sewer, water, natural gas, telephone and electrical lines exist within fifty feet of the UST system. Telephone and electrical lines also exist as overhead utilities. A score of 5 points was recorded for Site Feature Number 4.

TARGET LEVELS

The target levels for soils and groundwater are the BUSTR Action Levels for Category 2 sites (OAC 1301:7-9-13(E)). However, asymptotic BTEX concentrations in groundwater in conjunction with risk evaluation may also be considered a target level after further evaluation.

ANALYTICAL DATA

The analytical results of soil samples taken during monitoring well drilling are included in Table 2. Soil samples from the referenced site indicate soil concentrations do not exceed twice the sum of BTEX target levels. Total BTEX concentrations ranged from less than 9 micrograms per kilogram ($\mu\text{g}/\text{kg}$) to less than 20,900 $\mu\text{g}/\text{kg}$. Total petroleum hydrocarbons (TPH) concentrations ranged from less than 0.050 milligrams per kilograms (mg/kg) to 260 mg/kg . No phase-separated hydrocarbons (PSH) were detected in any of the six soil borings or monitoring wells.

The analytical results of groundwater samples are included in Table 3. Laboratory data for samples collected on 27 April 1994 are included in Appendix C. The concentrations of BTEX remain below target levels for each constituent in the wells both on and off the site, with the exception of benzene in MW001, MW002, MW003 and

TABLE 2
ANALYTICAL RESULTS OF SOIL SAMPLES

SHELL RETAIL FACILITY
501 CARNEGIE AVENUE AND ONTARIO
CLEVELAND, OHIO

Location (1)	Date Sampled	Analytical Parameter					TPH (mg/kg)
		Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Xylenes (µg/kg)	Total BTEX (µg/kg)	
Product Line Soil Sample #3	7 Nov 92	18	130	15	186	349	<0.050
MW001 (27'-29' interval)	23 Nov 92	<2	<2	<2	<6	<12	<0.050
MW002 (25'-27' interval)	24 Nov 92	<1,200	<1,200	6,900	11,600	<20,900	260
MW001 (21'-23' interval)	24 Nov 92	<2,500	1,500	3,400	11,900	<19,300	100
MW003 (33'-35' interval)	24 Nov 92	<2	4	<2	<6	<14	0.060
MW004 (28'-30')	11 Mar 93	<2	6	<2	3	<13	<10
MW005 (24'-26')	12 Mar 93	<5	100	<5	<5	<115	<10
MW006 (24'-26')	12 Mar 93	<5	<5	10	260	<280	19
MW006 (26'-28')	12 Mar 93	<2	<2	<2	3	<9	60
Category 2 Action Level		170	7,000	10,000	47,000	64,170	300

(1) Sample locations are illustrated on Figure 2.

TABLE 3

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES

SHELL RETAIL FACILITY
501 CARNEGIE AVENUE AND ONTARIO
CLEVELAND, OHIO

Location ⁽¹⁾	Date Sampled	Analytical Parameter				Total BTEX (µg/L)
		Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	
MW001	2 Dec 92	<1	<1	<1	<2	<5
	27 Apr 94	22	<1	<1	<1	<25
MW012	2 Dec 92	5	2	48	174	229
	27 Apr 94	1,400	4	88	210	1,692
MW003	2 Dec 92	20	23	4	33	70
	27 Apr 94	330	6	<1	5	<342
MW004	15 Mar 93	<1	<1	<1	<3	<6
	27 Apr 94	4	<1	<1	2	<8
MW005	15 Mar 93	15	5	<1	<3	<24
	27 Apr 94	40	<1	<1	2	<44
MW006	15 Mar 93	1	32	1	<8	<42
	27 Apr 94	4	<1	2	10	<17
Action Levels		5	1,000	700	10,000	11,705

(1) Sample locations are shown on Figure 2.

MW005. Total BTEX concentrations ranged from less than 8 micrograms per liter ($\mu\text{g/L}$) to 1,692 $\mu\text{g/L}$. Benzene concentrations ranged from 4 $\mu\text{g/L}$ to 1,400 $\mu\text{g/L}$.

PROPOSED REMEDIATION

Based on the levels of residual hydrocarbons in soils and groundwater, the lack of PSH in any of the monitoring wells, and local geology and hydrogeology, the proposed RAP is a Continued Monitoring Program (CMP). The following tasks will be implemented with approval of the RAP:

1. BTEX and TPH levels currently on site will be remediated through natural degradation. Sample all six monitoring wells quarterly for BTEX (EPA Method 602) for four consecutive quarters. Bailed water will be treated and discharged on site through a mobile system of mechanical and carbon filters to remove solid particles and dissolved hydrocarbons.
2. Record depth to water and visually observe a water sample from all six monitoring wells quarterly for four consecutive quarters.
3. Issue yearly progress reports to BUSTR which will include analytical results from sampling.
4. After evaluation of quarterly site and laboratory data, file for "No Further Action" status after one year.

REMEDIAL ALTERNATIVES

Additional alternatives were considered to remediate groundwater at the site. However, they were rejected based on cost, effectiveness and the compiled soil and groundwater analytical data.

1. Fluid Recovery System Installation. Because of the 26 to 28 foot depth to fluid and slow recharge observed when hand bailing wells dry, the installation of a fluid recovery system was rejected. It would be impractical to construct the type of system which could recover fluid from a depth of 26 to 28 feet given the slow recharge rate, groundwater BTEX concentrations and the lack of PSH in any of the monitoring wells.
2. Excavation. Excavation is not a viable approach due to the depth and extent of which excavation would have to be undergone. This would be costly, time consuming and it is Shell's understanding that excavation is not a favored remedial alternative of BUSTR due to dwindling landfill space.

3. **Air Sparging.** Soils encountered at the site were sands and trace clays. Air sparging is most successful at remedialing groundwater when soils are highly porous and permeable (Sellers and Schreiber, 1992). Air sparging is a potential option, however, it should not be conducted until appropriate pilot studies are conducted. Monitoring only is requested to be implemented first and results evaluated prior to the implementation and installation of an additional remediation system. This option may be considered at a later date, if monitoring only and hand bailing prove ineffective.

PERMITS

The proposed remediation of quarterly monitoring will require obstruction permits to be obtained from the City of Cleveland for Carnegie Avenue, Broadway Avenue, and Ontario Street before each sampling event.

IMPLEMENTATION SCHEDULE AND BUDGET

Quarterly monitoring and sampling will be implemented in the first quarter of 1995. The cost for one year of monitoring per this CMP is estimated to be \$8,300. This cost estimate includes:

- Quarterly sampling and gauging of six monitoring wells;
- Treatment and disposal of purge water during each sampling event;
- Laboratory analysis of 28 water samples for BTEX by EPA Method 602;
- Quarterly sampling letter reports sent to Shell;
- Yearly report of site activities and sampling results sent to BUSTR, or a NFA request; and
- Obstruction permits for sampling of three off-site monitoring wells (see Figure 2).

The cost estimate does not include:

- Any items after the first year of monitoring; and
- Any item not included in this CMP.

REPORTS

Progress reports will be submitted to BUSTR annually with a NFA request to be submitted, when applicable.

REFERENCES

- Sellers, K.L., and Schreiber, R.P., 1992. Air Sparging Model for Predicting Groundwater Clean-up Rate, Petroleum Hydrocarbons and Organic Chemicals in Groundwater: Prevention, Detection and Restoration, 4 to 6 November 1992.

APPENDIX A
SITE VICINITY SKETCH

11/14/00/KEM-200

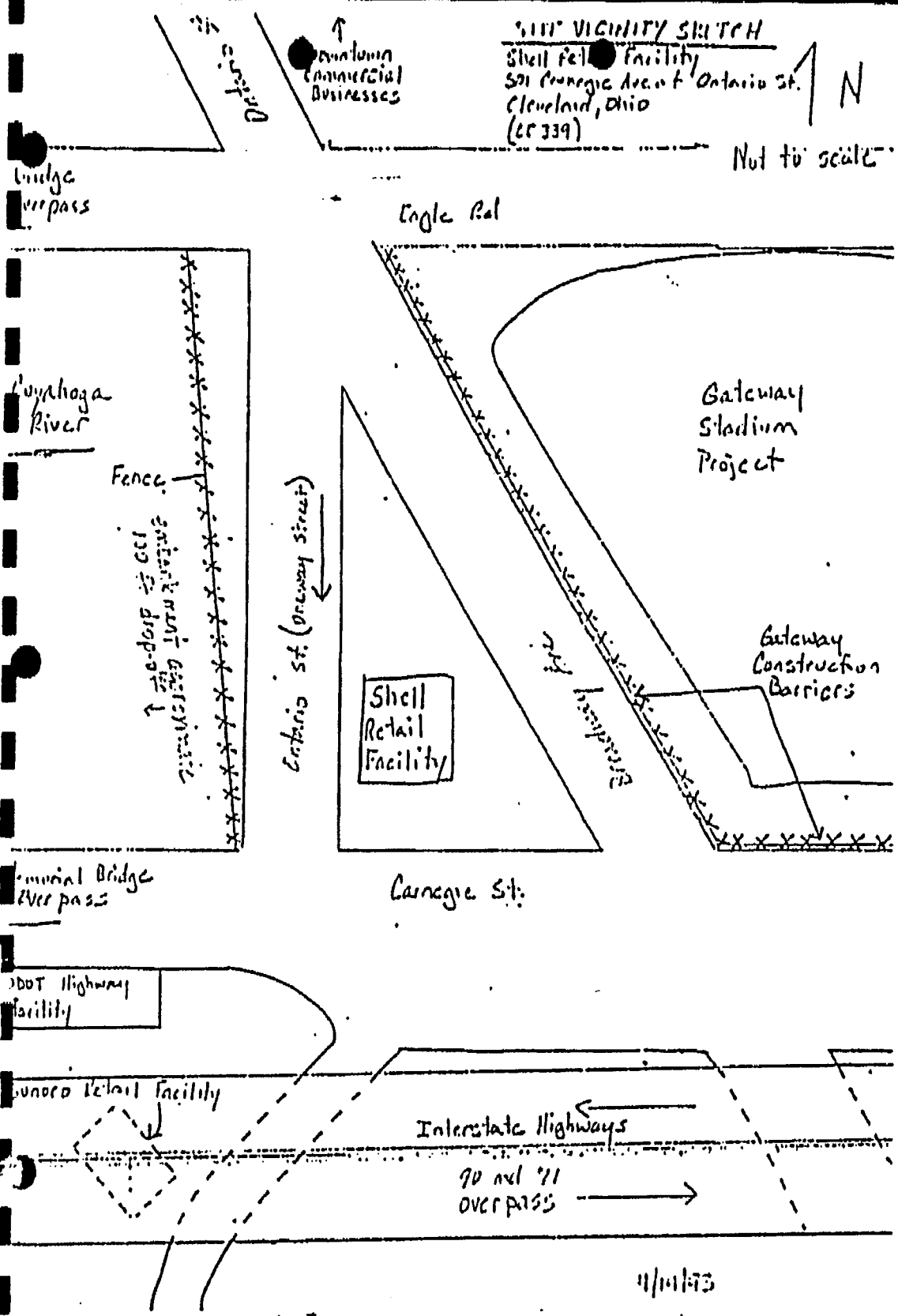
00001811

VICINITY SKETCH

Shell Retail Facility
501 Carnegie Ave. at Ontario St.
Cleveland, Ohio
(LC 339)

N

Not to scale



4/14/73

00001878

APPENDIX B
BUSTR SITE FEATURE SCORING SYSTEM (SFSS) CHART

1194 DPC/KEM 3-87

0000 10 11

Site Location: Shell Retail Facility
501 Carnegie Ave @ Ontario St., Cleveland, OH

BUSTR Incident #: 162286300
 Date: 9 November 1994

SITE FEATURE SCORING SYSTEM
 OAC.1301:7-9-13(E)(3)(f)

SITE FEATURES	COLUMN A		COLUMN B		COLUMN C		COLUMN D	
	Score 20 If True	Score	Score 15 If True	Score	Score 10 If True	Score	Score 5 If True	Score
1. Distance of UST system from closest drinking water supply well or intake currently in use.	>1000 feet		301-1000 feet	15	<301 feet		Inside of designated sensitive area	
2. Average depth to groundwater	>50 feet		31-50 feet		15-30 feet or unknown	10	<15 feet	
3. Predominant soil type of substratum.	Clay or Shale		Silt or Clayey Sands or Fine Sandstone	15	Silty Sand or Fine Sandstone or Sandstone or Unknown		Clean Sand or Gravel or Conglomerate	
4. Natural and/or manmade conduits or receptors (points).	<8		8-10		11-13		>13	5
Subtotal:		0		30		10		5

Total Score: 45
 Category: 2

NATURAL AND/OR MANMADE CONDUITS OR RECEPTORS
 OAC 1301:7-9-13(E)(4)(v)

Basements or subsurface foundations within 100 feet of UST system	4 points	<u>4</u>
Storm sewer within 50 feet of UST system	4 points	<u>4</u>
Sanitary sewer within 50 feet of UST system	4 points	<u>4</u>
Septic system leach field within 50 feet of UST system	2 points	<u>0</u>
Water line main within 50 feet of UST system	1 points	<u>1</u>
Natural gas main within 50 feet of UST system	1 points	<u>1</u>
Dedrock area prone to dissolution along joints or fractures (ie caves & sinkholes) within 100 feet of UST system	1 points	<u>0</u>
Faults or known fractures within 100 feet of UST system	1 points	<u>0</u>
Buried telephone/television cable main within 50 feet of UST system	1 points	<u>1</u>
Buried electric cable main within 50 feet of UST system	1 points	<u>1</u>
Total Points		<u>16</u>

GFSS Action Levels (ppm)

TOTAL SCORE	Category 1 <31	Category 2 31-50	Category 3 51-70	Category 4 >71
Soil BTEX	.006/4/6/28	.170/7/10/47	.335/9/14/67	.500/12/18/85
Groundwater BTEX	.005/1/700/10	.005/1/700/10	.005/1/700/10	.005/1/700/10
Soil TPH (8015)	105	300	450	600
Soil TPH (418.1)	360	642	904	1156

11000 1840

APPENDIX C
LABORATORY REPORTS

11NDPC/KRM-369

00001941

0710PC/NW044

28 July 1995

Shell Oil Products Company



Certified Mail
Return Receipt Requested

1415 West 22nd Street
Oak Brook IL 60521-9008

Ms. Felisha Cheatem
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
8895 East Main Street
Post Office Box 687
Reynoldsburg, Ohio 43068-0687

Reference: Shell Retail Facility
501 Carnegie Avenue & Ontario Avenue
Cleveland, Ohio
WIC #234-1666-1504
BUSTR Incident #182243-00

1822883

Dear Ms. Cheatem:

The following information is being supplied as a modification to the Remedial Action Plan (RAP) submitted to the Bureau of Underground Storage Tank Regulations in November 1994 for the referenced site.

In August 1995, Oxygen Release Compounds (ORC) will be installed in monitoring wells MW002, MW003 and MW006 at the referenced site. The ORC is used to enhance the natural degradation of benzene, toluene, ethylbenzene and xylenes by increasing the levels of dissolved oxygen (DO) in groundwater. The ORC to be installed was supplied by Regensis Bioremediation Products Corp. of San Juan Capistrano, CA. The specifications for the Regensis ORC are attached.

In addition to the quarterly groundwater sampling described in the November 1994 RAP, the DO content in all the monitoring wells at the site will be measured in the field. DO content will be determined by titration using a HACH field test kit model OX-2P.

The cost for use of ORC for one year is estimated to be \$647. This cost estimate includes:

- Installation and use of ORC in the monitoring wells;
- Quarterly field measurement of DO content in all the monitoring wells;

The cost estimate does not include:

- Any items after the first year of monitoring, and
- Any item not included in this RAP amendment.

These modifications do not alter the monitoring and sampling schedule set forth in the November 1994 RAP. If you have any questions or require additional information, please contact Gary Gray of Parsons Engineering Science at (216) 486-9005 or me at (708) 572-5954.

Sincerely,


Stephen C. Lewis
Environmental Engineer

SCLJ

cc: Gary Gray, Project Manager (Parsons ES)

PUSTRCB
22 W. Gay Street
P.O. Box 163188, Columbus, OH

00001354

REGENESIS
Bioremediation Products27130A Paseo Espada, Suite 1407
San Juan Capistrano, CA 92675
Phone: (714) 443-3136
Fax: (714) 443-3140REGULATORY NOTE

With reference to the safety of contacting ORC with ground water the following comments are provided. REGENESIS welcomes any further inquiries which can be directed to either Dr. Stephen Kuenigsberg (VP Research) or John Griffiths (President).

Definition of ORC and Its Components:

ORC is a proprietary formulation of magnesium peroxide (MgO_2), which is the active agent. The commercial product contains both magnesium oxide (magnesia, MgO) and magnesium peroxide. A trace amount of food grade potassium phosphate (KH_2PO_4 or K_2HPO_4) may also be present.

Behavior of ORC in Contact with Water:

ORC is designed to release oxygen when wet. Essentially ORC is "oxygenated magnesia" and it gives up the oxygen upon contact with water. The spent magnesium peroxide is converted to magnesium hydroxide ($Mg(OH)_2$). This also is the fate of the magnesium oxide which simply hydrates to form the hydroxide ($MgO + H_2O \rightarrow Mg(OH)_2$). Therefore the uniform endpoint of ORC, from both directions, is magnesium hydroxide. The safety of this material is easily conveyed by mention of the fact that magnesium hydroxide is ordinary Milk of Magnesia. Although the levels from the product are negligible, the soluble phosphates mentioned are the same materials intentionally used to support microbial growth in bioremediation.

Other Features:

All of the magnesium products discussed are insoluble.

The ORC is mixed with sand and contained in a filter sock that is removable from the source well at will.

Magnesium oxide, peroxide and hydroxide are all safe to ingest. Magnesium oxide is sold as a Mg supplement to cattle and is used in farming for the same purpose.

Magnesium peroxide and magnesium hydroxide are also safe to ingest as they are both used as anti-acids. ORC itself is used in retail horticultural and agricultural products thereby entering the environment and the food chain. The products are sold in all fifty states where it has met Department of Agriculture fertilizer registration requirements.

Magnesium peroxide has been used in dentifrices and other dental products.

EMPACO EQUIPMENT CORPORATION

2958 BRECKSVILLE ROAD
POST OFFICE BOX 835 RICHFIELD, OHIO 44286-0535
PHONE: 216/489-9393
FAX NO. 216/489-4772

October 30, 1993

Release Prevention Supervisor
Division of State Fire Marshal - B.U.S.T.R.
3395 East Main Street
P.O. Box 687
Reynoldsburg, Ohio 43068-0687

RE: Shell Oil Company
501 Carnegie Avenue
Cleveland, Ohio 44122
Thirty (30) Day Notification Letter

Dear Sir:

This letter is to be considered the 30-day notification as required by regulations. A copy of this letter is also being sent to the local Fire Department.

Please be advised we have a contract to remove the following tanks at the above referenced location.

2 - 10,000 Gallon Gasoline
1 - 8,000 Gallon Gasoline

If you have any questions on this matter, please do not hesitate to call me at (216) 659-9393.

Sincerely,



Paul J. Backo
CONSTRUCTION SUPERVISOR

PJB/caw

cc: City of Cleveland Fire Department/Terry Chambers
Mark Garcia

0000 1802

PERMIT NO: P 86632
DATE: 07/11/96
INSPECTOR: ANTHONY FORBES
PHONE NO: (216) 444-5124

CITY OF CLEVELAND
DEPARTMENT COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND HOUSING

POST THIS PERMIT
IN PLAIN VIEW

PERMIT

CONTACT YOUR INSPECTOR AT LEAST 24 HOURS PRIOR TO REQUESTED
INSPECTIONS
BETWEEN THE HOURS OF 7:00 A.M. AND 8:30 A.M.
APPROVED DRAWINGS MUST BE KEPT ON THE JOB SITE

PERMIT FEE	\$150.00	PLAN PROCESSING FEE	
SEQ NO.	P 1044	CO FEE	\$.00
PLAN EXAM NO.	1001 3% OH. SURCHGE	LATE FEE	\$.00
INSPECT SEQ.	1001	CONSTRUCTION CLASS	
ESTIMATED COST	\$3,000.00	USE CLASSIFICATION	U/
FLOOR COVERED	-		

LOCATION	501 CARNEGIE AV	SPA	
AKA		WARD	13
SECTION	DEMOLITION	CENSUS TRACT	1091
PERMIT TYPE	RAZE-COMMERC	PFN	1170092445
SUBLOT	CP. SUBLOT		
***** IN PURSUANCE OF THE FILING OF THE REQUIRED APPLICATION BY *****			
CONTRACTOR	EMPACO EQUIPMENT CORP	PHONE ()	629-9393
ADDRESS	P.O. BOX 535 / RICHFIELD OH 44286		
***** ON BEHALF OF *****			
OWNER	SHELL OIL CO	PHONE ()	861-3664
ADDRESS	2291 W JRD ST / CLEVELAND		OH 44113

PERMISSION IS HEREBY GRANTED TO:

RAZE ALL STRUCTURES, TANKS & PIPING. F.P.B. U.G. TANK
REMOVAL PERMIT 0982. INSTALL 6" X 6" FCSTS ALONG R.O.W.
INSIDE PROPERTY LINES PER C.B.C. 3115.04

GET BACK:

PAID 7/14/96

NO PREMISES SHALL BE OCCUPIED UNTIL A CERTIFICATE OF OCCUPANCY HAS BEEN
ISSUED YES ___ NO ___ . C. OF O. REQUEST FORM ATTACHED.

PERMIT EXPIRES IF WORK IS NOT STARTED/COMPLETED BY: 03/14/97

SEPARATE PERMITS MUST BE SECURED FOR PLUMBING, ELECTRICAL, H.V.A.C.,
ELEVATORS, FIRE PROTECTION, ETC; BY REGISTERED OR LICENSED CONTRACTORS ONLY.
THE ISSUANCE OF THIS PERMIT IS FOR THE WORK SPECIFIED IN THE APPLICATION
FILED THEREFORE ANY UNAUTHORIZED CHANGE OR ALTERATION FROM THE AFORESAID
APPLICATION OR PLANS WILL RENDER THIS PERMIT NULL AND VOID.

M. LAIK ALI
CHIEF BUILDING OFFICIAL

LISA THOMAS - COMMISSIONER
DIVISION OF BUILDING AND HOUSING

00001803

DIVISION OF STATE FIRE MARSHAL - BUREAU
 95 East Main Street, P.O. Box 687
 Reynoldsburg, OH 43068-0687

DELEGATED PERMIT FOR UNDERGROUND STORAGE TANKS

Permit No.: _____
 Issue Date: _____

I. Ownership of Tanks			Owner No:			II. Location of Tanks			Facility No:		
Owner/Operator Name SHELL OIL COMPANY						Facility Name SHELL OIL COMPANY					
Address 2201 WEST 3RD STREET						Address 501 CARNEGIE AVENUE					
City		State	Zip Code		City		State	Zip Code			
CLEVELAND,		OH	44114		CLEVELAND,		OH	44122			
Area (Contact Person)			Area Code - Phone			Area Code - Phone			County		
MARK GARCIA			(216) 861-3664			771-6931			CUYAHOGA		
III. Contractor						IV. Local Fire Department					
Contractor's Name EMPACO EQUIPMENT CORPORATION						Fire Department Name CLEVELAND FIRE DEPARTMENT					
Contact Person			Area Code - Phone			Address					
PAUL BACKO			(216) 659-9393			1645 SUPERIOR AVENUE					
Address 2958 BRECKSVILLE ROAD						City		State	Zip Code		
RICHFIELD,		OH	44286		CLEVELAND,		OH	44114			
V. Permit Issued For: See Below (Note: Owner's Copy of Permit must be available on job site.)											
Removals/Abandons:											
[101] Tank(s):				[102] Piping:				[103] Total Systems: (3)			
Installations:											
[201] Tank(s):				[202] Piping:				[203] Total Systems:			
Replacements:											
[301] Tank(s):				[302] Piping:				[303] Total Systems:			
Repairs:											
[401] Tank(s):				[402] Piping:							
Upgrades:											
[501] Tank(s):				[502] Piping:				[503] Leak Detection:			
Change in Service/Temporary Closure:											
[601] Systems:											
FIRE DEPARTMENT USE ONLY											
Certified Installer _____						ID No. _____					
Inspector's Signature _____						Date _____					

CDM 5210 (Rev. 12/93)

Distribution: White Copy - Tank Owner, Canary Copy - State Fire Marshal, Pink Copy - Fire Department

00001884

DISPOSAL TICKET

CUYAHOGA REGIONAL SANITARY LANDFILL
28625 AMBINA DRIVE
SOLON, OHIO 44139
(216) 498-3700

04/09/06 10:23 AM
INDUSTRIAL EQUIPMENT
RICHFIELD OH 44296

Ticket: 351073
Industrial Solid Wast
Source: CUYAHOGA

WTS 218 TMS

Trucks: 24

Description	Quantity	Rate	Amount
INDUSTRIAL EQUIPMENT	11.08 TONS		
STATE IMPOSED DISPOSAL FEE			
DISTRICT DISPOSAL FEE			
WELLS COUNTY TOWNSHIP FEE			
TOTAL TAXES & SURCHARGES			

Signature: P. J. S. [Signature] Total

00001805

1101000-0000-100000

Shell Oil Products Company



7 December 1995

1415 West 22nd Street
CMA Brock N. 80622 0000

*Certified Mail
Return Receipt Requested*

Ms. Felisha Cheatem
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
8895 East Main Street
Post Office Box 687
Reynoldsburg, Ohio 43068-0687

Reference: Annual Progress Report
Shell Retail Facility, WIC #234-1666-1504
501 Carnegie Avenue & Ontario Avenue
Cleveland, Ohio
BUSTR ID #182283-00



Dear Ms. Cheatem:

The following information is provided as an annual progress report of activities at the referenced site since implementation of the Remedial Action Plan (RAP) dated November 1994.

Quarterly groundwater sampling was performed on 1 March 1995, 10 May 1995, 25 August 1995 and 10 November 1995. On the 1 March 1995 sampling event, a Parsons Engineering Science (Parsons ES) geologist observed that monitoring well MW005 was inadvertently abandoned by workers of the City of Cleveland, while making cement repairs on the median strip dividers. Monitoring wells MW001, MW002, MW003, MW004 and MW006 were sampled during each event. In August 1995, Oxygen Releasing Compounds (ORC) were installed in monitoring wells MW002 and MW003. The ORC is used to enhance the natural degradation of benzene, toluene, ethylbenzene and xylenes (BTEX) by increasing the levels of dissolved oxygen (DO) in groundwater. All samples were submitted for laboratory analysis of BTEX using EPA Method 602. During each sampling event depth to water was recorded and a water sample was collected for visual observation from each well at the site. In addition to sampling in August and November 1995, the DO content in all monitoring wells was recorded. The DO content was measured in the field by titration using a HACH field test kit model ON-2P. A site plan showing the locations of the wells is included as Figure 1. Table 1 lists the depth to groundwater data, Table 2 summarizes the groundwater analytical data, and copies of the laboratory reports are attached as Appendix A.

Sampling protocol was observed as prescribed by the respective laboratory methodology. Monitoring wells were bailed of three volumes of water or until dry with clean PVC bailers. Samples were collected with clean, disposable polypropylene bailers and placed in two clean 40 milliliter vials. Samples were then placed on ice in a cooler and transported under chain-of-custody procedures to Canton Analytical Laboratory for BTEX analysis. Well development water was drummed and left on site for transportation to the Shell terminal for disposal.

RECEIVED
DEC 11 1995

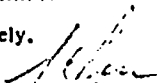
00000124

The total concentrations of BTEX in groundwater remain at levels acceptable for a RAP by monitoring only (less than 11,705 parts per billion). Phase-separated hydrocarbons were not detected in any of the monitoring wells.

Based on this information, the Shell Oil Products Company will continue with the monitoring only plan but at a reduced frequency of semi-annually. Groundwater sampling events are scheduled for May 1996 and November 1996 and a progress report will be submitted following the November event.

If you have any questions or require additional information, please do not hesitate to contact either Bill Adams of Parsons Engineering Science at (216) 486-9005, or me at (708) 572-5954.

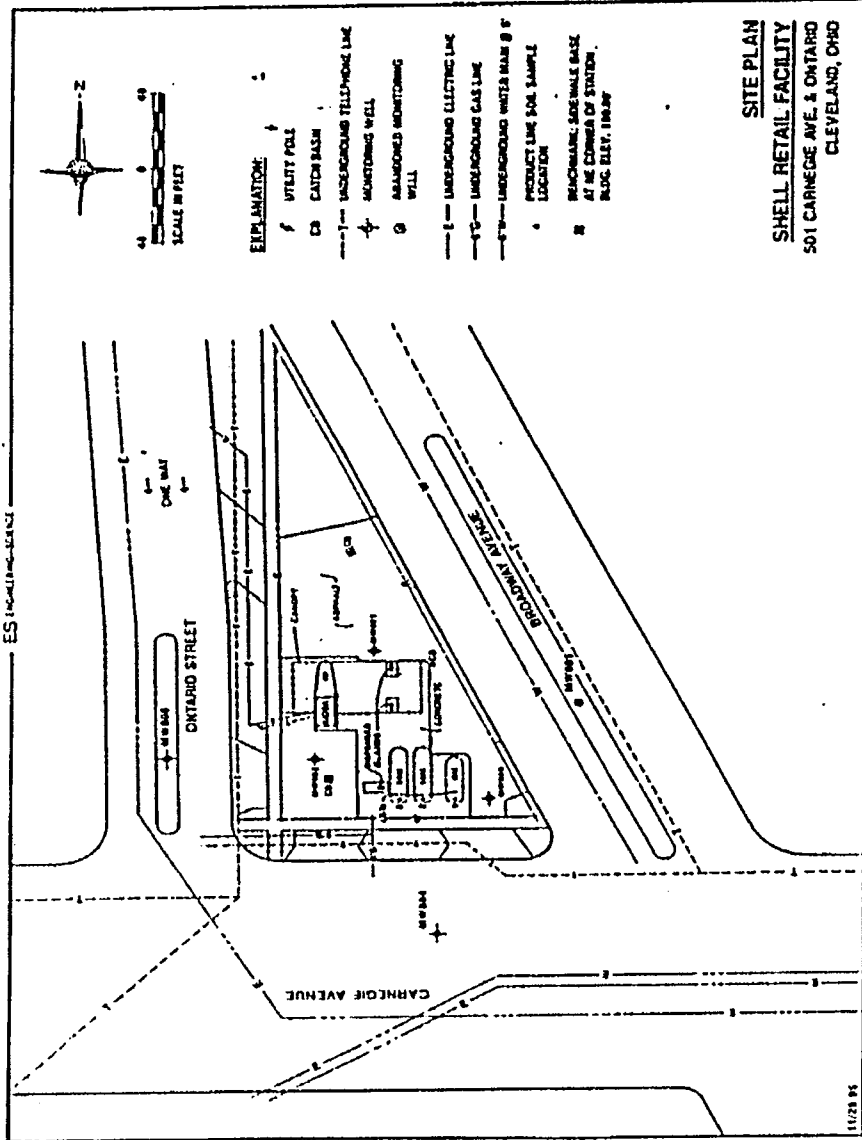
Sincerely,


Stephen C. Lewis
Environmental Engineer

/dec
cc: Gary Wm. Gray, Project Manager
Parsons ES (w/d attachments)

00000125

FIGURE 1



SITE PLAN
SHELL RETAIL FACILITY
 501 CARNEGIE AVE. & ONTARIO
 CLEVELAND, OHIO

9210000

TABLE I
GROUNDWATER ELEVATION DATA⁽¹⁾
SHELL RETAIL FACILITY
501 CARNEGIE AVENUE AND ONTARIO
CLEVELAND, OHIO

Monitoring ⁽²⁾ Well	Reference ⁽³⁾ Elevation	Total Depth (feet)	Depth to Water (feet)	Relative Fluid Elevation (feet)
MW001	99.31	31.80	26.44	72.87
MW002	99.11	32.70	26.99	72.12
MW003	99.83	34.00	26.62	73.21
MW004	100.01	34.50	27.02	73.01
MW006	99.95	36.10	28.54	71.41

(1) Water level measurements taken on 10 November 1995.

(2) Well locations are provided on Figure 2.

(3) Reference datum is relative to an arbitrary benchmark assignment of 100 feet to the northeast corner of the tank.

NOTE.

MW005 was inadvertently abandoned by workers from the City of Cleveland, while doing cement repair work on the median strip dividers.

TABLE 2
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
SHELL RETAIL FACILITY
501 CARNEGIE AVENUE AND ONTARIO - CLEVELAND, OHIO

Location ⁽¹⁾	Date Sampled	Analytical Parameters					Total BTEX (µg/L)	Dissolved Oxygen (DO) (mg/L)
		Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)			
MW001	02 Dec 92	<1	<1	<1	<2	<5	--	
	27 Apr 94	22	<1	<1	<1	<25	--	
	01 Mar 95	4.3	2.5	<1	<3	<10.8	--	
	10 May 95	<1	<1	<1	<3	<6	--	
	25 Aug 95	2.4	<1	<1	<3	<7.4	1.2	
	10 Nov 95	<1	<1	<1	<3	<6	--	
MW002	02 Dec 92	5	2	48	174	229	--	
	27 Apr 94	1,400	4	88	200	1,692	--	
	01 Mar 95	2,800	4.1	170	370	3,344.1	--	
	10 May 95	2,800	1.1	37	120	2958.1	--	
	25 Aug 95 ⁽³⁾	5,000	<50	70	130	<5,250	1.6	
	10 Nov 95	1,700	4.1	<1	<3	<1708.1	2.0	
MW003	02 Dec 92	20	23	4	23	70	--	
	27 Apr 94	330	6	<1	5	<342	--	
	01 Mar 95	280	170	29	51	533	--	
	10 May 95	130	170	23	50	373	--	
	25 Aug 95 ⁽³⁾	94	29	31	14	148	1.3	
	10 Nov 95	<1	<1	<1	<3	<6	4.0	
MW004	15 Mar 93	<1	<1	<1	<3	<6	--	
	27 Apr 94	4	<1	<1	2	<8	--	
	01 Mar 95	<1	<1	<1	<3	<6	--	
	10 May 95	<1	<1	<1	<3	<6	--	
	10 May 95	<1	<1	<1	<3	<6	--	
	25 Aug 95	<1	<1	<1	<3	<6	2.4	
	10 Nov 95	<1	<1	<1	<3	<6	1.2	
MW005	15 Mar 93	15	5	<1	<3	<24	--	
	27 Apr 94	40	5	<1	<2	<44	--	
	01 Mar 95 ⁽²⁾	--	--	--	--	--	--	
MW006	15 Mar 93	1	32	1	<8	<42	--	
	27 Apr 94	4	<1	2	10	<17	--	
	01 Mar 95	2,900	<1	<1	<3	<2,905	--	
	10 May 95	2,200	<1	<1	<3	<2,205	--	
	25 Aug 95	930	<10	<10	<30	<980	3.2	
	10 Nov 95	22	<1	<1	<3	<27	1.4	

(1) Sample locations are shown on Figure 2.

(2) The monitor well (MW005) was inadvertently abandoned by workers from the City of Cleveland while doing cement repair work on the median strip dividers.

(3) Oxygen Releasing Compounds inserted into the wells per the 28 July 1995 RAP modification.

--Not sampled.

PARSCL-694DFC/DCB 97a

Shell Oil Products Company



RECEIVED

10 June 1996

JUN 12 A 8 50

1415 West 22nd Street
Oak Brook IL 60522 8008

*Certified Mail
Return Receipt Requested*

STATE FIRE MARSHAL
BUSTR

Mr. Verna Ord
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
Post Office Box 687
8895 East Main Street
Reynoldsburg, Ohio 43068-0687

Reference: Gasoline UST System Closure
Former Shell Retail Facility, WIC #234-1666-1504
501 Carnegie Avenue and Ontario Street
Cleveland, Ohio
BUSTR Incident #1822883-00

Dear Mr. Ord:

Attached please find one copy of the gasoline underground storage tank (UST) removal and soil sampling report for the referenced site. This report was prepared in accordance with the requirements set forth for sites which are currently under corrective actions. Because the UST system is already within BUSTR's regulatory pathway this report details soil sampling activities, soil disposal and laboratory analysis results.

On 5 November 1992, Shell Oil Products Company (Shell) reported a suspected release to the Bureau of Underground Storage Tank Regulations (BUSTR) in response to failed line tightness tests for each gasoline UST. As part of corrective actions Shell conducted two site assessments (December 1992 and April 1993) at the site. The Site Check Report (December 1992) consisted of three wells all advanced onsite (MW-1, MW-2, and MW-3). The soil and groundwater BTEX concentrations observed in MW-2 and MW-3 were above category action levels. The second Site Assessment (April 1993) consisted of three wells advanced offsite (MW-4, MW-5, and MW-6). The BTEX levels observed in the soil and groundwater for these wells were below site category action levels except for benzene in the groundwater observed from monitoring well MW-5. Relative groundwater elevations calculated from the monitoring wells indicate MW-5 is hydraulically upgradient of the site. Also, upgradient in close proximity of the site is Jacob's Field, the new baseball stadium. During demolition for the new stadium in November 1992, the contractors discovered 32 abandoned USTs, some still containing petroleum. The USTs were removed and initial sampling showed hydrocarbon BTEX concentrations in the soil. It is Shell's opinion that this upgradient contamination is a likely source of the benzene observed in monitoring well MW-5. Any additional drilling activities proposed in this upgradient direction would be difficult due to heavy traffic access problems associated with permitting and politics involved with the stadium. For these reasons Shell believes the extent of residual hydrocarbons is adequately defined in soil and groundwater.

Based on the site assessment data a Remedial Action Plan (RAP) requesting a Continued Monitoring Program (CMP) of quarterly groundwater sampling was submitted to BUSTR in November 1994 and initiated in February 1995. A RAP Annual Progress report was submitted to BUSTR on 7 December 1995, which included additional groundwater data collected since implementation of the RAP.

00001790

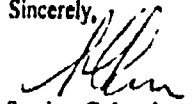
Mr. Verne Ord
BUSTR
6 June 1996
Page 3 - DCR-97a

The results of soil sampling activities conducted during the UST system removal are provided in the attached report. The additional information derived from the gasoline UST system closure indicates that the UST system was within the plume of residual hydrocarbons as defined during the previous site assessments. The soil sampling analytical data are below site category action levels for the site.

To date, BUSTR has not responded to either of the site assessment reports, the RAP, or the annual progress report. Shell has terminated their lease, removed the UST system, and the site is now for sale by the owner. Based on all the data collected to date, it appears that the extent of petroleum hydrocarbons in soil and groundwater is adequately defined as previously mentioned. No further investigatory work is planned at this site with respect to definition of residual hydrocarbons in soil and groundwater. The levels of residual petroleum hydrocarbons in groundwater continues to show a decline over time by natural attenuation. Shell plans to continue the proposed RAP sampling through 1996, an annual progress report will follow in December 1996. In light of Shell's RAP sampling activities being conducted, the expired lease on the property, the complete UST system removal, and no immediate plans for further investigatory work, I am requesting that BUSTR please review the incident file for this site and confirm in writing that BUSTR has accepted the delineation for our site and approve our RAP consisting of monitoring only, which has been in progress since February 1995.

If you have any questions or need additional information, please do not hesitate to contact Bill Adams of Parsons Engineering Science at (216) 486-9005 or me at (708) 572-5891.

Sincerely,



Stephen C. Lewis
Environmental Engineer

SCLJ

cc: Bill Adams, Project Coordinator (Parsons ES, Cleveland)

**GASOLINE UST SYSTEM
CLOSURE REPORT**

**SHELL RETAIL FACILITY
501 CARNEGIE AVENUE & ONTARIO STREET
CLEVELAND, OHIO
WIC #234-1666-1504**

JUNE 1996

**RECEIVED
JUN 12 A 8 51
STATE FIRE MARSHAL
BOSTON**

Prepared By:

**PARSONS ENGINEERING SCIENCE, INC.
19101 Villaview Road, Suite 301
Cleveland, Ohio 44119**

Parsons ES Job No. 728854

PAR/ES/CL/44ND/PC/DCB-97

0000 1192

THE FOLLOWING REPORT HAS BEEN PREPARED ON BEHALF OF, AND EXCLUSIVELY FOR THE USE OF, SHELL OIL PRODUCTS COMPANY. THE REPORT AND THE FINDINGS CONTAINED HEREIN SHALL NOT, IN WHOLE OR IN PART, BE DISSEMINATED OR CONVEYED TO ANY OTHER PARTY, EXCEPT BY SHELL OIL PRODUCTS COMPANY, WITHOUT CONSULTANT'S PRIOR WRITTEN CONSENT. FURTHERMORE, ANY RELIANCE ON THIS REPORT BY THIRD PARTIES BEYOND ITS INTENDED PURPOSE AND IN CONSIDERATION OF THE STATED LIMITATIONS AND/OR QUALIFICATIONS OF THE REPORT SHALL BE AT SUCH PARTY'S SOLE RISK.

PARSCL/696DPC/DCB-97

00001743

INTRODUCTION

The following report summarizes the results of the gasoline underground storage tank (UST) closure assessment conducted by Parsons Engineering Science, Inc. (Parsons ES) at the Former Shell Retail Facility operated by Mr. Samir Mohammed at 501 Carnegie Avenue, Cleveland, Ohio (Cuyahoga County). The site location is depicted on Figure 1 and a site plan showing details of the site is included as Figure 2. A site vicinity sketch is presented in Appendix A. The facility is currently owned by Shell Oil Products Company (Shell), 7777 Washington Village Drive, Suite 100, Dayton, Ohio (Montgomery County, 1-800-762-6628). EMPACO Equipment Corporation, Richfield, Ohio, was contracted by Shell for the excavation and removal of the UST system. The tank closure permit is included in Appendix B.

On 22 March 1996, Parsons ES personnel supervised the excavation and removal of two 10,000-gallon fiberglass USTs, one 8,000 gallon fiberglass UST, 4 dispensers and associated piping. Liquids in the tank bottoms were removed and taken to the Shell Bulk Plant in Cleveland, Ohio for recycling. The tanks were taken to Cuyahoga Regional Sanitary Landfills for disposal. The disposal tickets for the construction debris fiberglass tanks are included in Appendix C. Terry Chambers of the State Fire Marshal Twinsburg, Ohio office was present during closure operations. Approximately 275 cubic yards of soil were removed from the UST pit, and 5 cubic yards were removed from the product line trenches and dispenser islands. The soil excavated from the tank pit and product line trench was placed back into the excavation due to concerns of slope stabilization; the walls could not be sloped back due to the proximity of the city streets. The excavation was then backfilled with clean pea gravel to grade. Figure 2 shows the limit of the excavation and the details of the site.

UNDERGROUND STORAGE TANK SYSTEM DESCRIPTION

The two 10,000-gallon, and one 8,000-gallon fiberglass USTs removed from the excavation were in good condition with no holes visible. All piping associated with the USTs were removed during the excavation. The piping run between the UST and the vents was less than 10 feet, and therefore did not require any sampling of the soil around the vent lines.

Below grade water, natural gas, electric and telephone lines are located within 50 feet of the UST system. A storm sewer and sanitary sewer are also within 50 feet of the former UST system.

METHODOLOGY

On 22 March 1996, a Parsons ES geologist collected soil samples from under both ends of each gasoline UST pit excavation from under each former dispenser location and one sample for every 20 feet of product line piping in accordance with Ohio Administrative Code (OAC) 1301:7-9-12 and the Bureau of Underground Storage Tank Regulations (BUSTR). The soil samples were collected using a stainless steel hand trowel. Sampling equipment was decontaminated between samples with a Liquinox™ and tap water rinse followed by a distilled water and methanol rinse. The soil samples were divided into two halves; one half was placed into a glass jar with a Teflon™ lined lid, put on ice and saved for possible laboratory analysis. The second half was placed into a glass jar, the mouth of which was covered with aluminum foil and then secured with a screw-on lid. After at least ten minutes, the soil headspace was monitored with a photoionization detector (PID) by piercing the aluminum foil with the PID and recording the highest volatile organic compound (VOC) reading. As per the manufacturer's instructions, the PID was calibrated with 100 parts per million (ppm) isobutylene gas prior to screening soil samples.

One soil sample with the highest PID reading from the UST pit, one from the dispenser locations and one from the product line trenches were submitted for laboratory analysis in accordance with guidelines established by BUSTR. The samples were transported on ice under chain-of-custody procedures to Canton Analytical Laboratory (CAL), Plymouth, Michigan. The soil samples were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX, EPA Method 8020) and total petroleum hydrocarbons (TPH) modified for gasoline (EPA Method 8015).

Two stockpile soil samples were submitted for analysis. The stockpile samples were analyzed for BTEX (SW846 Method 8020), and TPH modified for gasoline (EPA Method 8015).

RESULTS

Field Screening of Soils

The soil samples from the UST system excavations were composed primarily of loose silty sand. Results of field screening for VOCs are summarized in Table I. The soil samples from under the south end of the 8,000 gallon UST (sample #TJ-B), the number three dispenser (sample D-3) and the product line run between the number two and number three dispensers (sample P-3B) were submitted for analysis based on the PID results.

Soil Analysis

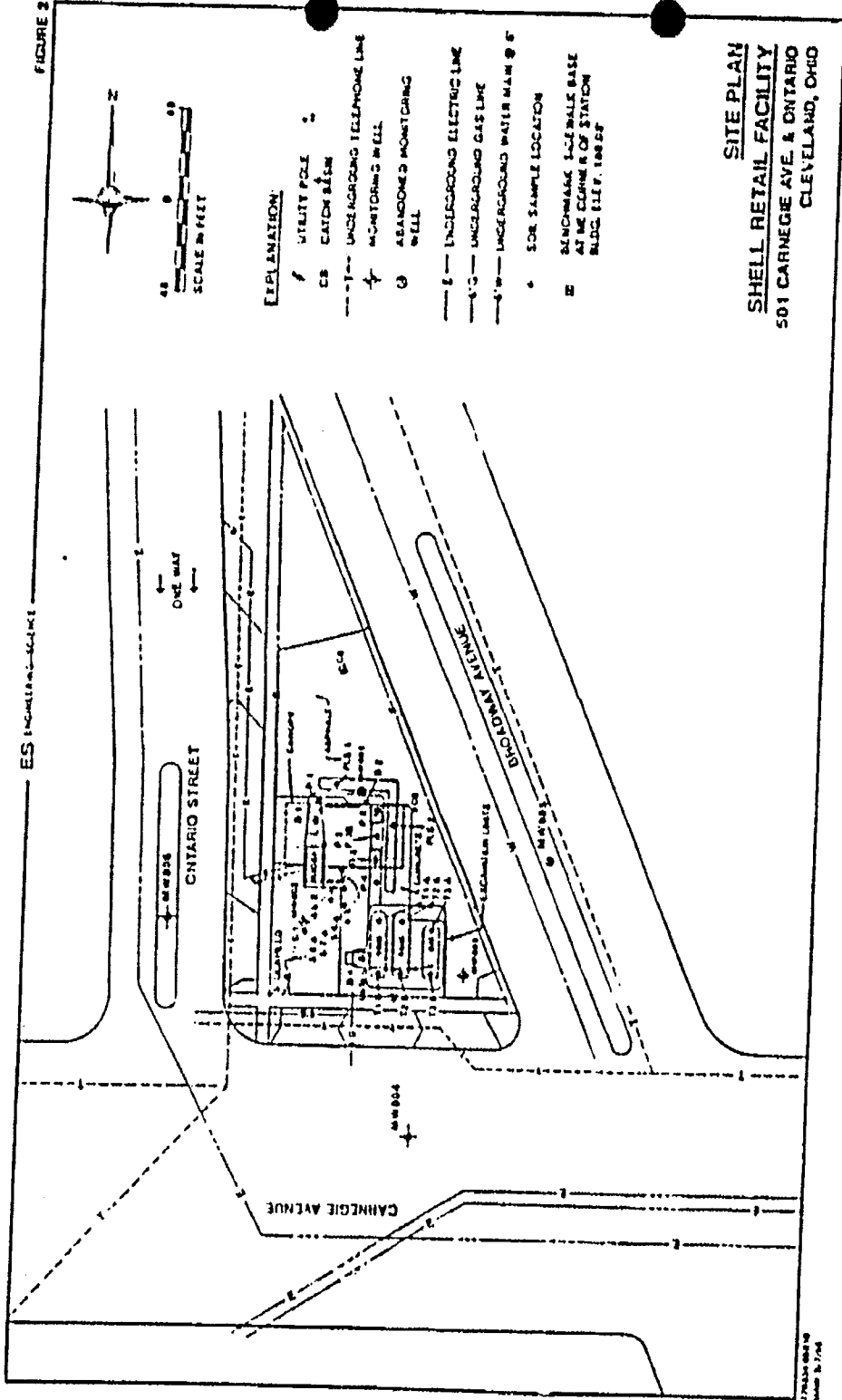
The analytical results for the UST pit sample (T3-B) indicated TPH concentrations of less than 100 micrograms per kilogram (mg/kg), benzene less than 5 µg/kg, toluene and ethylbenzene each less than 10 µg/kg and xylenes less than 30 µg/kg. The analytical results for the dispenser sample (D-3) indicate TPH concentrations at 250 mg/kg, benzene less than 5 µg/kg, toluene 16 µg/kg, ethylbenzene less than 10 µg/kg and xylenes less than 30 µg/kg. Results for product line sample P-3B indicate TPH at 1,800 mg/kg, benzene less than 5 µg/kg, toluene and ethylbenzene each less than 10 µg/kg and xylenes less than 30 µg/kg.

The analytical results for the stockpiled soil sample S-2 indicate TPH concentrations of 73 milligrams per kilogram (mg/kg), benzene 490 µg/kg, toluene 15,000 µg/kg, ethylbenzene 4,300 µg/kg, and xylenes 20,700 µg/kg. The results for sample S-8 indicate TPH concentrations of 33 mg/kg, benzene 97 µg/kg, toluene 1,400 µg/kg, ethylbenzene 750 µg/kg and xylenes 4,000 µg/kg. The analytical results for soil samples are summarized on Table 2 and a copy of the complete laboratory report is included in Appendix D.

SITE FEATURE SCORING SYSTEM (SFSS)

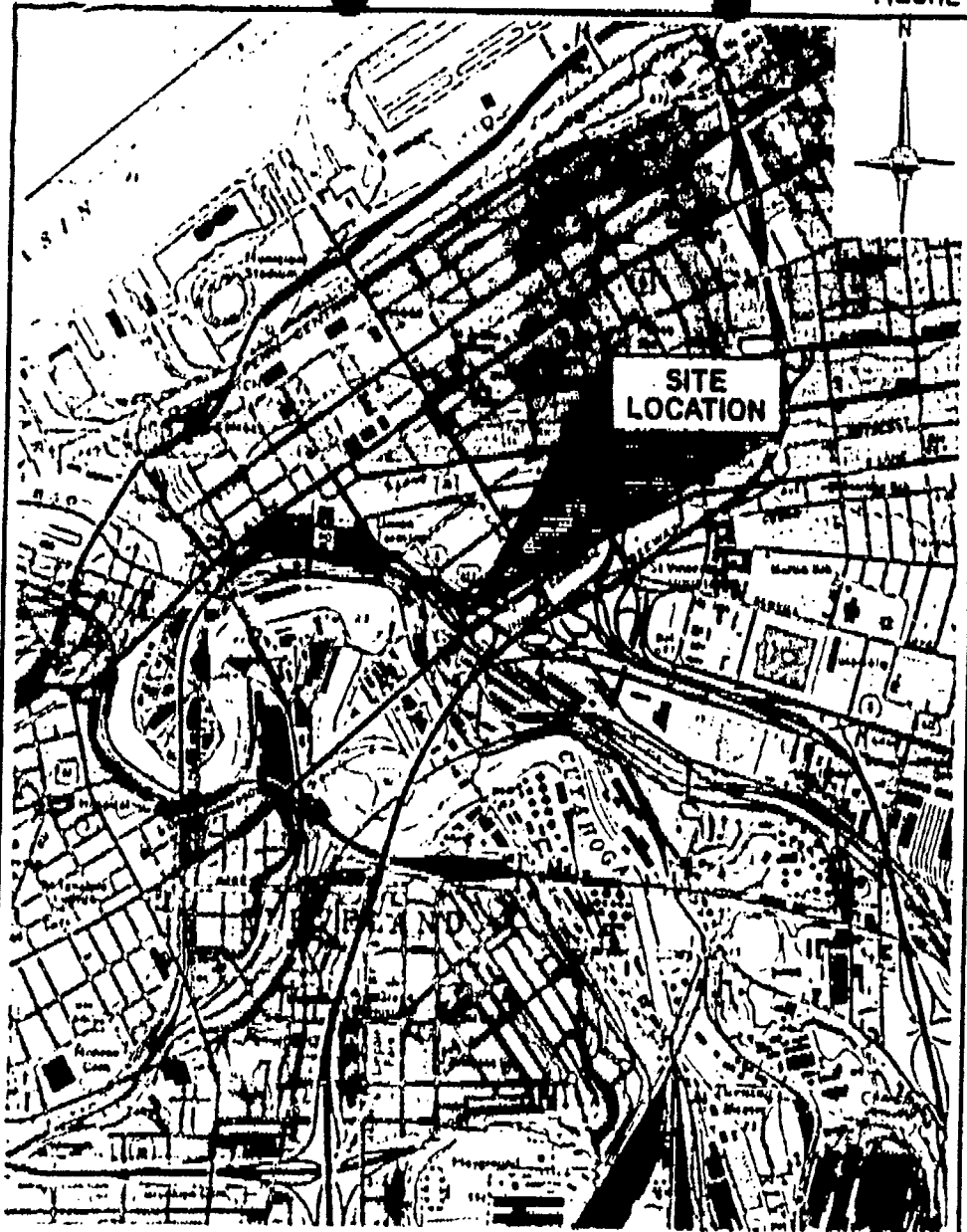
The site was scored using the RUSTR Site Feature Scoring System (SFSS). The total score for the site was 50 points and, therefore, is subject to Category 2 Action Levels. A potable water well search by the Ohio Department of Natural Resources (ODNR) indicated there are three potable water wells within a one-half mile radius of the site. Copies of the well logs are included in Appendix C of the December 1992 Site Check Report. The area is served by public water supply. The site is not located within a sensitive area as designated in OAC 1301:7-9-09. The average depth to water is greater than 30 feet; 10 points. The predominant soil type is silty sand; 15 points. Storm and sanitary sewers are within 50 feet of the former UST locations, water, gas, electric and telephone lines are also located within 50 feet of the former UST locations; 10 points. The SFSS Chart is included in Appendix E.

FIGURE 2



SITE PLAN
SHELL RETAIL FACILITY
501 CARNEGIE AVE. & ONTARIO
CLEVELAND, OHIO

FIGURE 1



1000 0 1000 2000 FEET



SCALE



OHIO

QUADRANGLE LOCATION

SITE LOCATION MAP

SHELL RETAIL FACILITY
501 CARNEGIE AVE. & ONTARIO
CLEVELAND, OHIO

CD41R.09 (CD339)
JGD
12/18/92

ES ENGINEERING-SCIENCE

00001798

TABLE 1
 SOIL HEADSPACE ORGANIC VAPOR ANALYSIS
 SHELL RETAIL FACILITY
 SITE CHECK
 501 CARNEGIE AVENUE AND ONTARIO - CLEVELAND, OHIO

Sample Location ⁽¹⁾	Map Location Number	Date Sampled	Volatile Organic Compounds (ppm) ⁽²⁾
North end of West Tank	T1-A	22 March 96	8.3
South end of West Tank	T1-B	22 March 96	2.2
North end of Middle Tank	T2-A	22 March 96	1.8
South end of Middle Tank	T2-B	22 March 96	3.2
North end of East Tank	T3-A	22 March 96	12.3
South end of East Tank	T3-B	22 March 96	25.7 ⁽³⁾
West Dispenser	D-1	22 March 96	12.7
Northeast Dispenser	D-2	22 March 96	4.5
East Dispenser	D-3	22 March 96	42.9 ⁽³⁾
South Dispenser	D-4	22 March 96	26.1
Product Line	P-1	22 March 96	3.4
Product Line	P-2	22 March 96	7.4
Product Line	P-3	22 March 96	11.6 ⁽³⁾
Product Line	P-4	22 March 96	9.4
Stockpile	S-1	22 March 96	833
Stockpile	S-2	22 March 96	1,607 ⁽³⁾
Stockpile	S-3	22 March 96	121.3
Stockpile	S-4	22 March 96	47.3
Stockpile	S-5	22 March 96	29.8
Stockpile	S-6	22 March 96	260
Stockpile	S-7	22 March 96	768
Stockpile	S-8	22 March 96	970 ⁽³⁾
Stockpile	PLS-1	22 March 96	345
Stockpile	PLS-2	22 March 96	347
Stockpile	P-3	22 March 96	677

⁽¹⁾ Sample locations are shown on Figure 1.

⁽²⁾ As determined with Photovac Microtip™ photoionization detector.

⁽³⁾ Sample submitted for laboratory analysis.

TABLE 2
ANALYTICAL RESULTS OF SOIL SAMPLES
FORMER SHELL RETAIL FACILITY
SITE CHECK
501 CARNEGIE AVENUE AND ONTARIO - CLEVELAND, OHIO

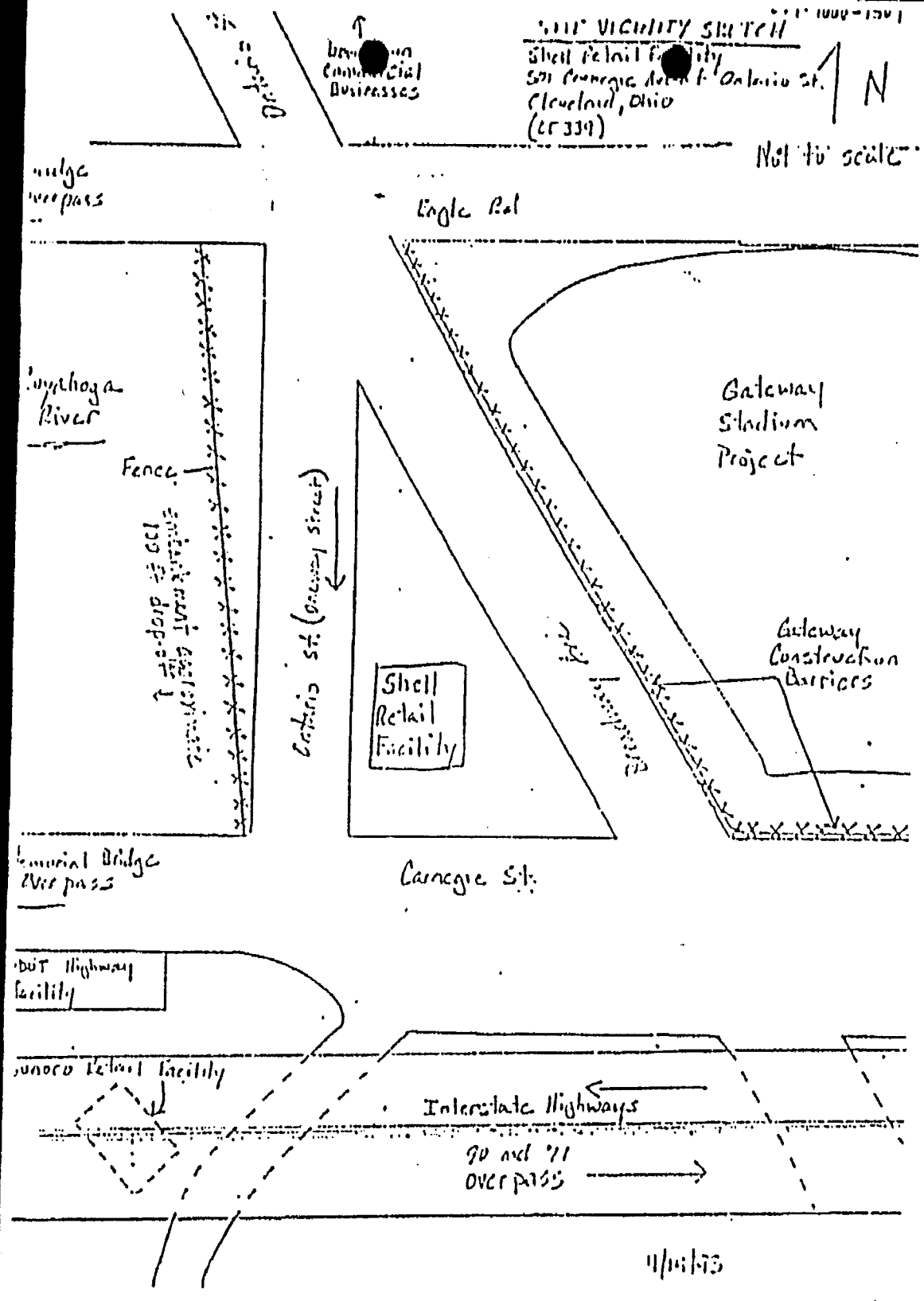
Sample ID ⁽¹⁾	Date Sampled	Analytical Parameter					
		Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Xylenes (µg/kg)	Total BTEX (µg/kg)	TPH (µg/kg)
T-3H	22 March 96	<50	<10	<10	<30	<55	<100
D-3	22 March 96	<50	16	<10	<30	<61	250
P-3H	22 March 96	<50	<10	<10	<30	<55	1,800
S-2	22 March 96	490	15,000	4,300	20,700	40,490	73
S-8	22 March 96	97	1,400	750	4,000	6,183	33
Category 2 Action Levels		170	7,000	10,000	47,000	64,170	300

⁽¹⁾ Sample locations are illustrated on Figure 2.

1000-1501
 VICINITY SKETCH
 Shell Retail Facility
 501 Carnegie Ave. & Ontario St.
 Cleveland, Ohio
 (CR 339)

N

Not to scale



00001801

Site Location: 501 Carnegie at Ontario
Cleveland, Ohio

BUSTR Incident #: 1822883-00
 Date: 03 June 1998

SITE FEATURE SCORING SYSTEM
 OAC 1301:7-9-13(E)(3)(I)

SITE FEATURES	COLUMN A		COLUMN B		COLUMN C		COLUMN D	
	Score 20 If True	Score	Score 15 If True	Score	Score 10 If True	Score	Score 5 If True	Score
1. Distance of UST system from closest drinking water supply well or intake currently in use.	>1000 feet		301-1000 feet	15	<301 feet		Inside of designated sensitive area	
2. Average depth to groundwater	>50 feet		31-50 feet		15-30 feet or unknown	10	<15 feet	
3. Predominant soil type of substratum.	Clay or Shale		Silt or Clayey Sands or Fine Sandstone	15	Silty Sand or Fine Sandstone or Sandstone or Unknown		Clean Sand or Gravel or Conglomerate	
4. Natural and/or manmade conduits or receptors (points).	<8		8-10		11-13	10	>13	
Subtotal:		0		30		20		0

Total Score: 50
 Category: 2

NATURAL AND/OR MANMADE CONDUITS OR RECEPTORS
 OAC 1301:7-9-13(E)(4)(v)

Basements or subsurface foundations within 100 feet of UST system	4 points	<u>0</u>
Storm sewer within 50 feet of UST system	4 points	<u>4</u>
Sanitary sewer within 50 feet of UST system	4 points	<u>4</u>
Septic system leach field within 50 feet of UST system	2 points	<u>0</u>
Water line main within 50 feet of UST system	1 points	<u>1</u>
Natural gas main within 50 feet of UST system	1 points	<u>1</u>
Bedrock area prone to dissolution along joints or fractures (no caves & sinkholes) within 100 feet of UST system	1 points	<u>0</u>
Faults or known fractures within 100 feet of UST system	1 points	<u>0</u>
Buried telephone/television cable main within 50 feet of UST system	1 points	<u>1</u>
Buried electric cable main within 50 feet of UST system	1 points	<u>1</u>
Total Points		<u>12</u>

SFSS Action Levels (ppm)

TOTAL SCORE	Category 1 <31	Category 2 31-50	Category 3 51-70	Category 4 >71
Soil BTEX	.008/4/8/28	.170/7/10/47	.335/9/14/87	.500/12/18/85
Groundwater BTEX	.005/1/.700/10	.005/1/.700/10	.005/1/.700/10	.005/1/.700/10
Soil TPH (8015)	105	300	450	600
Soil TPH (418.1)	380	642	904	1158

00001824

PAKESC1/12/96/Doc:DAK:9

16 December 1996

Shell Oil Products Company



14 SW 22nd Street
Oak Brook, IL 60121-5044

*Certified Mail
Return Receipt Requested*

Mr. Steve Lufkin
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
8895 East Main Street, Post Office Box 687
Reynoldsburg, Ohio 43068-0687

Reference. Second Annual Progress Report/RAP Modification
Shell Retail Facility, WIC #234-1666-1504
501 Carnegie Avenue & Ontario Avenue - Cleveland, Ohio
BUSTR ID #182283-00

Dear Mr. Lufkin:

The following information is provided as an annual progress report of activities at the referenced site since the submittal of the Remedial Action Plan (RAP) in November 1994 and the RAP Modification of 28 July 1995.

Semi-annual groundwater sampling was performed on 30 April 1996 and 2 October 1996. Monitoring wells MW003, MW004 and MW006 were sampled during the first event, and monitoring wells MW003, MW006 and MW007 were sampled during the second event. In April 1996, Oxygen Releasing Compounds (ORC^s) were placed in monitoring wells MW003 and MW006. All samples were submitted for laboratory analysis of BTEX using EPA Method 602. During each sampling event, the depth to water was recorded and a water sample was collected for visual observation from each well at the site. In addition to sampling, the dissolved oxygen (DO) content in all monitoring wells was recorded. The DO content was measured in the field by titration using a Hach field test kit Model OX-2P. A site plan showing the locations of the wells is included as Figure 1. Table 1 lists the depth to groundwater data, Table 2 summarizes the groundwater analytical data, and copies of the laboratory reports are attached as Appendix A. Monitoring wells MW001 and MW002 were destroyed during the gasoline UST system closure activities in March 1996. Monitoring well MW007 was installed in May 1996 to replace MW002 in the area of highest contaminant concentrations. Also, the integrity of monitoring well MW004 (located in the traffic right-of-way) has been undetermined. The manhole and well casing of MW004 have been destroyed.

Sampling protocol was observed as prescribed by the respective laboratory methodology. Monitoring wells were bailed of three volumes of water or until dry with clean PVC bailers. Samples were collected with clean, disposable polypropylene bailers and placed in two clean 40 milliliter vials. Samples were then placed on ice in a cooler and transported under chain-of-custody procedures to Canton Analytical Laboratory for BTEX analysis. Well development water was drummed and left on site for transportation to the Shell terminal for disposal.

The total concentrations of BTEX in groundwater remain at levels acceptable for a RAP by monitoring only (less than 11,705 parts per billion). Phase-separated hydrocarbons were not detected in any of the monitoring wells. Soil boring sampling data for monitoring well MW007 is presented in Table 3. Analytical results indicate soil concentrations have greatly reduced since the soil boring sampling of monitoring well MW002 in November 1992.

CERTIFIED

P 448 251 107

MAIL

00000206

Mr. Steve Lewis
BUSTR
16 December 1996
Page 1 - Dec/DAK-9

Based on this information, the Shell Oil Products Company (Shell) will continue the RAP of semi-annually groundwater sampling with ORC[®] sock usage in two monitoring wells (MW003 and MW007). Shell plans to evaluate the data collected from this site and prepare a Risk Assessment Evaluation Report. Groundwater sampling events are scheduled for April 1997 and October 1997, and an Annual Progress Report will be submitted following the October sampling event.

If you have any questions or require additional information, please do not hesitate to contact either Bill Adams of Parsons Engineering Science at (216) 486-9005, or me at (630) 572-5891.

Sincerely,


Steve Lewis
Environmental Engineer

/dec
cc: Bill Adams, Parsons ES (w/o attachments)

00000207

TABLE 1
GROUNDWATER ELEVATION DATA⁽¹⁾
SHELL RETAIL FACILITY
501 CARNEGIE AVENUE AND ONTARIO
CLEVELAND, OHIO

Monitoring ⁽²⁾ Well	Reference ⁽³⁾ Elevation	Total Depth (feet)	Depth to Water (feet)	Relative Fluid Elevation (feet)
MW001*	99.31	31.80	--	--
MW002*	99.11	32.70	--	--
MW003	99.83	34.00	25.85	73.98
MW004*	100.03	34.50	--	--
MW006	99.95	36.10	27.53	72.42
MW007	NA	33.00	26.09	NA

⁽¹⁾ Water level measurements taken on 2 October 1996.

⁽²⁾ Well locations are provided on Figure 1.

⁽³⁾ Reference datum is relative to an arbitrary benchmark assignment of 100 feet to the northeast corner of the kiosk.

NA - Data not available.

* - Well was not sampled (abandoned).

NOTE:

MW005 was inadvertently abandoned by workers from the City of Cleveland, while doing cement repair work on the median strip dividers.

MW002 was destroyed during site renovation.

MW007 was installed to replace MW002.

MW004 was abandoned due to it being undermined by normal road travel.

**TABLE 1
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
SHELL RETAIL FACILITY - 501 CARNegie AVENUE AND ONTARIO - CLEVELAND, OHIO**

Location ⁽¹⁾	Date Sampled	Analytical Parameters					Dissolved Oxygen (DO) (mg/L)
		Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Total BTEX ⁽²⁾ (µg/L)	
MW001 (abandoned)	02 Dec 92	<1	<1	<1	<1	<5	■
	27 Apr 94	22	<1	<1	<1	<25	■
	01 Mar 95	4.3	2.5	<1	<1	<10.8	■
	10 May 95	<1	<1	<1	<1	<6	■
	25 Aug 95	2.4	<1	<1	<1	<7.4	1.2
	10 Nov 95	<1	<1	<1	<1	<6	■
	30 Apr 96 ⁽³⁾	-	-	-	-	-	■
MW002 (abandoned)	02 Dec 92	5	2	48	174	229	■
	27 Apr 94	1,400	4	88	200	1,692	■
	01 Mar 95	2,800	4.1	170	370	3,344.1	■
	10 May 95	2,800	1.1	37	120	2,958.1	■
	25 Aug 95	5,000	<50	70	130	<5,250	1.6
	10 Nov 95	1,700	4.1	<1	<1	<1708.1	2.0
	30 Apr 96	-	-	-	-	-	■
MW003	02 Dec 92	20	23	4	23	70	■
	27 Apr 94	330	6	<1	5	<342	■
	01 Mar 95	280	170	29	54	533	■
	10 May 95	130	170	23	50	373	■
	25 Aug 95 ⁽⁴⁾	94	29	11	14	148	1.8
	10 Nov 95	<1	<1	<1	<1	<6	4.0
	30 Apr 96	<1	<1	<1	<1	<6	2.8
02 Oct 96	3,900	5,400	440	1,700	11,440	16.0	
MW004 (abandoned)	15 Mar 93	<1	<1	<1	<1	<6	■
	27 Apr 94	4	<1	<1	2	<8	■
	01 Mar 95	<1	<1	<1	<1	<6	■
	10 May 95	<1	<1	<1	<1	<6	■
	10 May 95	<1	<1	<1	<1	<6	2.4
	25 Aug 95	<1	<1	<1	<1	<6	1.2
	10 Nov 95	<1	<1	<1	<1	<6	2.0
30 Apr 96 ⁽⁵⁾	<1	<1	<1	<1	<6	■	
MW005 (abandoned)	15 Mar 93	15	5	<1	<1	<24	■
	27 Apr 94 ⁽⁶⁾	40	5	<1	<1	<44	■
	01 Mar 95	-	-	-	-	-	■
MW006	15 Mar 93	1	32	1	<8	<42	■
	27 Apr 94	4	<1	2	10	<17	■
	01 Mar 95	2,900	<1	<1	<1	<2,905	■
	10 May 95	2,200	<1	<1	<1	<2,203	■
	25 Aug 95	930	<10	<10	<30	<980	3.2
	10 Nov 95	<1	<1	<1	<1	<27	1.4
	30 Apr 96 ⁽⁷⁾	250	<1	<1	<1	<255	6.0
02 Oct 96	670	<1	1.3	<1	<675.3	14.0	
MW007	09 May 96	1,500	6.4	9.1	55	1570.5	■
	02 Oct 96	5,400	420	480	1,100	7,400	0.0

⁽¹⁾ Sample locations are shown on Figure 1.

⁽²⁾ Monitor well (MW005) was inadvertently abandoned by workers from the City of Cleveland while doing cement repair work on the median strip dividers. Monitoring wells MW001 and MW002 were destroyed during UST closure activities in March 1996.

⁽³⁾ Oxygen Releasing Compounds inserted into the wells as per the 28 July 1995 RAP modification.

⁽⁴⁾ Monitoring well (MW004) is abandoned. The integrity of the well has been undermined by normal road travel.

- - Not sampled.

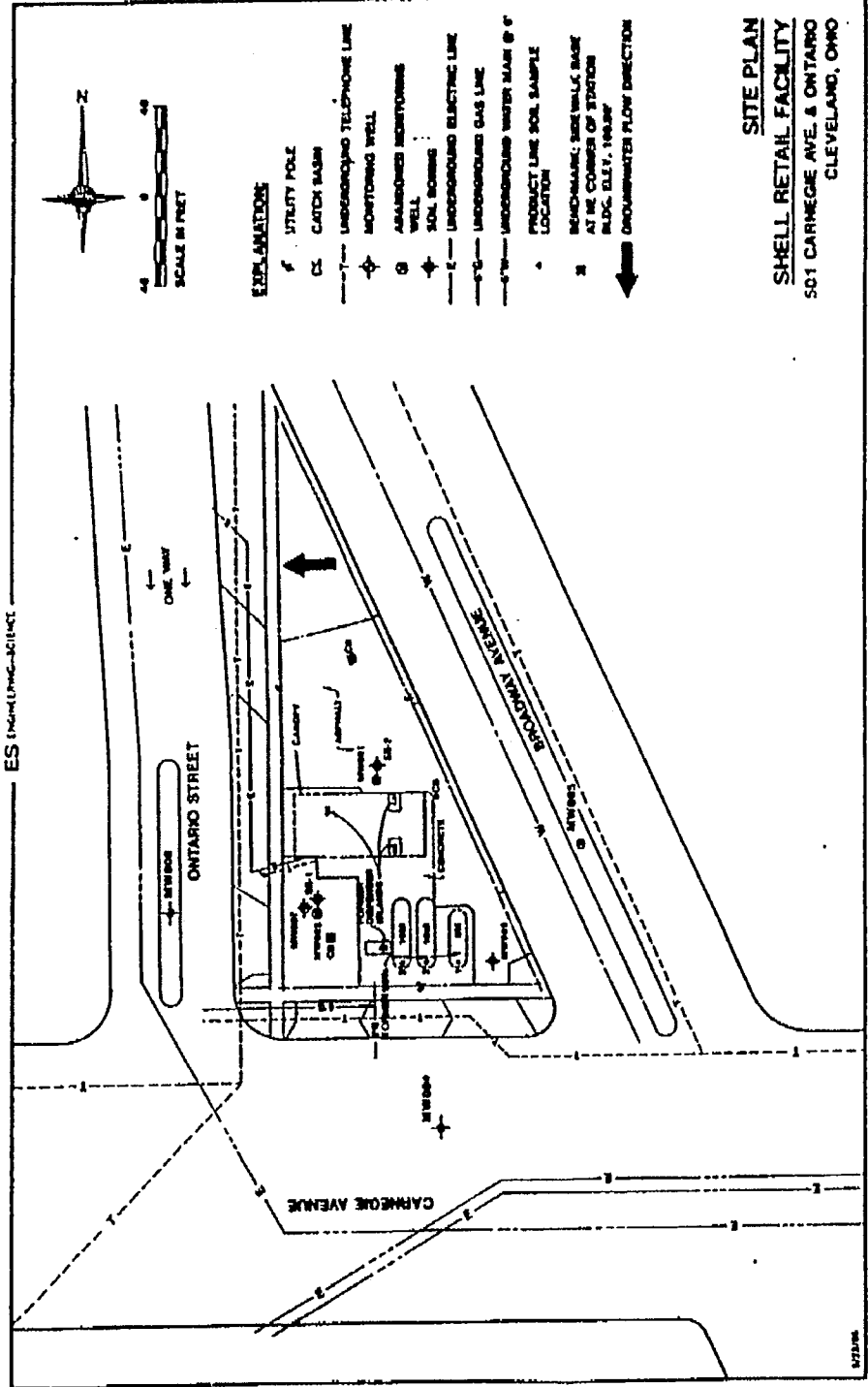
■ Data not collected

00000209

TABLE 3
ANALYTICAL RESULTS OF SOIL SAMPLES
SHELL RETAIL FACILITY
501 CARNEGIE AVENUE AND ONTARIO - CLEVELAND, OHIO

Analytical Parameters								
Location ⁽¹⁾	Interval Feet	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Benzene (µg/L)	Ethyl-Xylenes (µg/L)	Total HTEX (µg/L)	TPH (mg/kg)
PL-3	-	07 Nov 92	18	130	15	186	349	<0.05
MW001	27 - 29	23 Nov 92	<2	<2	<2	<6	<12	<0.005
MW002	25 - 27	24 Nov 92	<1200	<1200	6900	11,600	<20,900	260
MW003	21 - 23	24 Nov 92	<500	1500	3400	11,900	<19,300	100
MW004	28 - 30	11 Mar 93	<2	6	<2	3	<13	<10
MW005	24 - 26	12 Mar 93	<5	100	<5	<5	<115	<10
MW006	24 - 26	12 Mar 93	<5	<5	10	260	<280	19
	26 - 28	12 Mar 93	<2	<2	<2	3	<9	60
MW007	24 - 26	09 May 96	18	<10	10	39	<77	3.8
Category 2 Action Level			170	7000	10,000	47,000	64,170	300

FIGURE 1



00000111

APPENDIX A
LABORATORY ANALYTICAL DATA

PARSCL/1394/Dw/DAK-9

909001-12

PARESC/1997D/W/CLAS 9

17 November 1997

Shell Oil Products Company



1418 W 22nd Street
Oak Brook IL 60521-2045

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

18 22 963 - 00

Mr. Brian Peterman
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
6606 Tussing Road
Post Office Box 687
Reynoldsburg, Ohio 43068-0687

Reference: Third Annual Progress Report
Former Shell Retail Facility, WIC #234-1666-1504
501 Carnegie Avenue & Ontario Avenue - Cleveland, Ohio
BUSTR-ID #182283-00

97 NOV 21 A 11:11

Dear Mr. Peterman:

The following information is provided as an annual progress report of activities at the referenced site following the submittal of the Remedial Action Plan (RAP) in November 1994, First Annual Progress Report (30 November 1995) and Second Annual Progress Report (16 December 1996).


Semi-annual groundwater sampling was performed on 21 February 1997 and 2 October 1997. Monitoring wells MW003, MW006 and MW007 were sampled during each event. Oxygen Releasing Compounds (ORC[®]) were replaced in monitoring well MW003 in October 1997. All groundwater samples were submitted for laboratory analysis of BTEX using EPA Method 602. During each sampling event, the depth to water was recorded and a water sample was collected for visual observation from each well at the site. In addition to sampling, the dissolved oxygen (DO) content in all monitoring wells was recorded. The DO content was measured in the field by titration using a Hach field test kit Model OX-2P. A site plan showing the locations of the wells is included as Figure 1. Table 1 summarizes the groundwater analytical data, and copies of the laboratory reports are attached as Appendix A.

Sampling protocol was observed as prescribed by the respective laboratory methodology. Monitoring wells were bailed of three volumes of water or until dry with clean PVC bailers. Samples were collected with clean, disposable polypropylene bailers and placed in two clean 40 milliliter vials. Samples were then placed on ice in a cooler and transported under chain-of-custody procedures to Canton Analytical Lab in April and to Great Lakes Analytical in October for BTEX analysis. Well development water was drummed and left on site for transportation to the Shell terminal for disposal.

Based on this information, the Shell Oil Products Company (Shell) will continue with the groundwater sampling of monitoring wells MW003, MW006 and MW007 semi-annually. ORC[®] will be added to MW003 as needed based on dissolved oxygen readings. Groundwater sampling is planned for April and October 1998, an Annual Progress Report will be submitted following the October 1998 sampling event.

If you have any questions or require additional information, please do not hesitate to contact either Bill Adams of Parsons Engineering Science at (216) 486-9005, or me at (630) 572-5884.

Sincerely,


Stephen C. Lewis
Environmental Engineer

SCL/tee
cc: Bill Adams, Parsons ES (w/o attachments)

00000189

FIGURE 1

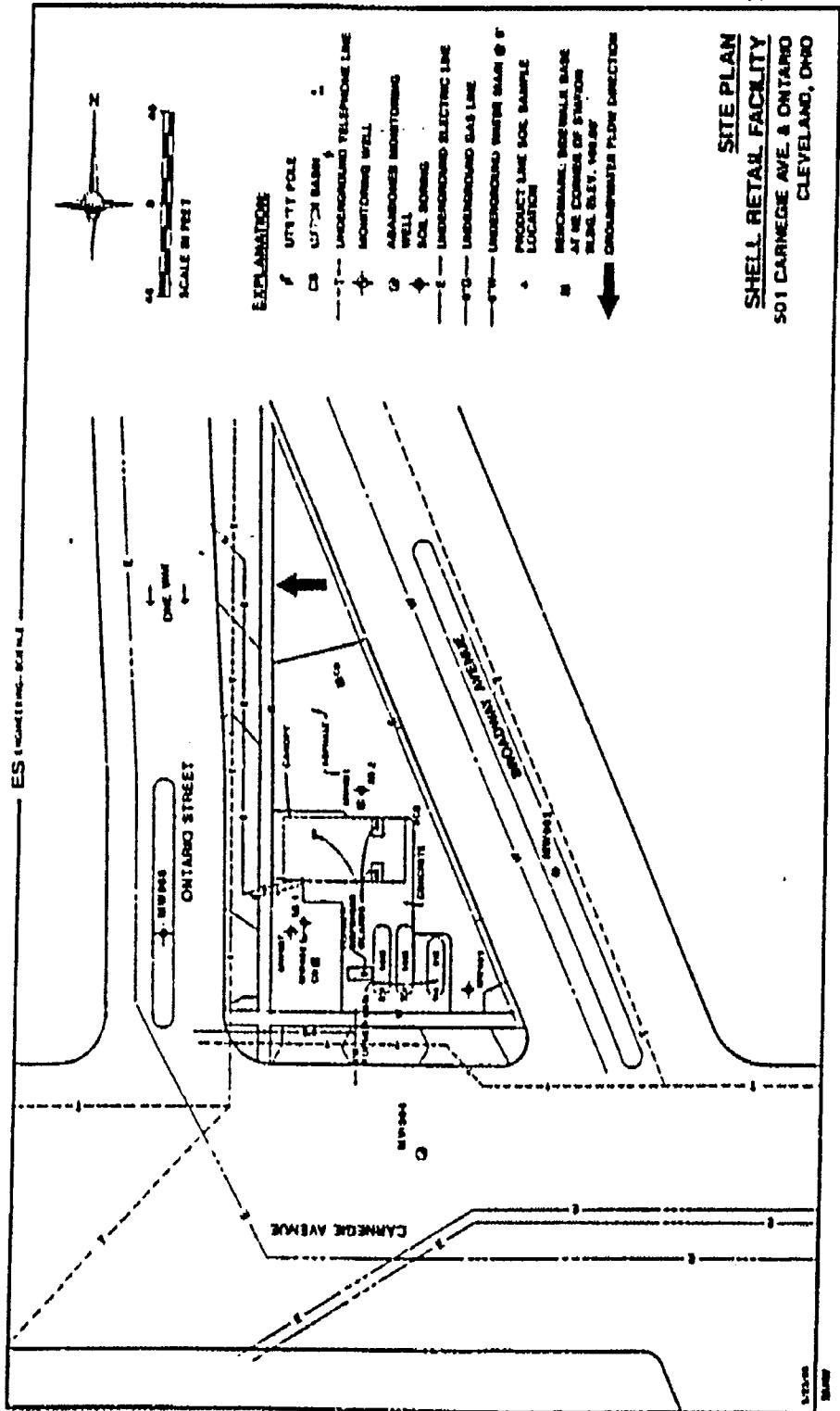


TABLE I
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
FORMER SHELL RETAIL FACILITY - 501 CARNEGIE AVENUE AND ONTARIO - CLEVELAND, OHIO

Location ⁽¹⁾	Date Sampled	Analytical Parameters					Total HTEX ⁽²⁾ (µg/L)	Dissolved Oxygen (DO) (mg/L)
		Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)			
MWW01 (abandoned) ⁽³⁾	02 Dec 92	<1	<1	<1	<1	<1	<1	—
	27 Apr 94	22	<1	<1	<1	<1	<1	—
	01 Mar 95	4.3	2.5	<1	<1	<1	<10.8	—
	10 May 95	<1	<1	<1	<1	<1	<1	—
	25 Aug 95	2.4	<1	<1	<1	<1	<7.4	1.2
	10 Nov 95	<1	<1	<1	<1	<1	<1	—
MWW02 (abandoned) ⁽³⁾	02 Dec 92	3	2	48	174	229	—	—
	27 Apr 94	1,400	4	88	200	1,692	—	—
	01 Mar 95	2,800	4.1	170	370	3,344.1	—	—
	10 May 95	2,800	1.1	37	120	2918.1	—	—
	25 Aug 95	1,000	<50	70	130	<5,250	1.6	—
	10 Nov 95	1,700	4.1	<1	<1	<1708.1	2.0	—
MWW03	02 Dec 92	70	23	4	23	70	—	—
	27 Apr 94	330	6	<1	5	<342	—	—
	01 Mar 95	280	170	29	54	533	—	—
	10 May 95	130	170	23	50	373	—	—
	25 Aug 95	94	29	11	14	148	1.8	—
	10 Nov 95	<1	<1	<1	<1	<1	4.0	—
	30 Apr 96	<1	<1	<1	<1	<1	2.8	—
	02 Oct 96	1,900	3,400	440	1,700	11,440	16.0	—
	21 Feb 97	330	13	2.8	6.6	352.4	0.4	—
	02 Oct 97	94	8.7	1.5	8.8	113.0	2.0	—
MWW04 (abandoned) ⁽⁴⁾	15 Mar 93	<1	<1	<1	<1	<1	—	—
	27 Apr 94	4	<1	<1	2	<4	—	—
	01 Mar 95	<1	<1	<1	<1	<1	—	—
	10 May 95	<1	<1	<1	<1	<1	—	—
	10 May 95	<1	<1	<1	<1	<1	—	—
	25 Aug 95	<1	<1	<1	<1	<1	2.4	—
	10 Nov 95	<1	<1	<1	<1	<1	1.2	—
	30 Apr 96	<1	<1	<1	<1	<1	2.0	—
MWW05 (abandoned) ⁽⁴⁾	15 Mar 93	15	5	<1	<1	<1	—	—
	27 Apr 94	40	5	<1	<1	<44	—	—
MWW06	15 Mar 93	1	32	1	<1	<42	—	—
	27 Apr 94	4	<1	2	10	<17	—	—
	01 Mar 95	2,900	<1	<1	<1	<2,903	—	—
	10 May 95	2,200	<1	<1	<1	<2,203	—	—
	25 Aug 95	930	<10	<10	<30	<1,80	3.2	—
	10 Nov 95	<1	<1	<1	<1	<1	1.4	—
	30 Apr 96	250	<1	<1	<1	<253	6.0	—
	02 Oct 96	670	<1	1.3	<1	<673.3	14.0	—
	21 Feb 97	560	<1	<1	<1	<563	0.4	—
	02 Oct 97	3,600	3.8	4.2	1.0	3,609	1.2	—
MWW07	09 May 96	1,300	6.4	9.1	55	1,370.5	—	—
	02 Oct 96	3,400	420	480	1,100	7,400	0.0	—
	21 Feb 97	3,000	640	110	110	3,360	0.8	—
	02 Oct 97	15,000	370	140	120	15,530	0.4	—

(1) Sample locations are shown on Figure 1

(2) Monitoring wells MWW01 and MWW02 were destroyed during UST closure activities in March 1996

(3) Oxygen Releasing Compounds inserted into the wells as per the 28 July 1995 RAP modification

(4) Monitoring wells MWW04 and MWW05 were inadvertently abandoned during road repair work.

— Data not collected

APPENDIX A
LABORATORY ANALYTICAL DATA

PARB3C7/1197Dow/MCA3-RSM

00000 192

152-2553-00

98 NOV 30 11 12

EQUILON

CP

ENTERPRISES LLC
Well & Tracer Logging Services

P.O. Box 509
Beacon, NY 12508

PARCEL 10963150000000000000

18 November 1998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Charles Zepp
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
6606 Tussing Road
Post Office Box 687
Reynoldsburg, Ohio 43068-0687

Reference: Annual Progress Report
Former Shell Retail Facility, WIC #234-1666-1504
501 Carnegie Avenue & Ontario Avenue - Cleveland, Ohio
BUSTR ID #182283-00

Dear Mr. Zepp:

The following information is provided as an annual progress report of activities at the referenced site following the submittal of the Remedial Action Plan (RAP) in November 1994, and subsequent Annual Progress Reports submitted on 30 November 1995, 16 December 1996 and 17 November 1997.

Groundwater sampling was performed on 17 April 1998 and 14 September 1998. Monitoring wells MW003, MW006, and MW007 were sampled during each event. Oxygen Releasing Compound (ORC[®]) was replaced in monitoring well MW003 in April 1998. All groundwater samples were submitted for laboratory analysis of BTEX using EPA Method 602. During each sampling event, the depth to water was recorded and a water sample was collected for visual observation from each well at the site. In addition to sampling, the dissolved oxygen (DO) content in the monitoring wells was recorded. The DO content was measured in the field by titration using a Hach field test kit Model OX-2P. A site plan showing the locations of the wells is included as Figure 1. Table 1 summarizes the groundwater analytical data, and copies of the laboratory reports are attached as Appendix A. Table 2 summarizes the depth to groundwater data.

Sampling protocol was performed as prescribed by the respective laboratory methodology. Monitoring wells were purged using a peristaltic pump and disposable suction tubing. The purge rate did not exceed 100-milliliters per minute. Two pump and tubing volumes of ground water was removed from the monitoring wells. Samples were collected with clean, disposable polypropylene bailers and placed in two clean 40-milliliter vials. Samples were then placed on ice in a cooler and transported under chain-of-custody procedures to Great Lakes Analytical in April and to Southern Petroleum Laboratories in September for BTEX analysis.

Due to the benzene concentration levels exceeding maximum contaminant levels in monitoring wells MW003, MW006, and MW007, Equilon Enterprises, LLC will continue the semi-annual groundwater sampling program. ORC[®] will be added to MW003 as needed based on dissolved oxygen readings. Groundwater sampling is planned for April and October 1999, an Annual Progress Report will be submitted following the October 1999 sampling event.

00000240

Mr. Charles Zepp
501 CARNEGIE AVENUE AND ONTARIO AVENUE
18 November 1998
Page 2

If you have any questions or require additional information, please do not hesitate to contact me at (914) 838-7477.

Very truly yours,
EQUILON ENTERPRISES LLC


David B. Weeks
Senior Environmental Engineer

DBWjam

cc: Bill Adams - Parsons ES, (w/o attachments)

PARSONS ENVIRONMENTAL

TABLE I
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
FORMER SHELL RETAIL FACILITY - 501 CARNEGIE AVENUE AND ONTARIO - CLEVELAND, OHIO

Location ⁽¹⁾	Date Sampled	Analytical Parameters					Total HICX ⁽²⁾ (ug/L)	Dissolved Oxygen (DO) (mg/L)
		Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)			
MWW01 (abandoned) ⁽³⁾	02 Dec 92	<1	<1	<1	<2		<3	—
	27 Apr 94	22	<1	<1	<1		<23	—
	01 Mar 95	4.3	2.5	<1	<3		<10.8	—
	10 May 95	<1	<1	<1	<3		<6	—
	23 Aug 95	2.4	<1	<1	<3		<7.4	1.2
	10 Nov 95	<1	<1	<1	<3		<6	—
MWW02 (abandoned) ⁽³⁾	02 Dec 92	3	2	48	174		229	—
	27 Apr 94	1,400	4	88	200		1,692	—
	01 Mar 95	2,800	4.1	170	370		3,344.1	—
	10 May 95	2,800	1.1	37	120		2938.1	—
	23 Aug 95 ⁽⁴⁾	3,000	<50	70	130		<3,250	1.6
	10 Nov 95	1,700	4.1	<1	<3		<1708.1	2.0
MWW03	02 Dec 92	20	23	4	23		70	—
	27 Apr 94	330	6	<1	3		<342	—
	01 Mar 95	280	170	29	54		513	—
	10 May 95	130	170	23	50		373	—
	23 Aug 95 ⁽⁴⁾	94	29	11	14		148	1.8
	10 Nov 95	<1	<1	<1	<3		<6	4.0
	30 Apr 96	<1	<1	<1	<3		<6	2.8
	02 Oct 96	3,900	3,400	440	1,700		11,440	16.0
	21 Feb 97	330	13	2.8	6.6		352.4	0.4
	02 Oct 97	94	8.7	1.3	8.8		113.0	2.0
	17 Apr 98 ⁽⁵⁾	<0.50	<0.50	<0.50	<2.80		<4.3	—
14 Sep 98	19	<1	<1	<1		<22	12.2	
Maximum Contaminant Levels (MCL's)		3	1,000	700	10,000		11,705	

⁽¹⁾ Sample locations are shown on Figure 1

⁽²⁾ Monitoring wells MWW01 and MWW02 were destroyed during UST closure activities in March 1996.

⁽³⁾ Oxygen Releasing Compounds inserted into the wells as per the 28 July 1995 RAP modification

⁽⁴⁾ Monitoring wells MWW04 and MWW05 were inadvertently abandoned during road repair work.

⁽⁵⁾ Data not collected

TABLE 1 (continued)
ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
FORMER SHELL RETAIL FACILITY - 501 CARNEGIE AVENUE AND ONTARIO - CLEVELAND, OHIO

Location ⁽¹⁾	Date Sampled	Analytical Parameters					Dissolved Oxygen (DO) (MCL)	
		Benzene (UG/L)	Toluene (UG/L)	Ethylbenzene (UG/L)	Xylenes (UG/L)	Total HTEX ⁽²⁾ (UG/L)		
MW004 (abandoned) ⁽³⁾	15 Mar 91	<1	<1	<1	<3	<6	∞	
	27 Apr 94	4	<1	<1	2	<8	∞	
	01 Mar 95	<1	<1	<1	<3	<6	∞	
	10 May 95	<1	<1	<1	<3	<6	∞	
	10 May 95	<1	<1	<1	<3	<6	∞	
	23 Aug 95	<1	<1	<1	<3	<6	2.4	
	10 Nov 95	<1	<1	<1	<3	<6	1.2	
	10 Apr 96	<1	<1	<1	<3	<6	2.0	
MW005 (abandoned) ⁽⁴⁾	15 Mar 91	15	5	<1	<3	<24	∞	
	27 Apr 94	40	5	<1	<2	<44	∞	
MW006	15 Mar 91	1	12	1	<8	<42	∞	
	27 Apr 94	4	<1	2	10	<17	∞	
	01 Mar 95	2,900	<1	<1	<3	<2,905	∞	
	10 May 95	2,200	<1	<1	<3	<2,205	∞	
	23 Aug 95	930	<10	<10	<30	<980	3.2	
	10 Nov 95	<1	<1	<1	<3	<27	1.4	
	30 Apr 96	250	<1	<1	<3	<255	6.0	
	02 Oct 96	670	<1	1.3	<3	<675.3	14.0	
	21 Feb 97	560	<1	<1	<3	<565	0.4	
	02 Oct 97	5,600	3.8	4.2	1.0	5,609	1.2	
	17 Apr 98	2,000	12.0	<0.5	<0.5	<2,013	∞	
	14 Sep 98	2,500	<5	<5	<5	<2,515	0.6	
	MW007	09 May 96	1,500	6.4	9.1	53	1570.3	∞
		02 Oct 96	5,400	420	480	1,100	7,400	0.0
21 Feb 97		3,000	640	110	110	3,860	0.8	
02 Oct 97		15,000	270	140	120	15,530	0.4	
17 Apr 98		21,000	30	270	77	21,377	∞	
14 Sep 98		17,000	<100	1,600	2,100	20,800	0.4	
Maximum Contaminant Levels (MCL's)		5	1,000	700	10,000	11,705		

⁽¹⁾ Sample locations are shown on Figure 1

⁽²⁾ Monitoring wells MW001 and MW002 were destroyed during UST closure activities in March 1996

⁽³⁾ Oxygen Releasing Compounds inserted into the wells as per the 28 July 1995 RAP modification.

⁽⁴⁾ Monitoring wells MW004 and MW005 were inadvertently abandoned during road repair work.

∞ Data not collected

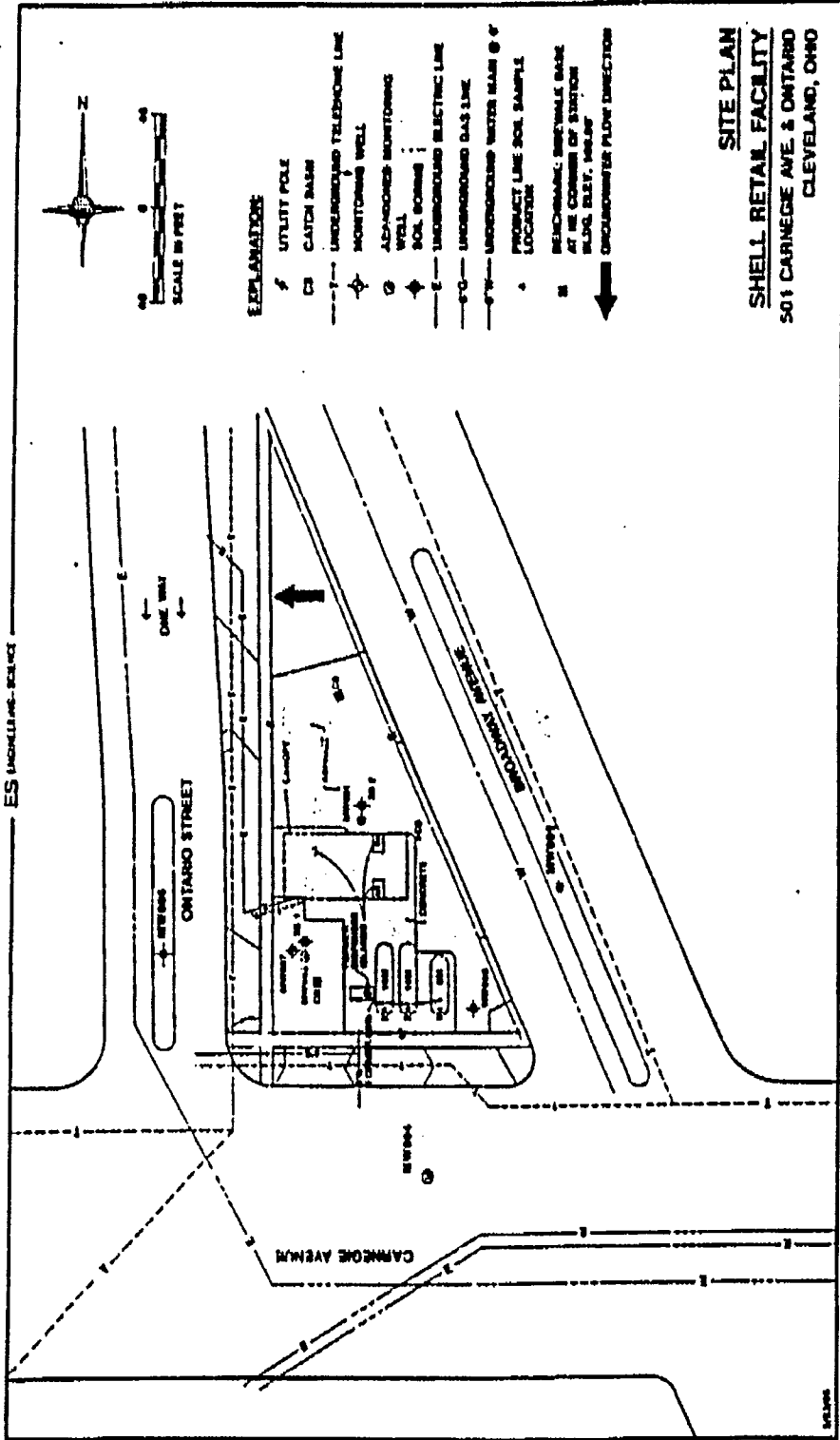
**TABLE 2
DEPTH TO FLUID MEASUREMENTS**

Shell Service Station - WIC# 234-1666-1304
301 Carnegie & Ontario
Cleveland, Ohio

Well Number	Sample Date	Total Well Depth (ft)	Depth to Fluid (ft)	Depth to Water (ft)	LNAPI Thickness (ft)	Relative Elevation ⁽¹⁾ (ft)	Relative Groundwater Elevation (ft)
MW001	01-Mar-95	32	26.58	26.58	0.00	99.31	72.73
MW001	10-Nov-95	32	26.44	26.44	0.00	99.31	72.87
MW002	01-Mar-95	33	26.84	26.84	0.00	99.11	72.27
MW002	10-Nov-95	33	26.99	26.99	0.00	99.11	72.12
MW003	01-Mar-95	34	26.73	26.73	0.00	99.11	72.38
MW003	10-Nov-95	34	26.62	26.62	0.00	99.83	73.21
MW003	30-Apr-96	34	27.65	27.65	0.00	99.83	72.18
MW003	02-Oct-96	34	25.85	25.85	0.00	99.83	73.98
MW003	21-Feb-97	34	26.74	26.74	0.00	99.83	73.09
MW003	17-Apr-98	34	22.23	22.23	0.00	99.83	77.60
MW003	14-Sep-98	34	26.83	26.83	0.00	99.83	73.00
MW003	02-Oct-98	34	26.59	26.59	0.00	99.83	73.24
MW004	01-Mar-95	35	27.22	27.22	0.00	99.83	72.61
MW004	10-Nov-95	35	27.02	27.02	0.00	100.03	73.01
MW004	30-Apr-96	35	26.61	26.61	0.00	100.03	73.42
MW006	01-Mar-95	36	28.74	28.74	0.00	99.95	71.21
MW006	10-Nov-95	36	28.54	28.54	0.00	99.95	71.41
MW006	30-Apr-96	36	29.78	29.78	0.00	99.95	70.17
MW006	02-Oct-96	36	27.53	27.53	0.00	99.95	72.42
MW006	21-Mar-97	36	28.14	28.14	0.00	99.95	71.81
MW006	02-Oct-97	36	27.03	27.03	0.00	99.95	72.92
MW006	17-Apr-98	36	28.90	28.90	0.00	99.95	71.05
MW006	14-Sep-98	36	26.33	26.33	0.00	99.95	73.62
MW007	02-Oct-96	33	26.09	26.09	0.00	99.11	73.02
MW007	21-Feb-97	33	26.35	26.35	0.00	99.11	72.76
MW007	02-Oct-97	33	26.69	26.69	0.00	99.11	72.42
MW007	17-Apr-98	33	27.60	27.60	0.07	99.11	71.51
MW007	14-Sep-98	33	27.07	27.07	0.00	99.11	72.04

⁽¹⁾ Elevations are relative to the site benchmark located on the south corner of the station building foundation, arbitrarily assigned an elevation of 100.00 feet for reference purposes.

00000244



SITE PLAN
SHELL RETAIL FACILITY
501 CARNEGIE AVE. & ONTARIO
CLEVELAND, OHIO

APPENDIX A
LABORATORY ANALYTICAL DATA

PARESC/119/JAMWGA1-46B.DOC

00000241

1822883-00



December 17, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

2-033-054-712

Mr. Charles Zepp
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
6606 Tussing Road
Post Office Box 687
Reynoldsburg, Ohio 43068-0687

Reference: Annual Progress Report
Former Shell Retail Facility, SAP #129562
501 Carnegie Avenue & Ontario Avenue - Cleveland, Ohio
BUSTR ID #1822883-00

59 DEC 23 PM 11:22

Dear Mr. Zepp:

The following information is provided as an annual progress report of activities at the referenced site following the submittal of the Remedial Action Plan (RAP) in November 1994, and subsequent Annual Progress Reports submitted on 30 November 1995, 16 December 1996, 17 November 1997 and 18 November 1998.

Groundwater sampling was performed on 18 February 1999 and 14 September 1999. Monitoring wells MW003, MW006, and MW007 were sampled during each event. All groundwater samples were submitted for laboratory analysis of BTEX using EPA Method 602. During each sampling event, the depth to water was recorded and a water sample was collected for visual observation from each well at the site. In addition to sampling, the dissolved oxygen (DO) content in the monitoring wells was recorded. The DO content was measured in the field by titration using a Hach field test kit Model OX-2P. A site plan showing the locations of the wells is included as Figure 1. Table 1 summarizes the groundwater analytical data, and copies of the laboratory reports are attached as Appendix A. Table 2 summarizes the depth to groundwater data.

Sampling protocol was performed as prescribed by the respective analytical methodology. Monitoring wells were purged using a peristaltic pump and disposable suction tubing. The purge rate did not exceed 100-milliliters per minute. Two pump and tubing volumes of ground water was removed from the monitoring wells. Samples were collected with clean, disposable polypropylene bailers and placed in two clean 40-milliliter vials. Samples were then placed on ice in a cooler and transported under chain-of-custody procedures to Southern Petroleum Laboratories (SPL) for BTEX analysis.

Equilon Enterprises LLC will continue the semi-annual groundwater sampling program. ORC® will be added to MW003 as needed based on dissolved oxygen readings. Groundwater sampling is planned for April and October 2000, an Annual Progress Report will be submitted following the October 2000 sampling event. If you have any questions or require additional information, please do not hesitate to contact me at (914) 838-7477.

Very truly yours,

On Behalf of EQUILON ENTERPRISES LLC

David B. Weeks
Senior Environmental Engineer

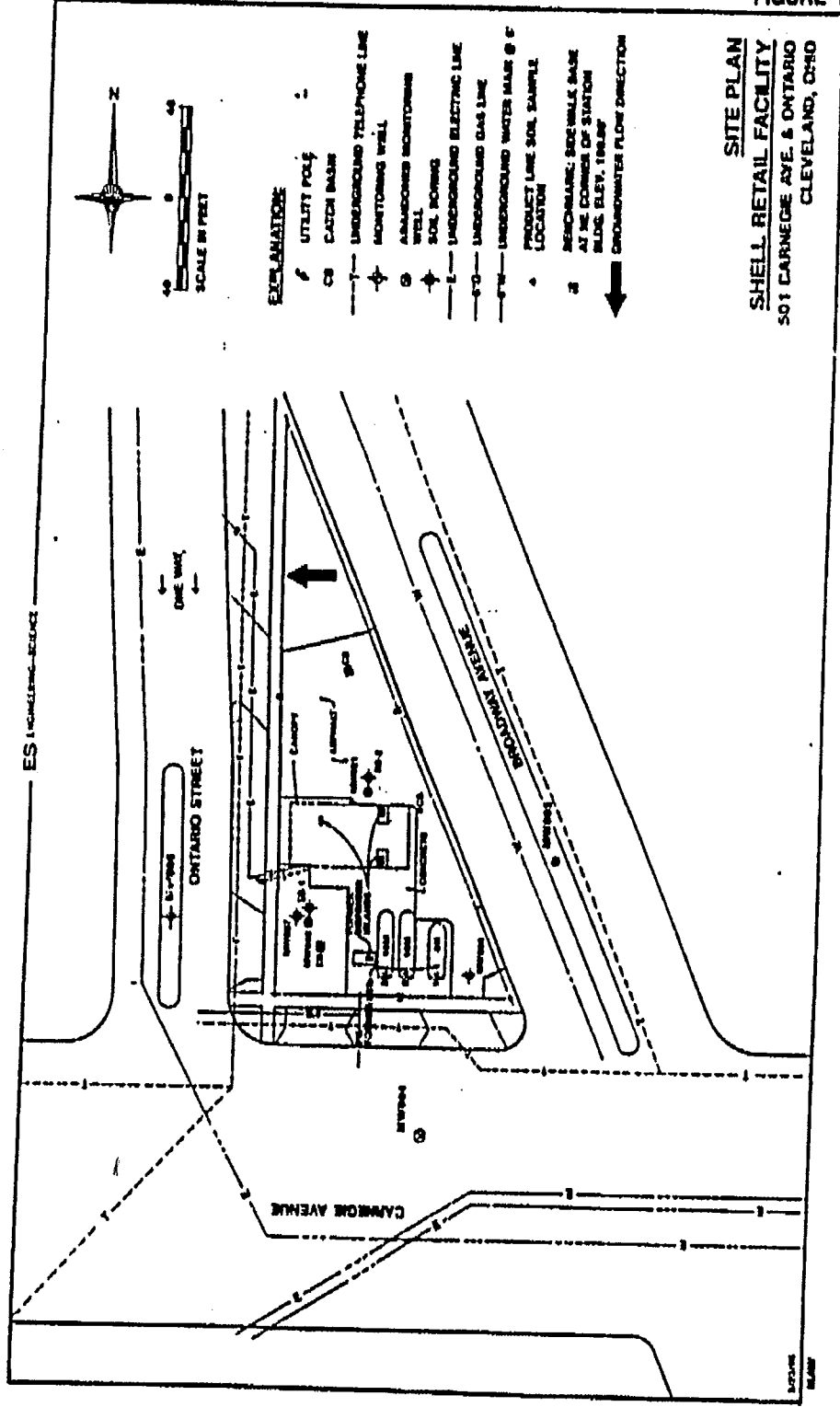
DHW/

cc: Bill Adams - Parsons ES, (w/o attachments)

Project Management/Carnegie & Ontario/Doc/Annual Report 1999(BUSTR) DOC

0000015

FIGURE 1



EXPLANATION

- 1 UTILITY POLY
- 2 CATCH BASIN
- 3 UNDERGROUND TELEPHONE LINE
- 4 MONITORING WELL
- 5 ANNOUNCED MONITORING WELL
- 6 SOIL MONITORING
- 7 UNDERGROUND ELECTRIC LINE
- 8 UNDERGROUND GAS LINE
- 9 UNDERGROUND WATER MAINS 8" & 6"
- 10 PRODUCT LINE SOIL SAMPLE LOCATION
- 11 BENCHMARK: BENCHMARK MARK AT THE CORNER OF STATION ABOVE ELEV. 108.94'
- 12 GROUNDWATER FLOW DIRECTION

SITE PLAN
SHELL RETAIL FACILITY
 501 CARNEGIE AVE. & ONTARIO
 CLEVELAND, OHIO

00000 162

TABLE I
ANALYTICAL RESULTS OF GROUNDWATER SAMPLING
SHELL RETAIL FACILITY PAF # 119641
891 Carnegie Avenue and District
Cleveland, Ohio

Monitoring Well #	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Polychlorinated (ug/L)	Total Xylenes (ug/L)	Total BTEX ^o (ug/L)	Dissolved Oxygen (DO) (ug/L)
Category I Action Levels		5	1,000	700	10,000	11,700	-
MW01 (shallow) ^o	3-Dec-82	<1	<1	<1	<2	<1	-
	27-Apr-84	23	<1	<1	<1	<21	-
	1-Mar-86	43	28	<1	<3	<100	-
	10-May-86	<1	<1	<1	<3	<6	-
	25-Aug-86	24	<1	<1	<3	<34	12
	18-Nov-86	<1	<1	<1	<3	<6	-
MW02 (shallow) ^o	3-Dec-82	8	3	44	174	229	-
	27-Apr-84	1,400	6	86	208	1,692	-
	1-Mar-86	2,800	41	170	370	3,341	-
	10-May-86	2,800	11	37	130	2,918	-
	25-Aug-86	8,000	<80	70	130	<1250	10
	18-Nov-86	1,700	41	<1	<3	<1,708	20
MW03	3-Dec-82	30	23	4	23	70	-
	27-Apr-84	330	6	<1	6	<342	-
	1-Mar-86	300	170	20	84	519	-
	10-May-86	130	170	23	60	373	-
	25-Aug-86	94	20	11	14	144	10
	18-Nov-86	<1	<1	<1	<3	<6	40
	12-Apr-87	<1	<1	<1	<3	<6	20
	2-Oct-86	3070	8,400	440	1700	11,640	100
	21-Feb-87	530	13	20	00	5124	04
	2-Oct-87	94	87	13	00	1130	20
	17-Apr-88	<0.80	0.80	<0.50	<2.00	<4.3	-
	14-Sep-88	10	<1	<1	<1	<22	122
	10-Feb-89	11	<1	<1	5	<16	40
10-Sep-89	42	6	2	95	101	02	
MW04 (shallow) ^o	10-Mar-83	<1	11	<1	<3	6	-
	27-Apr-84	<1	<1	<1	2	2	-
	1-Mar-86	<1	<1	<1	<3	6	-
	10-May-86	<1	<1	<1	<3	6	-
	10-May-86	<1	<1	<1	<3	6	-
	25-Aug-86	<1	<1	<1	<3	6	24
	18-Nov-86	<1	<1	<1	<3	6	12
30-Apr-88	<1	<1	<1	<3	6	20	
MW05 (shallow) ^o	15-Mar-83	10	5	<1	<3	<24	-
	27-Apr-84	40	5	<1	<3	<48	-

000001147

TABLE 1
ANALYTICAL RESULTS OF GROUNDWATER SAMPLING

WHEEL RETAIL FACILITY BAP # 1296a
880 Corvair Avenue and Ontario
Cleveland, Ohio

Monitoring Well #	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX ^a (µg/L)	Chloride (CC) (µg/L)
Category 1 Action Levels		0	1,000	700	1,000	11,700	-
MW104	16-Mar-96	1	32	1	< 5	< 42	-
	27-Apr-94	0	< 1	2	10	< 17	-
	1-Mar-96	2000	< 1	< 1	< 10	< 2,001	-
	10-May-96	2200	< 1	< 1	< 5	< 2,201	-
	26-Aug-96	850	< 10	< 10	< 20	< 900	3.2
	10-Nov-96	< 1	< 1	< 1	< 5	< 6	1.4
	20-Apr-96	260	< 1	< 1	< 5	< 251	0.0
	2-Oct-96	0.70	< 1	1.3	< 5	< 675	14.0
	21-Feb-97	900	< 1	< 1	< 5	< 561	0.4
	2-Oct-97	6,000	3.0	4.2	1	5,009	1.2
	17-Apr-98	2,000	12	< 0.0	< 0.0	< 2,013	-
	14-Sep-98	2,800	< 5	< 5	< 5	< 2,815	0.0
	10-Feb-99	21	< 1	< 1	< 1	< 24	0.0
	14-Sep-99	1,300	< 10	< 10	< 10	< 1,330	0.0
MW107	9-May-96	1,900	0.4	0.1	56	1,976.5	-
	2-Oct-96	6,400	430	440	1,100	7,400	0.0
	21-Feb-97	3,000	640	110	110	3,860	0.0
	2-Oct-97	11,000	270	140	120	11,530	0.4
	17-Apr-98	21,000	30	270	77	21,377	-
	14-Sep-98	17,000	< 100	1,600	2,100	20,000	0.4
	10-Feb-99	6,200	< 20	230	97	6,647	0.0
	14-Sep-99	8,200	180	1,800	1,200	11,180	0.0

^a Sample locations are illustrated on Figure 1
^b Monitoring wells MW101 and MW102 were were destroyed during IST closure activities in March 1994.
^c Oxygen Releaseing Compounds occurred into the wells on per the 23 July 1993 RAP audit findings.
^d Monitoring wells MW104 and MW107 were inadvertently abandoned during road repair work.
^e Data not available.

**TABLE 2
DEPTH TO FLUID MEASUREMENTS**

Shell Retail Facility - SAP # 129562
501 Carnegie & Ontario
..... Cleveland, Ohio

Well Number	Sample Date	Total Well Depth (ft)	Depth to Fluid (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Relative Elevation ⁽¹⁾ (ft)	Relative Groundwater Elevation (ft)
MW001	01-Mar-95	32	26.58	26.58	0.00	99.31	73.73
MW001	10-Nov-95	32	26.44	26.44	0.00	99.31	72.87
MW002	01-Mar-95	33	26.84	26.84	0.00	99.11	72.27
MW002	10-Nov-95	33	26.99	26.99	0.00	99.11	72.12
MW003	01-Mar-95	34	26.73	26.73	0.00	99.83	73.10
MW003	10-Nov-95	34	26.62	26.62	0.00	99.83	73.31
MW003	30-Apr-96	34	27.65	27.65	0.00	99.83	72.18
MW003	02-Oct-96	34	25.85	25.85	0.00	99.83	73.98
MW003	21-Feb-97	34	26.74	26.74	0.00	99.83	73.09
MW003	17-Apr-98	34	22.23	22.23	0.00	99.83	77.60
MW003	14-Sep-98	34	26.83	26.83	0.00	99.83	73.00
MW003	02-Oct-98	34	26.59	26.59	0.00	99.83	73.24
MW003	18-Feb-99	34	27.45	27.45	0.00	99.83	72.38
MW003	14-Sep-99	34	27.43	27.43	0.00	99.83	72.40
MW004	01-Mar-95	35	27.22	27.22	0.00	100.03	72.81
MW004	10-Nov-95	35	27.02	27.02	0.00	100.03	73.01
MW004	30-Apr-96	35	26.61	26.61	0.00	100.03	73.42
MW006	01-Mar-95	35.7	28.74	28.74	0.00	99.95	71.21
MW006	10-Nov-95	35.7	28.54	28.54	0.00	99.95	71.41
MW006	30-Apr-96	35.7	29.78	29.78	0.00	99.95	70.17
MW006	02-Oct-96	35.7	27.53	27.53	0.00	99.95	72.42
MW006	21-Mar-97	35.7	28.14	28.14	0.00	99.95	71.81
MW006	02-Oct-97	35.7	27.03	27.03	0.00	99.95	72.92
MW006	17-Apr-98	35.7	28.90	28.90	0.00	99.95	71.05
MW006	14-Sep-98	35.7	26.33	26.33	0.00	99.95	73.62
MW006	18-Feb-99	35.7	28.94	28.94	0.00	99.95	71.01
MW006	14-Sep-99	35.7	35.65	35.65	0.00	99.95	64.30
MW007	02-Oct-96	31.6	26.09	26.09	0.00	99.11	73.02
MW007	21-Feb-97	31.6	26.35	26.35	0.00	99.11	72.76
MW007	02-Oct-97	31.6	26.69	26.69	0.00	99.11	72.42
MW007	17-Apr-98	31.6	27.60	27.60	0.00	99.11	71.51
MW007	14-Sep-98	31.6	27.07	27.07	0.00	99.11	72.04
MW007	18-Feb-99	31.6	27.74	27.74	0.00	99.11	71.57
MW007	14-Sep-99	31.6	27.61	27.61	0.00	99.11	71.50

⁽¹⁾ Elevations are relative to the site benchmark located on the south corner of the station building foundation, arbitrarily assigned an elevation of 100.00 feet for reference purposes.

00000160

**APPENDIX A
LABORATORY REPORTS**

SITE LISTING UPDATE FORM

EXISTING INCIDENT #: 1827-907-00

FACILITY NAME: Falmouth Sewer NEW FACILITY INFO? YES NO

(1) REASON FOR LISTING UPDATE

- 1 Written report/results received from owner/operator.
2 Verbal report/results received from owner/operator.
3 Written report received from BUSTR contractor.
4 Information collected from BUSTR field examination/inspection.
5 Change in site coordinator/contractor assignment.
6 Change/delete existing incident number - explain change in remarks section [5].
7 Create new incident number for additional suspected facility/location.
8 Orders issued.
9 Other:

(2) NEW SITE LISTING DATA

INCIDENT #: _____

REPORT NUMBER FAC TRKG# SPRC
EMERGENCY RESPONSE: YES NO BY: FM () CEPA USEPA
STATUS: RPT SUS NRS DIS CON ICA ICR ICC SAS SAC CAS CAP MFA
PRIORITY: 1 2
CLASSIFICATION: A B C D LTF ELIGIBILITY: (CIRCLE) 2 6 OTHER
SITE COORDINATOR: _____

(3) PCS DATA

DISP/TREAT LOC: CUBIC YARDS:

(4) SITE SUMMARY (UPDATE FOR ALL PRIORITY 1 SITES)

(First sentence - why is it a 1? Second sentence - who is doing what at this time)

(5) NEW EXCEPTION REPORT DATA

- 1 State plans to obligate over \$100,000 at a site.
2 State actually obligated over \$100,000 at a site (cumulative expenses exceeded \$100,000 this quarter).
3 State plans to use innovative or experimental technology at the site.
4 State plans to provide permanent alternative drinking water supply.
5 State plans to permanently relocate residents.
6 State reached/received cost recovery settlement; amount: _____

(6) SITE MANAGEMENT REMARKS

(BUSTR actions needed/taken, reports expected, etc.)

ADDITIONAL MWL NEEDED, GROUND WATER CONTAMINATION IS
MAY BE IN

(7) FOLLOW-UP BUSTR ACTIONS/ASSIGNMENT

(For use by supervisor)

UPDATE SUBMITTED BY: [Signature] DATE: 1/22/99
APPROVED: Kelly [Signature] DATE: 3/9/99 ENTRY: DATE:

ROUTING AND CONCURRENCE SLIP

INCIDENT #:	152 2583 -00	DATE AUTHOR PREPARED:	1/24/53	
DATE OF REQUEST		PROOF AND/OR CONCUR:	DATE	INITIAL
NAME OF SITE:		PIA NAME:		
REQUESTED BY:		AUTHOR NAME: CFB	1/27/53	CFB
ROUTE FROM:		SUPERVISOR NAME:		
ROUTE TO:		ROUTE TO:		
ROUTE TO:		ROUTE TO:		
COORDINATOR NAME:		ROUTE TO:		
	PREPARE A RESPONSE			
	STATUS UPDATE			
	FYI			
RESPOND BY DATE:				
BOILERPLATE NAME:	DEF	DATE LETTER MAILED:	1/27/53	CFB
REMARKS:				



Ohio Department of Commerce

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations

P.O. Box 687
Reynoldsburg, OH 43068-9009
(614) 752-7938 FAX (614) 752-7942

George V. Volensich
Governor

Deanna Owens
Director

January 25, 1999

DAVID WEEKS
EQUILON ENTERPRISES
PO BOX 509
BEACON NY 12508

SITE: FORMER SHELL STATION
501 CARNEGIE AVE
CLEVELAND OH
CUYAHOGA COUNTY
INCIDENT #1822883-00

RE: ADDITIONAL SITE ASSESSMENT REQUIRED

Dear Mr. Weeks:

The Bureau of Underground Storage Tank Regulations (BUSTR) has received your report titled "Annual Progress Report". After thorough review of the aforementioned report by our office, it has been determined that the report does not meet the requirements for a site assessment report as set forth in the Ohio Administrative Code (OAC) rule 1301:7-9-13(f). The following describes the report deficiency(ies):

1. The full extent of ground water contamination south and southwest of MW 002 has not been defined.
2. The full extent of ground water contamination west of MW 006 has not been defined.
3. The full extent of ground water contamination north of MW 007 has not been defined.
4. The increasing amounts of ground water contamination seem to indicate that an additional release has occurred. Have all of the possible release locations been examined?

Please address the above-mentioned deficiencies, in writing, on or before April 15, 1999.

Within 45 days of discovery of possible off-site contamination, an effort to secure off-site access shall be attempted by the owner and operator. If access is denied, a letter report shall be received by the Fire Marshal within this 45-day period which describes the efforts and the reasons why access was denied. Once off-site access is gained, the owner and operator shall define the full extent of the contamination. A letter report shall be received by the Fire Marshal within this second 45-day period with a detailed timetable for completion of the delineation.

Thank you for your cooperation. If you have any questions, please contact me at (614) 752-7938.

Sincerely,

Charles E. Zapp
Environmental Specialist

Enclosure

cc: Site File

EQUILON

ENTERPRISES LLC
It's All About Working Together

P.O. Box 509
Deer Creek, NY 12508

PAR93070WJAMPW044461017

10 March 1999

CERTIFIED MAIL
RETURN RECEIPT REQUESTED - 2-788-578-222

Mr. Charles E. Zepp
Division of State Fire Marshal
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
6606 Tussing Road
Post Office Box 687
Reynoldsburg, Ohio 43068-0687

Site: Former Shell Retail Facility, SAP 129562
501 Carnegie Ave (at Ontario St.)
Cleveland, Ohio
Cuyahoga County
BUSTR Incident #1822883-00

Reference: Response to 25 January 1999 Letter/Request for information on
Site #1820208

Dear Mr. Zepp:

Equilon Enterprises LLC (Equilon) has received the Bureau of Underground Storage Tank Regulations (BUSTR) letter dated 25 January 1999. In the letter, BUSTR determined that our report (dated 18 November 1998) titled "Annual Progress Report" does not meet the requirements for a site assessment report set forth in the Ohio Administrative Code (OAC) rule 1301:7-9-13(I). The letter identified deficiencies in the full extent of groundwater contamination at the site. The following describes the report deficiencies listed in the letter.

1. The full extent of ground water contamination south and southwest of MW002 has not been defined.
2. The full extent of ground water contamination west of MW006 has not been defined.
3. The full extent of ground water contamination north of MW007 has not been defined.
4. The increasing amounts of ground water contamination seem to indicate that an additional release has occurred. Have all of the possible release locations been examined?

Equilon agrees that the extent of ground water contamination is not currently defined in the area and other possible release locations are likely. However, the extent of residual hydrocarbons was defined in both soil and groundwater at the site, in our Site Assessment (SA) report dated and submitted to BUSTR in April of 1993. BUSTR has not responded to the SA report. The SA report detected dissolved hydrocarbons off site in the groundwater from monitoring well MW005 located hydrogeologically up gradient of the former shell retail facility. The groundwater BTEX concentration levels observed in monitoring well MW005 were above maximum contaminant levels (MCLs) for drinking water standards, in March 1993, before the well was destroyed by the City of Cleveland.

00001343

Mr. Charles E. Zepp
BUREAU OF UNDERGROUND STORAGE TANK REGULATIONS
10 March 1999
Page 2

A release investigation conducted in April 1993 identified the Gateway Sports Complex (BUSTR Incident # 1820208) located at 2401 Ontario Street as a possible source. In a BUSTR newsletter, dated November 1993, "It was reported that more than 30 abandoned UST's, some still containing petroleum" were discovered by contractors excavating for the underground anchors at the new Gateway Sports Complex, now known as Jacobs Field. A copy of the newsletter is included for your review. The BUSTR site list indicates that incident # 1820208 was granted No Further Action (NFA) status in October of 1993.

A Remedial Action Plan (RAP) consisting of groundwater monitoring was initiated by Shell in April of 1994. As part of the RAP, oxygen releasing material (ORM) was placed into monitoring wells MW002 and MW003. The RAP was submitted to BUSTR for approval and implemented in November of 1994. The historical groundwater sampling data collected from December of 1992 to the present demonstrates a continued increase in contamination in all the monitoring wells on and off site except for the two wells containing ORM. The former UST system for the site (consisting of tanks, product lines and dispensers) were permanently removed from service in March of 1996. The soil samples collected from the closure excavations were all below Category 2 Action Levels. The Gasoline UST Closure report was submitted to BUSTR on 10 June 1996.

Equilon has terminated its site lease, removed the UST system, and the site is now for sale by the owner. Based on all the data collected to date, it appears another hydrocarbon plume exists in the groundwater which is not associated with the former Shell facility. It is Equilon's opinion that the Gateway Sports Complex located directly across Carnegie Avenue and hydrogeologically upgradient to the former Shell retail facility is the likely source of the BTEX observed in the groundwater in all the monitoring wells. Equilon submitted a clean closure report for the closed UST system. Equilon should not be responsible for any additional off-site monitoring well installations due to an active source of hydrocarbons emanating upgradient from the site from Gateway.

Equilon formerly requests a copy of the Closure Report submitted for BUSTR Incident #1820208 upon which the October 1993 NFA determination was based. Equilon plans no further investigatory work at the site without first reviewing the requested information. If you have any questions or need additional information, please do not hesitate to contact me at (914) 838-7477.

Sincerely,



David P. Weeks
Senior Environmental Engineer

DBW/jam

FARBC/99JAM/904446DOT

SITE LISTING UPDATE FORM

EXISTING INCIDENT #: 1022893-00

FACILITY NAME: Former State Station NEW FACILITY INFO? YES NO (Update on back)

(1) REASON FOR LISTING UPDATE

- 1 Written report/results received from owner/operator.
- 2 Verbal report/results received from owner/operator.
- 3 Written report received from BUSTR contractor.
- 4 Information collected from BUSTR field examination/inspection.
- 5 Change in site coordinator/contractor assignment.
- 6 Change/delete existing incident number - explain change in remarks section (5).
- 7 Create new incident number for additional suspected facility/location.
- 8 Orders issued.
- 9 Other:

(2) NEW SITE LISTING DATA

INCIDENT #: _____

REPORT NUMBER _____ FAC TRKGF _____ SPRC _____

EMERGENCY RESPONSE: YES NO BY: FM (_____) CEPA USEPA

STATUS: RPT SUS NRS DJS COM TCA TCR ICC SAS SAC CAS CAP NFA

PRIORITY: 1 2 3 4

CLASSIFICATION: A B C D LTP ELIGIBILITY: (CIRCLE) 1 2 6 OTHER _____

SITE COORDINATOR: _____

(3) PCS DATA

DISP/TREAT _____ LOC: _____ CUBIC YARDS: _____

(4) SITE SUMMARY (UPDATE FOR ALL PRIORITY 1 SITES) (First sentence - why is it a 1? Second sentence - who is doing what at this time)

(5) NEW EXEMPTION REPORT DATA

- 1 State plans to obligate over \$100,000 at a site.
- 2 State actually obligated over \$100,000 at a site (cumulative expenses exceeded \$100,000 this quarter).
- 3 State plans to use innovative or experimental technology at the site.
- 4 State plans to provide permanent alternative drinking water supply.
- 5 State plans to permanently relocate residents.
- 6 State reached/received cost recovery settlement: amount: _____

(6) SITE MANAGEMENT REMARKS (BUSTR actions needed/taken, reports expected, etc.)

SA LEGAL SECT.

(7) FOLLOW-UP BUSTR ACTIONS/ASSIGNMENT (For use by supervisor)

UPDATE SUBMITTED BY: CS DATE: 6/8/79

APPROVED: _____ DATE: _____ ENTRY: _____ DATE: _____

ROUTING AND CONCURRENCE SLIP

INCIDENT #:	1022089-50	DATE AUTHOR PREPARED:	6/6/99
DATE OF REQUEST:		PROOF AND/OR CONCUR:	DATE INITIAL
NAME OF SITE:		PIA NAME:	
REQUESTED BY:		AUTHOR NAME: ZAR	6/6/99 CRB
ROUTE FROM:		SUPERVISOR NAME:	
ROUTE TO:		ROUTE TO:	
ROUTE TO:		ROUTE TO:	
COORDINATOR NAME:		ROUTE TO:	
	PREPARE A RESPONSE		
	STATUS UPDATE		
	FYI		
RESPOND BY DATE:			
BOILERPLATE NAME:	CS	DATE LETTER MAILED:	6/8/99 CRB
REMARKS:			



Ohio Department of Commerce

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
P O Box 687

Reynoldsburg, OH 43068-9009
(614) 752-7938 FAX: (614) 752-7942
www.com.state.oh.us

Bob Taft
Governor

Gary C. Subadinski
Director

June 8, 1999

DAVID WEEKS
EQUILON ENTERPRISES
PO BOX 509
BEACON NY 12508

SITE: FORMER SHELL STATION
501 CARNEGIE AVE
CLEVELAND OH
CUYAHOGA COUNTY
INCIDENT #1822883-00

RE: SITE ASSESSMENT

Dear Mr. Weeks:

On March 10, 1999, the Bureau of Underground Storage Tank Regulations (BUSTR) received your response letter which addressed the fact that the full extent of ground water contamination was no longer defined. While the upgradient wells do show low levels of benzene contamination, on site and downgradient monitoring wells show benzene contaminant levels several orders of magnitude higher. Since the highest levels of ground water contamination are located on your site, BUSTR assumes it to be the source of downgradient contamination. Therefore, it will be necessary to address the deficiencies as outlined in BUSTR's January 25, 1999 letter.

Should you have any questions concerning this matter, please contact me at (614) 752-7938.

Sincerely,

Charles E. Zopp
Environmental Specialist

cc: Site File



December 20, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
7077-3400-0006-0543-1136

Department of Commerce
Ohio State Fire Marshal
Bureau of Underground Storage Tank Regulations
P.O. Box 687
Reynoldsburg, Ohio 43068

ATTN: Mr. Charles Zepp

RE: Hydrogeologic Site Assessment Addendum
Former Shell Service Station
SAP No. 129562; Equilon Incident No. 97094985
501 Carnegie Avenue
Cleveland, Ohio
ATC Project No: 08.15310 0188
BUSTR Incident No: 1822883-00

RECEIVED
NOV 20 10 49 22
STATE OF OHIO
BUSTR

1800287-N

Dear Mr. Zepp:

Please find enclosed the "Hydrogeologic Site Assessment Addendum" report regarding the above-referenced facility. This report is submitted in accordance with your letter request for additional site assessment delineation dated January 25, 1999.

If you have any questions or need additional information, please do not hesitate to contact Alan Cubberley of ATC Associates Inc. at (440) 838-7177 or me at (914) 838-7477.

Sincerely,

Shell Oil Products
On Behalf of Equilon Enterprises LLC

David B. Weeks

David B. Weeks
Senior Environmental Engineer

Enclosure

cc: Alan J. Cubberley - ATC, Cleveland (Cover Letter Only)

P.O. Box 509 Rexson, New York 12508 Phone: (914) 838-7477 Fax: (914) 838-7124

00001661



145 Ken Mar Industrial Parkway
Broadview Heights, Ohio 44147-2950
www.vatc.omega.com
440 838 7177
Fax 440 838 7181

December 15, 2000

Mr. David B. Weeks
Equilon Enterprises LLC
P.O. Box 509
Beacon, New York 12508

RE: Hydrogeologic Site Assessment Addendum
Former Shell Service Station
SAP No. 129562; Equilon Incident No. 97094985
501 Carnegie Avenue
Cleveland, Ohio
ATC Project No: 08.15310.0188
BUSTR Incident No: 1822883-00

Dear Mr. Weeks:

ATC Associates Inc. (ATC) has completed additional site assessment activities at the above-referenced site in Cuyahoga County, Ohio. The work was performed in response to the Bureau of Underground Storage Tank Regulations (BUSTR) request for additional assessment activities dated January 25, 1999, and in accordance with Ohio Administrative Code (OAC) 1301:7-9-13 and ATC Proposal Number P00-90737 dated July 5, 2000. This report will summarize the fieldwork performed, present the results obtained from this additional assessment and address the issues stated in the BUSTR letter.

BACKGROUND

An environmental consulting firm, Parsons Engineering Science, Inc., (Parsons ES), performed various site activities from November 1992 to November 1999. Initial activities began after product lines failed a tightness test on November 5, 1992. Three on-site monitoring wells (MW-1, MW-2, MW-3) were installed during a Site Check in December 1992. Benzene, Ethylbenzene, Toluene and Total Xylenes (BTX) concentrations exceeded site action levels in soil and groundwater. Three additional off-site monitoring wells, (MW-4, MW-5, MW-6), were installed in conjunction with a Site Assessment performed in April 1993. BTX concentrations exceeded site action levels in the groundwater at MW-5.

A monitoring only Remedial Action Plan (RAP) was submitted in November 1994. The RAP was implemented in February 1995 and consisted of quarterly groundwater sampling conducted in February, May, August and November 1995. A RAP Modification Plan was submitted on July 28,

00001662

December 15, 2000

Mr. David B. Weeks
Equilon Enterprises LLC
P.O. Box 509
Beacon, New York 12508

RE: Hydrogeologic Site Assessment Addendum
Former Shell Service Station
SAP No. 129562; Equilon Incident No. 97094985
501 Carnegie Avenue
Cleveland, Ohio
ATC Project No: 08.15310.0188
• BUSTR Incident No: 1822883-00

Dear Mr. Weeks:

ATC Associates Inc. (ATC) has completed additional site assessment activities at the above-referenced site in Cuyahoga County, Ohio. The work was performed in response to the Bureau of Underground Storage Tank Regulations (BUSTR) request for additional assessment activities dated January 25, 1999, and in accordance with Ohio Administrative Code (OAC) 1301:7-9-13 and ATC Proposal Number P00-90737 dated July 5, 2000. This report will summarize the fieldwork performed, present the results obtained from this additional assessment and address the issues stated in the BUSTR letter.

BACKGROUND

An environmental consulting firm, Parsons Engineering Science, Inc., (Parsons ES), performed various site activities from November 1992 to November 1999. Initial activities began after product lines failed a tightness test on November 5, 1992. Three on-site monitoring wells (MW-1, MW-2, MW-3) were installed during a Site Check in December 1992. Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) concentrations exceeded site action levels in soil and groundwater. Three additional off-site monitoring wells, (MW-4, MW-5, MW-6), were installed in conjunction with a Site Assessment performed in April 1993. BTEX concentrations exceeded site action levels in the groundwater at MW-5.

A monitoring only Remedial Action Plan (RAP) was submitted in November 1994. The RAP was implemented in February 1995 and consisted of quarterly groundwater sampling conducted in February, May, August and November 1995. A RAP Modification Plan was submitted on July 28,

00001863

1995 to include Oxygen Releasing Compound (ORC) in MW-2 and MW-3 during the August groundwater sampling event.

On November 30, 1995 the RAP Annual Progress Report indicated significant reduction of WTEX concentrations in MW-2, MW-3 and MW-6. The RAP was modified to semi-annual groundwater sampling to be conducted in May and November 1996.

On March 22, 1996, EMPACO Equipment Corporation excavated and removed from service the entire UST system including tanks, product lines, dispensers and vent lines. Soil sampling of excavation indicated soil samples were below site action levels, however, excavated soil sample results were above site action levels. Soils were returned to the excavation due to excessive excavation caving that was threatening adjacent Ontario Street. During excavation activities MW-1 and MW-2 were destroyed.

The RAP semi-annual sampling was conducted on April 30, and October 10, 1996. On May 9, 1996, MW-7 was installed in the area of highest contamination to replace MW-2 that was destroyed during closure activities. On December 30, 1996 the Annual RAP Progress Report was submitted to BUSTR.

The RAP semi-annual sampling was conducted for 1997 and 1998 with the Annual RAP Progress Reports submitted to BUSTR on November 17, 1997 and November 23, 1998, respectively.

On January 25, 1999, BUSTR requested additional wells be installed to define extent of contamination in the groundwater. The following areas were listed as deficiencies and are addressed in this report:

- The full extent of groundwater contamination south and southwest of MW 002 has not been defined.
- The full extent of groundwater contamination west of MW 006 has not been defined.
- The full extent of groundwater contamination north of MW 007 has not been defined.
- Increasing groundwater contamination levels seem to indicate that an additional release has occurred. Have all of the possible release locations been examined?

On March 10, 1999, a letter was submitted to BUSTR identifying the Gateway Sports Complex as a possible source of groundwater contamination at the Shell site. On June 8, 1999, BUSTR requested that the Site Assessment be completed.

The RAP semi-annual sampling was conducted for 1999 with the Annual RAP Progress Report submitted to BUSTR on December 17, 1999.

DISCUSSION OF BUSTR'S 1/25/99 REQUEST

In response to BUSTR's letter dated January 25, 1999, additional delineation south and southwest of MW 002 is physically and scientifically impractical due to an eight-lane road (Carnegie Avenue) approximately 120 feet wide south of the site and a steep vegetated slope with an elevation difference of approximately 40 feet southwest of the site. Additional delineation west of MW 006 is not physically possible due to a steep vegetated slope with an elevation difference of approximately 40 feet. An enlarged section of the USGS map (Cleveland South, Ohio) and aerial photograph of the area shows the site and surrounding properties is attached as Figure 1 and Figure 2, respectively. Former monitoring well MW 001 has previously defined extent to the north of MW 007 and should be accepted as extent defined to the north of the MW 007. The last four quarters of groundwater sampling from MW 001, before it was destroyed, show BTEX concentrations were below BUSTR Category 2 action levels. Groundwater analytical results are summarized in Table 1.

FIELD WORK

Seven additional soil borings (B-1 through B-7) were advanced on the site July 20, 2000. These borings were advanced to detect possible shallow contaminated soils that would need to be removed prior the recently proposed development of the site. Two additional offsite soil borings with associated monitoring wells (B/MW-8 and B/MW-9) were installed on September 19 and September 20, 2000 to investigate potential site impact from the Gateway Complex east of the site. The borings were installed utilizing a CME-550 drill rig operated by Ridgeway Engineering located in Bath, Ohio. ATC Geologist Robert Roether was on-site to observe the drilling and prepare detailed logs of the subsurface material. The soil boring/monitoring well locations are depicted in Figure 3.

Borings B-1 through B-7 were advanced using 2.25-inch hollow stem augers. B/MW-8 and B/MW-9 were advanced using 4.25-inch hollow stem augers. Borings B-3, B-4, B-6 and B-7 were extended to approximately 15 feet below ground surface (bgs) and approximately 20 feet bgs in B-1 and B-2. B-5 was advanced to groundwater, which was encountered at approximately 29 feet bgs. B/MW-8 and B/MW-9 were advanced to approximately 32 feet bgs. Total depth of borings B-5, B/MW-8 and B/MW-9 were based on the depth at which groundwater was encountered. The total depth of borings B-1 through B-4, B-6 and B-7 was predetermined based on field observations, site history and future expected uses. The soil cuttings generated from the drilling activities were placed into 55-gallon drums that were sealed after field activities. Arrangements for soil disposal were made through Equilon's residual waste coordinator on September 19, 2000.

Soil samples were collected continuously every two feet using a stainless steel 2-inch diameter split-spoon sampler. Each sample was inspected and described by the ATC Geologist. Between sampling events, the split-spoon sampler was hand cleaned by scrubbing the sampler with an

Alconox and water solution. The cleaned sampler was immediately rinsed with distilled water and air dried in the field. Augers were steam-cleaned prior to use.

Soil samples were collected in duplicate. One set was placed in pre-cleaned glass jars with Teflon-lined lids, and the second in sealed zip-lock bags for field screening. The jarred samples were placed on ice in a cooler immediately after collection for potential laboratory analysis. Disposable nitrile gloves were worn by ATC's Geologist and changed between samples to reduce the likelihood of cross-contamination. Samples were field screened with a photo-ionization detector (PID), which measures total photo-ionizable vapors in parts per million (ppm). The PID was calibrated in the field each day with 100-mg/L isobutylene calibration gas. Maximum headspace measurements were recorded for each sample. PID readings are included on the attached boring logs.

Soil samples from B-5, B-8 and B-9 were taken in general accordance with OAC rule 1301: 7-9-13. Soil samples from B-1 through B-4, B-6 and B-7 were taken to evaluate subsurface conditions for the proposed site development. The soil sample directly above the soil/water interface and one additional soil sample were submitted for laboratory analysis. Selected samples were shipped overnight in a cooler containing packaged ice and the associated Chain-of-Custody to Southern Petroleum Laboratory (SPL) located in Traverse City, MI on July 21, 2000 and September 20, 2000. The soil samples were analyzed for BTEX by SW 846 Method 8260 and TPH (CRO) by method Modified 8015B, as required by Ohio Administrative Code (OAC) 1301: 7-9-13(D)(3)(d).

Upon completion of borings B-8 and B-9, monitoring wells were installed to a depth of 32.0 feet. The monitoring wells were constructed of 2-inch inside diameter polyvinyl chloride (PVC) well casing and factory slotted 0.010 well screen. The well casing and screen for each well was assembled and then lowered through the auger into each boring. Quartz filter sand was placed in the annular space from the total depth of each boring to approximately two feet above the top of the screened interval. The remaining annular space was filled with bentonite and hydrated with tap water. A bolt-down, flush mounted protective lid was then installed above the top of casing. Monitoring well locations are shown on Figure 2. Monitoring well construction diagrams are included in Appendix A.

Field activities performed on August 14, 2000 included monitoring well gauging, purging, surveying, sampling and abandoning (MW-3 and MW-7 only) of monitoring wells MW-3, MW-6, MW-7 and MW-M. MW-M was discovered offsite during a site reconnaissance. Site access was obtained to sample the monitoring well, but there is no historical data available for the monitoring well. MW-3 and MW-7 were abandoned in place in anticipation of site re-development. The monitoring wells were filled with bentonite chips to grade and hydrated with water. The purge water was placed into one 55-gallon drum that was sealed after field activities. Arrangements for water disposal were made through Equilon's residual waste coordinator on August 14, 2000.

Field activities performed on October 6, 2000 included monitoring well gauging, purging, surveying and sampling of monitoring wells MW-8 and MW-9. An electronic oil/water interface

probe was utilized in each well to obtain static groundwater level data and to detect for the presence of free product greater than 0.01 of a foot. Between gauging events, the Interface probe was decontaminated according to BUSTR guidelines. Disposable gloves were worn by ATC's Geologist during each well gauging event and changed between each well gauging location to reduce the likelihood of cross-contamination. The purge water was placed into one 55-gallon drum that was sealed after field activities. Arrangements for water disposal were made through Equilon's residual waste coordinator on October 6, 2000.

ATC surveyed relative top-of-casing elevation of the wells on site. The elevation of the monitoring wells were surveyed with respect to an arbitrary referenced elevation of 100 feet (benchmark). The base of a light post (north corner) located in the south corner of the property was used as the benchmark.

All monitoring wells were sampled using disposable polyethylene bailers. Samples were placed into 40 milliliter glass vials with Teflon septum, wiped clean, labeled, and placed immediately in a cooler with ice to cool to approximately 4 degrees Celsius. Care was taken to ensure that no headspace existed in the samples. Disposable gloves were worn and changed between each sampling event and a new disposable bailer was used in each well to reduce the likelihood of cross-contamination. Groundwater samples for monitoring wells were shipped in a sealed cooler overnight with the associated Chain-of-Custody to SPL on August 15 and October 6, 2000. All the samples were analyzed for HTEX using EPA Method 8260, in accordance with OAC 1301:7-9-13.

RESULTS

Soil encountered in all the borings consisted predominately of brown colored medium to fine grained sands with intermittent layers of silty clay. Saturated conditions were encountered at a depth of approximately 26 feet bgs in B/MW-8 and B/MW-9. The boring logs are included in Attachment A.

Elevated PID readings were detected in boring B-5 at depths 9' to 27'. PID readings are included on the boring logs in Attachment A.

Soil samples from B-5 (21'-23') contained concentrations of ethylbenzene, total xylenes and TPH above BUSTR Category 2 action levels. Soil samples from all other borings did not contain detectable levels of HTEX constituents or TPH. The soil analytical results are summarized in Table 2 and Figure 4. The laboratory report is included in Attachment B.

Depth to water ranged from 25.67 feet below the top-of-casing in MW-8 to 28.35 feet below the top-of-casing in MW-7. Free product was not encountered in any monitoring wells during the well gauging event. Groundwater elevations were calculated based on the August 14, 2000 and October 6, 2000 well gauging events and were utilized to construct a groundwater potentiometric map, included as Figure 5. Groundwater flow is to the south. Fluid level data and elevations are summarized in Table 3 and Figure 5.

Six groundwater samples were obtained and submitted for analysis. Monitoring wells MW-3, MW-6, MW-7 and MW-M contained benzene concentrations above BUSTR Category 2 action levels. Monitoring wells MW-7 and MW-M contained ethylbenzene concentrations above BUSTR Category 2 action levels. The groundwater analytical results are summarized in Table 1 and Figure 6. A copy of the laboratory report is included in Attachment B.

According to a past hydrogeologic Site Assessment by Parsons ES, the site has been categorized as a BUSTR Category 2 for soil and groundwater action levels. ATC re-scored the site and confirmed a Category 2 status. The Site Feature Scoring System chart is included in Attachment C.

CONCLUSIONS

During the UST removal on March 22, 1996, excavated soils were sampled and the results were above BUSTR Category 2 action levels. These soils were returned to the excavation due to caving of the excavation. A soil boring B-5 was placed in the location of the former UST cavity during current site assessment activities. Analytical results from B-5 (9'-11') show that due to natural degradation, soils that were returned to the excavation were below BUSTR's Category 2 action levels. Therefore, these soils should no longer be considered a concern.

The analytical results from this and previous investigations indicate that the extent of petroleum impact to the soil has been delineated to the extent practical and is limited to the south-central portion of the Shell site, in the vicinity of the former UST excavation. The extent of petroleum impact to groundwater has been defined to the extent physically practical, and is limited to the site and south adjacent right-of-way. In addition, the results of this investigation do not indicate an additional release has occurred at the site, as suggested in BUSTR's January 25, 1999 letter.

Based upon the results of this and previous site assessments, ATC recommends that a Remedial Action Plan be prepared.

Please do not hesitate to contact us at (440) 838-7177 with any questions.

Respectfully Submitted,

ATC ASSOCIATES INC.



Robert A. Roether
Staff Geologist



Alan J. Cubberley
Branch Manager

Attachments:

- Table 1- Groundwater Analytical Results
- Table 2- Soil Analytical Results
- Table 3- Groundwater Elevation Data
- Figure 1- USGS Quadrangle - Cleveland South, OH
- Figure 2- Aerial Photograph
- Figure 3- Site Map
- Figure 4- Soil Analytical Results Map
- Figure 5- Groundwater Potentiometric Map
- Figure 6- Groundwater Analytical Results Map
- Attachment A- Boring Log/Well Completion Diagrams
- Attachment B- Laboratory Reports for Soil and Groundwater Samples
- Attachment C- Site Feature Scoring System

TABLE I
GROUNDWATER ANALYTICAL RESULTS

Former Shell Service Station (12954297094985)
501 Carnegie Avenue
Cleveland, OH

Monitoring Well ID	Date Sampled	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	Total HTEX
MW-1 (abandoned)	12/02/1992	< 0.001	< 0.001	< 0.001	< 0.002	< 0.003
	04/27/1994	0.022	< 0.001	< 0.001	< 0.001	< 0.023
	03/01/1995	0.004	0.003	< 0.001	< 0.001	< 0.011
	05/10/1995	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006
	08/25/1995	0.002	< 0.001	< 0.001	< 0.001	< 0.007
	11/10/1995	< 0.001	< 0.001	< 0.001	< 0.001	< 0.006
MW-2 (abandoned)	12/02/1992	0.005	0.002	0.048	0.174	0.229
	04/27/1994	1.430	0.034	0.011	0.200	1.692
	03/01/1995	2.800	0.004	0.170	0.370	3.344
	05/10/1995	2.800	0.001	0.037	0.120	2.958
	08/25/1995	5.000	< 0.050	0.073	0.130	5.250
	11/10/1995	1.700	0.004	< 0.001	< 0.003	1.708
MW-3 (abandoned) # 142(00)	12/02/1992	0.011	0.023	0.003	0.023	0.062
	04/27/1994	0.330	0.006	< 0.001	0.005	0.342
	03/01/1995	0.230	0.170	0.029	0.054	0.533
	05/10/1995	0.130	0.170	0.023	0.050	0.373
	08/25/1995	0.091	0.029	0.011	0.014	0.144
	11/10/1995	< 0.001	< 0.001	< 0.001	< 0.003	0.006
	04/30/1996	< 0.001	< 0.001	< 0.001	< 0.003	0.006
	10/02/1996	3.900	5.400	0.440	1.700	11.440
	02/21/1997	0.330	0.013	0.003	0.007	0.352
	10/02/1997	0.091	0.009	0.002	0.009	0.113
	04/17/1998	< 0.001	0.001	< 0.001	0.003	0.004
	09/14/1998	0.019	< 0.001	< 0.001	< 0.001	0.022
	02/18/1999	0.011	< 0.001	< 0.001	< 0.003	0.016
	09/14/1999	0.042	0.006	0.002	0.015	0.105
	08/14/2000	0.011	< 0.003	< 0.003	0.008	0.029
MW-4 (abandoned)	03/15/1993	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006
	04/27/1994	< 0.004	< 0.001	< 0.001	< 0.002	< 0.008
	03/01/1995	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006
	05/10/1995	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006
	08/25/1995	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006
	11/10/1995	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006
MW-5 (abandoned)	03/15/1993	0.015	0.005	< 0.001	< 0.003	< 0.024
	04/27/1994	0.040	0.001	< 0.001	< 0.002	< 0.048

0000 15 70

TABLE I
GROUNDWATER ANALYTICAL RESULTS

-1
Former Shell Service Station (12954297094985)
-- 501 Carnegie Avenue
Cleveland, OH

Monitoring Well ID	Date Sampled	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylene ppm	Total BTEX
MW-6	03/15/1993	0.001	< 0.012	0.001	< 0.008	< 0.042
	04/27/1994	0.004	< 0.001	0.002	0.010	< 0.017
	03/01/1995	2.900	< 0.001	< 0.001	< 0.003	< 2.903
	05/10/1995	2.200	< 0.001	< 0.001	< 0.003	< 2.203
	04/29/1995	0.930	< 0.010	< 0.010	< 0.030	< 0.980
	11/10/1995	< 0.001	< 0.001	< 0.001	< 0.001	< 0.006
	04/30/1996	0.250	< 0.001	< 0.001	< 0.003	< 0.253
	10/02/1996	0.670	< 0.001	0.001	< 0.003	< 0.673
	02/21/1997	0.540	< 0.001	< 0.001	< 0.003	< 0.543
	10/02/1997	1.600	0.004	0.004	0.001	1.609
	04/17/1998	2.000	0.012	< 0.001	< 0.001	< 2.013
	09/14/1998	2.500	< 0.003	< 0.003	< 0.003	< 2.513
	02/18/1999	0.021	< 0.001	< 0.001	< 0.001	< 0.024
	09/14/1999	1.300	< 0.010	< 0.010	< 0.010	< 1.330
04/14/2000	0.010	< 0.003	< 0.003	< 0.003	< 0.025	
MW-7 (Abandoned & 14' Deep)	04/30/1996	1.500	0.006	0.009	0.055	1.571
	10/02/1996	3.400	0.320	0.480	1.100	7.400
	02/21/1997	3.000	0.640	0.110	0.110	3.860
	10/02/1997	13.000	0.270	0.140	0.120	13.530
	04/17/1998	21.000	0.030	0.270	0.077	21.377
	09/14/1998	17.000	0.100	1.600	2.100	20.800
	02/18/1999	6.200	< 0.020	0.330	0.097	< 6.647
	09/14/1999	8.200	< 0.100	1.600	1.200	< 11.100
	03/14/2000	3.600	0.041	0.740	0.670	5.051
MW-M	09/14/2000	0.051	< 0.003	0.700	0.005	< 0.761
MW-8	10/06/2000	< 0.003	< 0.003	< 0.003	< 0.003	0.020
MW-9	10/06/2000	< 0.003	< 0.003	< 0.003	< 0.003	0.020
DIVERSITY Category 2 Action Levels						
Water Action Levels		0.003	1.0	0.7	100	NA

NOTES: NS - Not Sampled
NA - Not Applicable
ppm - parts-per-million
MW-1 - MW-7 were installed by Parsons Engineering Science
Monitoring well MW-M was found off-site during site reconnaissance

TABLE 2
SOIL ANALYTICAL RESULTS

Soil Investigation
Former Shell Service Station (12956297094585)
501 Carnegie Avenue
Cleveland, OH

Boring Number	Sample Depth	PID Reading (ppm)	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Total Xylene (ppm)	TPH (ppm)
PI-3	8'-10'		11/07/1992	0.018	0.13	< 0.005	< 0.005	< 0.05
MW001	27'-29'		11/23/1992	< 0.002	< 0.002	< 0.002	< 0.006	< 0.005
MW002	25'-27'		11/24/1992	< 1.2	< 1.2	6.9	11.6	260
MW003	21'-23'		11/24/1992	< 2.3	1.5	3.4	11.9	100
MW004	28'-30'		03/11/1993	< 0.002	0.006	< 0.002	0.003	< 10
MW005	24'-26'		03/12/1993	< 0.005	0.1	< 0.005	< 0.005	< 10
MW006	24'-26'		03/12/1992	< 0.005	< 0.005	0.01	0.26	19
	26'-28'			< 0.002	< 0.002	< 0.002	0.003	60
MW007	24'-26'		05/09/1996	0.018	< 0.01	0.01	0.039	3.8
II-1	8'-10'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
	12'-14'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
II-2	12'-14'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
	18'-20'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
II-3	3'-5'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
	9'-11'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
II-4	3'-5'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	0.2
	7'-9'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
II-5	9'-11'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
	13'-15'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
	21'-23'		07/20/2000	< 0.2	0.2	26	68	1600
II-6	3'-5'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
	11'-13'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
II-7	3'-5'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
	13'-15'		07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2

**TABLE 2
SOIL ANALYTICAL RESULTS**

Soil Investigation
Former Shell Service Station (129562/97094985)
501 Carnegie Avenue
Cleveland, OH

Boring Number	Sample Depth	PID Reading (ppm)	Date Sampled	Benzene	Toluene	Ethylbenzene	Total Xylene	TPH
				(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
11-8	23'-25'		09/19/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
	25'-27'		09/19/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
11-9	23'-24'		09/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
	24'-26'		09/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.2
BUSTR CATEGORY 2 ACTION LEVELS								
Action Levels				0.170	7.0	10.0	47.0	390

- * NOTES:
- ppm - parts-per-million
 - Samples analyzed at Great Lakes Analytical located in Buffalo Grove, Illinois.
 - Sample analyzed at Southern Petroleum Laboratory located in Traverse City, Michigan.
 - PI-1 and MW-011 - MW-007 were installed by Parsons Engineering Science

0000 16.73

**TABLE J
GROUNDWATER ELEVATION DATA**

Former Shell Service Station (129562.97094985)
501 Carnegie Avenue
Cleveland, OH
(All values are in feet)

Monitoring Well	Date Gauged	Elevation: Top of Casing	Depth to Product	Depth to Water	Thickness of Product	Elevation: Static Water Level
MW-3*	08/14/2000	99.80		26.95		72.85
MW-6*	08/14/2000	99.35		26.78		72.57
MW-7	08/14/2000	99.28		28.35		70.93
MW-M	08/14/2000	98.37		28.06		70.31
MW-8	10/06/2000	100.02		25.65		74.37
MW-9	10/06/2000	97.86		27.67		74.19

NOTES: Referenced datum is relative to an arbitrary assignment of 100 feet. The reference is the southeast screw bolt of light post located on the northwest corner of the site.
 * Wells MW-1 through MW-6 were previously named MW001 through MW006 in Parsons Engineering Science reports.
 * MW-1 through MW-6 are one-inch ID, Schedule 40 PVC wells.
 Monitoring well MW-M was found off-site during site reconnaissance.

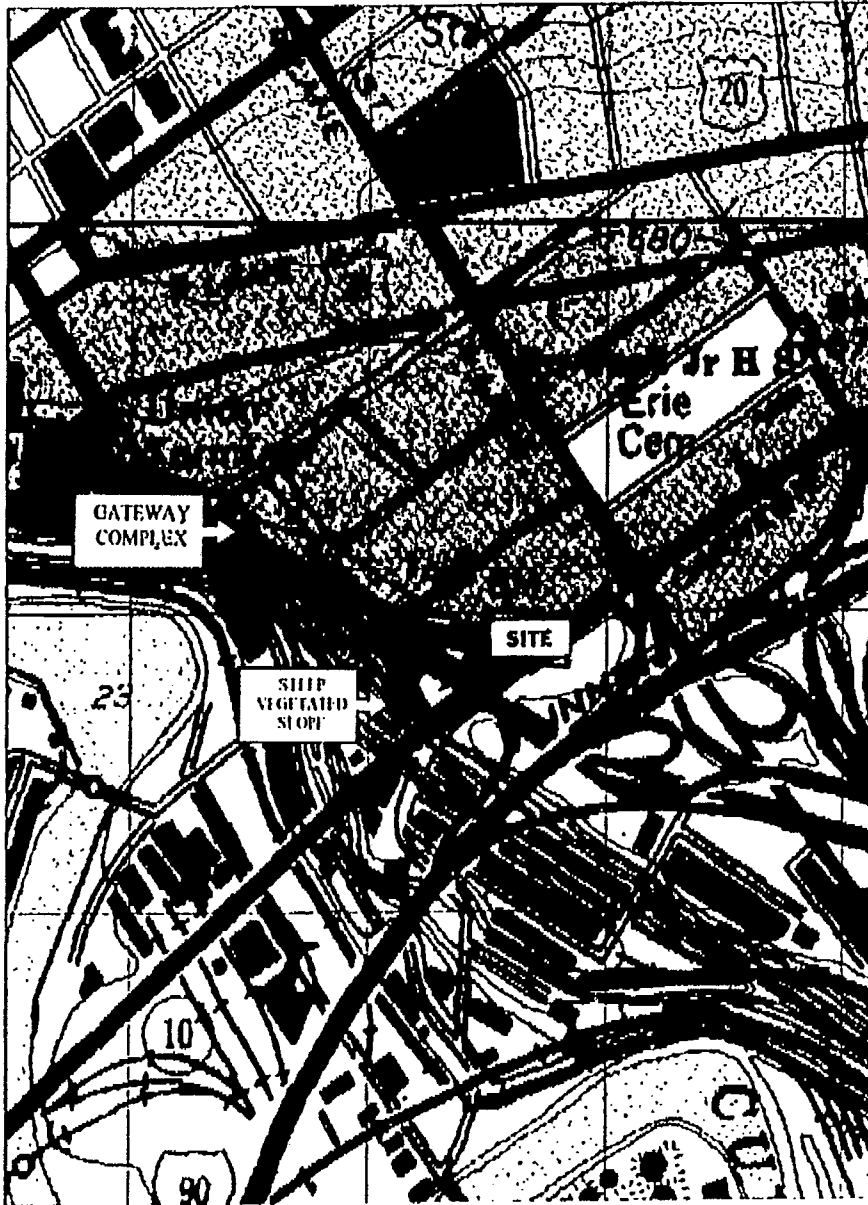


FIGURE 1: Enlarged USGS Map

SOURCE:
 USGS Quadrangles Cleveland
 South, Ohio
 1963 photorevised 1985
SCALE: 1" = 666'



Site Assessment Addressium
 Former Shell Service Station
 501 Carnegie Avenue
 Cleveland, Ohio
 ATC Project No. 08.15310.0188

00001675

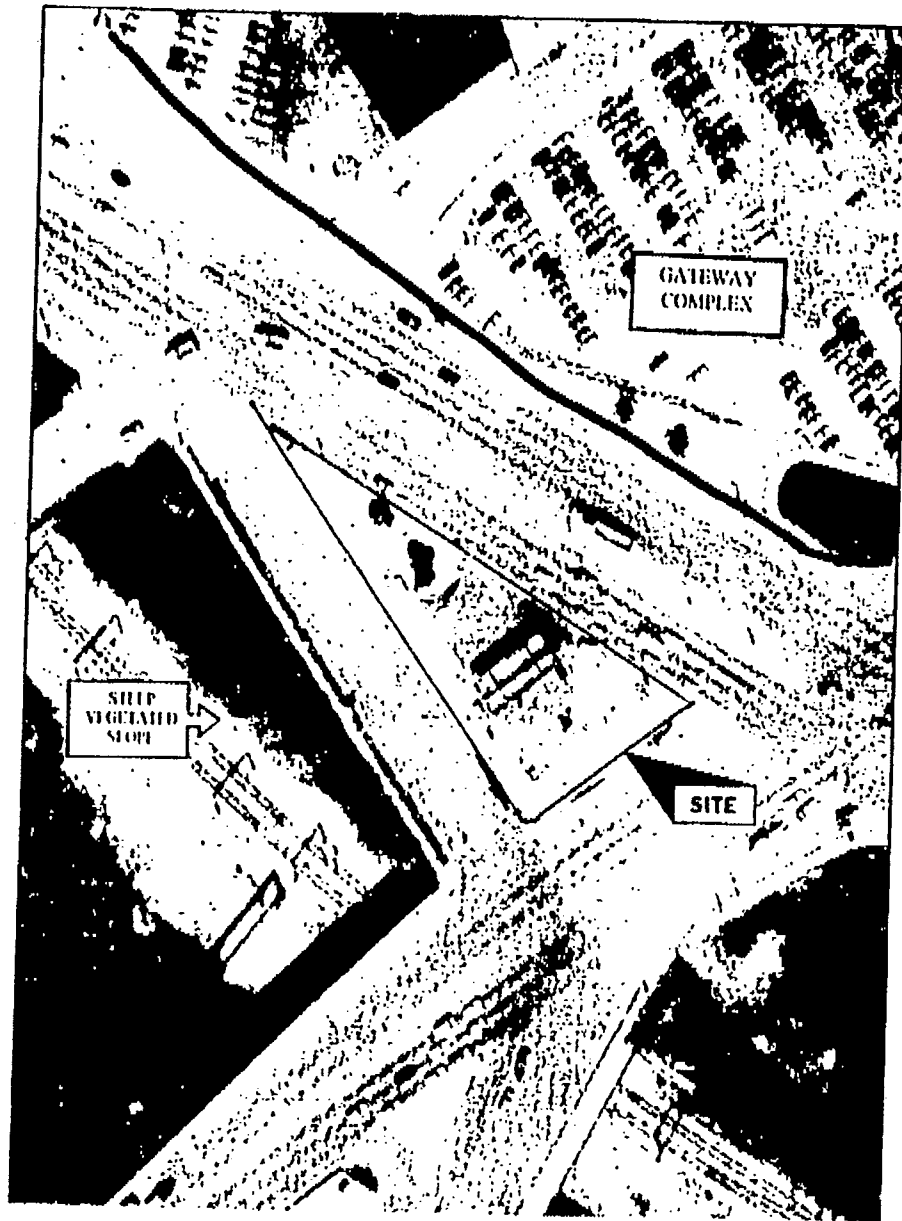


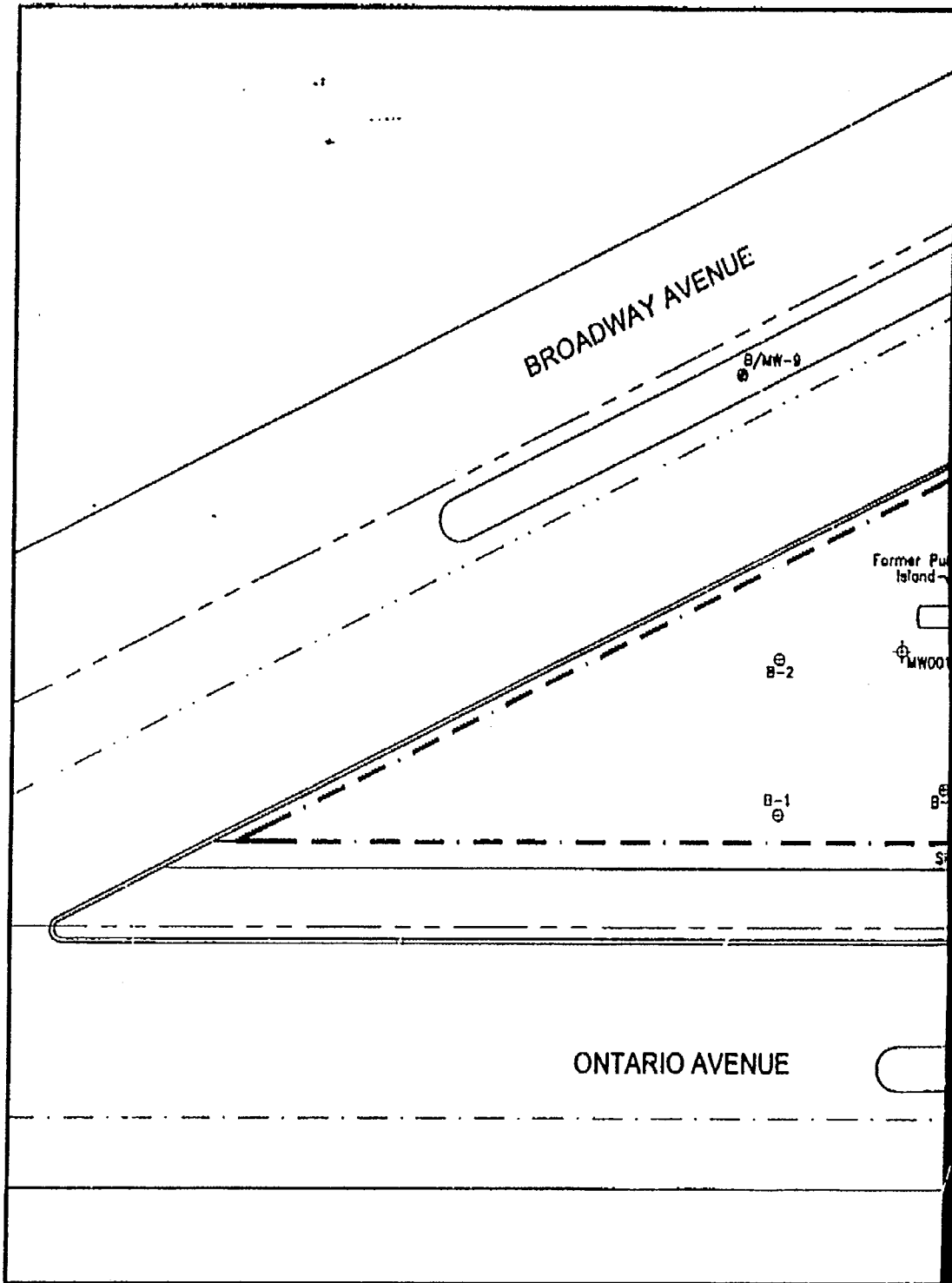
FIGURE 2: Aerial Photograph

Aerial Photograph:
SCALE: 1" = 110'



Site Assessment Addendum
Former Shell Service Station
501 Carnegie Avenue
Cleveland, Ohio
ATC Project No. 08.15310.0188

00001676



BROADWAY AVENUE

ONTARIO AVENUE

Former Pu
Island

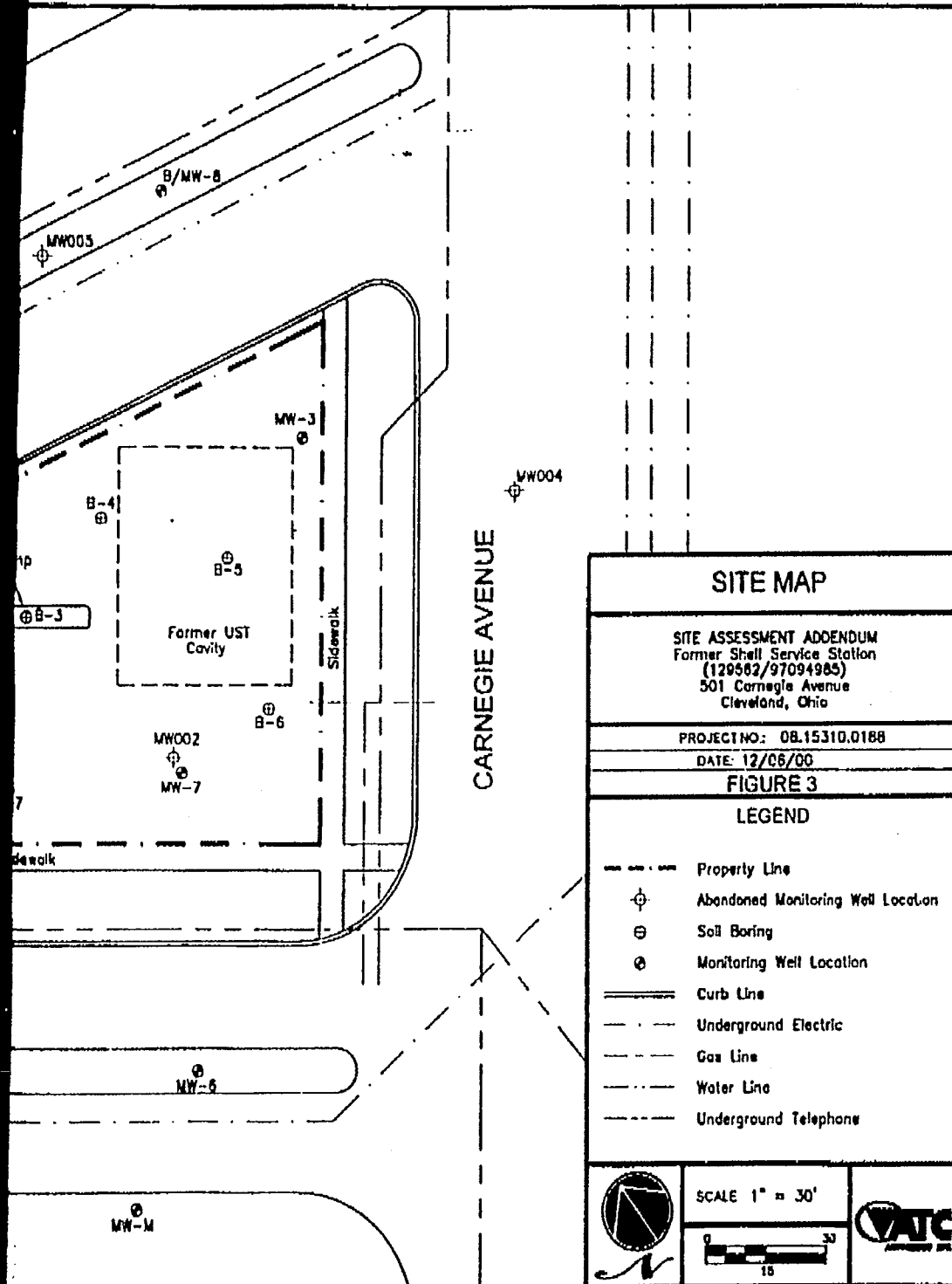
B/MW-9

B-2

MHO01

B-1

B-3



CARNEGIE AVENUE

B/MW-8

MW005

MW-3

MW004

B-4

B-5

B-3

Former UST Cavity

Sidewalk

MW002

B-6

MW-7

7

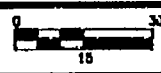
Sidewalk

MW-6

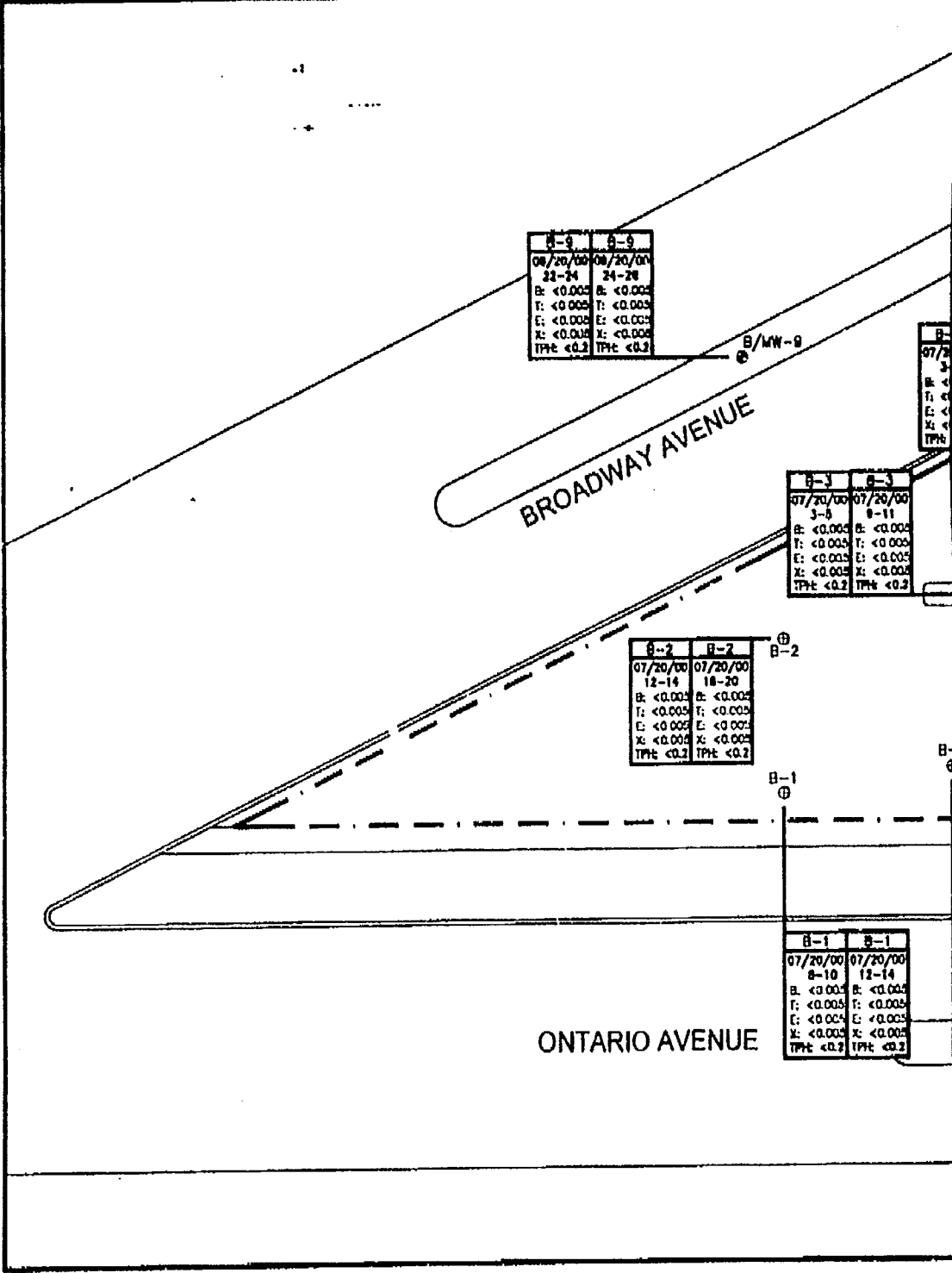
MW-1



SCALE 1" = 30'



00001678



B-9	B-9
08/20/00	08/20/00
23-24	24-28
B: <0.005	B: <0.005
T: <0.005	T: <0.005
E: <0.005	E: <0.005
X: <0.010	X: <0.005
TPH: <0.2	TPH: <0.2

B
07/20/00
3-5
B: <0.005
T: <0.005
E: <0.005
X: <0.005
TPH: <0.2

B-3	B-3
07/20/00	07/20/00
3-5	8-11
B: <0.005	B: <0.005
T: <0.005	T: <0.005
E: <0.005	E: <0.005
X: <0.005	X: <0.005
TPH: <0.2	TPH: <0.2

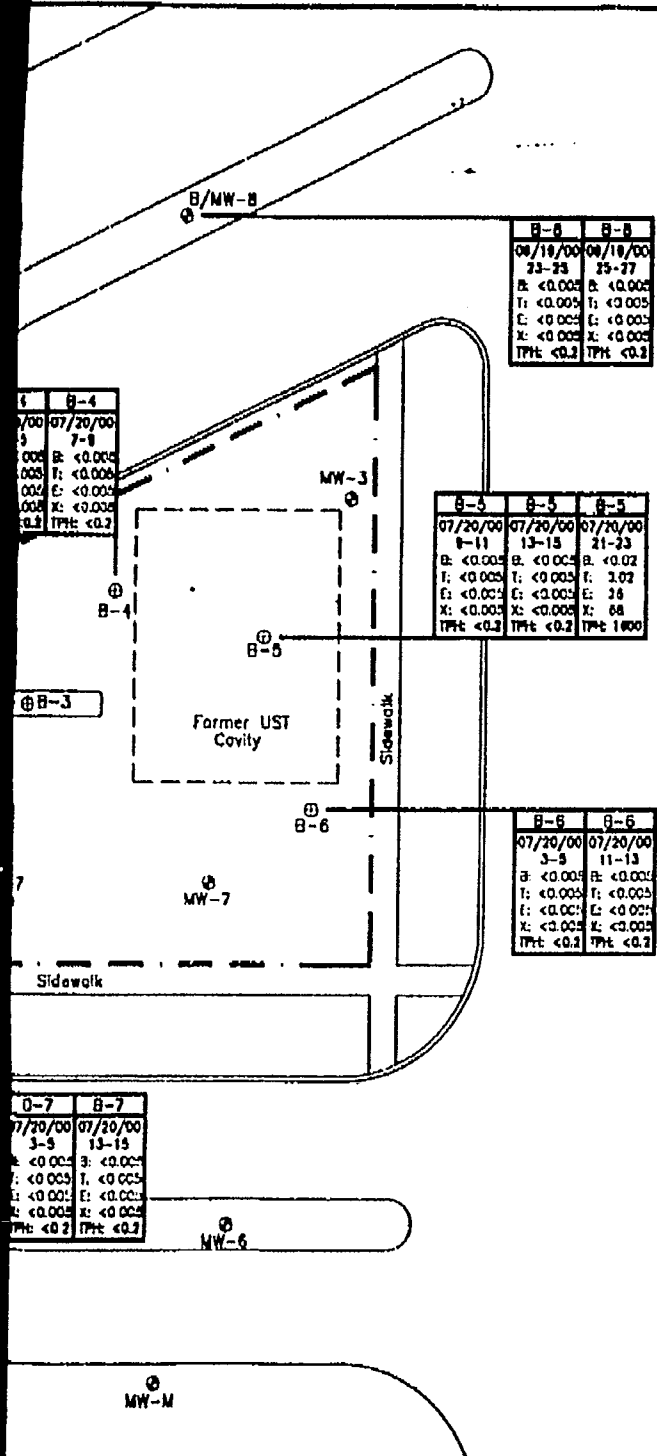
B-2	B-2
07/20/00	07/20/00
12-14	18-20
B: <0.005	B: <0.005
T: <0.005	T: <0.005
E: <0.005	E: <0.005
X: <0.005	X: <0.005
TPH: <0.2	TPH: <0.2

B-1
07/20/00
8-10
B: <0.005
T: <0.005
E: <0.005
X: <0.005
TPH: <0.2

B-1	B-1
07/20/00	07/20/00
8-10	12-14
B: <0.005	B: <0.005
T: <0.005	T: <0.005
E: <0.005	E: <0.005
X: <0.005	X: <0.005
TPH: <0.2	TPH: <0.2

BROADWAY AVENUE

ONTARIO AVENUE



SOIL ANALYTICAL RESULTS MAP

SITE ASSESSMENT ADDENDUM
 Former Shell Service Station
 (129562/97094985)
 501 Carnegie Avenue
 Cleveland, Ohio

PROJECT NO: 08.15310.0188
 DATE: 12/06/00

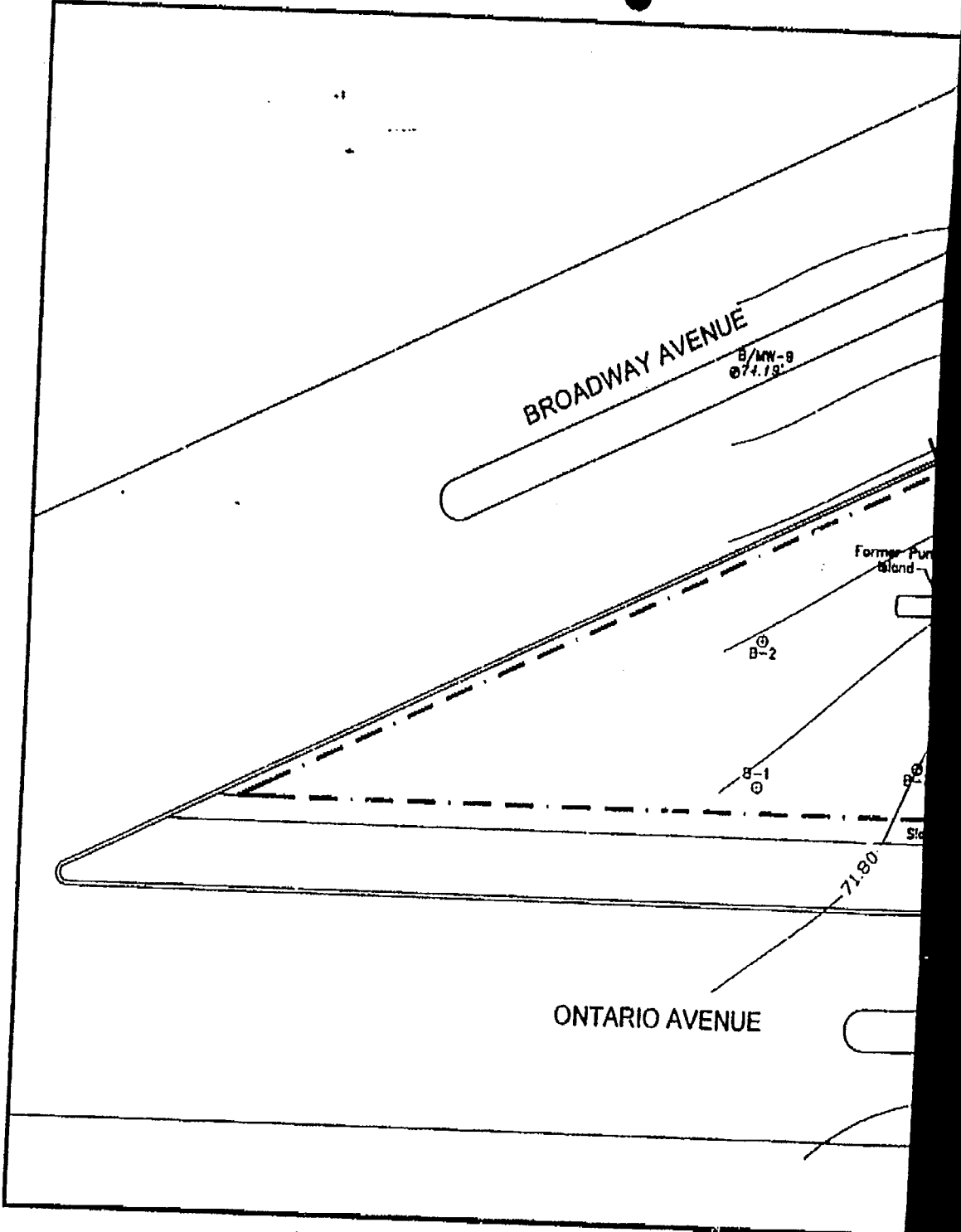
FIGURE 4

LEGEND

- Property Line
- Soil Boring
- Monitoring Well Location
- Curb Line

MW-1	
08/18/00	Date Of Sample
B-11	Depth Of Sample
B: <0.005	Benzene Results in PPV
T: <0.005	Toluene Results in PPV
E: <0.005	Ethylbenzene Results in PPV
X: <0.005	Xylene Results in PPV
TPH: <0.2	TPH Results in PPV

SCALE 1" = 30'



BROADWAY AVENUE

B/MW-8
Ø 74.19'

Former Pump
Island

B-2

B-1

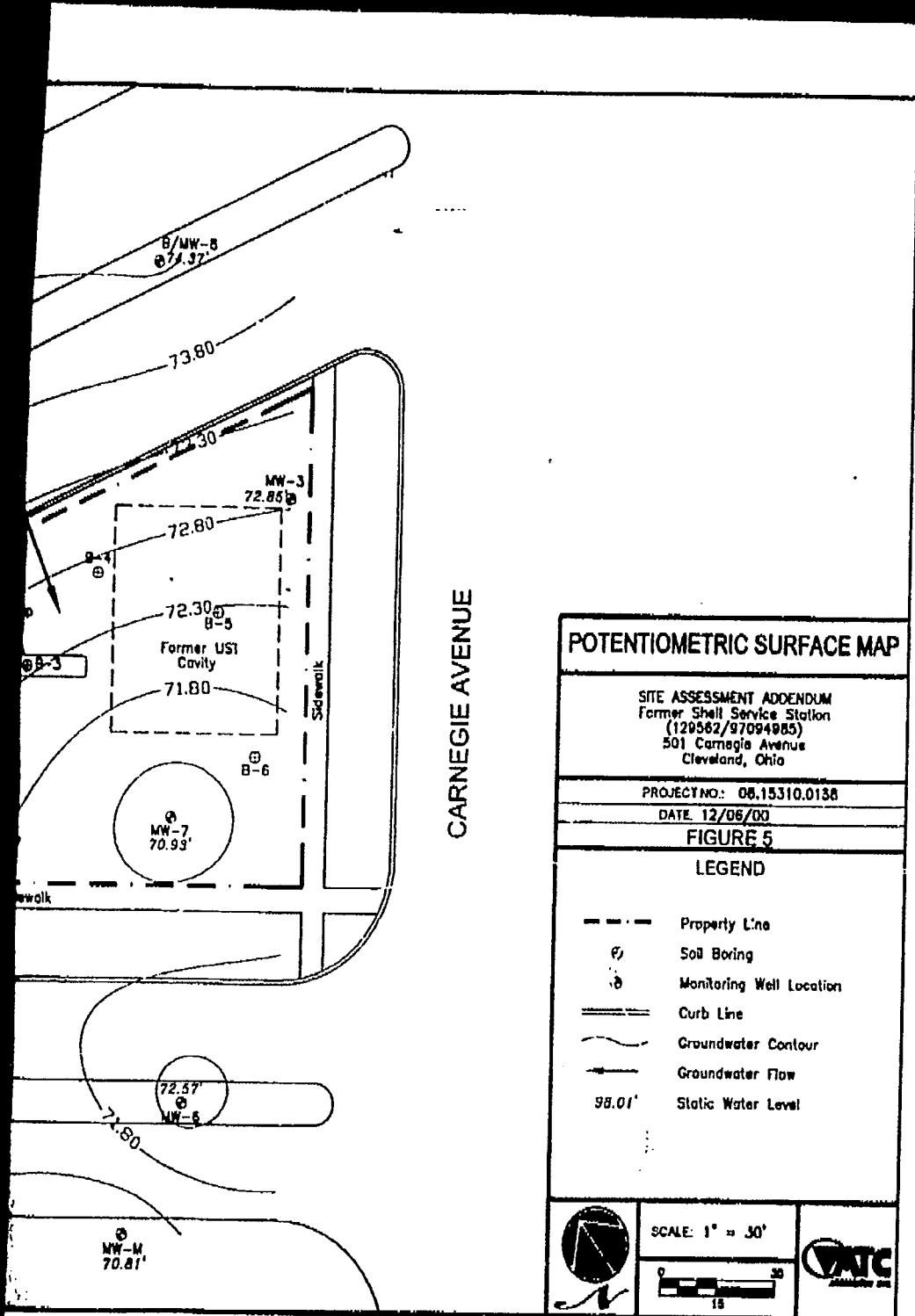
B-3

Site

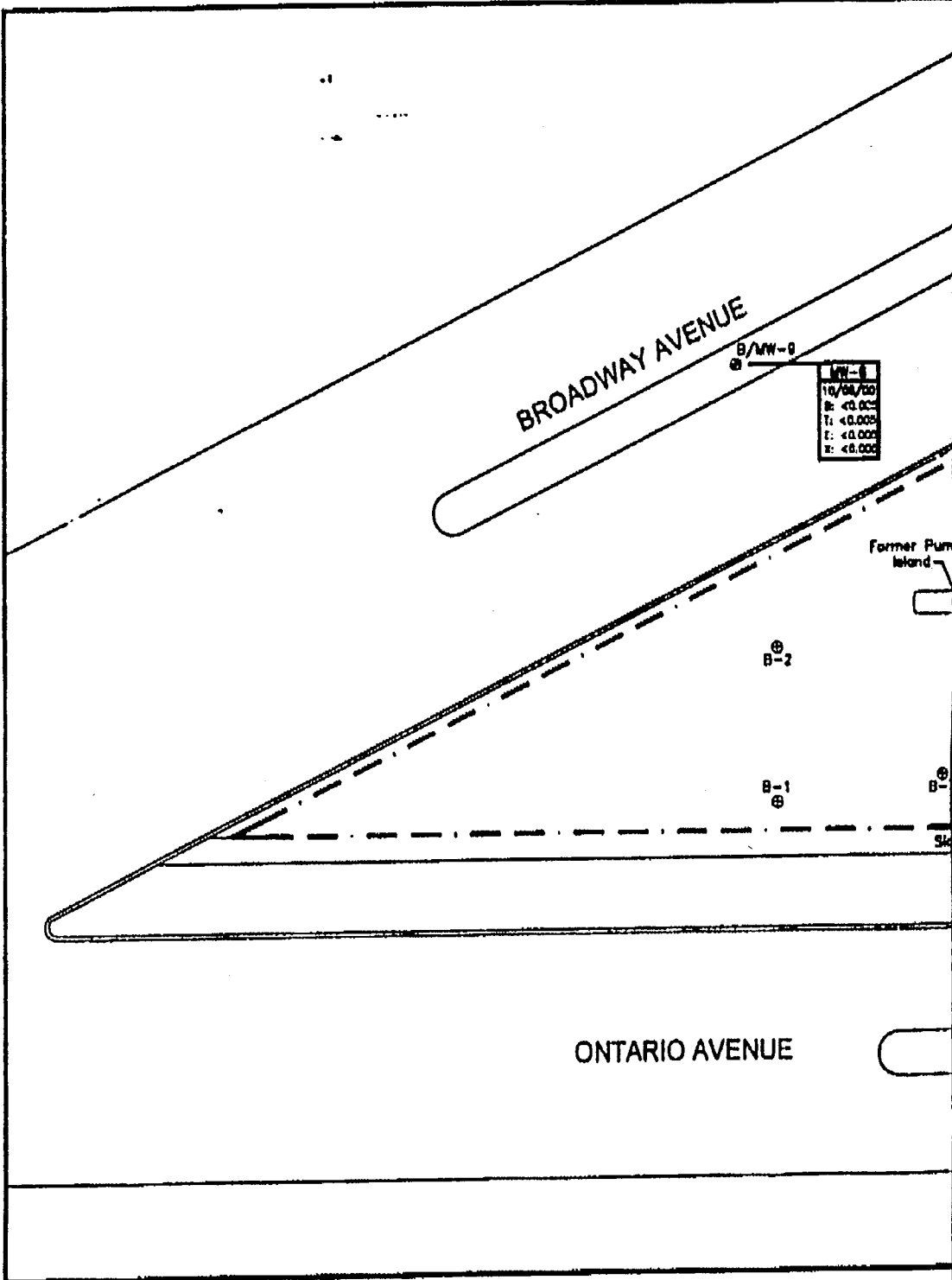
71.80

ONTARIO AVENUE

0000168



CARNEGIE AVENUE



ONTARIO AVENUE

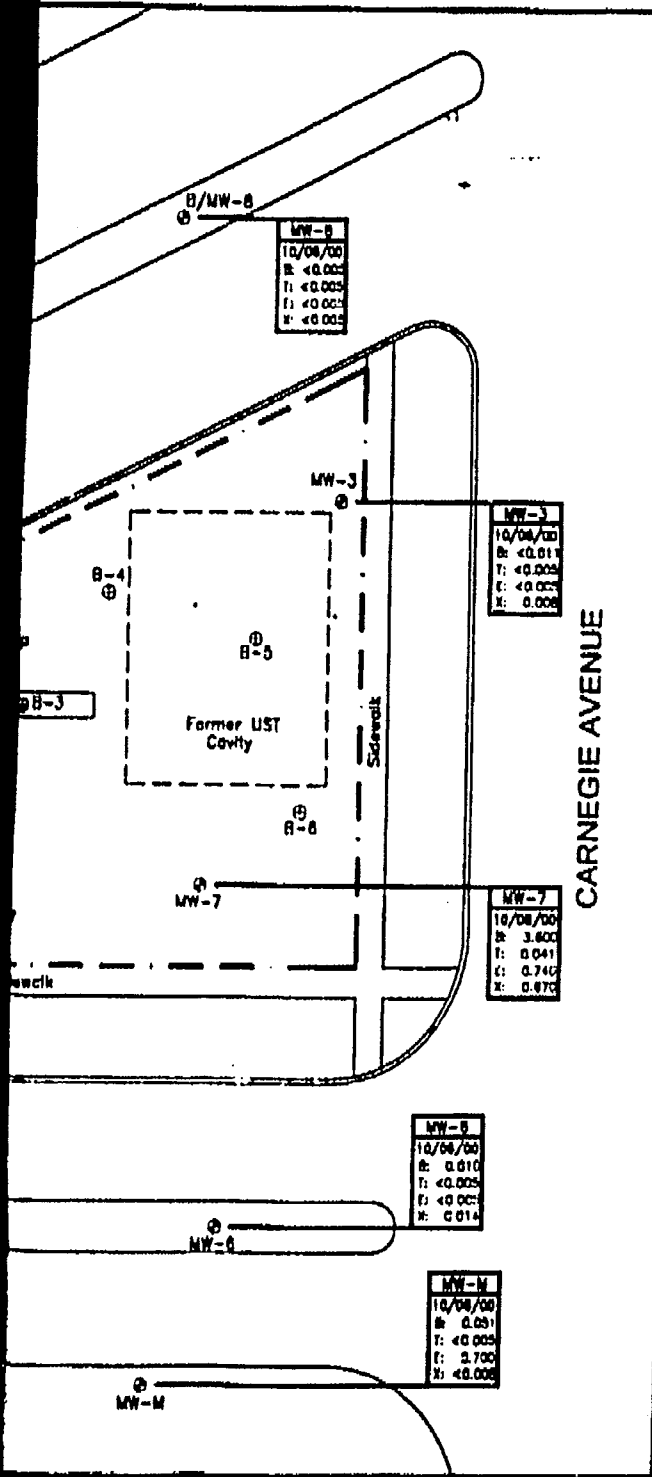
BROADWAY AVENUE

Former Pump
Island

B-2

B-1

B-0



GROUNDWATER ANALYTICAL RESULTS MAP

SITE ASSESSMENT ADDENDUM
Former Shell Service Station
(129582/97094985)
501 Carnegie Avenue
Cleveland, Ohio

PROJECT NO: 08.15310.0188

DATE: 12/08/00

FIGURE 6

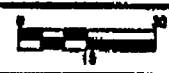
LEGEND

- Property Line
- ⊕ Soil Boring
- ⊕ Monitoring Well Location
- ==== Curb Line

MW-1	Date Of Sample
10/08/00	Benzene Results in PPM
B: <0.005	Toluene Results in PPM
T: <0.001	Ethylbenzene Results in PPM
E: <0.001	Xylenes Results in PPM
X: <0.001	



SCALE: 1" = 30'



ATC Environmental, Inc.

BORING LOG

BORING NO: B-1

PROJECT NO: DB_15210_0180

PROJECT NAME Shell-Corridor CLIENT Qualiton Enterprises LLC
 PROJECT LOCATION 301 Corcoran Ave DRILLING CONTRACTOR Allegany Drilling Inc
 DRILLING METHOD 2 1/2" Hollow Stem Auger SAMPLE METHOD 3" Split Spoon
 DATE STARTED Jul 20, 2000 DATE FINISHED Jul 20, 2000 DRILLER Dave Walker INSPECTION Rob Huetter

DEPTH (ft)	SPT BLOW COUNT	REC (ft)	PID (ppm)	PHOTO EVIDENCE	SURFACE ELEVATION	REMARKS
					NA	
					LITHOLOGIC DESCRIPTION	
0.0						(U1) Gravel (dark brown to black), moist, soft, no odor (S1) Brown medium grain sand w/ gravel, moist, medium dense
5.0	1	50	5			(U1) Brown silty sand, damp, loose to medium dense
	2	50	1			
	3	65	214			
10.0	4	65	1			(U1) Brown sandy clay, damp
	5	75	93			(S1) Brown medium to fine grain sand, loose, moist
15.0	6	60	0			(U1) Grayish brown silts with trace sand, moist, medium stiff
	7	75	0			(S1) Light brown fine grain sand, medium dense, moist
	8	65	1			
20.0						End of Boring
25.0						
30.0						
WIDTH OF TEST BURING: 2.0 (in) SPT = STANDARD PENETRATION TEST REC = SAMPLE RECOVERY NI = NON-DETECTABLE PID = FLUORESCENCE IONIZATION DETECTOR PHO = PHOTO-IONIZATION DETECTOR						

00001405

ATC Environmental, Inc.

BORING LOG

BORING NO: B-2

PROJECT NO: DB_1531Q.D188

PROJECT NAME Shell-Corpsair CLIENT Equilon Enterprises LLC

PROJECT LOCATION 301 Corporate Ave DRILLING CONTRACTOR Ridgeway Drilling Inc

DRILLING METHOD 2 75 Hollow Stem Auger SAMPLE METHOD 2 Spills Spoon

DATE STARTED Jul 20 2000 DATE FINISHED Jul 20 2000 DRILLER Dave Miller INSPECTOR Rob Paster

DEPTH (FT)	SPT BLows per 6"	REC (ft)	PID (ppm)	PHOTO	SURFACE ELEVATION NA	REMARKS
					LITHOLOGIC DESCRIPTION	
0.0						(1L) Gross (dark brown topsoil, moist, soft, no odor) (1S) Brown medium grain sand w/ gravel, moist, medium dense
5.0	1	60	2			
	2	60	1			(1S) Brown silty sand, damp, loose to medium dense
	3	70	1			
10.0	4	70	0			(1L) Brown sandy clay seam, damp (1S) Brown medium to fine grain sand, loose moist
	5	90	1			
15.0	6	90	1			(1L) Grayish brown silts with trace sand, moist, medium stiff (1S) Light brown fine grain sand, medium dense, moist
	7	90	1			
	8	90	12			
20.0						End of Boring
25.0						
30.0						

DEPTH OF TEST BROWING: 30.00'

SPT = STANDARD PENETRATION TEST
 REC = SAMPLE RECOVERY
 NI = NON-DETECTABLE
 PID = FLUOR IONIZATION DETECTOR
 PFD = PHOTO-IONIZATION DETECTOR

PAGE 1 OF 1

63 12 16 91

ATC Environmental, Inc.

BORING LOG

BORING NO: B-3
PROJECT NO: DB_1531Q_0188

PROJECT NAME: Shell-Corpsair
CLIENT: Equilon Enterprises LLC
PROJECT LOCATION: 501 Corporate Ave
DRILLING CONTRACTOR: Ridgeway Drilling Inc
DRILLING METHOD: 2.25 Hallett Stem Augers
SAMPLE METHOD: 2" Split Spoon
DATE STARTED: Jul 20, 2000 DATE FINISHED: Jul 20, 2000 DRILLER: Dave Walker INSPECTOR: Rob Roether

DEPTH (FT)	SPT BLows per 6"	REC 1/11	PID Type/1	PHOTO E	SURFACE ELEVATION	REMARKS
					NA	
					LITHOLOGIC DESCRIPTION	
0.0					(10) Coarse (dark brown topsoil, moist, soft, no odor)	
					(13) Brown medium grain sand w/ gravel, moist, medium dense, trace red brick	
1.0	1	35	0			
2.0	2	10	1			
3.0	3	9	2		No recovery, rock in shoe	
4.0	4	75	3			
5.0	5	50	0			
6.0	6	35	0		(11) Brown sandy clay silt, damp	End of Boring
15.0					(12) Grayish brown silt with trace sand, moist, medium stiff	
70.0						
25.0						
30.0						
DEPTH OF TEST BORING: 15.0'						
SPT - STANDARD PENETRATION TEST REC - SAMPLE RECOVERY ND - NON DETECTABLE PID - FLAME IONIZATION DETECTOR PID - PHOTO-IONIZATION DETECTOR						

00001188

ATC Environmental, Inc.

BORING LOG

BORING NO: B-1
 PROJECT NO: DR_15310_0100

PROJECT NAME Shell:Concrete CLIENT Lowell Enterprises LLC
 PROJECT LOCATION 501 Corvair Ave DRILLING CONTRACTOR Highway Drilling Inc
 DRILLING METHOD 2" Full Size Auger SAMPLE METHOD 2" Split Spoon
 DATE STARTED JUL 20 2000 DATE FINISHED JUL 20 2000 DRILLER Dave Walker INSPECTOR Bob Hoether

DEPTH (ft)	SPT Blows per 6"	REC (%)	PID (ppm)	PHOTO	SURFACE ELEVATION	REMARKS
					NA	
					LITHOLOGIC DESCRIPTION	
0.0						(10) Green/ Dark brown topsoil, moist, soft, no odor
						(50) Brown medium to fine grain sand w/ trace gravel, moist, loose to medium dense
1.0	50	45				
2.0	22	22				
3.0	80	59				(10) Brown sandy clay silt, damp
4.0	80	0				
5.0	80	6				(10) Brown silty clay with trace sand moist, medium stiff
6.0	81	0				
15.0						End of Boring
20.0						
25.0						
30.0						

BOTTOM OF TEST BORING (5.00')

SPT = STANDARD PENETRATION TEST
 REC = SAMPLE RECOVERY
 ND = NON-DETECTABLE
 PID = FLAME IONIZATION DETECTOR
 PFD = PHOTO-IONIZATION DETECTOR

00001600

ATC Environmental, Inc.

BORING LOG

BORING NO: B-5
 PROJECT NO: 06_15310_0188

PROJECT NAME Shell-Gacresale CLIENT Equilon Enterprises LLC
 PROJECT LOCATION 501 Gacresale Ave DRILLING CONTRACTOR Radway Drilling Inc
 DRILLING MTD 2 23 Mallin St. Avoca SAMPLE MTD 2' Fallt. Spoon
 DATE STARTED JUL 20 2000 DATE FINISHED JUL 20 2000 DRILLER Dave Haller INSPECTOR Rob Reister

DEPTH (ft)	SAMPLE	SPT BLows Per ft	REC (ft)	PID (Type)	P P R O J E C T	SURFACE ELEVATION	REMARKS
						NA	
						LITHOLOGIC DESCRIPTION	
0.0							
						10L1 Coarse/ Dark brown topsoil, moist, soft, no odor	
						10P1 Brown sand, gravel and pea gravel fill, moist, loose	
1.0			03	1			
2.0			50	5			
3.0			40	14			
4.0			45	51			
5.0			50	119			
6.0			50	>1000			
7.0			40	213			
8.0			40	484			
9.0			50	408			
10.0			60	>1000			
11.0			70	>1000			
12.0			80	>1000			
13.0			80	NA			
14.0							
15.0							Black staining and petroleum odor noted from 14.0' to 15.0' bgs
16.0							
17.0							
18.0							Petroleum odor and staining noted from 18.0' to 29.0' bgs
19.0							
20.0							
21.0							
22.0							
23.0							
24.0							
25.0							
26.0							
27.0							
28.0							
29.0							End of Boring
30.0							
BOTTOM OF TEST BORING: 29.00'							
SPT = STANDARD PENETRATION TEST							
REC = SAMPLE RECOVERY							
NI = NON DETECTABLE							
FID = FLAME IONIZATION DETECTOR							
PID = PHOTO-IONIZATION DETECTOR							

00001489

ATC Environmental, Inc.

BORING LOG

BORING NO: B-6
 PROJECT NO: 08_15310_0188

PROJECT NAME: Shell-Corpsair CLIENT: Lowison Enterprises LLC
 PROJECT LOCATION: 301 Corporate Ave DRILLING CONTRACTOR: Alphaway Drilling Inc
 DRILLING METHOD: E 22 Hollow Stem Aircore SAMPLE METHOD: 2" Split Spoon
 DATE STARTED: JUL 20 2000 DATE FINISHED: JUL 20 2000 DRILLER: Dave Walker INSPECTOR: Rob Heather

DEPTH (ft)	S A M P L E	SPT BLows PER 6"	REC LOG	PID (Type)	P I P E	SURFACE ELEVATION NA	REMARKS
						LITHOLOGIC DESCRIPTION	
0.0							(11) Coarse (dark brown topsoil, moist, soft, no odor)
5.0	1	23	44				(12) Brown sand and gravel fill, moist, loose, brick fragment # 8 0" type
	2	30	36				
	3	50	9				
10.0	4	50	17				
	5	50	152				(13) Brown medium and coarse grained sand with trace gravel, loose, moist
	6	83	70				(14) Brown medium to fine grained sands with trace silt and clays, moist, loose
15.0							End of Boring
20.0							
25.0							
30.0							
BOTTOM OF TEST BORING: 15.00'							
SPT = STANDARD PENETRATION TEST REC = SAMPLE RECOVERY ND = NOT DETECTABLE PID = FLUORIDE IONIZATION DETECTOR PII = PHOTO-IONIZATION DETECTOR							

00001490

ATC Environmental, Inc.

BORING LOG

BORING NO: B-7

PROJECT NO: 08_19310_0100

PROJECT NAME Shell-Corpsis CLIENT Smalley Enterprises LLC

PROJECT LOCATION 501 Corporate Ave DRILLING CONTRACTOR Midway Drilling, Inc

DRILLING METHOD 2 1/2" Hollow Stem Auger SAMPLE METHOD W/ Retri Spoon

DATE STARTED Jul 20, 2000 DATE FINISHED Jul 20, 2000 DRILLER Dave Walker INSPECTOR Rob Mueller

DEPTH (ft)	D C L	WT BLANK PER FOOT	REC (%)	PID (Type)	P R O F I L E	SURFACE ELEVATION	REMARKS	
						NA		
						LITHOLOGIC DESCRIPTION		
0.0						(U) Gross/ Dark brown topsoil, moist, soft, no odor	End of Boring	
						(G) Brown sand and gravel fill, moist, loose, brick fragment @ 8' bgs		
1.0	1		50	23				
2.0	2		NA	4		No recovery, rock in shoe		
3.0	3		10	3		Listed recovery, piece of brick in shoe		
4.0	4		70	8		(S) Brown sand with rock fragments, very dense, damp		
5.0	5		80	10		(S) Brown medium to fine grained sand with trace silt and clay, medium dense to loose, moist		
6.0	6		85	112				
15.0								
20.0								
25.0								
30.0								
BOTTOM OF TEST BORING: 15 (ft)								
SPT = STANDARD PENETRATION TEST								
REC = SAMPLE RECOVERY								
NI = NON-DETECTABLE								
PID = PLANE ILLUMINATION OF TESTOR								
PID = PHOTO-ILLUMINATION OF TESTOR								

00001491

ATC Environmental, Inc.

WELL LOG

PROJECT NAME Shell-Corona CLIENT Equilon Enterprise LLC
 PROJECT LOCATION 501 Corona Ave DRILLING CONTRACTOR Bidway Drilling Inc
 DRILLING METHOD 3.25" Hollow Stem Auger SAMPLE METHOD 3" Split Spoon
 DATE STARTED SEP 13 2000 DATE FINISHED SEP 13 2000 DRILLER Paul Simpson INSPECTOR Rob Buehler

DEPTH (FT)	SPT BLOW PER 6"	REC (%)	PID (ppm)	CYCLES	SURFACE ELEVATION	WELL CONST	REMARKS
					NA		
					LITHOLOGIC DESCRIPTION		
0.0					CONCRETE		
					(0P) Brown sand and gravel fill, moist, loose		
5.0	1	40	0		(0P) Brown medium grained sand with trace gravel, silts and clays, damp, loose to medium dense		
	2	40	0				
10.0	3	30	0				
	4	35	0		(CL) Brown silty clay layer		
	5	50	1		(0P) Brown fine grained sand with trace silts and clays, loose, damp		
15.0	6	40	0				
	7	40	0				
20.0	8	85	0				
	9	30	1		(0P) Brown silty sand, medium dense saturated @ 25.5'		
	10	50	0				
25.0	11	30	0				
30.0							

BOTTOM OF TEST BORING 32.00' SPT - STANDARD PENETRATION TEST REC - SAMPLE RECOVERY ND - NON DETECTABLE PID - FLUVE IONIZATION DETECTOR PID - PHOTO IONIZATION DETECTOR	WELL CONSTRUCTION WELL DIA 2" CASING MATERIAL PVC SCREEN MATERIAL PVC HOLE SIZE 0.812" METHOD REMEDIATION WELL INSTALLED UPON COMPLETION	<input type="checkbox"/> OTHER CASING <input checked="" type="checkbox"/> SPOUT <input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> SAND <input checked="" type="checkbox"/> SCREEN	PAGE 1 OF 2
---	--	--	-------------

00001681

ATC Environmental, Inc.

WELL LOG

PROJECT NAME Shell-Corridor CLIENT Equilon Enterprises LLC
 PROJECT LOCATION 501 Corporate Ave DRILLING CONTRACTOR Ridgeway Drilling Inc
 DRILLING METHOD 3.25" Hollow Stem Auger SAMPLE METHOD 2" Split Spoon
 DATE STARTED Nov 19, 2000 DATE FINISHED Nov 19, 2000 DRILLER Paul Simpson INSPECTOR Rob Mather

DEPTH (FEET)	LOG	RPT W/LOG P/R S	REC TEST	PID (Type)	PRO- LOG	SURFACE ELEVATION NA	LITHOLOGIC DESCRIPTION	WELL CONST	REMARKS
30.0							(Continued from previous page) ISM) Brown silty sand medium dense, saturated @ 76.5'		
35.0									
40.0									
45.0									
50.0									
55.0									
60.0									

BOTTOM OF TEST BOWING <u>32.00'</u> RPT - STANDARD PENETRATION TEST REC - SAMPLE RECOVERY ND - NON DETECTABLE PID - FLAME IONIZATION DETECTOR PFD - PHOTO IONIZATION DETECTOR	WELL CONSTRUCTION WELL STAM <u>2"</u> CASING MATERIAL <u>PVC</u> SCREEN MATERIAL <u>PVC</u> SCREEN SIZE <u>0.010"</u> METHOD MONITORING WELL INSTALLED UPON COMPLETION	<input type="checkbox"/> OTHER CASING <input checked="" type="checkbox"/> GROUT <input checked="" type="checkbox"/> PERMEABLE <input type="checkbox"/> UNO <input type="checkbox"/> SCREEN	PAGE 2 OF 2
--	---	--	-------------

ATC Environmental, Inc.

WELL LOG

BORING NO: B/M-9

PROJECT NO: DW-15310.0188

PROJECT NAME Well-Corona CLIENT Equilon Enterprises LLC

PROJECT LOCATION 501 Carnegie Ave DRILLING CONTRACTOR Highway Drilling Inc

DRILLING METHOD 4 1/2" Hollow Stem Auger SAMPLE METHOD 2" Split Spoon

DATE STARTED Sep 20, 2000 DATE FINISHED Sep 20, 2000 DRILLER Paul Bishop INSPECTOR Rob Roether

DEPTH (ft)	SPT (blows per ft)	REC (%)	PID (ppm)	PI	SURFACE ELEVATION	WELL CONST	REMARKS
					NA		
					LITHOLOGIC DESCRIPTION		
0.0					CONCRETE		
0.0 - 1.0					(SP1) Brown sand and gravel fill, moist loose		
1.0 - 2.0	40	40	0		(SP1) Brown medium grained sands with trace gravel, silt and clay, damp, loose to medium dense		
2.0 - 3.0	40	40	0				
3.0 - 4.0	50	50	0				
4.0 - 5.0	85	85	0		(CL) Brown silty clay layer		
5.0 - 6.0	60	60	0		(SP1) Brown fine grained sands with trace silt and clay, loose, damp		
6.0 - 7.0	50	50	0				
7.0 - 8.0	70	70	0				
8.0 - 9.0	80	80	0				
9.0 - 10.0	80	80	0		(SP1) Brown silty sand, medium dense, saturated @ 25.0'		
10.0 - 11.0	80	80	0				
11.0 - 12.0	80	80	0				
12.0 - 13.0	90	90	NA				
13.0 - 14.0							
14.0 - 15.0							
15.0 - 16.0							
16.0 - 17.0							
17.0 - 18.0							
18.0 - 19.0							
19.0 - 20.0							
20.0 - 21.0							
21.0 - 22.0							
22.0 - 23.0							
23.0 - 24.0							
24.0 - 25.0							
25.0 - 26.0							
26.0 - 27.0							
27.0 - 28.0							
28.0 - 29.0							
29.0 - 30.0							

RUNNER OF TEST RUNS: 12 00'

SPT = STANDARD PENETRATION TEST
 REC = SAMPLE RECOVERY
 NI = NON-DETECTABLE
 PID = FLAME IONIZATION DETECTOR
 PID = PHOTO-IONIZATION DETECTOR

WELL CONSTRUCTION

WELL DIAM: 2"
 CASING MATERIAL: PVC
 SCREEN MATERIAL: PVC
 SCREEN SIZE: 30 010"
 METHOD: PENETRATING WELL TERMINATED UPON COMPLETION

- OUTER CASING
- GROUT
- BENTONITE
- SAND
- SCREEN

00001604

ATC Environmental, Inc.

WELL LOG

BORING NO: BZ/MH-9

PROJECT NO: DB 15310.0188

PROJECT NAME Shell-Covered CLIENT Lowell Enterprises LLC
 PROJECT LOCATION 501 Cochran Ave DRILLING CONTRACTOR Radwax Drilling, Inc
 DRILLING METHOD 1.25 Hollow Stem Auger SAMPLE METHOD 2" Balls Screen
 DATE STARTED Sep 20 2000 DATE FINISHED Sep 20 2000 DRILLER Paul Simpson INSPECTOR Bob Mueller

DEPTH (ft)	SPT	REC (ft)	PID (ft)	PROJECT	SURFACE ELEVATION	WELL CONST	REMARKS
					NA		
					LITHOLOGIC DESCRIPTION		
30.0					(Continued from previous page) 1571 Brown silty sand medium dense saturated @ 25.0'		
35.0							
40.0							
45.0							
50.0							
55.0							
60.0							

BOTTOM OF TEST BORING: 32.00' SPT - STANDARD PENETRATION TEST REC - SAMPLE RECOVERY ND - NEUTRON DETECTABLE PID - FLAME IONIZATION DETECTOR PTD - PHOTO IONIZATION DETECTOR	WELL CONSTRUCTION WELL DIA: 2" CASING MATERIAL: PVC SCREEN MATERIAL: PVC SCREEN SIZE: 0.010" METHOD: MONITORING WELL INSTALLED UPON COMPLETION	<input type="checkbox"/> FILTER CASING <input checked="" type="checkbox"/> SILENT <input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> SAND <input type="checkbox"/> OTHER	PAGE 2 OF 2
--	--	--	-------------

00001695

SEM CLOSURE GUIDANCE DOCUMENT

CLOSURE FORM (PART II)

Site Feature Scoring System
Refer to SFSS Guidelines (pages 33-34) before completing.

SITE FEATURES	Column A		Column B		Column C		Column D	
	Score 20	Score	Score 15	Score	Score 10	Score	Score 5	Score
1. Distance of UST system from closest potable water supply source currently in use ft:	> 100 ft		> 100 ft	15	< 90 Feet		Inside of designated site use area	
2. Depth to groundwater is:	> 90 ft		11-90 ft		13-90 Feet or unknown	10	< 15 ft	
3. Predominant soil type of substratum is:	Clay or shale		Silt or Clayey sands or fine sandstone		Silty sand or fine sand or sandstone or Unknown	10	Clean sand, gravel or conglomerate	
4. Natural and/or man made conduits or receptors are (complete Worksheet below)	< 8 points		8-10 points		11-13 points		> 13 points	5
Add Subtotal		11	+	15	+	20	+	5
							TOTAL	31

Site Feature 4 Worksheet

Basements or subsurface foundations within 100 feet of UST system	4 points	4
Storm sewer within 90 feet of UST system	4 points	4
Sanitary sewer within 90 feet of UST system	4 points	4
Septic system leach field within 90 feet of UST system	2 points	0
Water line main within 90 feet of UST system	1 point	1
Natural gas line main within 90 feet of UST system	1 point	1
Bedrock area prone to dissolution along joints or fractures within 100 feet of UST system	1 point	0
Faults or known fractures within 100 feet of UST system	1 point	0
Buried telephone/television cable main within 90 feet of UST system	1 point	1
Buried electrical cable main within 90 feet of UST system	1 point	1
TOTAL POINTS		16

If total points from Site Feature 4 Worksheet are:

- < 8 - enter score of 20 in Column A of Site Feature 4 in SFSS Chart
- 8 - 10 - enter score of 15 in Column B of Site Feature 4 in SFSS Chart
- 11 - 13 - enter score of 10 in Column C of Site Feature 4 in SFSS Chart
- > 13 - enter score of 5 in Column D of Site Feature 4 in SFSS Chart

NOTE: AFTER COMPLETING SFSS CHART (ABOVE), COMPARE THAT SCORE WITH TOTAL SCORES IN ACTION LEVEL TABLE (BELOW) TO DETERMINE ACTION LEVELS FOR UST SITI

Action Level Table
(all concentrations in parts per million)

	CATEGORY 4	CATEGORY 3	CATEGORY 2	CATEGORY 1
TOTAL SCORE >	>71	70-51	50-31	<31
Constituents Level in Soil:				
Benzene	0.500	0.335	0.170	0.006
Toluene	12	9	7	4
Ethylbenzene	18	14	10	6
Total Xylenes	85	67	47	28
Constituents Level in Groundwater:				
Benzene	0.005	0.005	0.005	0.005
Toluene	1	1	1	1
Ethylbenzene	0.700	0.700	0.700	0.700
Total Xylenes	10	10	10	10
TPH Level in Soil:				
Analytical Group No. 1	600	450	300	105
Analytical Group Nos. 2, 3, and 4	1156	904	642	380



Ohio Department of Commerce

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
6606 Tussing Road • P.O. Box 687
Reynoldsburg, OH 43068 9009
(614) 752-7938 FAX (614) 752-7942
www.com.state.oh.us

Bob Taft
Governor

Gary C. Suhadolnik
Director

January 03, 2001

DAVID WEEKS
EQUILON ENTERPRISES
PO BOX 509
BEACON, NY 12508

SITE: SHELL
501 CARNEGIE
CLEVELAND OH
CUYAHOGA COUNTY
RELEASE #18000287-N00001

RE: REMEDIAL ACTION PLAN REQUEST

Dear Mr. Weeks:

The Bureau of Underground Storage Tank Regulations (BUSTR) reviewed your report titled "Hydrogeologic Site Assessment Addendum" dated December 20, 2000. BUSTR determined that the full extent of soil and ground water contamination, on-site and off-site, appears to have been defined. You are required to submit a remedial action plan as prescribed in Ohio Administrative Code 1301:7-9-13(J), effective September 1992, and explained in BUSTR's *Corrective Action Guidance Document*. These documents describe the information that is to be submitted to BUSTR in the remedial action plan. You must submit the remedial action plan within 90 days of the date of this letter.

All excavated soils shall be managed as petroleum contaminated soils (PCS) unless laboratory analysis indicates otherwise. Underground storage tank owners and/or operators are therefore requested to complete and submit the enclosed "Petroleum Contaminated Soil Form". The completion of this form, along with all applicable supporting information and documentation, will allow the BUSTR staff to verify proper PCS disposal. A separate form must be completed for each soil pile or containerized soil group.

An order form and other publications that may help you to understand the requirements for compliance with BUSTR's rules and regulations may be found on the Internet at www.com.state.oh.us/sfm or by calling our office.

Thank you for your cooperation. If you have any questions, please contact me at 614-752-7093.

Sincerely,

Charles E. Zapp
Environmental Specialist

xc: Site File
Carol Anne McConnell, PUSTRCB

Zapp, Charlie E
From: Alan Cubberley [cubberley8@atc-enviro.com]
Sent: Monday, April 02, 2001 4:45 PM
To: Charlie E Zapp
Cc: Ed Henke
Subject: 501 Carnegie Avenue, Cleveland (BUSTR Incident 1822883-00)

The referenced site is currently under "old rule" regulations. On 1/3/01 BUSTR submitted a request for a RAP (due 4/3/01). ATC has spent the last several months evaluating "new rule" groundwater use, as it may be appropriate to push this site into "new regulations".

In lieu of submitting and "old rule" RAP, ATC is requesting a 90 day extension to conduct additional "new rule" sampling for evaluation under new rules. The revised due date is 7/2/01.

ATC and Equiva will assume this request meets with BUSTR's approval unless you advise otherwise.

Alan J. Cubberley
Branch Manager
ATC Associates, Inc.
145 Ken Mar Industrial Blvd.
Broadview Heights, OH 44147
cubberley8@atc-enviro.com
P 440-838-7177 F 440-838-7181

180002-07-H

Edward W. Henke, P.G.
Environmental Geologist
SE Reg on Science & Engineering



June 19, 2001

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Department of Commerce
Ohio State Fire Marshal
Bureau of Underground Storage Tank Regulations
P.O. Box 687
Reynoldsburg, Ohio 43068

RECEIVED
2001 JUL -2 PM 12:03
STATE FIRE MARSHAL

ATTN: Mr. Charles Zepp

RE: New Rules Election Notification
Shell Service Station #129562
501 Carnegie Avenue
Cleveland, Ohio
Cuyahoga County
BUSTR Release No: 18000287-N00001

Dear Mr. Zepp:

The above-mentioned site was determined to have a documented release due to a failed product line tightness test in November 1992. Under "new" rule Ohio Administrative Code (OAC): 1301 7-9-13 (promulgated March 31, 1999), operators may elect to conduct corrective actions with the "new" rule or the rule in effect at the time of the reported release.

We, Equiva Services LLC, hereby inform BUSTR of our election to apply the OAC:1301-7-9-13 rule (effective March 31, 1999) to the release site referenced in this correspondence. We also acknowledge that once this election is made it cannot be reversed. This notification is provided in accordance with current BUSTR policy.

If you have any questions or need additional information, please do not hesitate to contact Kurt H. Ness of ATC Associates Inc. at (440) 838-7177 or me at (770) 564-2501

Sincerely,
Equiva Services LLC

Edward W. Henke, P.G.
Environmental Geologist

cc: Kurt H. Ness - ATC, Cleveland
cc: Alan Clobberly - ATC, Cleveland

5525 W. 13th Dr. #4

March 31 04 30093

Phone 1770 564 2501

Fax 1770 564 2499

00001334

Zepp, Charlie E
From: Kurt Ness [ness8@atc-enviro.com]
Sent: Tuesday, June 28, 2001 10:38 AM
To: Zepp, Charlie E
Cc: Ed Henke
Subject: Shell #129562, 501 Carnegie, Cleveland, Ohio - Release #18000287-N00001

Mr. Zepp:

ATC, on behalf of Equiva Services LLC, requests a 60 day extension for submittal of the information you requested in your correspondence dated January 3, 2001. You had requested a Remedial Action Plan in your January 3, 2001 letter. However, Equiva intends to move the site into the "new" regulations and gain closure under a Tier I scenario. ATC is gathering information regarding the one potable water well identified by the ODNR. ATC is in the process of obtaining an affidavit from the current property owner refuting the existence of the well. A proposed revised report due date is 8/31/01.

ATC will consider this extension request acceptable unless you advise otherwise.

Please let me know if you have any questions.

Kurt Ness
Senior Project Manager
ATC Associates Inc.
145 Ken Mar Industrial Parkway
Broadview Heights, Ohio 44147
phone 440 838-7177
fax 440 838-7181
Ness8@atc-enviro.com

Zapp, Charlie E

From: Kurt Ness [ness8@atc-enviro.com]

Sent: Friday, August 31, 2001 10:03 AM

To: Zapp, Charlie E

Cc: Ed Henke

Subject: Sheet #129502, 501 Carnegie, Cleveland, Ohio - Release #18000287-N00001

Mr. Zapp:

ATC, on behalf of Equiva Services LLC, requests a 30 day extension for submittal of the information you requested in your correspondence dated January 3, 2001. You had requested a Remedial Action Plan in your January 3, 2001 letter. However, Equiva has moved the site into the "new" regulations to obtain closure under a Tier I scenario. ATC has prepared a report that is currently under review. A proposed revised report due date is 9/30/01.

ATC will consider this extension request acceptable unless you advise otherwise.

Please let me know if you have any questions.

Kurt Ness

Senior Project Manager

ATC Associates Inc.

145 Ken Mar Industrial Parkway

Broadview Heights, Ohio 44147-

phone 440 838-7177

fax 440 838-7181

Ness8@atc-enviro.com

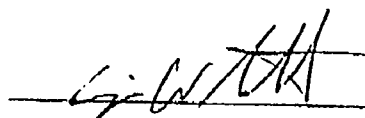
Prepared for:


Mr. Edward W. Henke, P.G.
Equilon Enterprises LLC
5595 Wylmoor Drive
Norcross, GA 30093

by:

ATC Associates Inc.
145 Ken Mar Industrial Parkway
Broadview Heights, Ohio 44147
(440) 838-7177

TIER EVALUATION
Former Shell Service Station #129562
501 Carnegie Avenue
Cleveland, Ohio
ATC Project No: 08.75100.0227
BUSTR Incident No: 18000287-N00001


Prepared by: Craig Whitaker
Field Scientist


Reviewed by: Kurt Ness
Project Manager

September 24, 2001

RECEIVED
2601 SEP 26 AM 10:39
STATE FIRE MARSHAL

00001400



145 Ken Mar Industrial Parkway
Broadview Heights, Ohio 44147-2960
www.atc-nviro.com
44.1838.7177
Fax 440.338.7181

September 24, 2001

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Department of Commerce
Ohio State Fire Marshal
Bureau of Underground Storage Tank Regulations
P.O. Box 637
Reynoldsburg, Ohio 43068

ATTN: Mr. Charles Zepp

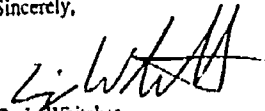
RE: **Tier Evaluation Report**
Former Shell Service Station #129562
501 Carnegie Avenue
Cleveland, Ohio
ATC Project No: 08.75100.0227
BUSTR Incident No: 18000287-N00001

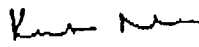
Dear Mr. Zepp:

Please find enclosed one copy of ATC Associates Inc. "Tier Evaluation" report regarding the above-referenced facility. The assessment report is submitted in general accordance with Ohio Administrative Code (OAC) 1301:7-9-13. Analytical data indicates soil and groundwater concentrations below applicable action levels. Accordingly Edward Henke of Equiva Services LLC (Equiva) on behalf of Equilon Enterprises LLC (Equilon) has reviewed and is submitting this letter report to request a no further action status for the site.

If you have any questions or need additional information, please do not hesitate to contact either Kurt Ness of ATC at (440) 838-7177 or myself at (770) 564-2501.

Sincerely,


Craig Whitaker
Field Scientist


Kurt Ness
Project Manager

Enclosure

cc: Edward Henke
cc: Williams & Ross

00001100

EXECUTIVE SUMMARY

One test boring was advanced at the Former Shell Service Station (SAP No.129562) located at 501 Carnegie on May 2001. The purpose of the project was to investigate soil conditions associated with a release due to a failed product line tightness test in November 1992.

Field screening of soil samples collected from the test boring (B-10) indicated maximum concentrations of total photoionizable vapors ranging from zero parts per million (ppm) to 820 ppm. Laboratory analysis of soil samples collected from the boring did not detect benzene, toluene, ethylbenzene and total xylenes (BTEX) or methyl tertiary butyl ether (MTBE) concentrations exceeding applicable action levels.

Nine monitoring wells were installed during previous site investigations. Static water levels in six of the wells ranged from 25.65 to 28.35 feet below ground surface (bgs) during the August 2000 and October 2000 groundwater sampling events. The general direction of groundwater flow of the water bearing zone is towards the south.

Separate phase hydrocarbons (SPH) (or evidence thereof) were not encountered in any of the wells at the site. Historically, SPH have never been detected at the site.

The Groundwater Resources Map of Cuyahoga County indicates that groundwater can be obtained from the Sand and Gravel in thin, narrow, and often discontinuous course sand and gravel lenses. Wells may yield 3 to 10 gallons per minute (gpm). The site is situated above an aquifer that is a fair to poor source of groundwater.

Potable water in the area of the site is obtained from the City of Cleveland Water Department, which procures water from Lake Erie. Lake Erie is located approximately 1.25 miles north of the site. Ms. Karen M. Lisowski, consulting engineer for the city of Cleveland Division of Water stated that one hundred percent of the surrounding properties are tied into the Cleveland water system.

Well logs and drilling reports maintained by the Ohio Department of Natural Resources (ODNR) were obtained for wells within a 2000 foot radius of the former UST system. Two water well logs were identified within 2000 feet of the subject site. One of the potable water wells was discounted by referencing the latitude and longitudinal coordinates that located this well beyond the 2000 foot radius. According to the ODNR, a potable water well was installed at 2336 Canal St. in 1944. This property is currently operated by the Chemelloy Corporation, Chris Juratic (Building Manager), stated that the associated potable water well no longer exists at 2336 Canal St. All unlocated drinking water sources (at ODNR) within the surrounding area of the site were investigated via the ODNR Internet site. No unlocated potable water wells were identified within 2000 feet of the subject site.

BTEX and MTBE concentrations were detected below applicable action levels in soil and groundwater samples analyzed from this and previous assessments. Based upon the above-mentioned information, a "No Further Action" determination is requested for the site.

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....i

1.0 INTRODUCTION.....1

2.0 SITE CHARACTERISTICS.....1

 2.1 Physical Site Description.....1

 2.2 Adjacent Land Use/Potential Contaminant Sources/Receptors.....1

 2.3 Hydrogeologic Setting.....1

 2.4 Local Drinking Water Supplies.....2

3.0 TEST BORING.....2

 3.1 Test Boring.....2

4.0 SAMPLING AND ANALYSIS.....2

 4.1 Soil.....2

 4.2 Historical Groundwater.....3

 4.2.1 Hydrogeologic Data.....3

5.0 ACTION LEVEL DETERMINATION.....3

6.0 FINDINGS.....3

7.0 QUALIFICATIONS.....4

INDEX TO TABLES

Table 1 - Historical Groundwater Analytical Results

Table 2 - Soil Analytical Results

Table 3 - Historical Groundwater Elevation Data

INDEX TO FIGURES

Figure 1 - Site Vicinity Map

Figure 2 - Site Plan

Figure 3a - Groundwater Resources Map

Figure 3b - Groundwater Resources Key

Figure 4 - Soil Analytical Results Map

Figure 5 - Groundwater Analytical Results Map

Figure 6 - Potentiometric Surface Map

APPENDICES

Appendix A - New Rules Election Notification

Appendix B - Boring Logs

Appendix C - Tier I Evaluation Notification Checklist

Appendix D - City of Cleveland Correspondence

Appendix E - Chemelloy Corporation Response

Appendix F - ODNR Well Logs and Drilling Reports

Appendix G - Operating Procedures

Appendix H - BUSTR Soil Classification Form

Appendix I - Laboratory Analytical Results

Appendix J - Action Level Determination Checklist/Drinking Water Determination Checklist

TIER EVALUATION

Former Shell Service Station #129562
501 Carnegie Avenue
Cleveland, Ohio
ATC Project No: 08.75100.0227
BUSTR Incident No: 18000287-N00001

1.0 INTRODUCTION

In November 1992, the above-mentioned site was determined to have a documented release due to a failed product line tightness test. In response to a confirmed petroleum release (1992), several phases of investigation were completed at this site. Based on historical investigations, benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl-tert-butyl-ether (MTBE) were identified as the constituents of concern (COC) in subsurface media.

To enable the site to be considered for a Tier VIII Evaluation under Ohio Administrative Code (OAC) 1301: 7-9-13 dated April 1, 1999; Equiva Services LLC notified Bureau of Underground Storage Tank Regulations (BUSTR) in a letter dated June 19, 2001 to switch the site into new rules (Appendix A). ATC advanced one soil boring B-10 in May 2001 to investigate current subsurface conditions at the site. The soil boring is shown on Figure 2 - Site Map. The site location is depicted on Figure 1 - Site Vicinity Map. Soil boring logs are provided in Appendix B. The Tier I Evaluation Notification Checklist is included in Appendix C.

2.0 SITE CHARACTERISTICS

2.1 Physical Site Description

The Former Shell Service Station (SAP No. 129562) is located in Cuyahoga County at 501 Carnegie, Cleveland, Ohio. Currently the site is a vacant lot. Topography at the site is relatively flat with a slight slope down towards the southwest. The general layout of the site is shown in Figure 2.

2.22 Adjacent Land Use/Potential Contamination Sources/Receptors

The site is located in a commercial area east of Carnegie, south of Broadway Avenue, and north of Ontario Avenue, in Cleveland, Ohio. Broadway Avenue borders the property to the north beyond which Jacobs Field is located.

Underground lines that entered the property from the east supplied telephone and electric service for the site; these utilities were removed during the demolition of the former service station. Natural gas currently enters the site from the east (Figure 2).

2.3 Hydrogeologic Setting

The Groundwater Resources Map of Cuyahoga County indicates that groundwater can be obtained from the Sand and Gravel in thin, narrow, and often discontinuous coarse sand and gravel lenses. Buried valleys contain 200-300 feet of fine sand, silt, and clay. Drilled wells may yield 3 to 10 gallons per minute (gpm)

unless encountering isolated sand and gravel lenses. The site is situated above an aquifer that is a fair to poor source of groundwater¹ (Figure 3a).

2.4 Local Drinking Water Supplies

Potable water in the area of the site is obtained from the City of Cleveland Water Department, which procures water from Lake Erie. Lake Erie is located approximately 2.25 miles north of the site. Ms. Karen M. Lisowski, Consulting Engineer for the City of Cleveland Division of Water stated that one hundred percent of the surrounding properties are tied into the Cleveland water system. A copy of the letter is included in Appendix D.

Well logs and drilling reports maintained by the Ohio Department of Natural Resources (ODNR) were obtained for wells within a 2000 foot radius of the former UST system. Two water well logs were identified within 2000 feet of the subject site. One of the potable water wells was discounted by referencing the latitude and longitudinal coordinates which located this well beyond the 2000 foot radius (Appendix F). According to the ODNR, a potable water well was installed at 2336 Canal St. in 1944. This property is currently operated by the Chemelloy Corporation, Chris Juratic (Building Manager), stated that the associated potable water well no longer exists at 2336 Canal St. (Appendix E). All unlocated drinking water sources (at ODNR) within the surrounding area of the site were investigated via the ODNR Internet site. No unlocated potable water wells were identified within 2000 feet of the subject site. The ODNR well logs, and 2000 foot unlocated well search radius map are included in Appendix F.

The site is not located within a sensitive area as defined by OAC: 1301-7-9 or above a sole source aquifer.

3.0 TEST BORING

One boring (B-10) was advanced on May 15, 2001 to collect geologic and chemical data from the unconsolidated subsurface materials at the site. The boring location was selected based upon historical soil data from MW-3. The location of B-10 is shown on Figure 2.

3.1 Test Boring

The test boring was installed with a truck-mounted drill rig using hollow stem augers and advanced to a maximum depth of 28 feet. Undisturbed soil samples were collected continuously from the soil boring. Operating procedures for test boring installation are included in Appendix G. Samples were inspected and described by an ATC Field Scientist. A boring log is included in Appendix B.

4.0 SAMPLING AND ANALYSIS

4.1 Soil

Native soils encountered in the boring consisted predominantly of course to fine grained sand. Maximum headspace photoionization detector (PID) measurements were recorded for each sample obtained. Maximum PID headspace measurements for the soil samples collected from the boring ranged from zero ppm to 820 ppm (boring B-10). The BUSTR Soil Classification Form is included in Appendix H.

¹ Katie Crowell, 1992, Ground-Water Resources of Cuyahoga County. Ohio Department of Natural Resources.

Two soil samples from boring B-10 (the sample immediately above soil/groundwater interface and the sample with the highest PID reading) were selected. All samples were submitted to the SPL Laboratory in Traverse City, Michigan utilizing chain-of-custody controls. The samples were analyzed for total petroleum hydrocarbons (TPH) (C10-C20) (C20-C34) by Method 8015 and benzene, toluene, ethylbenzene and xylenes (BTEX) and MTBE by Method 8260. A summary of laboratory analytical results is included in Figure 4 and Table 2. The complete laboratory report is included in Appendix I.

4.2 Historical Groundwater Data

Groundwater was sampled from monitoring wells MW-3, MW-7, and MW-M in August 2000 and October 2000, monitoring wells MW-1, MW-2, MW-4, MW-5, MW-8, and MW-9 historical analytical data is presented in Table 1 & Figure 5.

4.2.1 Hydrogeologic Data

Accurate gauging of the static water level was performed in August 14, 2000 and October 6, 2000, using an electronic water level indicator that measures the depth to groundwater to the nearest one-hundredth of a foot. Depth-to-water measurements in the monitoring wells during well gauging ranged from 25.65 feet in MW-8 to 28.35 feet in MW-7.

Water table elevations were calculated by subtracting the measured water level from surveyed reference points established at the top of the well casings. Water level measurements were used to construct a contour map of the potentiometric surface (the top of the water table) as shown in Figure 6. Gauging data indicated a groundwater flow towards the south. A summary of groundwater elevation measurements is included in Table 3.

5.0 ACTION LEVEL DETERMINATION

Ohio Administrative Code (OAC) 1301:7-9-13 outlines criteria for the determination of site specific action levels for sites from which releases from regulated USTs have occurred. The Action Level Determination Checklist and the Drinking Water Determination Checklist are included in Appendix J.

The applicable action levels for the site are as follows:

Groundwater: I (3)(a)-(i)-(v)(a) (non-drinking water)
Soil: I (3)(a)(ii)-(iii)(b)-(iv)(b)-(v)(b) (groundwater 15-30 feet)

- The soil type at the site as determined by BUSTR's Soil Classification system is considered Well-Graded Sands for action level determination.
- No drinking water wells were identified within 2000 feet of the site.
- No surface water is located within 300 feet of the site.
- The site is not located in a sensitive area or a wellhead protection zone.

6.0 FINDINGS

For this evaluation, water encountered at the site is assumed groundwater. The groundwater has been determined not to be a current or future source of drinking water.

- Depth-to-water measurements in the monitoring wells during well gauging ranged from 25.65 feet in MW-3 to 28.35 feet in MW-7. Groundwater flow was towards the south based upon the sampling events performed in August 2000 and October 2000.
- BTEX and MTBE concentrations were detected below applicable action levels in soil and groundwater samples analyzed from this and previous assessments.

Based upon the above-mentioned information, a "No Further Action" determination is requested for the site.

7.0 QUALIFICATIONS

Our professional services have been performed, our findings obtained and our recommendations prepared in accordance with customary principles and practices in the field of environmental science, geology and engineering. This warranty is in lieu of all other warranties either expressed or implied. ATC is not responsible for information lacking as a result of non-disclosure by the recipient of this report, or independent conclusions, opinions, or recommendations made by others based on information in this report.

The results, findings, conclusions and recommendations expressed in this report are based only on conditions that were observed during this site investigation and the Hydrogeologic Site Assessment Addendum (HSAA) of December 20, 2000. ATC and this report make no representation or assumptions as to past conditions or future occurrences.

TABLES

TABLE I
HISTORICAL GROUNDWATER ANALYTICAL RESULTS

Former Shell Service Station #129563
501 Carnegie Avenue
Cleveland, OH

Monitoring Well ID	Date Sampled	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylene ppm	Total BTEX	MTHM
MW-1 (abandoned)	12/02/1992	< 0.001	< 0.001	< 0.001	< 0.002	< 0.003	NS
	04/27/1994	0.022	< 0.001	< 0.001	< 0.001	< 0.023	NS
	03/01/1995	0.004	0.003	< 0.001	< 0.003	< 0.011	NS
	05/10/1995	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
	05/25/1995	0.002	< 0.001	< 0.001	< 0.003	< 0.007	NS
	11/10/1995	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
MW-2 (abandoned)	12/02/1992	0.005	0.002	0.048	0.174	0.229	NS
	04/27/1994	1.400	0.004	0.088	0.200	1.692	NS
	03/01/1995	2.500	0.004	0.170	0.370	3.344	NS
	05/10/1995	2.100	0.001	0.037	0.120	2.958	NS
	05/25/1995	5.000	< 0.050	0.070	0.130	< 3.250	NS
	11/10/1995	1.700	0.004	< 0.001	< 0.003	< 1.704	NS
MW-3 (Abandoned E-14-2000)	12/02/1992	0.011	0.023	0.001	0.013	0.062	NS
	04/27/1994	0.330	0.006	< 0.001	0.005	0.342	NS
	03/01/1995	0.250	0.170	0.029	0.054	0.533	NS
	05-10-1995	0.130	0.170	0.023	0.050	0.373	NS
	05/25/1995	0.094	0.029	0.011	0.014	0.148	NS
	11/10/1995	< 0.001	< 0.001	< 0.001	< 0.003	0.006	NS
	04/30/1996	< 0.001	< 0.001	< 0.001	< 0.003	0.006	NS
	10/02/1996	3.900	3.400	0.440	1.700	11.440	NS
	02/21/1997	0.330	0.013	0.003	0.007	0.352	NS
	10/02/1997	0.094	0.009	0.002	0.009	0.113	NS
	04/17/1998	< 0.001	0.001	< 0.001	0.003	0.004	NS
	06/14/1998	0.019	< 0.001	< 0.001	< 0.001	0.022	NS
	02/18/1999	0.011	< 0.001	< 0.001	< 0.001	0.016	NS
	09/14/1999	0.042	0.006	0.003	0.035	0.118	NS
	05/14/2000	0.011	< 0.005	< 0.005	0.008	0.029	0.037
	MW-4 (abandoned)	03/15/1993	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006
04/27/1994		< 0.001	< 0.001	< 0.001	< 0.002	< 0.008	NS
03/01/1995		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
05/10/1995		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
05/25/1995		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
11-10-1995		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
MW-5 (abandoned)	04/30/1996	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
	03/15/1993	0.015	0.005	< 0.001	< 0.003	< 0.024	NS
	04/27/1994	0.040	0.005	< 0.001	< 0.002	< 0.048	NS

00001110

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
 Former Shell Service Station 0121942
 501 Carnegie Avenue
 Cleveland, OH

Monitoring Well ID	Date Sampled	Hexane ppm	Toluene ppm	Ethylbenzene ppm	Xylene ppm	Total BTEX	MTBE
MW-6	03/15/1993	0.001	< 0.032	0.001	< 0.001	< 0.042	NS
	04/27/1994	0.004	< 0.001	0.002	0.010	< 0.012	NS
	03/01/1995	2.900	< 0.001	< 0.001	< 0.003	< 2.903	NS
	09/10/1995	2.200	< 0.001	< 0.001	< 0.001	< 2.203	NS
	08/25/1995	0.930	< 0.010	< 0.010	< 0.030	< 0.990	NS
	11/10/1995	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
	04/30/1996	0.250	< 0.001	< 0.001	< 0.003	< 0.253	NS
	10/02/1996	0.670	< 0.001	0.001	< 0.003	< 0.673	NS
	02/21/1997	0.560	< 0.001	< 0.001	< 0.003	< 0.563	NS
	10/02/1997	5.600	0.004	0.004	< 0.001	5.609	NS
	04/17/1998	2.000	0.012	< 0.001	< 0.001	< 2.013	NS
	09/14/1998	2.500	< 0.003	< 0.003	< 0.035	< 2.513	NS
	02/18/1999	0.021	< 0.001	< 0.001	< 0.001	< 0.024	NS
	09/14/1999	1.300	< 0.010	< 0.010	< 0.010	< 1.330	NS
	09/14/2000	0.010	< 0.003	< 0.003	< 0.003	< 0.023	0.240
MW-7 (Abandoned 8-14-2000)	04/30/1996	1.500	0.006	0.009	0.033	1.571	NS
	10/02/1996	5.400	0.420	0.430	1.100	7.400	NS
	02/21/1997	3.000	0.640	0.110	0.110	3.860	NS
	10/02/1997	15.000	0.270	0.140	0.120	15.530	NS
	04/17/1998	21.000	0.030	0.270	0.077	21.377	NS
	09/14/1998	17.000	0.100	1.600	2.100	20.800	NS
	02/18/1999	6.200	< 0.020	0.330	0.097	< 6.647	NS
	09/14/1999	8.200	< 0.150	1.600	1.200	< 11.160	NS
	09/14/2000	3.600	0.041	0.740	0.670	3.051	0.820
MW-11	08/14/2000	0.051	< 0.003	0.700	0.003	< 0.761	0.380
MW-8	10/06/2000	< 0.003	< 0.003	< 0.003	< 0.003	0.020	< 0.003
MW-9	10/06/2000	< 0.003	< 0.003	< 0.003	< 0.003	0.020	< 0.003
BUSTR Action Levels for Non-drinking Water Depth to water 15-30 feet							
Water Action Levels		3.95	N/A	N/A	N/A	N/A	N/A

NOTES
 NS - Not Sampled
 NA - Not Applicable
 ppm - parts-per-million
 MW-1 - MW-7 were installed by Parsons Engineering Science.
 Monitoring well MW-11 was found off-site during site reconnaissance.

00001611

TABLE 2
 SOIL ANALYTICAL RESULTS
 Former Shell Ser. Ice Station #129,61
 501 Carnegie Avenue
 Cleveland, OH

Boring Number	Sample Depth	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Total Xylenes (ppm)	MTBE (ppm)
PL-3	5'-10'	11/07/1992	0.018	0.13	< 0.005	< 0.005	
MW001	27'-29'	11/23/1992	< 0.002	< 0.002	< 0.002	< 0.006	
MW002	23'-27'	11/24/1992	< 1.2	< 1.2	6.9	11.6	
MW003	21'-23'	11/24/1992	< 2.5	1.5	3.4	11.9	
MW004	25'-30'	03/11/1993	< 0.002	0.006	< 0.002	0.003	
MW005	24'-26'	03/12/1993	< 0.005	0.1	< 0.005	< 0.005	
MW006	24'-26'	03/12/1992	< 0.005	< 0.005	0.01	0.26	
	26'-29'		< 0.002	< 0.002	< 0.002	0.003	
MW007	24'-26'	05/09/1996	0.018	< 0.01	0.01	0.039	
B-1	8'-10'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	12'-14'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
B-2	12'-14'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	18'-20'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
B-3	3'-5'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9'-11'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
B-4	3'-5'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	7'-9'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
B-5	9'-11'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	13'-15'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	21'-23'	07/20/2000	< 0.2	0.2	26	68	< 0.05
B-6	3'-5'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11'-13'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
B-7	3'-5'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	13'-15'	07/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
B-8	23'-25'	09/19/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	25'-27'	09/19/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

00001612

TABLE 3
***SOIL ANALYTICAL RESULTS**
 Former Shell Service Station #129542
 501 Carnegie Avenue
 Cleveland, OH

Boring Number	Sample Depth (ft)	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Total Xylenes (ppm)	MTBE (ppm)
PL-3	0-10'	11/07/1992	0.018	0.13	< 0.005	< 0.005	
B-9	22'-24'	09/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	24'-26'	09/20/2000	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
B-10	*18'-20'	05/15/2001	0.005	< 0.005	3.80	5.10	< 0.05
	*22'-24'	05/15/2001	0.006	< 0.005	< 0.005	4.30	< 0.05
USEPA Action Levels for Non-drinking Water Depth 15-30 Feet in Sand/Gravel Soil Type							
Direct Contact with Soil			8,200	520,000	230,000	1500,000	130,000
Soil to Non-drinking Water Leaching			118,000	N/A	N/A	N/A	N/A
Soil to Indoor Air			0.950	N/A	N/A	N/A	N/A

NOTES: ppm - parts-per-million
 PL-3 and MW001 - MW007 were installed by Parsons Engineering Science.
 N/A = Particular chemical of concern is Not Applicable to this particular pathway

**TABLE 3
HISTORICAL GROUNDWATER ELEVATION DATA**

* Former Shell Service Station #129562

501 Carnegie Avenue

Cleveland, OH

(All values are in feet)

Monitoring Well	Date Gauged	Elevation: Top of Casing	Depth to Product	Depth to Water	Thickness of Product	Elevation: Static Water Level
MW-3*	08/14/2000	99.80		26.95		72.85
MW-6*	08/14/2000	99.35		26.78		72.57
MW-7	08/14/2000	99.28		28.33		70.95
MW-M	08/14/2000	98.87		28.06		70.81
MW-8	10/06/2000	100.02		25.63		74.37
MW-9	10/06/2000	99.86		25.67		74.19

- NOTES:
- * Referential datum is relative to an arbitrary assignment of 100 feet. The reference is the southeast screw-bolt of light post located on the northwest corner of the site.
 - * Wells MW-1 through MW-6 were previously named MW001 through MW006 in Parsons Engineering Science reports.
 - * MW-1 through MW-6 are one-inch ID, Schedule 40 PVC wells.
 - Monitoring well MW-M was found off-site during site reconnaissance.

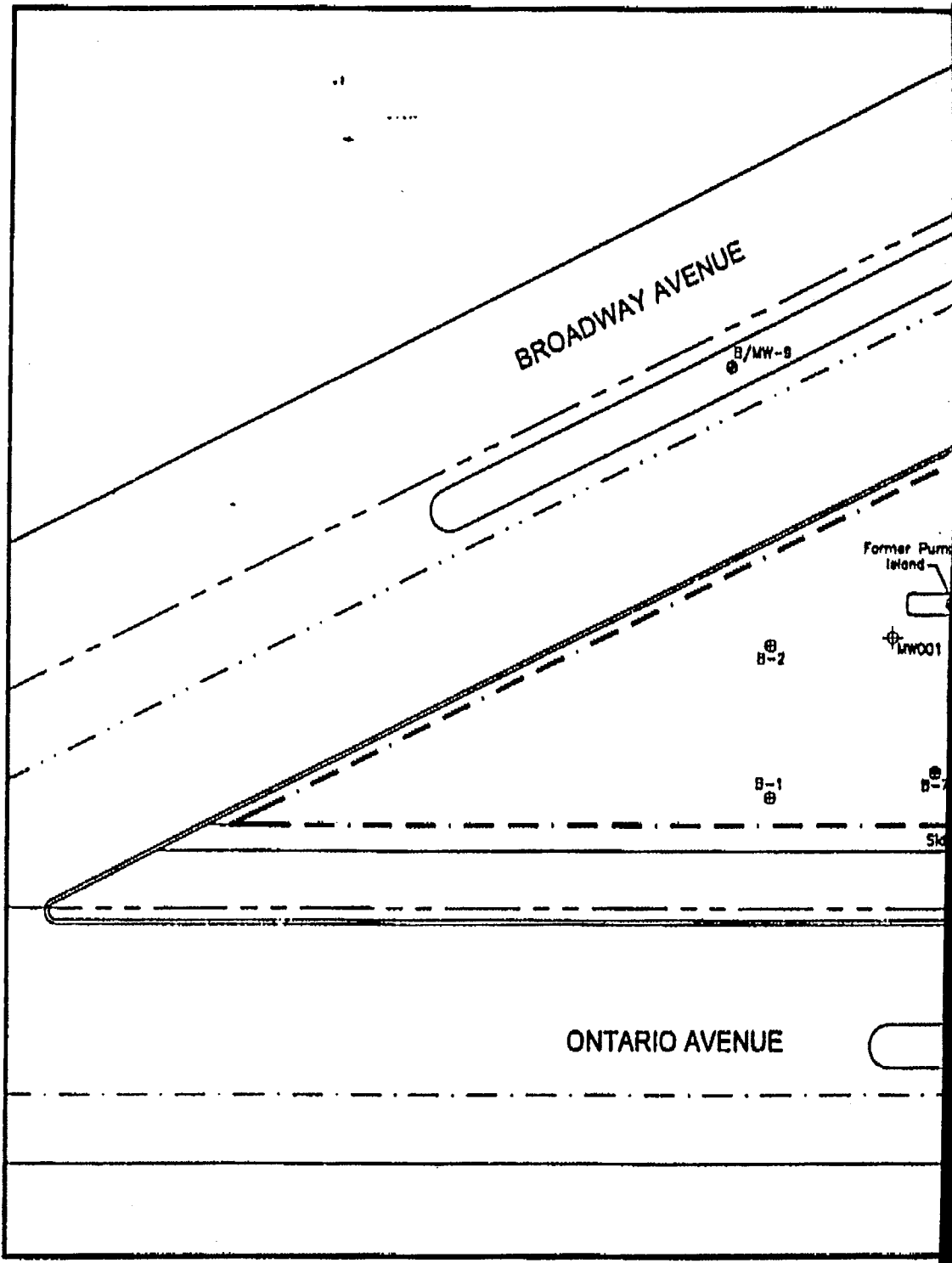


FIGURE 1: SITE VICINITY MAP

SOURCE:
USGS Quadrangles Lakewood, Ohio
1963 photorevised 1985
SCALE: 1" = 2,000'



Tier Evaluation Report
Former Shell Service Station
501 Carnegie
Cleveland, Ohio
ATC Project No. 08.75100.0227



BROADWAY AVENUE

B/MW-8

Former Pump Island

B-2

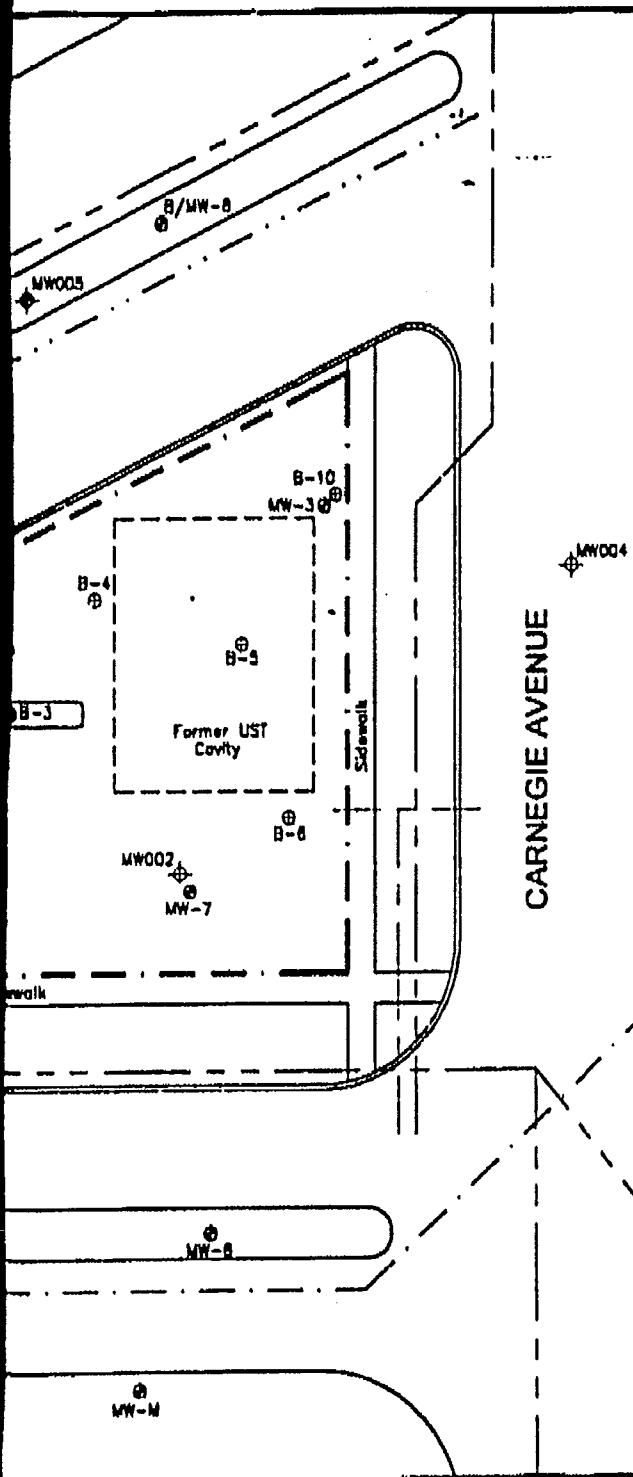
17001

B-1

B-

Sk

ONTARIO AVENUE



SITE PLAN




TIER I EVALUATION
 Former Shell Service Station
 (128562/87094985)
 501 Carnegie Avenue
 Cleveland, Ohio

PROJECT NO.: 08.75100.0227

DATE: 06/19/01

FIGURE 2

- LEGEND**
- Property Line
 - ⊕ Abandoned Monitoring Well Location
 - ⊗ Soil Boring
 - ⊙ Monitoring Well Location
 - Curb Line
 - - - - - Underground Electric
 - · - · - Gas Line
 - · - · - Water Line
 - · - · - Underground Telephone

	SCALE: 1" = 30'	
		

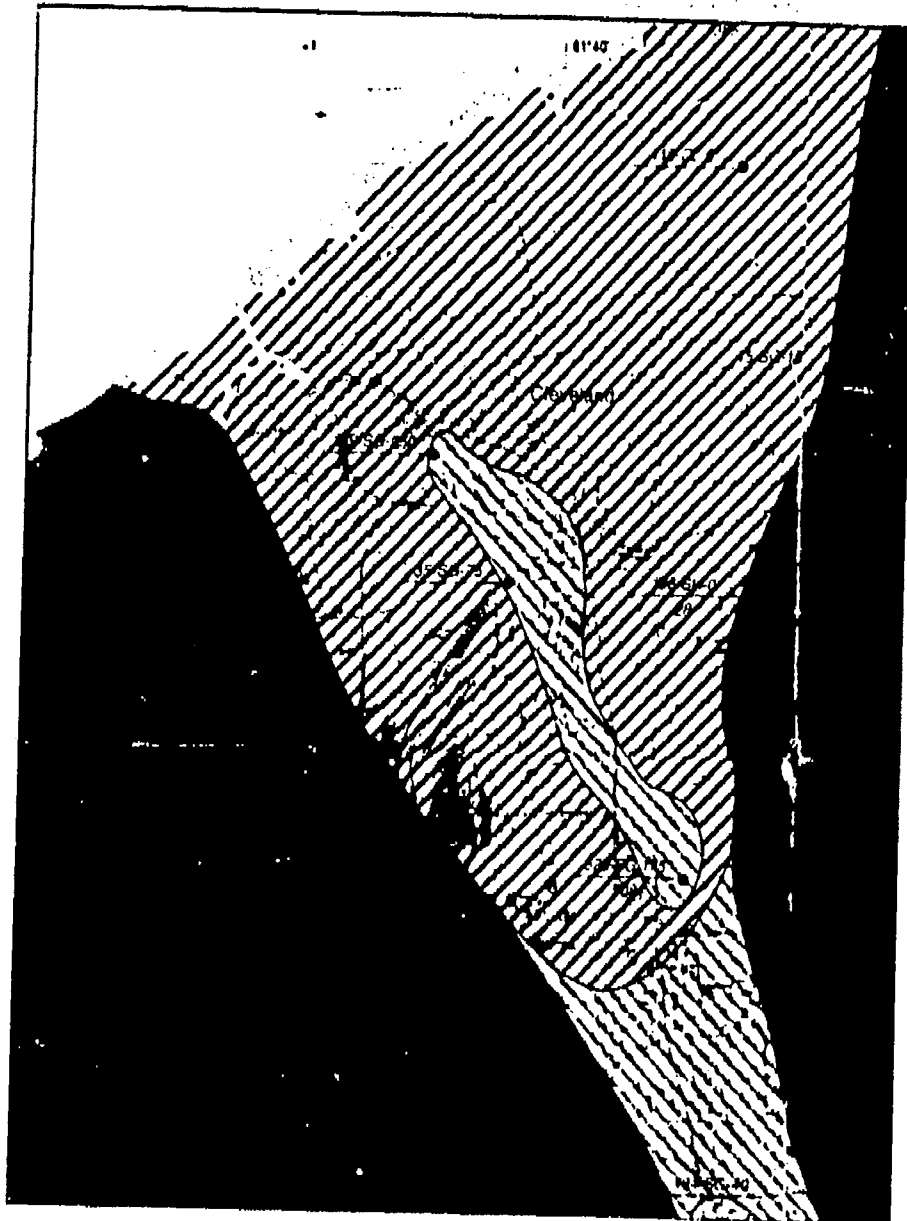


FIGURE 3a: GROUNDWATER RESOURCES MAP

SOURCE:
 Groundwater Resources of Cuyahoga
 County
 Reprinted 1981
SCALE: 1 inch = 1 mile



Tier Evaluation Report
 Former Shell Service Station
 501 Carnegie Avenue
 Cleveland, Ohio
 ATC Project No. 08.73100 0227

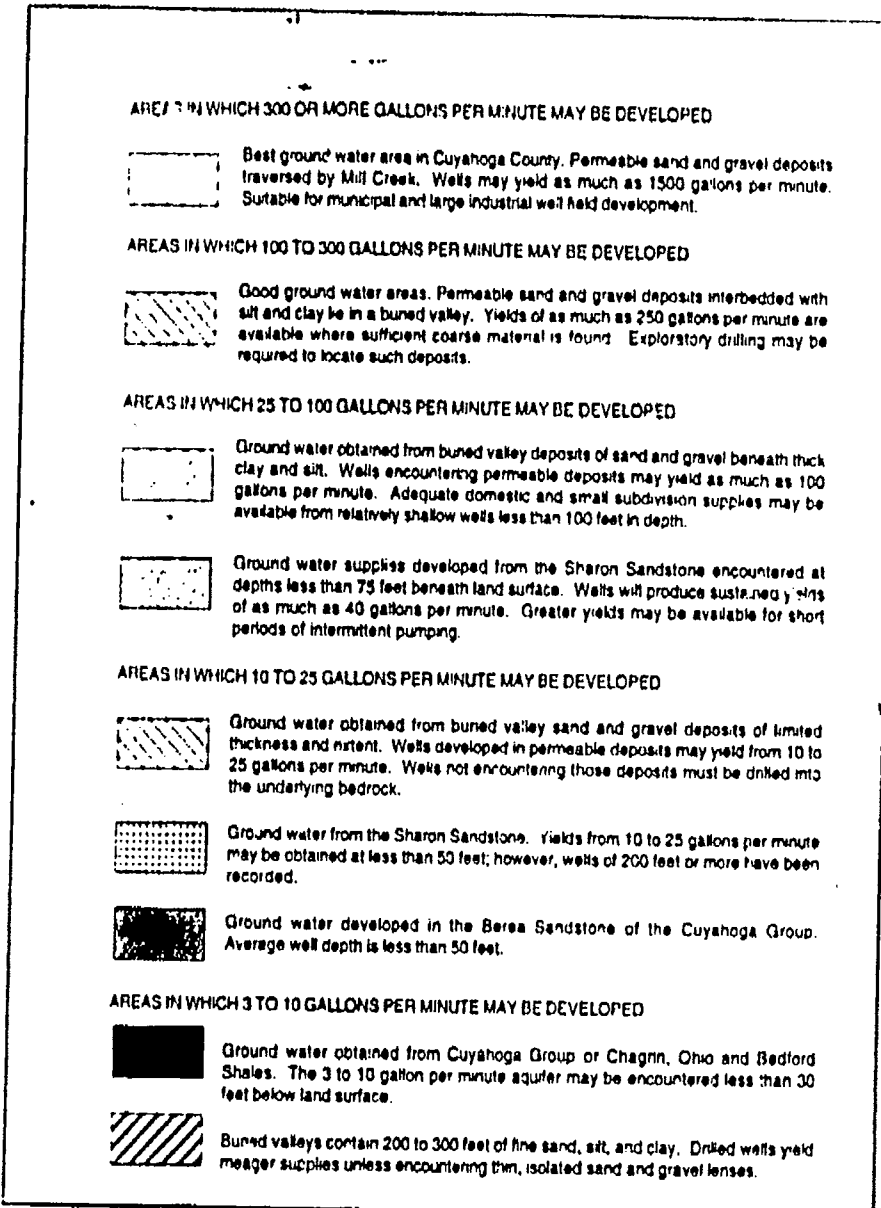


FIGURE 3b: GROUNDWATER RESOURCES KEY

<p>SOURCE: Groundwater Resources of Cuyahoga County Reprinted 1981 SCALE: 1 inch = 1 mile</p>		<p>Tier Evaluation Report Former Shell Service Station 501 Carnegie Cleveland, Ohio ATC Project No. 08.75100.0227</p>
---	---	---

AREAS IN WHICH LESS THAN 3 GALLONS PER MINUTE MAY BE DEVELOPED



Impermeable deposits, basically clay overlaying shale or shaley sandstone, provide a very poor area for even minimal domestic supplies. Brackish water and dry wells are common. Storage is necessary to supply peak demands.

AREAS IN WHICH BRACKISH AND SALT WATER HAVE BEEN ENCOUNTERED



Well Site Symbols

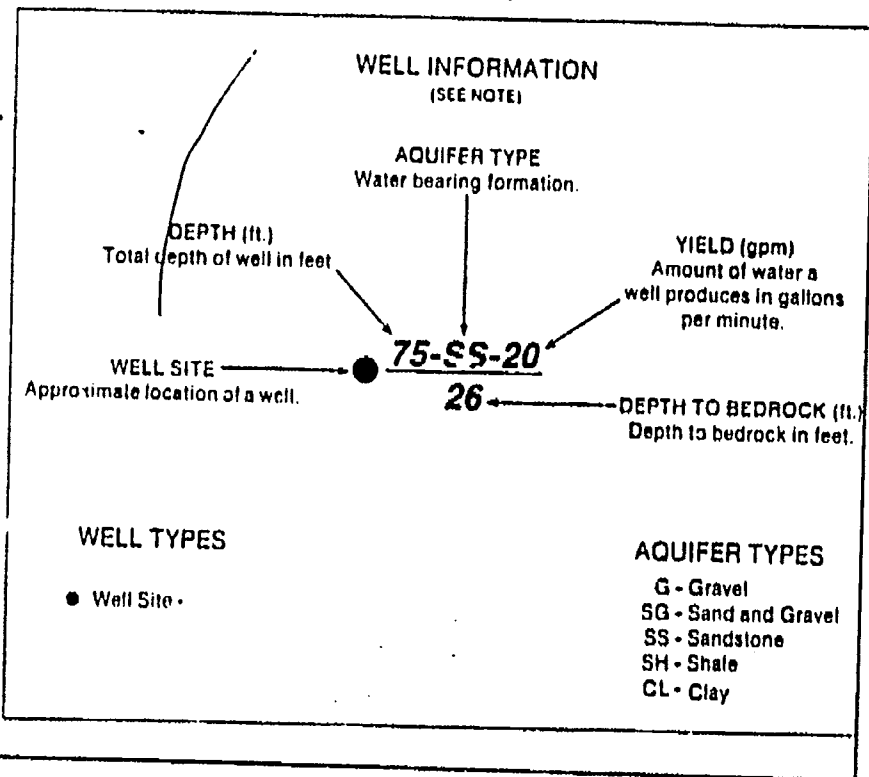
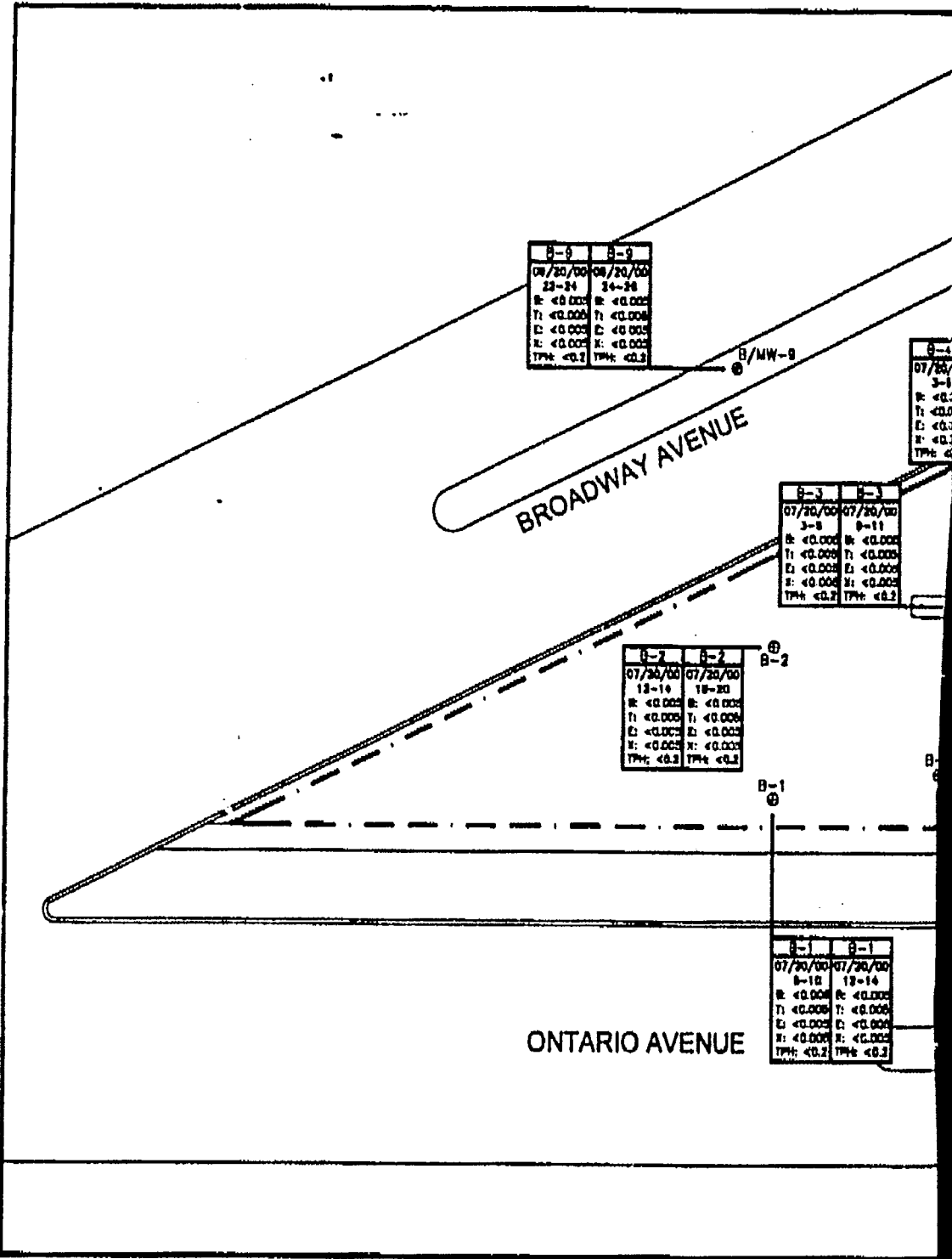


FIGURE 3b: GROUNDWATER RESOURCES KEY

SOURCE:
Groundwater Resources of Cuyahoga
County
Reprinted 1981
SCALE: 1 inch = 1 mile



Tier Evaluation Report
Former Shell Service Station
501 Carnegie
Cleveland, Ohio
ATC Project No. 08.73100.0227



B-9		B-9	
08/20/00	08/20/00		
22-24	24-26		
R: <0.005	R: <0.005		
T: <0.005	T: <0.005		
E: <0.005	E: <0.005		
N: <0.005	N: <0.005		
TPH: <0.2	TPH: <0.2		

B/MW-9

B-4	
07/20/00	
3-5	
R: <0.005	
T: <0.005	
E: <0.005	
N: <0.005	
TPH: <0.2	

BROADWAY AVENUE

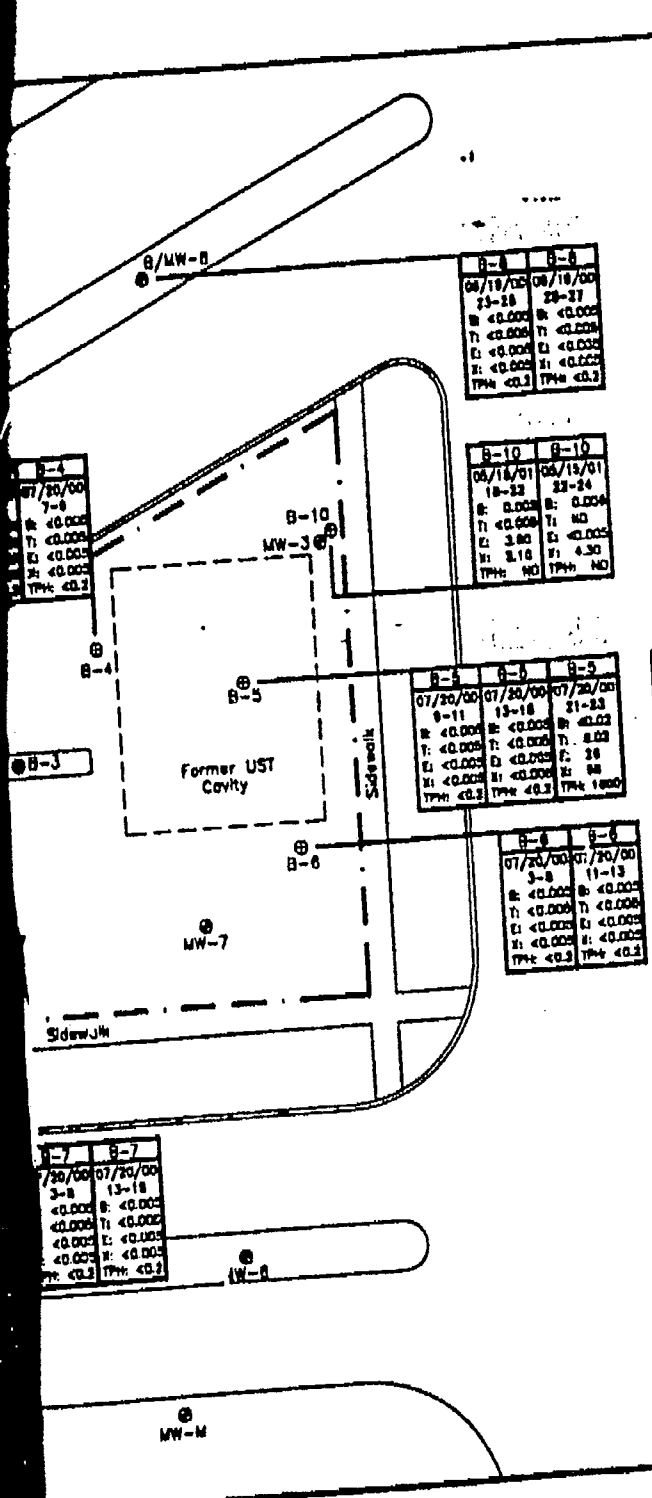
B-3		B-3	
07/20/00	07/20/00		
3-5	9-11		
R: <0.005	R: <0.005		
T: <0.005	T: <0.005		
E: <0.005	E: <0.005		
N: <0.005	N: <0.005		
TPH: <0.2	TPH: <0.2		

B-2		B-2	
07/20/00	07/20/00		
12-16	18-20		
R: <0.005	R: <0.005		
T: <0.005	T: <0.005		
E: <0.005	E: <0.005		
N: <0.005	N: <0.005		
TPH: <0.2	TPH: <0.2		

B-1

ONTARIO AVENUE

B-1		B-1	
07/20/00	07/20/00		
5-10	13-14		
R: <0.005	R: <0.005		
T: <0.005	T: <0.005		
E: <0.005	E: <0.005		
N: <0.005	N: <0.005		
TPH: <0.2	TPH: <0.2		



SOIL ANALYTICAL RESULTS MAP

TIER I EVALUATION
 Former Shell Service Station
 (129562/97094985)
 501 Carnegie Avenue
 Cleveland, Ohio

PROJECT NO: 06.75100.0227

DATE: 06/19/01

FIGURE 4

LEGEND

- Property Line
- ⊕ Soil Boring
- ⊙ Monitoring Well Location
- Curb Line

MW-1	Date Of Sample
06/19/00	06/19/00
B-11	Depth Of Sample
B-11	Benzene Results in PPM
T-1	Toluene Results in PPM
E-1	Ethylbenzene Results in PPM
X-1	Xylene Results in PPM
TPH <0.2	TPH Results in PPM

SCALE: 1" = 30'



BROADWAY AVENUE

B/MW-0

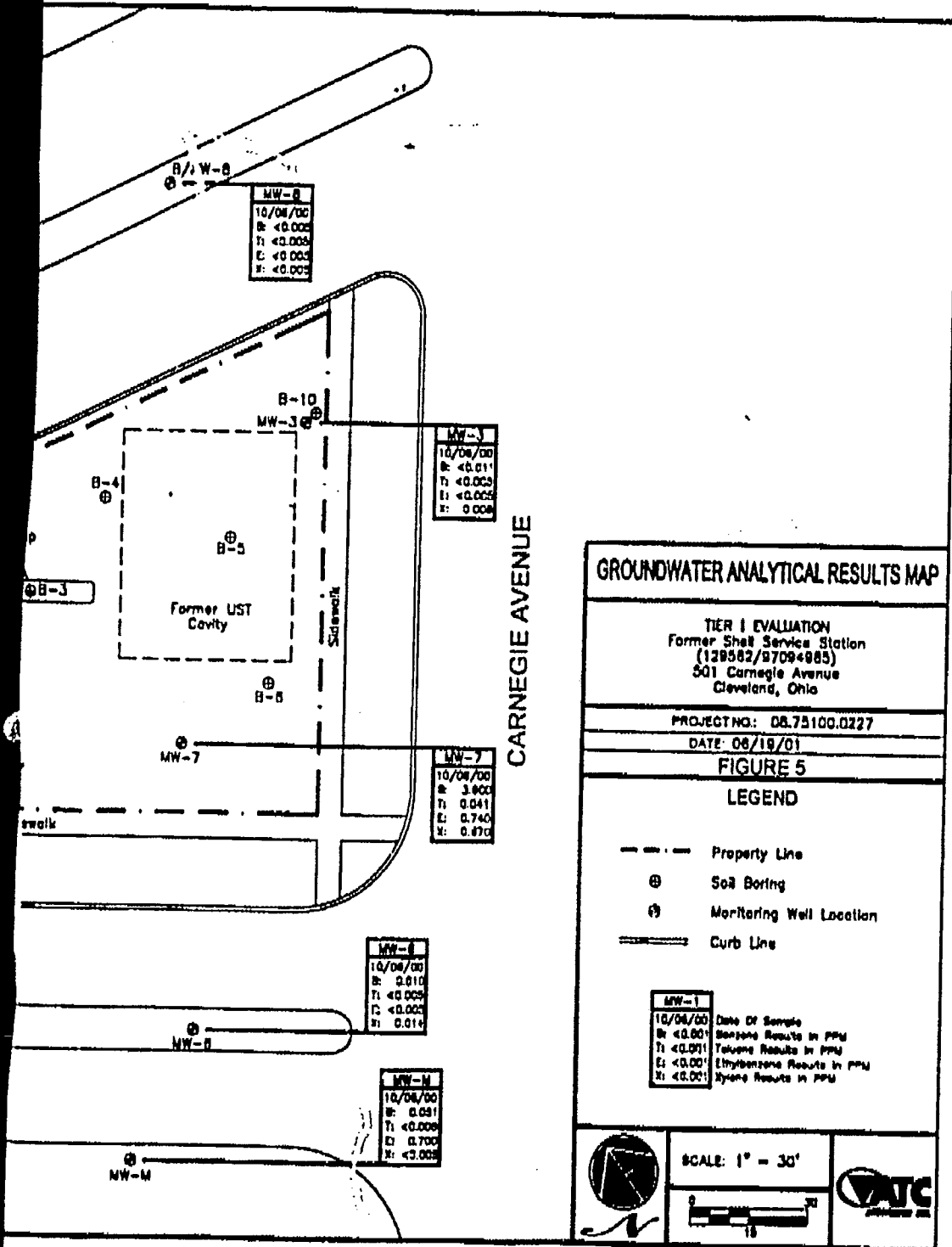
10/08/00
40.000
40.000
40.000
40.000

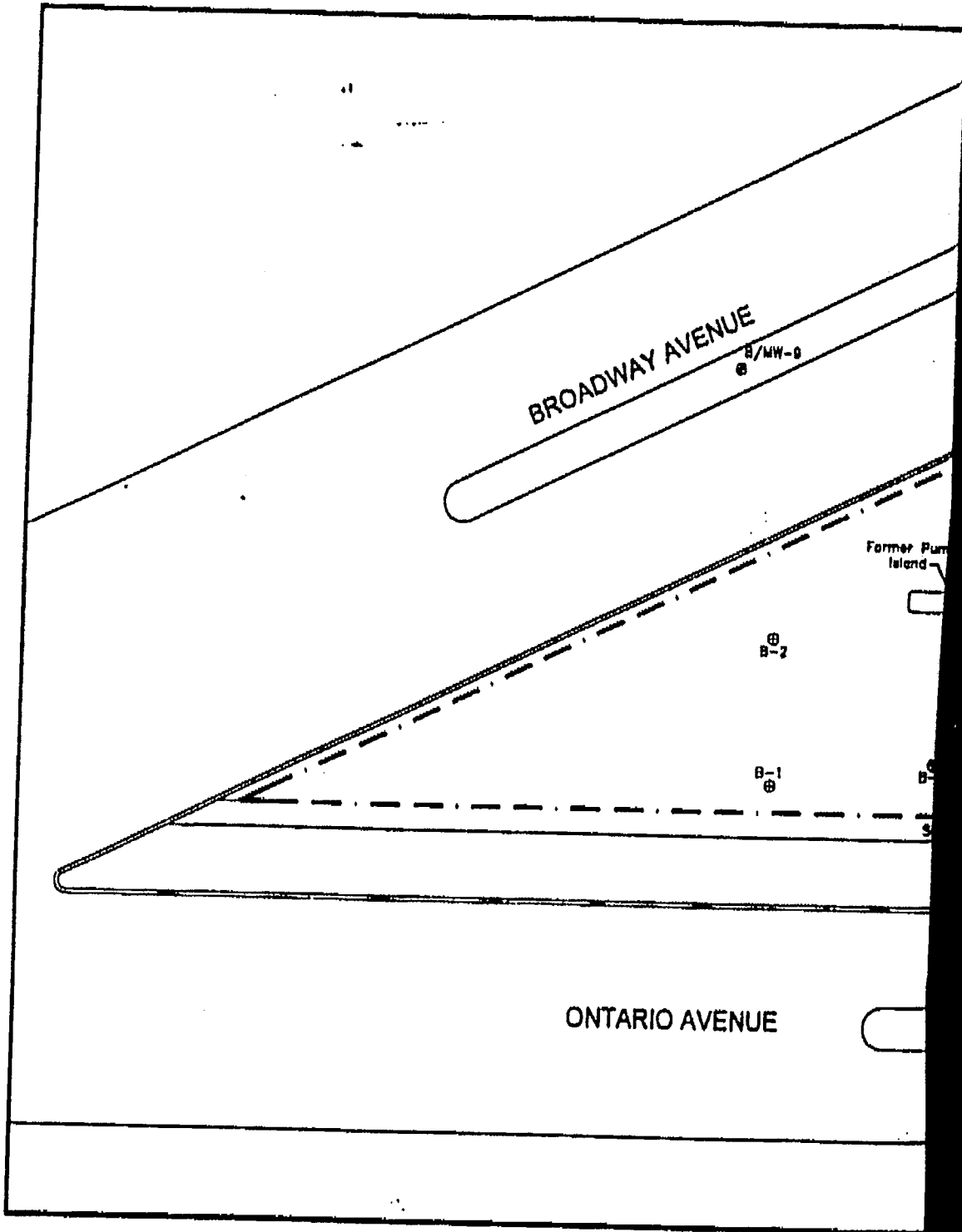
Former Pump
Island

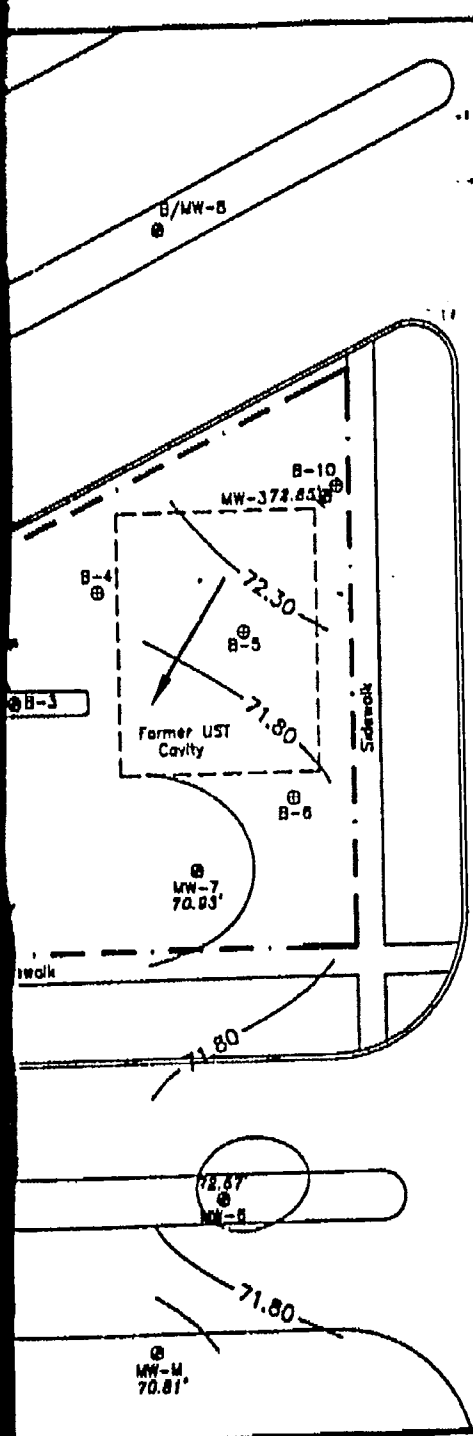
B-2

B-1

ONTARIO AVENUE







CARNEGIE AVENUE

POTENTIOMETRIC SURFACE MAP

TIER I EVALUATION
Former Shell Service Station
(129562/97094983)
501 Carnegie Avenue
Cleveland, Ohio

PROJECT NO.: 08.75100.0227

DATE: 06/19/01

FIGURE 6

LEGEND

- Property Line
- ⊕ Soil Boring
- ⊙ Monitoring Well Location
- Curb Line
- ~ Groundwater Contour
- Groundwater Flow
- 88.01' Static Water Level

Wells Gauged On: 06/14/00



SCALE: 1" = 30'



APPENDIX B
Boring Logs

0000 1670

ATC Associates Inc.
 145 Ken Mar Industrial Parkway
 Broadview Heights, Ohio 44147

FIELD BOREHOLE LOG

BOREHOLE NO.: B-10
TOTAL DEPTH: 28 ft.

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	Former Shell Service Station	DRILLING CO.:	Ridgeway
LOCATION:	501 Carnegie Avenue	DRILLER:	Paul Simon
JOB NO.:	08.75100.0227	RIG TYPE:	550-CME
GEOLOGIST:	Craig Whitaker	METHOD OF DRILLING:	Hollow Stem Augers
PM:	Kurt Ness	SAMPLING METHODS:	2 ft. split spoon
DATE:	5-15-01	HAMMER WT./DROP	140 lbs./30"
NOTES:	Hand Auger 2ft.	<input type="checkbox"/> Water level during drilling	Page 1 of 2
		<input type="checkbox"/> Water level in completed well	

DEPTH	SAMP No	Blows / 6"	PROFILE	SOIL DESCRIPTION	PID ppm	REC (%)	BORING COMPLETION	WELL DESCRIPTION
				TOPSOIL: Grass and Topsoil				
	1			SC: Brown, Clayey sands, trace gravel, loose	0	70%		
-5	2				0	70%		
	3			SM: Brown, Silty-Sands mixtures, trace gravel, loose	10.8	80%		
	4				0	60%		
-10	5				0	60%		
	6				1.8	50%		
-15	7				4.7	70%		
	8				21.1	70%		
	9			SM: Black Stained, Silty-Sands mixtures, trace gravel, petro odor, loose	820	80%		
-20	10				71.2	60%		
	11			SM: Brown, Silty-Sands mixtures, trace gravel, damp, loose	59	50%		

REC - SAMPLE RECOVERY NA - NOT AVAILABLE PID - PHOTO-IONIZATION DETECTOR	<u>WELL CONSTRUCTION</u> WELL DIAMETER: Default Listing CASING MATERIAL: Default Listing SCREEN MATERIAL: Default Listing SLOT SIZE: Default Listing METHOD: Default Listing	<input type="checkbox"/> SAND PACK <input type="checkbox"/> BENTONITE SEAL <input type="checkbox"/> GROUT <input checked="" type="checkbox"/> WELL END PLUG <input type="checkbox"/> SCREEN
--	---	---

ATC Associates Inc.

145 Ken Mar Industrial Parkway
Broadview Heights, Ohio 44147

FIELD BOREHOLE LOG

BOREHOLE NO.: B-10
TOTAL DEPTH: 28 ft.

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	Former Shell Service Station	DRILLING CO.:	Ridgeway
LOCATION:	501 Carnegie Avenue	DRILLER:	Paul Simon
JOB NO.:	08.75108.0227	RIG TYPE:	550-CME
GEOLOGIST:	Craig Whitaker	METHOD OF DRILLING:	Hollow Stem Augers
PM:	Kurt Ness	SAMPLING METHODS:	2 ft. split spoon
DATE:	5-15-01	HAMMER WT./DROP	140 lbs./30"
NOTES: Hand Auger 2ft.		<input type="checkbox"/> Water level during drilling <input type="checkbox"/> Water level in completed well	

DEPTH	SAMP. No	Blows / 6"	PROFILE	SOIL DESCRIPTION	PID ppm	REC (%)	BORING COMPLETION	WELL DESCRIPTION
-25	12			SM: Brown, Silty-Sands mixtures, trace gravel, Saturated, loose	74	70%		

REC - SAMPLE RECOVERY NA - NOT AVAILABLE PID - PHOTO-IONIZATION DETECTOR	WELL CONSTRUCTION WELL DIAMETER: Default Listing CASING MATERIAL: Default Listing SCREEN MATERIAL: Default Listing SLOT SIZE: Default Listing METHOD: Default Listing	<input type="checkbox"/> SAND PACK <input type="checkbox"/> BENTONITE SEAL <input type="checkbox"/> GRCUT WELL END PLUG SCREEN
--	---	--

APPENDIX C

Tier I Evaluation Notification Checklist

Tier 1 Evaluation Notification Checklist

Date: 6/7/01	Incident #: 18000207.000001
Owner / Operator:* Equilon Enterprises LLC	Facility: (128042/6760483)
Address: 5885 Wylmoor Drive	Address: 501 Carnegie
Norcross, GA 30063	Cleveland, OH
Phone #: (770) 544-3551	Preparer: Craig Whitaker
Contact Person: E. Henke	
Owner / Operator* Signature:	
Preparer's Signature:	
Date Tier 1 Evaluation was initiated:	04/20/2001

Information submitted within 180 days after confirmation of release	Check	Page #
A description of the activities conducted during the Tier 1 Evaluation should include, but not be limited to:		
Initial Data Collection		
1. Identify probable source or sources of confirmed release.	<input type="checkbox"/>	1
2. Identify the chemical(s) of concern to be evaluated.**	<input checked="" type="checkbox"/>	1
1. Analytical Group 1	<input type="checkbox"/>	1
2. Analytical Group 2	<input type="checkbox"/>	1
3. Analytical Group 3	<input type="checkbox"/>	1
3. Identify the location of the source area or source areas.	<input type="checkbox"/>	1
4. Identify source or sources of potable water supplies.	<input type="checkbox"/>	2
5. Determine potential drinking water use of ground water underlying the UST site and surrounding area.	<input type="checkbox"/>	2
6. Review reasonably available information pertaining to regional geologic, hydrogeologic and physical characteristics of the UST site and surrounding area.	<input type="checkbox"/>	2
Preliminary Site Assessment		
1. Identify any Interim Response Actions that may have been conducted.	<input type="checkbox"/>	3
2. Determine the ground water yield of the uppermost saturated zone.	<input type="checkbox"/>	3
3. Investigate the source area or source areas to determine the presence and concentration of chemical(s) of concern for comparison to the Action Levels.	<input type="checkbox"/>	3
1. Soil boring and samples	<input type="checkbox"/>	3
2. Ground water monitoring wells and samples	<input type="checkbox"/>	3
3. Analytical results for soil and ground water samples	<input type="checkbox"/>	3
4. Determine the geologic and hydrogeologic characteristics of the UST site and surrounding area that may influence the fate and transport of chemical(s) of concern.	<input type="checkbox"/>	3
5. Obtain off-site access as appropriate to conduct Preliminary Site Assessment.	<input type="checkbox"/>	3

*Circle one
 **Check all that apply

Tier 1 Evaluation Notification Checklist

Tier 1 Evaluation Notification Continued

Information submitted within 180 days after confirmation of release
 A description of the activities conducted during the Tier 1 Evaluation should include, but not be limited to:

Action Level Determination

1. Determine the appropriate Action Levels for the UST site***
- Drinking water
 - Ground Water but non-drinking water
 - No Ground Water

Tier 1 Decisions

1. Discuss the Tier 1 decisions or decisions, as appropriate, for the site and further action to be taken****
- No Further Action (Tier Evaluation Report needs to be submitted in place of Tier 1 Evaluation Notification)
 - Interim Response Action (Interim Response Action Notification needs to be submitted 10 days prior to beginning action)
 - Remedial Action using the Action Levels as Target Levels (Remedial Action Plan needs to be submitted)
 - Tier 2 Evaluation

Check	Page #
	3
X	
	4
X	

***Check the one that applies
 ****Check all that apply



City of Cleveland

Michael R. White, Mayor

Department of Public Utilities
Division of Water
1201 Lakeside Avenue
Cleveland, Ohio 44114-1173



June 21, 2001

VIA FACSIMILE AND REGULAR U.S. MAIL
FAX NO. 440-838-7181

Mr. Craig Whitaker
ATC Associates Inc.
145 Ken Mar Industrial Parkway
Broadview Heights, Ohio 44147-2950

Re: Percentage of Properties Served by Cleveland Division of Water

Dear Mr. Whitaker:

At your request, we have researched the following addresses for the Cleveland Division of Water accounts:

1357 through 1975 Carnegie Avenue

2191 through 1535 Ontario Street

One hundred percent of the foregoing properties are tied into the Cleveland water system. If you have any questions regarding this material or wish anything further please give me a call at (216) 664-2444, extension 5633.

Very truly yours,

Karen M. Lisowski

Karen M. Lisowski
Consulting Engineer
City of Cleveland - Division of Water

cc: William Strong, Assistant Commissioner, Division of Water



Chemalloy Corporation, Inc.
2354 Canal Rd.
Cleveland, OH 44113

July 23, 2001

Craig Whitaker
ATC Associates Inc.
145 Ken Mar Industrial Parkway
Broadview Heights, Ohio

Dear Mr. Craig Whitaker:

I am writing this letter in regards to your request for information concerning a whether a potable water well exist on the property of Chemalloy Corporation. In regards to your request, I was not able to locate the assumed potable water well and currently are not using and or have any intentions to use a potable water well in the future.

Sincerely,

A handwritten signature in black ink, appearing to read 'Chris Juratic'.

Chris Juratic
Plant Manager



Associates Inc.

ENVIRONMENTAL GEOTECHNICAL AND MATERIALS PROFESSIONALS
143 Ken Mar Industrial Parkway
Cleveland, Ohio 44147-2950
(440) 838-7177
fax - (440) 838-7181

FAXED

TO: Staff Geologist FROM: Robert Roether
FIRM: ODNR E-MAIL: Roether8@atc-enviro.com
FAX #: 614-447-9503 DATE: November 27, 2000

PGS. W/ 2
COVER:

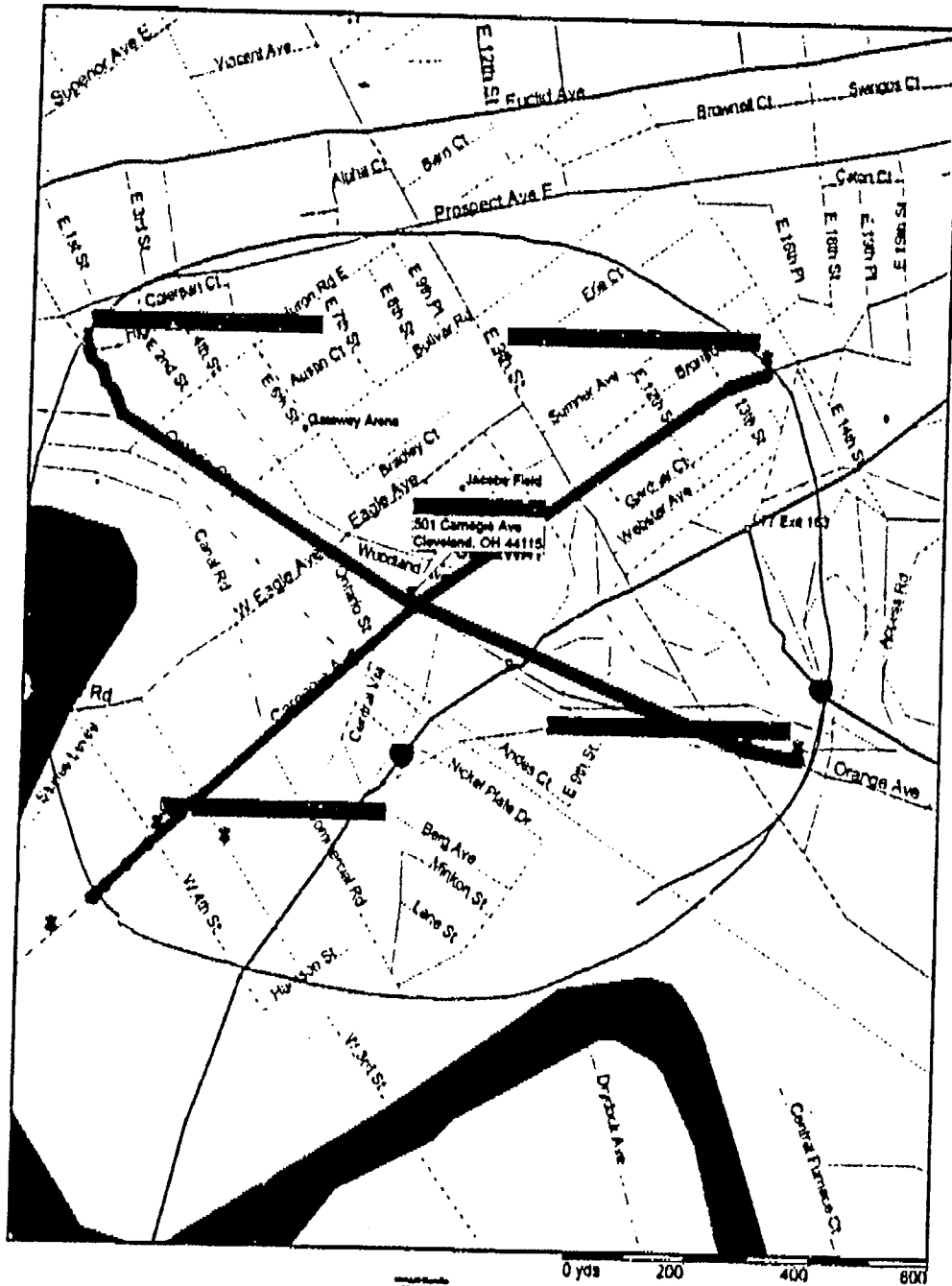
Subject: Water well locations and associated logs within 2000 foot radius of
the indicated site.

COMMENTS:

USGS Quadrangle - Cleveland South, OH
Requested by: 12/1/2000

fax TRANSMISSION

501 Carnegie



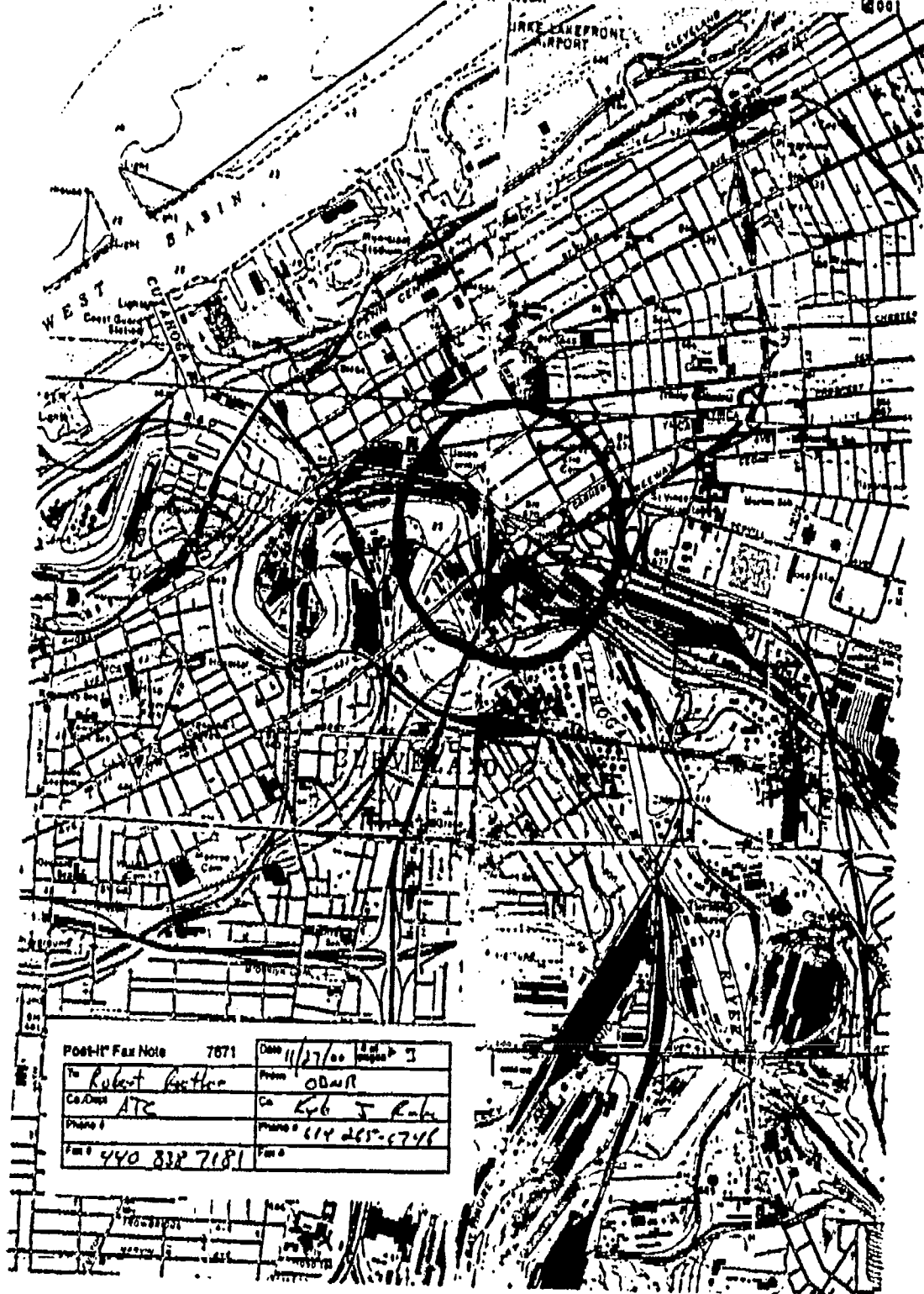
Streets98

0000 16 77

11/27/00 30N 13150 FAX

ODNR WATER

0001



Post-It Fax Note	7671	Date	11/27/00
To	Robert Kauter	From	ODNR
Co/Dept	ATC	By	Rob J. Kauter
Phone 1		Phone 2	614 265-6746
Fax	440 832 7181	Fax 2	

0000 16 78

See previous 44-118

3

OHIO WATER SUPPLY BOARD

Well Record No. 108 J.6

Co. 18 4
City of Cleveland
Well Location Canal St., Cleveland Elev. Cleveland
Map Cleveland

Owner Siegfried Lowenthal Address _____
Driller Thwing/Distillery Date _____

Well Head Elev. or M. P. _____
Elev. of Ground at Well _____

Pumping Test: _____

Static Level: _____ Date _____

Normal Pumpage _____

Quality _____ Use _____

Adequacy of supply _____

Owner's Well No. or Other Designation _____

Source of Data I. R. Thwing

Collected by M. T. STEWART Date 12/44

STRATA	DEPTH	
	ft	ft
Castle Shale	0	1'
	177	30'
Not much water, some gas.		
South of High Level Bridge on flats near Canal Rd.		
<i>X = 2,227,700</i>		
<i>Y = 665,500-N</i>		

* Check Equival

1947 City Directory

2905 Franklin St. Cleveland

File 4-118

NO



3!

OHIO WATER SUPPLY BOARD

Well Record No. 103 J.H.

18 City of Cleveland
C. Cuyahoga
Well Location Canal St., Cleveland
City of Cleveland
Map Cleveland

Owner - Siegfried Lowenthal
Driller - Thwing/Distillery

Well Head Elev. or M. P.
Elev. of Ground at Well

Pumping Tests

Static Level
Normal Pumpage

Quality Use

Adequacy of supply

Owner's Well No. or Other Designation

Source of Data F. R. Thwing
Collected by M. T. Sturgeon Date 12/44

STRATA	DEPTH	
	From	To
Casing Shale	0	1'
	177	30'
Not much water, some gas.		
South of High Level Bridge on flats near Canal Rd.		
X = 2,223,700 Y = 865,510-M		

1947 City Directory

2805 Franklin St. W. 125th

NO



1/30/2001

Input

Horizontal: NAD 27, Ohio North - 3401, U.S. Survey Feet

Output

Horizontal: NAD 27 Geographic

Name

Input

Output

103

665500.00000 N	41 29 25.77990 N
2222700.00000 E	81 41 13.70844 W
00 32 02.42818	
0.999966322	

Convergence
Scale Factor

00001647

1/30/2001

Input

Horizontal: NAD 27, Ohio North - 3401, U.S. Survey Feet

Output

Horizontal: NAD 27 Geographic

Name	Input	Output
132	637000.00000 N	41 24 42.74581 N
	2238000.00000 E	81 37 56.40391 W
Convergence	00 34 12.04745	
Scale Factor	0.999957146	

SITE SPECIFIC OPERATING PROCEDURES

Test Boring/Monitoring Well Installation

Undisturbed soil samples were collected continuously from the borings by a weighted split spoon sampler, approximately two-inches in outside diameter (OD), attached to the lower-most section of a steel rod string. Samples were contained within a two-foot steel split spoon; the split spoon was scrubbed with an Alconox/distilled water solution between samples. Samples were inspected and described by an ATC field scientist.

Soil Sampling and Analysis

Soil samples were collected in duplicate; one in two jars of samples in pre-cleaned glass jars with Teflon-lined lids, and the second in a sealed plastic bag for field screening. The jarred samples were placed on ice in a cooler immediately after collection (for potential laboratory analysis). Nitrile gloves were worn by ATC's representative and changed between samples to reduce the risk of possible cross-contamination. Samples were field screened with a photoionization detector (PID) with a 10.6 eV lamp, which measures total photoionizable vapors in parts per million (ppm). The PID was calibrated prior to use against benzene through the use of an isobutylene standard (converted to benzene through the use of an ionization potential coefficient). Maximum headspace PID measurements were recorded for each sample.

Two soil samples from each boring were submitted to SPI, Laboratory in Traverse City, Michigan utilizing chain-of-custody controls. The samples were analyzed for Total Petroleum Hydrocarbons (TPH) (C10-C20) (C20-C34) by Method 8015, benzene, toluene, ethylbenzene and xylenes (BTEX) and MTBE by Method 8260.

Hydrogeologic Data

Accurate gauging of the static water level was performed on August 2000 and October 2000, using an electronic water level indicator that measures the depth to groundwater to the nearest one-hundredth of a foot. Water level measurements were used to construct a contour map of the potentiometric surface (the top of the water table) at the site.

APPENDIX H
BUSTR Soil Classification Form

00001495

BUSTR Soil Classification Form

Major Divisions			Letter Symbol	Typical Description	BUSTR Class
Coarse Grained Soils More than 50% of Material is Greater than #200 Sieve	Gravel and Gravelly Soils More than 50% of Coarse Fraction Retained on No. 4 Sieve	Clean Gravels (Little or No Fines)	GW	Well-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines	Sand/Gravel Soil
			GP	Poorly-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines	
		Gravels With Fines (Appreciable Amount of Fines)	GM	Silty Gravels, Gravel-Sand-Silt Mixtures	
			GC	Clayey Gravels, Gravel-Sand-Clay Mixtures	
	Sand and Sandy Soils More than 50% of Coarse Fraction Passing No. 4 Sieve	Clean Sand (Little or no Fines)	SW	Well-Graded Sands, Gravelly Sands, Little or No Fines	
			SP	Poorly-Graded Sands, Gravelly Sands, Little or No Fines	
		Sands with Fines (Appreciable amount of fines)	SM	Silty Sands, Sand-Silt Mixtures	
			SC	Clayey Sands, Sand-Clay Mixtures	
Fine Grained Soils More than 50% of Material is Smaller than #200 Sieve	Silts and Clays Liquid Limit < 50		ML	Inorganic Silts and Very Fine Sands, Plastic Flour, Silty or Clayey Fine Sands or Clayey Silts with Slight Plasticity	Silty/Clayey Soil
			CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays	
			OL	Organic Silts and Organic Silty Clays of Low Plasticity	
	Silts and Clays Liquid Limit > 50		MH	Inorganic Silts, Inorganic or Detritaceous Fine Sand or Silty Sands	
			CH	Inorganic Clays of High Plasticity, Fat Clays	
			OH	Organic Clays of Medium to High Plasticity, Organic Silts	
Highly Organic Soils			PT	Peat, Humus, Turbidity Soils with High Organic Contents	Clay/Silt Soils

Pathway	Symbol	Pathway	Symbol
Direct Contact w/soil		GW to Indoor Air	
Soil to DW Leaching		GW Ingestion	
Soil to Indoor Air		Soil to Non-DW Leaching	

I have inspected the soil at: 501 Carnegie Cleveland Ohio.

Name (Printed): Conie Whitaker Field Scientist ATC Associates Inc.
(Name of Classifier, Title, Firm Name)

Signature: [Signature] Date: 7-19-01

Bureau of Underground Storage Tank Regulations
 6606 Tussing Road, P.O. Box 687, Reynoldsburg, Ohio 43068-9009 (614) 752-7938
 (07/00)

00001646

Action Level Determination Checklist

Information to be included in Tier I Evaluation Notification and Tier Evaluation Report	Check
<p>A summary of the Action Level Determination criteria includes, but is not limited to (Continued):</p>	
<p>6. Drinking Water Tables Used*</p>	
1. Table 1301:7-9-13(I)(3)(d)(i)-Ingestion of Groundwater	
2. Table 1301:7-9-13(I)(3)(d)(ii)-Direct Contact with soil	
3. Table 1301:7-9-13(I)(3)(d)(iv)(a)-Sand/Gravel Soil to drinking water	
4. Table 1301:7-9-13(I)(3)(d)(iv)(b)-Silty/Clayey Sand to Drinking Water	
5. Table 1301:7-9-13(I)(3)(d)(iv)(c)-Clay/Silt soil Drinking to Indoor Air	
6. Table 1301:7-9-13(I)(3)(d)(v)(a) Sand/Gravel to Indoor air.	
7. Table 1301:7-9-13(I)(3)(d)(v)(b)-Silty/Clayey Sand Soil to Indoor Air	
8. Table 1301:7-9-13(I)(3)(d)(v)(c)-Clay/Silt Soil to Indoor air.	
9. Table 1301:7-9-13(I)(3)(d)(vi)(a)-Ground water to Indoor air-Sand/Gravel Soil	
10. Table 1301:7-9-13(I)(3)(d)(vi)(b)-Ground water to Indoor air-Silty/Clayey sand Soil.	
11. Table 1301:7-9-13(I)(3)(d)(vi)(c)-Ground water to Indoor air-Clay/Silt Soil	
<p>7. Groundwater but Non-Drinking Water tables Used*.</p>	
1. Table 1301:7-9-13(I)(3)(d)(ii) - Direct Contact with soil	X
2. Table 1301:7-9-13(I)(3)(d)(iii)(a) - Sand / Gravel Soil to non-drinking water.	X
3. Table 1301:7-9-13(I)(3)(d)(iii)(b) - Silty/Clayey Sand Soil to non drinking water.	
4. Table 1301:7-9-13(I)(3)(d)(iii)(c) - Clay/Silt Soil to Non drinking water	
5. Table 1301:7-9-13(I)(3)(d)(v)(a) - Sand/Gravel Soil to Indoor air	X
6. Table 1301:7-9-13(I)(3)(d)(v)(b) - Silty/Clay Sand Soil to Indoor Air	
7. Table 1301:7-9-13(I)(3)(d)(v)(c) - Clay/Silt Soil to Indoor air	
8. Table 1301:7-9-13(I)(3)(d)(vi)(a) - Ground water to Indoor air Sand/Gravel Soil	X
9. Table 1301:7-9-13(I)(3)(d)(vi)(b) - Ground water to Indoor air Silty/Clayey Sand Soil.	
10. Table 1301:7-9-13(I)(3)(d)(vi)(c) - Ground water to Indoor air Clay/Silt Soil.	
<p>8. No Ground Water Tables Used:*</p>	
Table 1301:7-9-13(I)(3)(d)(ii)-Direct Contact with Soil	
Table 1301:7-9-13(I)(3)(d)(v)(a)-Sand/Gravel Soil to Indoor air	
Table 1301:7-9-13(I)(3)(d)(v)(b)-Silty/Clayey Sand Soil to Indoor air	
Table 1301:7-9-13(I)(3)(d)(v)(c)-Clay/Silt Soil to indoor air.	

Drinking Water Determination Checklist

Date: 07/31/01	Incident #: 18000207-100001
Owner / Operator: Equilon Enterprises LLC -	Facility: (1234567890123456)
Address: 1234 Wynwood Drive Norcross, GA 30093	Address: 567 Carnegie Avenue Cleveland, OH
Phone #: (770) 554-2001	Preparer: Craig Whitaker
Contact Person: E. Horne	

Owner / Operator Signature: _____
 Preparer's Signature: Craig Whitaker
 Date Tier 1 Evaluation was initiated: 04/20/01

Information to be included in the Tier 1 Evaluation Notification and Tier Evaluation Report	Yes/No**
A summary of the Drinking Water Analysis includes, but is not limited to:	
1. Are there any potable wells on the UST site or within the surrounding area?*	No
2. Is the UST site or the surrounding area within an area defined by a wellhead protection plan?*	No
3. Is a surface water body located within 300 feet of the UST site?*	No
4. Is there a state ground water classification system that applies to the UST site or surrounding area?*	No
5. Are there restricted ground water use regulations that apply to the UST site or surrounding area?	No
6. Is the drinking water supply for all drinking water for the UST site and surrounding area supplied by a public water supply whose source is outside the surrounding area?	Yes
7. Is the UST site located in an area where Urban Setting Designation has been approved by the Ohio EPA?	Yes
8. Is the background level of total dissolved solids 3000 milligrams per liter or greater?	No
9. Is the yield rate of the upper most saturated zone less than 3 gallons per minute?	No
10. Does the existing quality (not related to releases from the UST site) of the ground water underlying the site exclude its use as a drinking water source?	No
11. Are there abandoned wells or other water sources that have not been properly abandoned on the UST site or surrounding area?	No
12. Are there non-drinking water sources on the UST site or surrounding area?	No
13. Are there potable or abandoned wells completed into a lower saturated zone on the UST site or surrounding area?	No
14. Is the UST site in a sensitive area as defined by Rule 1301:7-8-07?	No

*Circle One
 **Answer Yes or No to each question to follow
 *If the answer to the question is yes then the ground water is drinking water

00001660



Ohio Department of Commerce

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
6606 Tussing Road • P.O. Box 687
Reynoldsburg, OH 43068-9009
(614) 752-7938 FAX (614) 752-7942
www.com.state.oh.us

Bob Taft
Governor

Gary C. Subadinski
Director

September 26, 2001

ED HENKE
EQUILON ENTERPRISES
5595 WYLMOOR DR
NORCROSS GA 30093

SITE: SHELL OIL CO. #23416651595
501 CARNEGIE
CLEVELAND OH
CUYAHOGA COUNTY
RELEASE #18000287-N00001

RE: ADDITIONAL INFORMATION REQUESTED

Dear Mr. Henke:

The Bureau of Underground Storage Tank Regulations (BUSTR) has reviewed the facility file. Based on our review, BUSTR requests the following information:

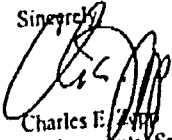
1. MTBE analytical results for soil borings B1-B9 must be submitted.
2. It will be necessary to replace monitoring wells 1 and 7 so that current ground water contaminant levels can be determined. In addition, BUSTR considers any "located" drinking water well that has not been properly abandoned to still exist. This assumption changes this site to a drinking water scenario.

An order form and other publications that may help you to understand the requirements for compliance with BUSTR's rules and regulations may be found on the Internet at www.com.state.oh.us or by calling our office.

Please submit this information to BUSTR within 90 days from the date of this letter.

Thank you for your cooperation. If you have any questions, please contact me at 614-752-7093.

Sincerely,


Charles E. [unclear]
Environmental Specialist

xc: Site File

Zepp, Charlie E

From: Kurt Ness [ness8@atc-enviro.com]
Sent: Monday, December 24, 2001 8:50 AM
To: Zepp, Charlie E
Cc: Ed Henke
Subject: Shell #129562, 501 Carnegie, Cleveland, Ohio - Release #18000207-N00001 -
Extension Request

Mr. Zepp:

ATC, on behalf of Equiva Services LLC, requests a 60 day extension for submittal of the information you requested in your correspondence dated September 26, 2001. The replacement monitoring wells were installed 12/7/01 and groundwater samples were collected and submitted for analysis. A report will be forwarded upon receipt of laboratory analytical data. A proposed revised report due date is 2/23/02.

ATC will consider this extension request acceptable unless you advise otherwise.

Please let me know if you have any questions.

Kurt Ness
Senior Project Manager
ATC Associates Inc.
145 Ken Mar Industrial Parkway
Broadview Heights, Ohio 44147
phone 440 838-7177
fax 440 838-7181
Ness8@atc-enviro.com

00001330

Zepp, Charlie E

From: Kurt Noss (noss8@atc-enviro.com)

Sent: Tuesday, March 26, 2002 11:10 AM

To: Zepp, Charlie E

Cc: Ed Henke

Subject: Shell #129562, 501 Carnegie, Cleveland, Ohio - Release #18000207-N00001 -
Extension Request

Mr. Zepp:

ATC, on behalf of Equiva Services LLC, requests a 90 day extension for submittal of the information you requested in your correspondence dated September 26, 2001. The replacement monitoring wells were installed and groundwater samples were collected and submitted for analysis. A proposed revised report due date is 5/24/02.

ATC will consider this extension request acceptable unless you advise otherwise.

Please let me know if you have any questions.

Kurt Noss
Senior Project Manager
ATC Associates Inc.
145 Ken Mar Industrial Parkway
Broadview Heights, Ohio 44147
phone 440 838-7177
fax 440 838-7181
Noss8@atc-enviro.com

00001329

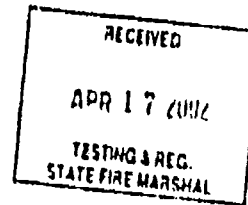
Edward W. Neeko, P.E.
Environmental Geologist,
SE Region Science & Engineering

EQUIVA
SERVICES LLC
Trust, Tenacity & Safety Always Working Together

March 29, 2002

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Charles B. Zepp
Ohio State Fire Marshal
Bureau of Underground Storage Tank Regulations
6606 Tussing Road
Reynoldsburg, Ohio 43068



RE: Tier Evaluation Addendum
Former Shell Service Station #129562
501 Carnegie Avenue
Cleveland, Ohio
ATC Project No: 08.75100.0244
BUSTR Incident No: 18000287-N00001

Dear Mr. Zepp:

Equiva Services LLC (Equiva) is submitting this letter report to summarize Tier Evaluation Addendum activities conducted by ATC Associates Inc. (ATC) at the above-referenced site in Cuyahoga County, Ohio. The work was performed in response to the Bureau of Underground Storage Tank Regulations (BUSTR) letter dated September 26, 2001, request for additional information and in accordance with Ohio Administrative Code (OAC) 1301:7-9-13. This report will summarize the fieldwork performed and present the results obtained from this additional assessment.

FIELD WORK

Two additional monitoring wells (MW-1a and MW-7a) were completed on December 7, 2001 to evaluate current groundwater concentration levels. The borings were advanced utilizing a CME-550 drill rig operated by Rklgeway Drilling Inc. located in Akron, Ohio. Monitoring wells MW-1a and MW-7a were installed to replace previously abandoned monitoring wells MW-1 and MW-7. ATC Staff Scientist Craig Whitaker was on-site to observe drilling activities and prepare detailed logs of the monitoring well installation. Monitoring well installation logs are provided in Attachment A. The monitoring well locations are shown on Figure 1.

The monitoring wells were installed using 4.25-inch hollow stem augers and extended to approximately 33 feet below ground surface (bgs) in MW-1a and to 32 feet bgs in MW-7a. Total depth of the borings was based on the depth at which groundwater was encountered. Groundwater was

depth of the borings was based on the depth at which groundwater was encountered. Groundwater was encountered during drilling activities at approximately 27 feet bgs in MW-1a and 26 feet bgs in MW-7a. Soil cuttings from the well installation were placed into a 55-gallon drum and was temporarily being stored on the site; arrangements for disposal were made on December 12, 2001.

Field activities performed on December 7, 2001 included monitoring well gauging and purging of approximately 5 well volumes from MW-1a and MW-7a. On December 10, 2001 ATC performed well gauging, purging and sampling of all monitoring wells at the site. Monitoring wells MW-1a, MW-6, MW-7a, MW-8 and MW-9 were purged and sampled using new disposable polyethylene bailers and polypropylene rope for each well. MW-M was dry and therefore was not sampled. An electronic oil/water interface probe was utilized in each well to obtain static groundwater level data and to detect for the presence of free product greater than 0.01 of a foot. Between gauging events, the interface probe was decontaminated according to the BUSTR guidelines. Disposable gloves were worn by ATC's Staff Scientist during each well gauging event and changed between each well gauging location to reduce the likelihood of cross-contamination. Groundwater elevation data is presented in Table 1. The purge water was placed into one 55-gallon drum and is temporarily being stored on the site; arrangements for disposal were made on December 12, 2001. Samples were placed into 40-milliliter glass vials with Teflon septum, wiped clean, labeled, and placed immediately in a cooler with ice to cool to approximately 4 degrees Celsius. Care was taken to ensure that no headspace existed in the sample. Groundwater samples were shipped in a sealed cooler overnight with the associated Chain-of-Custody to SPL, Traverse City, Michigan on December 11, 2001. All the samples were analyzed for benzene, toluene, ethyl benzene, xylenes (BTEX) with methyl tertiary butyl ether (MTBE) using EPA Method 8260, in accordance with OAC 1301:7-9-13. The groundwater analytical results are summarized in Table 2. A copy of the laboratory report is included in Attachment B.

RESULTS

Depth to water ranged from 25.95 feet below the top-of-casing in MW-8 to 28.10 feet below the top-of-casing in MW-6. Free product was not encountered in any monitoring wells during the well gauging event. Groundwater elevations were calculated based on the December 10, 2001 well gauging event. A potentiometric surface map was prepared using the elevation data collected on December 10, 2001 and is presented as Figure 2. Based upon Figure 2, the general direction of groundwater flow is towards the south. Groundwater elevations are summarized in Table 1.

Five groundwater samples were obtained and submitted for analysis. Monitoring wells MW-1a, MW-8 and MW-9 indicated BTEX and MTBE concentrations below BUSTR Tier 1 action levels. Analytical results for MW-6 and MW-7 indicated benzene and MTBE were above BUSTR Groundwater Ingestion action level. Analytical results for MW-7a indicated ethylbenzene was above BUSTR Groundwater Ingestion action level. The groundwater analytical results are summarized in Table 2. A copy of the laboratory report is included in Attachment B.

Tier Evaluation Addendum
Shell Service Station, 581 Carnegie, Ohio
BU:STR Incident No. 1800287-000001

ATC Project No: 08.75100.0244
4/4/02
Page 3

CONCLUSIONS

Based upon the results of this and previous site assessments, Equiva intends to prepare a Tier 2 Evaluation for this site.

Please do not hesitate to contact me at (770) 564-2501 with any questions.

Respectfully Submitted,
EQUIVA SERVICES LLC.



Edward W. Henke, P.G.
Environmental Geologist

Attachments:

Table 1- Groundwater Elevation Data
Table 2- Groundwater Analytical Results
Figure 1- Monitoring Well Location Map
Figure 1- Potentiometric Surface Map
Attachment A-Well Completion Diagrams
Attachment B-Laboratory Reports for Groundwater Samples

Cc: Kurt Ness (ATC Associates Inc.) with attachments
Williams-Ross with attachments

S:\Petroleum\Shell Sites (Shell)\Carnegie\Reports\Tier Addendum.doc

TABLES

**TABLE I
GROUNDWATER ELEVATION DATA**

Former Shell Service Station #129562
501 Carnegie Avenue
Cleveland, OH
(All values are in feet)

Monitoring Well	Date Gauged	Elevation: Top of Casing	Depth to Product	Depth to Water	Thickness of Product	Elevation: Static Water Level
MW-1a	12-7-01	100.53		27.15		73.38
MW-6	12-7-01	99.33		28.10		71.23
MW-7a	12-7-01	99.13		26.20		72.93
MW-8	12-7-01	100.02		25.95		74.07
MW-9	12-7-01	99.86		26.10		73.76
MW-M	12-7-01	98.87		DRY		NA

NOTES: Referenced datum is relative to an arbitrary assignment of 100 feet. The reference is the southeast screw bolt of light post located on the northwest corner of the site. Monitoring well MW-M was found off-site during site reconnaissance.

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
 Former Shell Service Station #12962
 501 Carnegie Avenue
 Cleveland, OH

Monitoring Well ID	Date Sampled	Ortho ppm	Total ppm	Ethylbenzene ppm	Xylene ppm	Total BTEX	MTHF
MW-1 (abandoned)	12-2-92	< 0.001	< 0.001	< 0.001	< 0.002	< 0.003	NS
	4-27-94	0.022	< 0.001	< 0.001	< 0.001	< 0.023	NS
	5-1-95	0.009	0.003	< 0.001	< 0.003	< 0.014	NS
	5-10-95	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
	8-25-95	0.002	< 0.001	< 0.001	< 0.001	< 0.007	NS
	11-10-95	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
MW-1a	12-10-01	0.062	< 0.001	< 0.001	< 0.001	< 0.063	0.003
MW-2 (abandoned)	12-2-92	0.001	0.002	0.008	0.174	0.229	NS
	4-27-94	1.400	0.004	0.009	0.200	1.612	NS
	5-1-95	2.000	0.004	0.170	0.370	3.344	NS
	5-10-95	2.600	0.003	0.017	0.170	2.958	NS
	8-25-95	5.000	< 0.001	0.070	0.130	5.240	NS
	11/10/95	1.700	0.004	< 0.001	< 0.001	1.708	NS
MW-3 (abandoned) #142099	12-2-92	0.011	0.023	0.003	0.023	0.062	NS
	4-27-94	0.130	0.006	< 0.001	0.003	0.342	NS
	5-1-95	0.290	0.170	0.029	0.054	0.533	NS
	5-10-95	0.130	0.170	0.023	0.050	0.373	NS
	8-25-95	0.094	0.029	0.001	0.014	0.148	NS
	11/10/95	< 0.001	< 0.001	< 0.001	< 0.003	0.006	NS
	4-30-96	< 0.001	< 0.001	< 0.001	< 0.003	0.006	NS
	10-2-96	3.000	3.400	0.440	1.700	11.440	NS
	5-21-97	0.330	0.013	0.003	0.007	0.352	NS
	10-2-97	0.094	0.009	0.002	0.009	0.113	NS
	8-17-99	< 0.001	0.001	< 0.001	0.003	0.004	NS
	8-14-94	0.019	< 0.001	< 0.001	< 0.001	0.022	NS
	2-18-99	0.011	< 0.001	< 0.001	< 0.003	0.016	NS
	8-14-99	0.042	0.006	0.002	0.009	0.101	NS
	8-14-00	0.015	< 0.001	< 0.001	0.008	0.029	0.017
	MW-4 (abandoned)	5-15-93	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006
8-27-94		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
3-1-95		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
5-10-95		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
8-25-95		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
11/10/95		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
MW-5 (abandoned)	3-15-93	0.015	0.005	< 0.001	< 0.001	< 0.024	NS
	4-27-94	0.040	0.005	< 0.001	< 0.002	< 0.046	NS

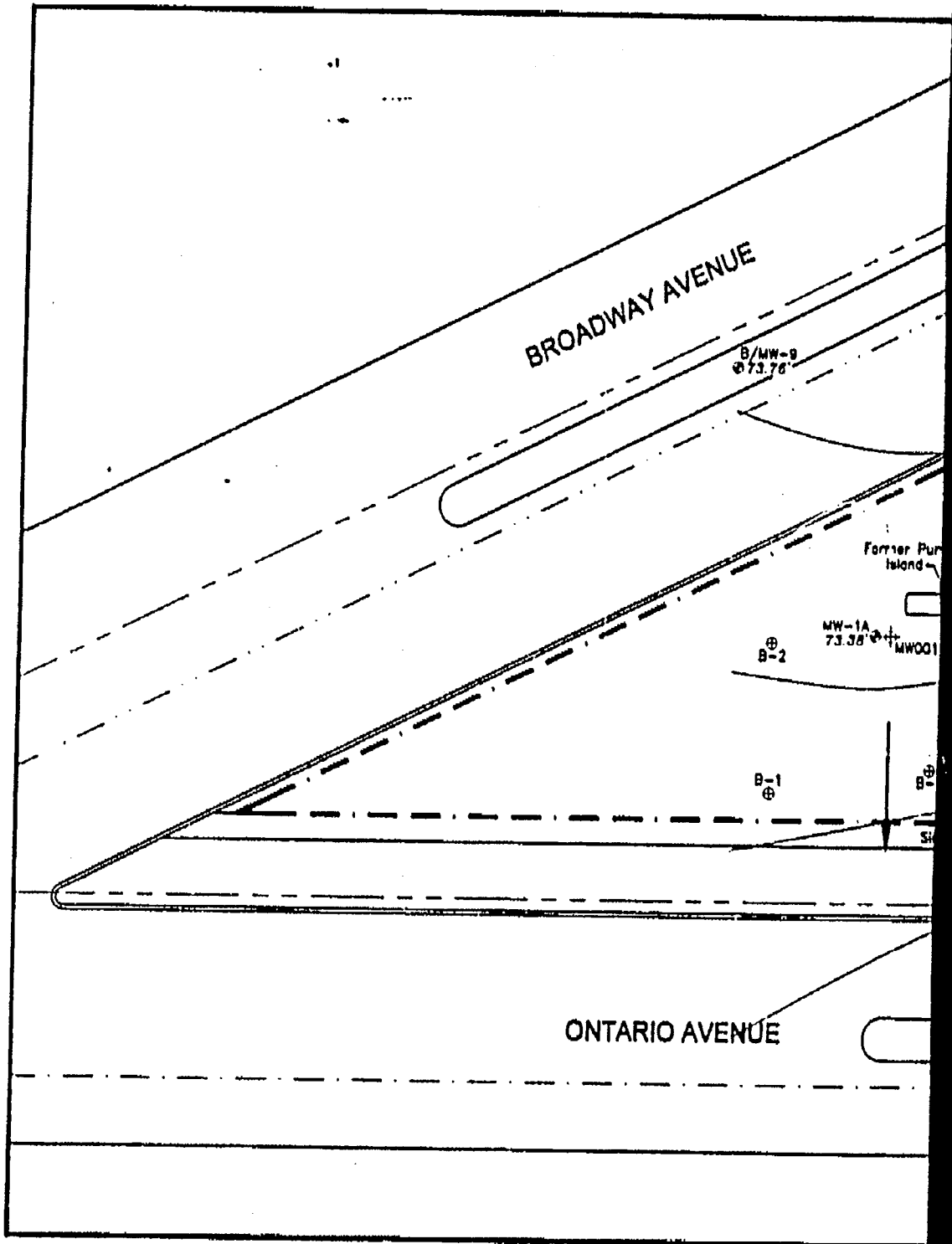
TABLE 3
GROUNDWATER ANALYTICAL RESULTS
 Former Shell Service Station #129562
 501 Carnegie Avenue
 Cleveland, OH

Monitoring Well ID	Date Sampled	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylene ppm	Total HTEX	MTRB
MW-6	1-16-91	0.001	< 0.012	0.001	< 0.010	< 0.043	NS
	4-27-94	0.004	< 0.001	0.002	0.010	< 0.017	NS
	1-1-95	2.900	< 0.001	< 0.001	< 0.001	< 3.003	NS
	6-10-95	2.700	< 0.001	< 0.001	< 0.001	< 2.703	NS
	6-25-95	0.930	< 0.010	< 0.010	< 0.030	< 0.980	NS
	11/10/95	< 0.001	< 0.001	< 0.001	< 0.001	< 0.004	NS
	4-30-96	0.250	< 0.001	< 0.001	< 0.001	< 0.254	NS
	10-2-96	0.670	< 0.001	< 0.001	< 0.001	< 0.675	NS
	2-21-97	0.560	< 0.001	< 0.001	< 0.001	< 0.565	NS
	10-2-97	3.600	0.004	0.004	0.001	3.609	NS
	4-17-98	1.000	0.012	< 0.001	< 0.001	< 2.013	NS
	9-14-98	2.500	< 0.001	< 0.001	< 0.001	< 2.513	NS
	2-18-99	0.921	< 0.001	< 0.001	< 0.001	< 0.924	NS
	9-14-99	1.300	< 0.010	< 0.010	< 0.010	< 1.330	NS
	8/14/01	0.810	< 0.005	< 0.005	< 0.005	< 0.825	0.340
12/10/01	0.480	< 0.005	0.034	< 0.005	< 0.524	0.340	
MW-7 (Abandoned) 6-14-2000	4/30/96	1.500	3.000	0.009	0.053	1.571	NS
	10-2-96	3.400	0.420	0.400	1.100	5.320	NS
	2-21-97	3.000	0.600	0.110	0.110	3.820	NS
	10-2-97	15.000	0.270	0.140	0.120	15.530	NS
	4-17-98	11.000	0.030	0.270	0.077	11.377	NS
	9-14-98	17.000	0.100	1.000	2.100	20.200	NS
	2-18-99	4.200	0.020	0.300	0.097	4.617	NS
	9-14-99	2.700	0.100	1.000	2.200	4.000	NS
8/14/01	1.000	0.041	0.740	0.670	2.451	0.820	
MW-7a	12/10/01	0.101	0.110	1.300	0.670	< 0.103	0.750
MW-A1	8-18-01	0.831	< 0.005	0.700	0.005	< 0.501	0.340
	12/10/01						
MW-8	10-6-01	< 0.005	< 0.005	< 0.005	< 0.005	0.020	< 0.005
	12-10-01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.020	< 0.005
MW-9	10-6-01	< 0.005	< 0.005	< 0.005	< 0.005	0.020	< 0.005
	12-10-01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.020	< 0.005
MTRB Action Levels for Drinking Water Depth to water 15-30 feet							
Groundwater Ingestion		0.005	0.0	0.7	0.0	N/A	0.040
Groundwater to indoor air		1.00	N/A	N/A	N/A	N/A	N/A

NOTES: NS - Not Sampled
 NA - Not Applicable
 ppm - parts-per-million
 MW-1 - MW-7 were installed by Parsons Engineering Science.
 Monitoring well MW-A1 was found off-site during site reconnaissance.

00001076

FIGURES



BROADWAY AVENUE

ONTARIO AVENUE

Ferry Pier Island

B/MW-9
73.76'

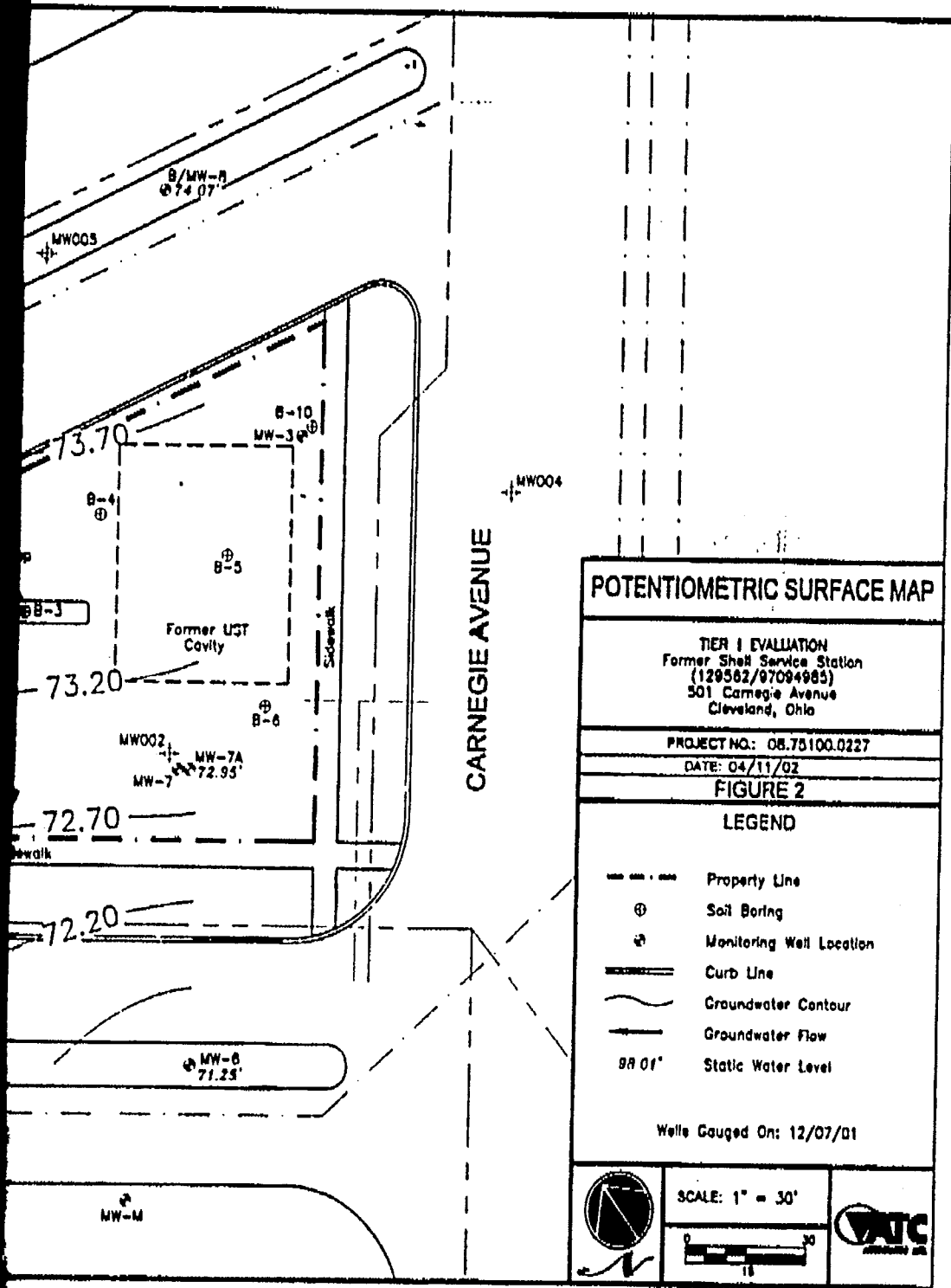
MW-1A
73.38'

B-2

B-1

B-3

MW001



POTENTIOMETRIC SURFACE MAP

TIER I EVALUATION
 Former Shell Service Station
 (129562/97094985)
 501 Carnegie Avenue
 Cleveland, Ohio

PROJECT NO.: 08.75100.0227
 DATE: 04/11/02

FIGURE 2

LEGEND

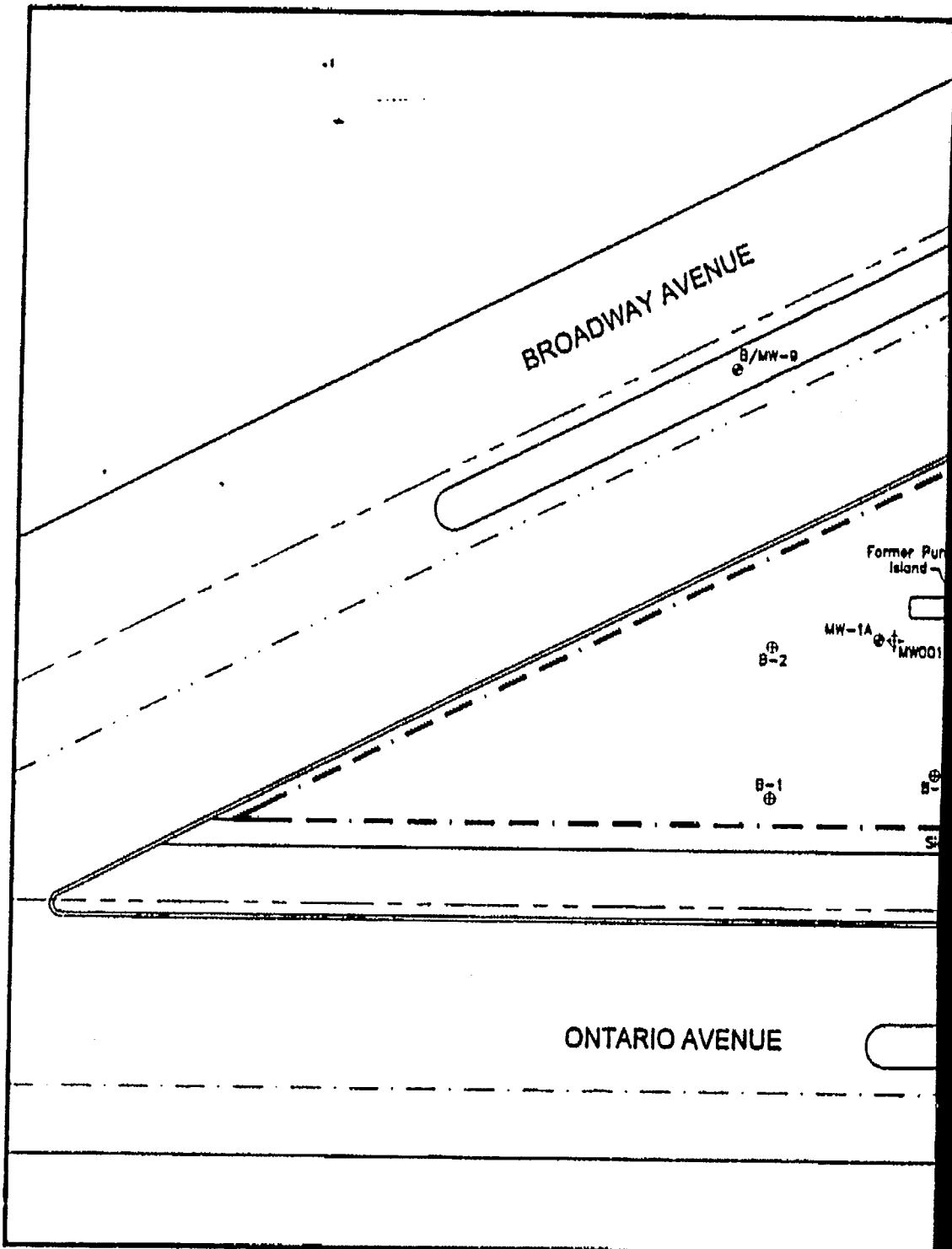
- Property Line
- ⊕ Soil Boring
- ⊗ Monitoring Well Location
- Curb Line
- ~ Groundwater Contour
- Groundwater Flow
- 88.01' Static Water Level

Wells Gauged On: 12/07/01

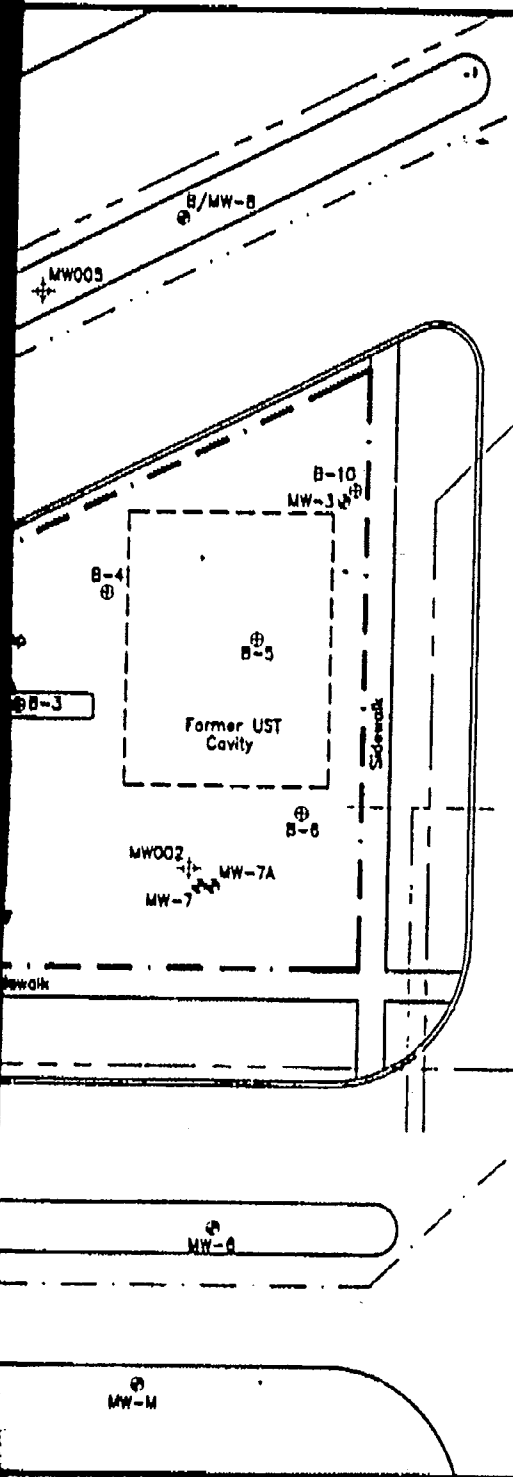


SCALE: 1" = 30'





0000 15 10



CARNEGIE AVENUE

MONITORING WELL LOCATION MAP	
Former Shell Service Station (129562/97094985) 501 Carnegie Avenue Cleveland, Ohio	
PROJECT NO: 08.75100.0227	
DATE: 04/11/02	
FIGURE 1	
LEGEND	
	Property Line
	Abandoned Monitoring Well Location
	Soil Boring
	Monitoring Well Location
	Curb Line
	Underground Electric
	Gas Line
	Water Line
	Underground Telephone
	SCALE: 1" = 30'

0000 1 10

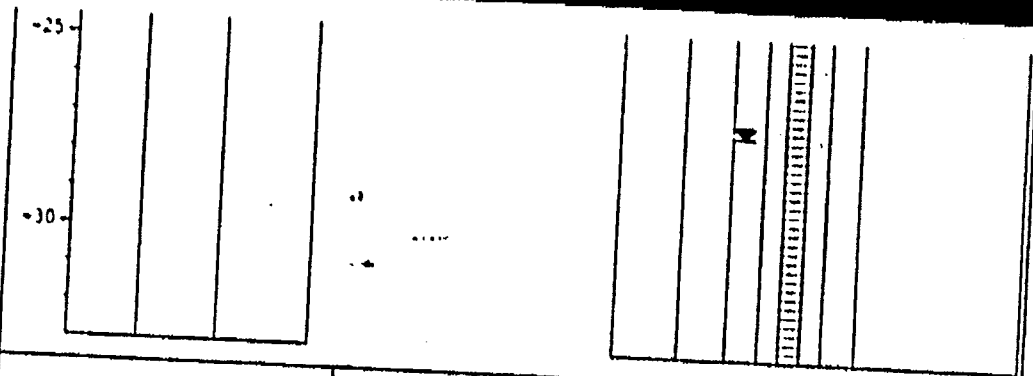
ATTACHMENT A

Well Completion Diagrams

ATC Associates Inc. 145 Ken Mar Industrial Parkway Broadview Heights, Ohio 44147	FIELD BOREHOLE LOG BOREHOLE NO.: MW-1a TOTAL DEPTH: 33ft.
---	--

PROJECT INFORMATION	DRILLING INFORMATION
PROJECT: Former Shell Service Station	DRILLING CO.: Ridgeway
LOCATION: 501 Carnegie Avenue	DRILLER: Paul Simon
JOB NO.: 08.75100.0227	RIG TYPE: 550-CME
GEOLOGIST: Craig Whitaker	METHOD OF DRILLING: Hollow Stem Augers
PM: Kurt Ness	SAMPLING METHODS:
DATE: 5-15-01	HAMMER WT./DROP
NOTES:	<input type="checkbox"/> Water level during drilling <input type="checkbox"/> Water level in completed well

DEPTH	SAMP. No	Blows / 6"	PROFILE	SOIL DESCRIPTION	PID ppm	REC (%)	BORING COMPLETION	WELL DESCRIPTION
0								
-5								
-10								
-15								
-20								



REC - SAMPLE RECOVERY
 NA - NOT AVAILABLE
 PID - PHOTO-IONIZATION DETECTOR

WELL CONSTRUCTION
WELL DIAMETER: 2"
CASING MATERIAL: PVC Schedule 40
SCREEN MATERIAL: PVC Schedule 40
SLOT SIZE: 0.010"
METHOD: Placed Through Auger

- SAND PACK
- BENTONITE SEAL
- GROUT
- WELL END PLUG
- SCREEN

ATC Associates Inc.

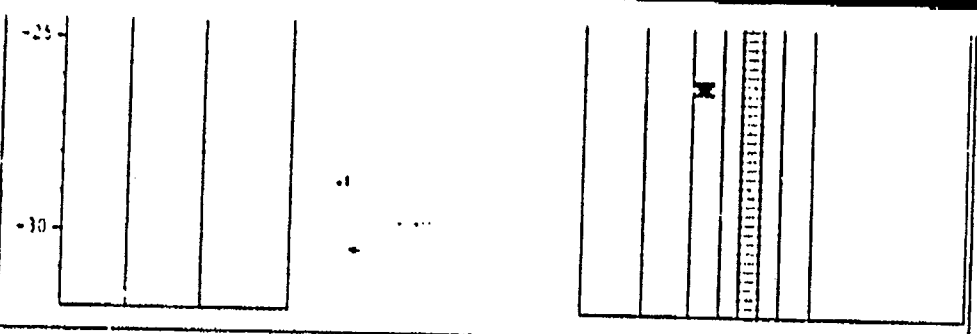
145 Ken Mar Industrial Parkway
Broadview Heights, Ohio 44147

FIELD BOREHOLE LOG

BOREHOLE NO.: MW-7H
TOTAL DEPTH: 32ft.

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	Former Shell Service Station	DRILLING CO.:	Ridgeway
LOCATION:	501 Carnegie Avenue	DRILLER:	Paul Simon
JOB NO.:	08.75100.0244	RIG TYPE:	550-CME
GEOLOGIST:	Craig Whitaker	METHOD OF DRILLING:	Hollow Stem Augers
PM:	Kurt Ness	SAMPLING METHODS:	
DATE:	5-15-01	HAMMER WT./DROP	
NOTES:		<input type="checkbox"/> Water level during drilling <input type="checkbox"/> Water level in completed well	

DEPTH	SAMP. No.	Blows / 6"	PROFILE	SOIL DESCRIPTION	PID ppm	REC (%)	BORING COMPLETION	WELL DESCRIPTION
0								
-5								
-10								
-15								
-20								



RE¹ = SAMPLE RECOVERY
 NA = NOT AVAILABLE
 PID = PHOTO-IONIZATION DETECTOR

WELL CONSTRUCTION
WELL DIAMETER: 2"
CASING MATERIAL: PVC Schedule 40
SCREEN MATERIAL: PVC Schedule 41
SLOT SIZE: 0.010"
METHOD: Placed Through Auger

- SAND PACK
- BENTONITE SEAL
- GROUT
- WELL END PLUG
- SCREEN

ATTACHMENT B

Laboratory Reports for Groundwater Samples

00001986



Ohio Department of Commerce

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations

6606 Tussing Road • P.O. Box 687

Reynoldsburg, OH 43068-9009

(614) 752-7938 FAX (614) 752-7942

www.com.state.oh.us

Bob Taft
Governor

Gary C. Szkodnik
Director

April 19, 2002

ED HENKE
EQUILON ENTERPRISES
5595 WYLMOOD DR
NORCROSS, GA 30093

SITE: SHELL OIL CO. #23416661595
501 CARNEGIE
CLEVELAND OH
CUYAHOGA COUNTY
RELEASE #18000287-N00001

RE: TIER EVALUATION REQUIRED

Dear Mr. Henke:

The Bureau of Underground Storage Tank Regulations (BUSTR) has reviewed your report titled "Tier Evaluation Addendum" dated March 29, 2002. BUSTR has determined that soil/ground water contamination exists in excess of the action levels applicable to this site. You are required to perform a tier evaluation as prescribed in Ohio Administrative Code 1301:7-9-13(K), effective March 1999, and explained in BUSTR's *Corrective Action Guidance Document (1999 edition)*. These documents describe the activities that must be performed during the tier evaluation and the information that is to be submitted to BUSTR. You must submit either the tier one evaluation notification or the tier evaluation report on or before March 29, 2002.

An order form and other publications that may help you to understand the requirements for compliance with BUSTR's rules and regulations may be found on the Internet at www.com.state.oh.us or by calling our office.

Thank you for your cooperation. If you have any questions, please contact me at 614-752-7093.

Sincerely,

Charles J. Zapp
Environmental Specialist

cc: Site File



Edward W. Henke, P.G.
Environmental Geologist,
PC Region Science & Engineering

JUL 13 AM 7:06

STATE FIRE MARSHAL

July 1, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ohio State Fire Marshal
Bureau of Underground Storage Tank Regulations
6606 Tussing Road
P.O. Box 687
Reynoldsburg, Ohio 43068-0687

ATTN: Mr. Charles Zepp

RE: Tier 2 Evaluation
Former Shell Service Station #129562
501 Carnegie Avenue
Cleveland, Ohio
ATC Project No: 08.75100 0244
BUSTR Incident No: 18000287-N00001

Dear Mr. Zepp:

Equiva Services LLC (Equiva) is submitting this report to summarize the Tier 2 Evaluation prepared by ATC Associates Inc. (ATC) for the referenced site in Cuyahoga County, Ohio. This report was completed to evaluate the potential human health risks associated with soil and groundwater conditions resulting from a release of petroleum from a former underground storage tank (UST) system. The evaluation was prepared in general accordance with Ohio Administrative Code (OAC) 1301:7-9-13 (effective March 31, 1999) and the Ohio State Fire Marshal's Bureau of Underground Storage Tank Regulations' (BUSTR) "Technical Guidance Manual" (July 2001).

Analytical data and report documentation from:

- ATC, "Tier 1 Evaluation Report", dated September 24, 2001.
- ATC, "Tier 1 Evaluation Addendum" report, dated March 29, 2002.

A site plan of the facility is shown on Figure 1 - Site Map. The BUSTR Tier 2-Evaluation checklist is provided in Attachment A.

Based on the evaluation of current and historical analytical data, ATC has determined that the residual constituents of concern (COCs) in groundwater located in the area of the former UST cavity do not exceed the Tier II site-specific target levels (SSTLs) developed to protect human health or the environment.

Background Information

The site is located south of Broadway Avenue and north of Ontario Avenue. The one-half acre site is currently a vacant lot with no standing structures or underground storage tanks (UST's). On March 22, 1996 EMPACO Equipment Corporation excavated and removed the entire UST system including tanks, product lines, dispensers, and vent lines. The surrounding properties are commercial. The site had been utilized as a retail gasoline outlet since approximately 1950. The site location is depicted in Figure 2 - Site Location Map.

Hydrogeologic/Geologic Characteristics

A Groundwater Resource Map of Cuyahoga County indicates that the site is situated in an area that is a poor source for groundwater. Properly installed wells may yield 3 to 10 gallons per minute (gpm) from a buried valley that may contain 200 to 300 of fine sand, silt, and clay.. Average well depth is greater than 50 feet.

Current gauging of the static water level (for all on-site monitoring wells) was performed on December 10, 2001 using an electronic water level indicator, which measures the depth to groundwater to the nearest one-hundredth of a foot. Depth-to-water measurements ranged from 25.95 feet in monitoring well MW-8 to 28.10 feet in monitoring well MW-6. Groundwater elevation data is included in Table 1 and shown on Figure 3 - Potentiometric Map.

Previous Assessment Activities

Parsons Engineering Science, Inc. (Parsons ES) initiated site assessment activities after product lines failed a lightness test on November 5, 1992. Three on-site monitoring wells (MW-1, MW-2, MW-3) were installed during a Site Check in December 1992. Benzene, Ethyl benzene, Toluene and Total Xylenes (BTEX) concentrations exceeded site action levels in soil and groundwater. The soil boring locations are shown on Figure 1 - Site Map. In April of 1993 Parsons ES installed three additional off-site monitoring wells, (MW-4, MW-5, MW-6), were installed in conjunction with a Site Assessment (Figure 1). BTEX concentrations exceeded site action levels in the groundwater at MW-5. Parsons ES completed a groundwater sampling event on April 27, 1994, which indicated an increase in benzene concentrations in all subsequent groundwater monitoring wells.

A monitoring only Remedial Action Plan (RAP) was submitted in November 1994 by Parsons ES. The RAP was implemented in February 1995 and consisted of quarterly groundwater sampling conducted in February, May, August and November 1995. On July 28, 1995 Parsons ES submitted a RAP Modification Plan to include Oxygen Releasing Compound (ORC) in MW-2 and MW-3 during the August groundwater sampling event.

On November 30, 1995 Parsons ES submitted the RAP Annual Progress Report to Shell. BTEX concentrations were reduced in MW002, MW003, and MW006. The report there in notifies

BUSTR that Shell will continue the RAP at a reduced sampling frequency of semi-annual. Sampling was proposed for May and November 1996, followed by another progress report.

On March 22, 1996 the entire UST system including tanks, product lines, dispenser islands, and vent lines were excavated and removed from service. Soil sampling was performed and a Closure Assessment was forth pending. Soil sampling results indicate soils were below action levels, however, stockpiled soils were above action levels. Because of limited workspace MW001 and MW002 were destroyed during excavation activities. The soil could not be stockpiled and were reintroduced to the excavation.

In April and October 1996 semi-annual groundwater sampling events were conducted. On May 9, 1996 monitoring well MW007 was installed to replace MW002 that was destroyed in March of 1996. Monitoring wells MW003, MW006, and MW007 all exhibited benzene levels exceeding action levels. On December 30, 1996 the Annual Progress Report/RAP Modification was submitted to BUSTR proposing continuation of semi-annual groundwater sampling and ORC usage in MW003 and MW006.

In February and October 1997 semi-annual groundwater sampling events were conducted, monitoring wells MW003, MW006, and MW007 all exhibited benzene levels exceeding action levels. On November 17, 1997 the RAP Annual Progress Report was submitted to BUSTR requesting continued groundwater sampling of monitoring wells MW003, MW006, and MW007 with ORC usage in MW003.

On January 25, 1999 BUSTR requested additional wells to be installed to define extent of impact in groundwater. On June 8, 1999 BUSTR requested a Site Assessment to be completed. On February and September 1999 semi-annual groundwater events were conducted, wells were sampled for BTEX and Methyl Tertiary Butyl Ether (MTBE). All monitoring wells exceeded BTEX action levels.

On January 27 & 28, 2000, Ridgeway Engineering of Akron, Ohio, advanced nine soil borings (designated B-1 through B-7, and B/MW-8 and B/MW-9) to a maximum depth of 32.0 feet below ground surface (bgs). A truck mounted CME-550 drill rig utilizing hollow stem augers advanced the soil borings. The soil boring locations are shown on Figure 1 - Site Map. Soil samples from B-5 (21'-23') contained concentrations of ethyl benzene, total xylenes and total petroleum hydrocarbons (TPH) above BUSTR Category 2 action levels. Soil samples from all other borings did not contain detectable levels of BTEX constituents or TPH. Six groundwater samples were obtained and submitted for analysis. Soil analytical results are located in Table 2 and Figure 4. Monitoring wells MW-3, MW-6, MW-7 and MW-M contained benzene concentrations above BUSTR Category 2 action levels. Monitoring wells MW-7 and MW-M contained ethyl benzene concentrations above BUSTR Category 2 action levels. Groundwater analytical results are located in Table 3 and Figure 5.

To enable the site to be considered for a Tier III Evaluation under Ohio Administrative Code (OAC) 1301: 7-9-13 dated April 1, 1999; Equiva Services LLC notified BUSTR in a letter dated June 19, 2001 to transition the site into the 1999 corrective action rules (Attachment A). ATC

00001767

advanced one soil boring B-10 in May 2001 to investigate current subsurface conditions at the site. BTEX and MTBE concentrations were detected below applicable action levels in soil and groundwater samples analyzed from this and previous assessments. A "No Further Action" determination was requested for the site.

In response to the BUSTR letter dated September 26, 2001, ATC advanced monitoring wells (MW-1a and MW-7a) to evaluate current groundwater contamination levels. Monitoring wells MW-1a and MW-7a were installed to replace previously abandoned monitoring wells MW-1 and MW-7. (Figure 1)

Upon completion of the borings, monitoring wells were installed in depths ranging from 32.0 to 33.0 feet bgs. The monitoring wells were constructed of 2-inch inside diameter polyvinyl chloride (PVC) well casing and factory slotted 0.010 well screen. The well casing and screen for each well was assembled and then lowered through the auger into each boring. Quartz filter sand was placed in the annular space from the total depth of each boring to approximately two feet above the top of the screened interval. The remaining annular space was filled with bentonite and hydrated with tap water. A bolt-down, flush mounted protective lid was then installed above the top of casing. Monitoring well locations are shown on Figure 1. Monitoring well construction diagrams are included in Attachment B.

Two soil samples were collected adjacent to boring B-2 from depths of 15.0 to 17.0 feet below ground surface (bgs) and 24 to 26 feet bgs on March 1, 2002 for Geotechnical analysis. The samples were analyzed for grain size, bulk density, fractional organic content, bulk density, porosity, volumetric water content in the vadose zone, volumetric air content in vadose zone, volumetric water content in capillary fringe, and volumetric air content in capillary fringe. Laboratory results are located in Attachment H.

On December 10, 2001 ATC performed well gauging, purging of approximately 3 well volumes and sampling of all existing monitoring wells at the site. Monitoring wells MW-1a, MW-8, MW-7a, MW-8 and MW-9 were purged and sampled using new disposable polyethylene bailers and polypropylene rope for each well, MW-M was dry and therefore was not sampled. An electronic oil/water interface probe was utilized in each well to obtain static groundwater level data and to detect for the presence of free product greater than 0.01 of a foot. Between gauging events, the interface probe was decontaminated according to the BUSTR guidelines. Disposable gloves were worn by ATC's Staff Scientist during each well gauging event and changed between each well gauging location to reduce the likelihood of cross-contamination.

Samples were placed into 40-milliliter glass vials with Teflon septum, wiped clean, labeled, and placed immediately in a cooler with ice to cool to approximately 4 degrees Celsius. Care was taken to ensure that no headspace existed in the sample. Groundwater samples were shipped in a sealed cooler overnight with the associated Chain-of-Custody to SPL, Traverse City, Michigan on December 11, 2001. All the samples were analyzed for benzene, toluene, ethyl benzene, xylenes (BTEX) with methyl tertiary butyl ether (MTBE) using EPA Method 8260, in accordance with OAC 1301:7-9-13. Groundwater laboratory analytical reports and chain-of-custody documentation are located in Attachment H.

RESULTS

Hydrology

The native soil encountered at the site was field characterized as predominantly medium to coarse grained sands. Static groundwater levels in the monitoring wells ranged from 25.95 feet bgs in MW-8 to 28.10 feet bgs in MW-6. Groundwater elevations were calculated based on the December 10, 2001 well gauging event. Groundwater elevation data is presented on Table 1. The general groundwater flow appears to be towards the south. (Figure 3)

Soil

All soil results were below applicable Tier I action levels. The results of BTEX & MTBE in soil analysis are presented on Table 2. The results of BTEX & MTBE in soil analysis are presented on Table 2 and Figure 4.

Groundwater

Four groundwater samples were obtained and submitted for analysis. Monitoring wells MW-1a, MW-6, MW-8 and MW-9 indicated BTEX and MTBE concentrations below BUSTR Tier 1 action levels. Analytical results for MW-7a exceeded the Tier I action level for groundwater to indoor air. The results of BTEX and MTBE groundwater analysis are presented in Table 3 and Figure 3.

Potable water in the area of the site is obtained from the City of Cleveland Water Department, which procures water from Lake Erie. Lake Erie is located approximately 2.25 miles north of the site. Ms. Karen M. Lisowski, Consulting Engineer for the City of Cleveland Division of Water stated that one hundred percent of the surrounding properties are tied into the Cleveland water system. A copy of the letter is included in Attachment F.

Well logs and drilling reports maintained by the Ohio Department of Natural Resources (ODNR) were obtained for wells within a 2000 foot radius of the former UST system. Two water well logs were identified within 2000 feet of the subject site. One of the potable water wells was discounted by referencing the latitude and longitudinal coordinates which located this well beyond the 2000 foot radius (Attachment C). According to the ODNR, a potable water well was installed at 2336 Canal St. in 1944. This property is currently occupied by the Chemalloy Corporation. Chris Juratic (Building Manager), stated that the potable water in question was could not be located. Mr. Juratic also stated that Chemalloy has no intentions of utilizing a potable water well at the 2336 Canal St. property (Attachment D). All unlocated drinking water sources (at ODNR) within the surrounding area of the site were investigated via the ODNR Internet site. No unlocated potable water wells were identified within 2000 feet of the subject site. The ODNR well logs, and 2000 foot unlocated well search radius map are included in Attachment C. The site is not located within a sensitive area as defined by OAC 1301-7-9 or above a sole source aquifer.

The Tier 1 action levels applicable for the site are as follows:

Groundwater: 1 (J)(a)-(i)-(v)(a) (non-drinking water)
Soil: 1 (J)(a)(ii)-(iii)(b)-(iv)(b)-(v)(b) (groundwater 15-30 feet)

Based upon the results of the May 2002 and previous subsurface investigations conducted by ATC and Parsons ES, BTEX and MTBE constituents were detected above BUSTR Tier 1 action levels.

Benzene was identified in a groundwater sample from MW-7a exceeding the Tier 1 action level for groundwater to indoor air.

TIER 2 EVALUATION

The Tier 2 evaluation is performed to further evaluate land use, exposure points, and exposure scenarios in the development of site-specific target levels (SSTLs). The SSTLs were calculated by comparing concentrations of BTEX and MTBE to established concentrations in the Tier 1 look-up tables or by entering site-specific data into the BUSTR algorithms. The following sections describe the process used to develop the SSTLs.

Site Conceptual Exposure Model

A site conceptual exposure model was developed to describe all exposure pathways that could be assumed to potentially exist in the future based on the available information.

Land Use Scenarios and Potential Receptors

Given that the site is currently a vacant property and is located in an area zoned commercial, zoning regulations hinder the construction of residential (i.e., single and/or multi-family housing) structures. The current land usage in the properties surrounding the site is greater than 75 percent commercial, therefore future land use for the property will be evaluated as commercial. Zoning information is provided in Attachment G. A site conceptual flow chart for current and future land use has been constructed and is provided in Figure 6 and Figure 7.

Chemicals of Concern

Chemicals of concern were selected based on the results of the Tier 1 Evaluation according to BUSTR OAC 1301:7-9-13 (March, 1999). The following compound that exceeded the Tier 1 Screening Action Levels is the COCs for the Tier 2 Evaluation:

- Groundwater-Benzene

Contaminant Source Identification and Transport Mechanisms

The source area is defined as the area of highest concentration of petroleum hydrocarbons. During the assessment, the highest concentrations of petroleum constituents were detected in or around the former UST cavity that was located along the northeastern portion of the site (see Figure 1). Initially, the BTEX and MTBE concentrations for impacted groundwater were compared to the Tier 1 look-up tables. Based on the initial review, groundwater to indoor air was determined to be the contaminant source and transport mechanisms identified.

Drinking Water Evaluation - Determination of Groundwater Use

During site assessment activities, two water well logs were identified within 2000 feet of the subject site. One of the potable water wells was discounted by referencing the latitude and longitudinal coordinates which located this well beyond the 2000 foot radius (Attachment C). According to the ODNR, a potable water well was installed at 2338 Canal St. in 1944. This property is currently owned by the Chemalloy Corporation. As previously stated Chemalloy has no intentions of installing a potable water well at 2338 Canal St. (Attachment D)

The site is not located in a sensitive (OAC 1301: 7-9-9) and/or wellhead protection area (OEPA Endorsed Wellhead Protection Area).

Exposure Route and Exposure Point

Impacted media at the site is groundwater. All current and potential future exposure routes are as follows:

- **Groundwater** - Exposure routes include groundwater volatilization to indoor air and direct contact.

Exposure points are defined as the points at which a receptor is likely to be exposed to a COC.

For groundwater volatilization to indoor air, inhalation is the point of exposure in an enclosed space.

Potential Exposure Pathways

The potentially complete exposure pathway flowcharts for current and future exposure scenarios are summarized in Figure 5 and Figure 6.

SSTL and Reasonable Maximum Exposure Determination

BUSTR Spreadsheet

SSTLs were calculated for the groundwater to indoor air for benzene using site-specific geotechnical data. Geotechnical results are located in Attachment H. The applicable site-

specific action level did not exceed any soil analytical results for the site therefore, the direct contact with soil, soil to non-drinking water leaching, and soil to indoor air leaching pathways were considered incomplete. The BUSTR spreadsheet, supporting calculations and geotechnical results are provided in Attachment E.

Reasonable Maximum Exposure Determination

The Tier 2 option is limited to a qualitative assessment for the elimination of the remaining pathway (i.e., groundwater to indoor air). The Tier 2 evaluation applies an estimation of reasonable maximum exposure (RME) that may occur on and/or off-site. The purpose of the RME is to estimate a conservative exposure case that is still within the possible range of exposures.

The applicable SSTL values represent the concentration of COCs as judged to be "acceptable" and are not likely to cause adverse human health and/or environmental effects. All representative concentrations calculated fall below the SSTL values determined for the site. Therefore, the evaluated concentrations of COCs in groundwater located beneath the present site show a low potential for present and/or future health risks. In addition, the following justifications strengthen the improbability of a complete groundwater ingestion pathway:

Ingestion of COCs in Groundwater

- The site is not located in a wellhead protection area (OEPA Endorsed Wellhead Protection Area).
- There are no surface water bodies within 300 feet (refer to the Figure 2).
- The area is not located in a sensitive area according to OAC 1301: 7-9-9.
- The site does not overlay a sole-source aquifer, as listed by the USEPA.
- Future land use is likely to remain commercial due to the location of the property and the zoning code regulations.
- The two potable wells located by the ODNR have been determined not to be a current or future point of exposure. One of the potable water wells was discounted by reference to the latitude and longitudinal coordinates which located this well beyond the 2000 foot radius. The potable well located at 2338 Canal St. has been determined not to be a current or future point of exposure. (Attachment D) The well logs are provided in Attachment C.

Tier 2 DECISION (CONCLUSIONS)

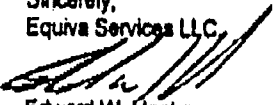
The Tier 2 Evaluation results are summarized as follows:

- The maximum benzene concentrations detected in groundwater do not exceed the action levels for the groundwater-to-indoor air pathway under the current and future commercial scenarios.

Based on the results of the Tier 2 Evaluation, residual contamination does not pose an unacceptable risk to human and/or environmental health. In addition, there is sufficient justification for the elimination of the potential (future) exposure pathway based on existing institutional controls (zoning, etc.).

Therefore, based on the above discussion, Equiva Services LLC respectfully requests that the former Shell Service Station, located at 501 Carnegie, Cleveland, Ohio, be considered for a no further action (NFA) status. If there are any questions concerning this report, please do not hesitate to contact me at 770-564-2501.

Sincerely,
Equiva Services LLC



Edward W. Henke
Environmental Geologist

cc: Kurt Ness, ATC Associates
Williams & Ross

S:\Petroleum\Shell\Site (Shell)\Carnegie\Reports\Tier II\CarnegieTier 2.doc

ATTACHMENTS

Tables:

Table 1 – Groundwater Elevation Data

Table 2 – Soil Analytical Data

Table 3 – Groundwater Analytical Data

Figures:

Figure 1 – Site Map

Figure 2 – Site Location Map

Figure 3 – Potentiometric Map

Figure 4 – Soil Analytical Results Map

Figure 5 – Groundwater Analytical Results Map

Figure 6 – Exposure Pathway Flow Chart – Current Land Use

Figure 7 – Exposure Pathway Flow Chart – Future Land Use

Attachments:

Attachment A – Tier II Checklist

Attachment B – Boring Logs/Monitoring Well Completion Diagrams

Attachment C – ODNR Well Logs

Attachment D – Chemelloy Corporation Response

Attachment E – SSSL (Groundwater to Indoor Air)

Attachment F – City of Cleveland Correspondence

Attachment G – City of Cleveland Zoning Map

Attachment H – Laboratory Analytical results

TABLES

00001275

**TABLE I
GROUNDWATER ELEVATION DATA**

* Former Shell Service Station #129462

501 Carnegie Avenue
Cleveland, OH

(All values are in feet)

Monitoring Well	Date Gauged	Elevation Top of Casing	Depth to Product	Depth to Water	Thickness of Product	Elevation Static Water Level
MW-1a	12/7/01	99.81		27.15		72.66
MW-6	12/7/01	99.35		29.10		70.25
MW-7a	12/7/01	98.43		26.20		72.23
MW-8	12/7/01	100.02		25.95		74.07
MW-9	12/7/01	99.36		26.10		73.26
MW-M	12/7/01	99.87		DRY		NA

NOTES: Referenced datum is relative to an arbitrary assignment of 100 feet. The reference is the southeast screw bolt of light post located on the northwest corner of the site. Monitoring well MW-M was found off-site during site reconnaissance.

TABLE 3
 SOIL ANALYTICAL DATA
 Former Shell Service Station #129662
 501 Carnegie Avenue
 Cleveland, OH

Sampling Number	Sample Depth	Date Sampled	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Total Xylenes (ppm)	MTBE (ppm)
PL-3	8'-10"	11/7/92	0.018	0.13	0.009	0.103	
MW001	27'-29"	11/23/92	0.002	0.002	0.002	0.006	
MW002	25'-27"	11/24/92	1.2	1.2	0.9	11.6	
MW003	21'-23"	11/24/92	2.3	1.8	3.4	11.9	
MW004	28'-30"	3/11/93	0.002	0.006	0.002	0.003	
MW005	24'-26"	3/12/93	0.003	0.1	0.003	0.005	
MW006	24'-26"	3/12/92	0.003	0.009	0.01	0.04	
	26'-28"		0.002	0.002	0.002	0.003	
MW007	24'-26"	5/4/96	0.018	0.01	0.01	0.039	
B-1	8'-10"	7/20/00	0.005	0.005	0.005	0.005	0.005
	12'-14"	7/20/00	0.005	0.005	0.005	0.005	0.005
B-2	12'-14"	7/20/00	0.005	0.005	0.005	0.005	0.005
	18'-20"	7/20/00	0.005	0.005	0.005	0.005	0.005
B-3	3'-5"	7/20/00	0.005	0.005	0.005	0.005	0.005
	9'-11"	7/20/00	0.005	0.005	0.005	0.005	0.005
B-4	3'-5"	7/20/00	0.005	0.005	0.005	0.005	0.005
	7'-9"	7/20/00	0.005	0.005	0.005	0.005	0.005
B-5	9'-11"	7/20/00	0.005	0.005	0.005	0.005	0.005
	13'-15"	7/20/00	0.005	0.005	0.005	0.005	0.005
	21'-23"	7/20/00	0.2	0.2	26	6.8	0.05
B-6	3'-5"	7/20/00	0.005	0.005	0.005	0.005	0.005
	11'-13"	7/20/00	0.005	0.005	0.005	0.005	0.005
B-7	3'-5"	7/20/00	0.005	0.005	0.005	0.005	0.005
	13'-15"	7/20/00	0.005	0.005	0.005	0.005	0.005

00001377

TABLE 2
 SOIL ANALYTICAL DATA
 Former Shell Service Station #129562
 631 Carnegie Avenue
 Cleveland, OH

Boring Number	Sample Depth	Date Sampled	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
			(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
B-4	23-25	6/18/00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	25-27	6/18/00	< 0.005	< 0.005	< 0.005	< 0.015	< 0.005
B-9	22-24	6/20/00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	24-26	6/20/00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
B-10	18-20	5/15/01	0.005	< 0.005	3.80	4.10	< 0.05
	22-24	5/15/01	0.300	< 0.005	< 0.005	4.30	< 0.05
MUSTH Action Levels for Non-drinking Water Depth 1-30 Feet in Sand/Gravel Soil Type							
Direct Contact with Soil			8.700	570.000	250.000	1500.000	130.000
Soil to Non-drinking Water Leaching			116.000	N/A	N/A	N/A	N/A
Soil to Indoor Air			0.950	N/A	N/A	N/A	N/A

NOTES: ppm - parts-per-million
 PL-3 and MW001 - MW007 were installed by Parsons Engineering Science
 N/A = Partic. for chemical of concern is Not Applicable to the particular pathway

TABLE 3
 GROUNDWATER ANALYTICAL DATA
 Foster Shell Service Station #129662
 501 Carnegie Avenue
 Cleveland, OH

Monitoring Well ID	Date Sampled	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylene ppm	Total BTEX	MTBE
MW-1 (abandoned)	12/2/92	0.001	0.001	0.001	0.002	0.005	NS
	4/27/94	0.022	0.001	0.001	0.001	0.025	NS
	3/1/95	0.004	0.003	0.001	0.003	0.011	NS
	5/10/95	0.001	0.001	0.001	0.003	0.006	NS
	8/25/95	0.003	0.001	0.001	0.003	0.007	NS
	11/10/95	0.001	0.001	0.001	0.003	0.006	NS
MW-1a	12/10/01	0.002	0.001	0.001	0.001	0.005	0.003
MW-2 (abandoned)	12/2/92	0.005	0.003	0.004	0.174	0.229	NS
	4/27/94	1.400	0.004	0.008	0.200	1.692	NS
	3/1/95	2.800	0.004	0.170	0.370	3.344	NS
	5/10/95	2.800	0.001	0.037	0.120	2.958	NS
	8/25/95	8.000	0.050	0.070	0.130	8.250	NS
	11/10/95	1.700	0.004	0.001	0.003	1.708	NS
MW-3 (Abandoned 8/14/2000)	12/2/92	0.011	0.023	0.005	0.023	0.062	NS
	4/27/94	0.330	0.006	0.001	0.005	0.342	NS
	3/1/95	0.280	0.170	0.029	0.054	0.533	NS
	5/10/95	0.130	0.170	0.023	0.050	0.373	NS
	8/25/95	0.094	0.029	0.011	0.014	0.148	NS
	11/10/95	0.001	0.001	0.001	0.003	0.006	NS
	4/30/96	0.001	0.001	0.001	0.003	0.006	NS
	10/2/98	3.000	0.400	0.440	1.700	11.440	NS
	2/21/97	0.330	0.013	0.003	0.007	0.352	NS
	10/2/97	0.094	0.009	0.002	0.008	0.113	NS
	4/17/98	0.001	0.001	0.001	0.003	0.004	NS
	8/14/98	0.018	0.001	0.001	0.001	0.022	NS
	2/18/99	0.011	0.001	0.001	0.003	0.018	NS
	9/14/99	0.042	0.006	0.002	0.055	0.105	NS
	8/14/00	0.011	0.005	0.005	0.008	0.029	0.037
MW-4 (abandoned)	3/15/93	0.001	0.001	0.001	0.003	0.008	NS
	4/27/94	0.004	0.001	0.001	0.002	0.008	NS
	3/1/95	0.001	0.001	0.001	0.003	0.008	NS
	5/10/95	0.001	0.001	0.001	0.003	0.008	NS
	8/25/95	0.001	0.001	0.001	0.003	0.008	NS
	11/10/95	0.001	0.001	0.001	0.003	0.008	NS
MW-5 (abandoned)	3/15/93	0.015	0.005	0.001	0.003	0.024	NS
	4/27/94	0.040	0.005	0.001	0.002	0.048	NS

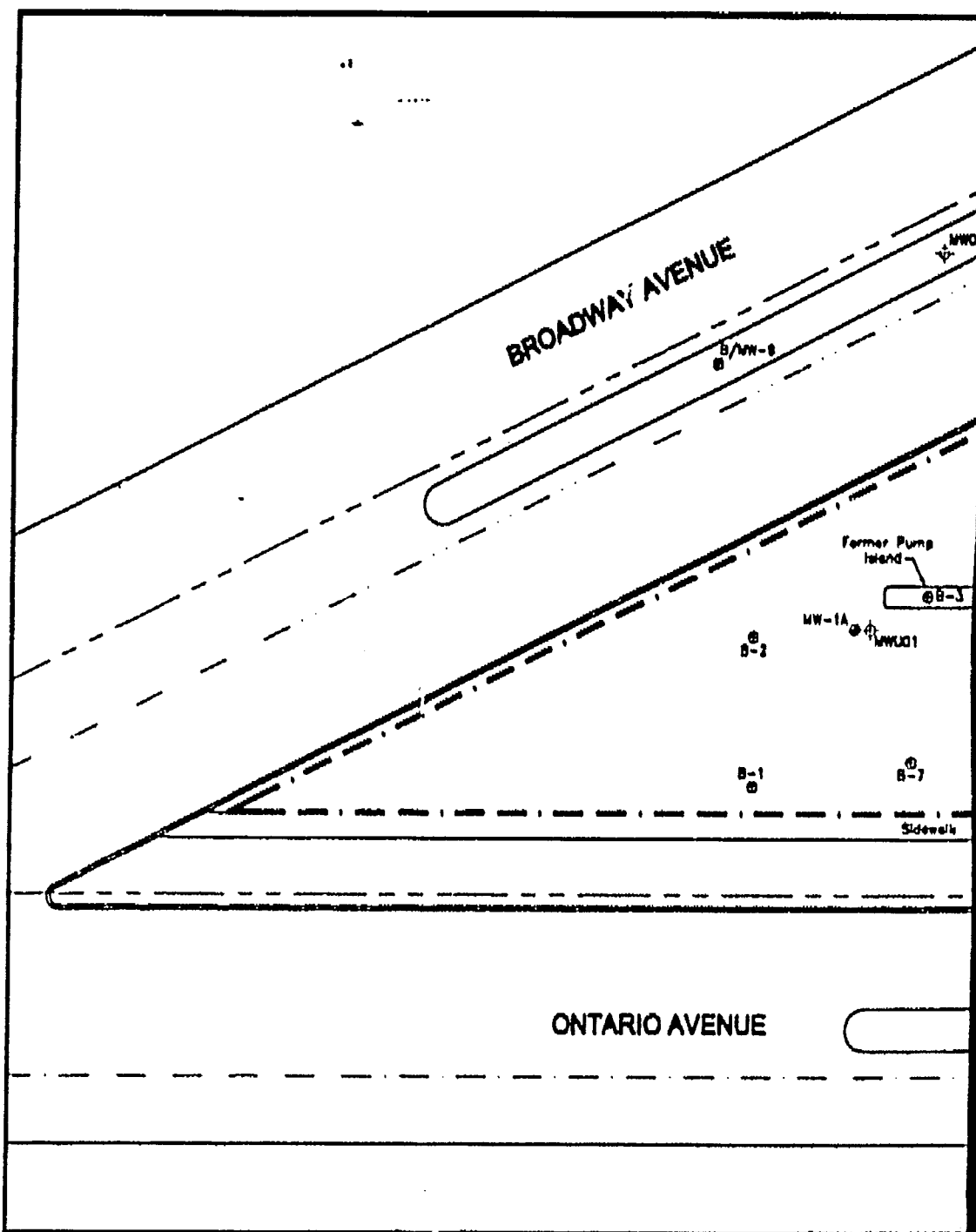
TABLE 3
GROUNDWATER ANALYTICAL DATA
 Former Shell Service Station #17842
 501 Carnegie Avenue
 Cleveland, OH

Monitoring Well ID	Date Sampled	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	Total BTEX	MTBE
MW-6	3/15/93	0.001	0.032	0.001	0.008	0.043	NS
	4/27/94	0.004	0.001	0.002	0.015	0.017	NS
	3/1/95	2.900	0.001	0.001	0.003	2.905	NS
	5/10/95	2.200	0.001	0.001	0.003	2.205	NS
	8/25/95	0.630	0.010	0.010	0.030	0.980	NS
	11/10/95	0.001	0.001	0.001	0.003	0.008	NS
	4/30/98	0.250	0.001	0.001	0.003	0.255	NS
	10/2/98	0.870	0.001	0.001	0.003	0.875	NS
	2/27/97	0.660	0.001	0.001	0.003	0.665	NS
	10/2/97	8.600	0.004	0.004	0.001	8.600	NS
	4/17/98	2.000	0.013	0.001	0.001	2.015	NS
	8/14/98	2.600	0.005	0.005	0.005	2.615	NS
	2/18/99	0.021	0.001	0.001	0.001	0.024	NS
	8/14/99	1.300	0.010	0.010	0.010	1.330	NS
8/14/00	0.010	0.003	0.005	0.005	0.025	0.240	
12/10/01	0.480	0.003	0.034	0.003	0.524	0.350	
MW-7 (Abandoned 8/14/2000)	4/30/98	1.510	0.008	0.008	0.058	1.571	NS
	10/2/98	8.460	0.470	0.480	1.100	7.400	NS
	2/27/97	3.000	0.440	0.110	0.110	3.660	NS
	10/2/97	15.800	0.270	0.140	0.170	15.330	NS
	4/17/98	21.880	0.030	0.270	0.077	21.377	NS
	8/14/98	17.880	0.100	1.600	2.100	20.600	NS
	2/18/99	6.380	0.020	0.330	0.097	6.847	NS
	8/14/99	6.380	0.160	1.800	1.200	11.160	NS
	8/14/00	3.600	0.041	0.740	0.470	5.051	0.870
MW-7a	12/10/01	6.180	0.110	1.300	0.870	8.180	0.750
MW-M	8/14/00	0.051	0.005	0.700	0.005	0.761	0.300
	12/10/01						
MW-8	10/6/00	0.005	0.005	0.005	0.005	0.020	0.005
	12/10/01	0.005	0.005	0.005	0.005	0.020	0.005
MW-9	10/6/00	0.005	0.005	0.005	0.005	0.020	0.005
	12/10/01	0.005	0.005	0.005	0.005	0.020	0.005
BUTR Action Levels for Drinking Water Depth to water 15-30 feet							
Groundwater to indoor air		3.98	N/A	N/A	N/A	N/A	N/A
ESTL Groundwater to indoor Air		21.60	N/A	N/A	N/A	N/A	N/A

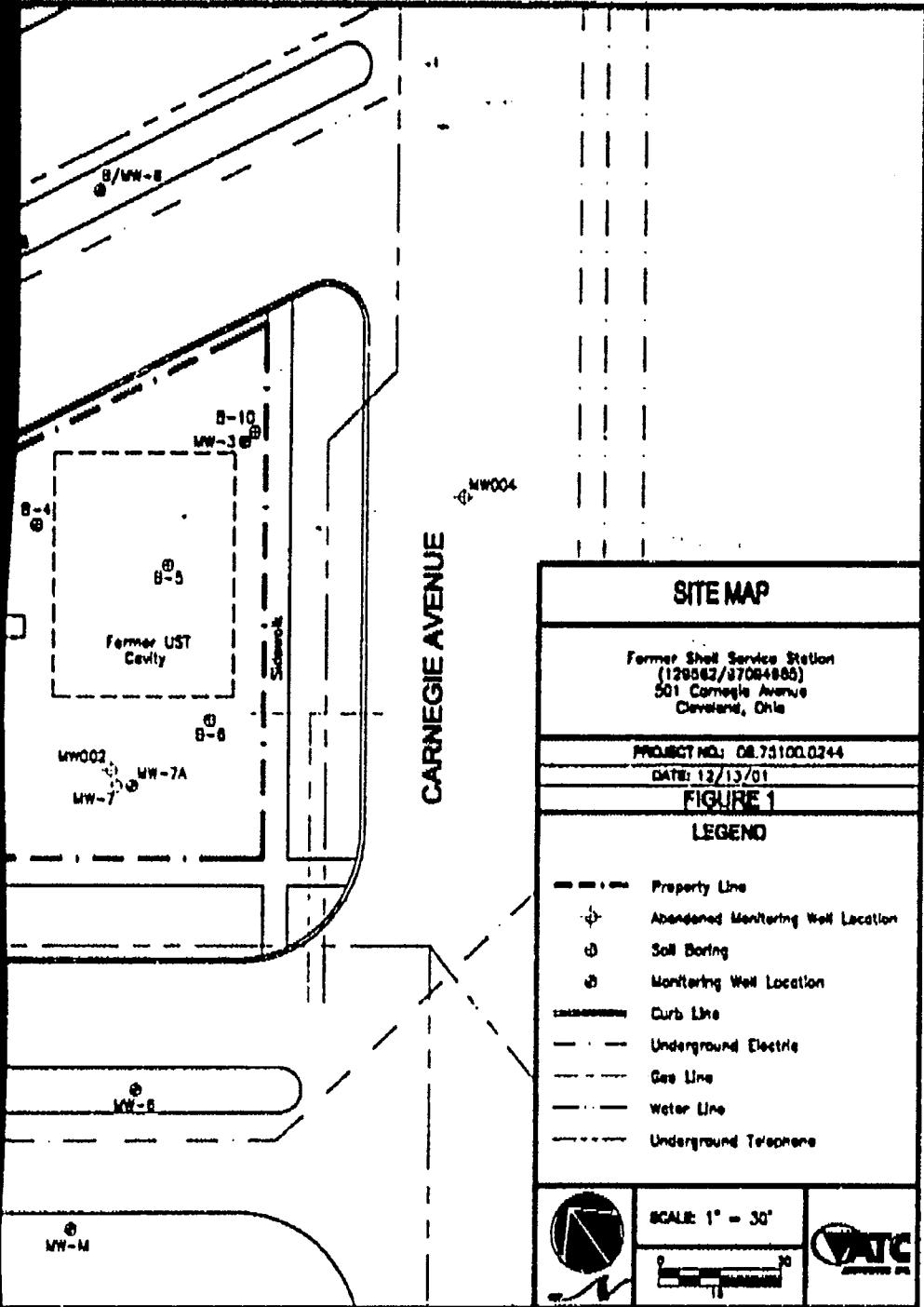
NOTES NS Not Sampled
 NA Not Applicable
 ppm - parts-per-million
 MW-1 - MW-7 were installed by Parsons Engineering Science
 Monitoring well MW-11 was found off site during site reconnaissance
 SSTL - Site Specific Target Level

FIGURES

00001381



00001382



SITE MAP

Former Shell Service Station
 (129562/37084865)
 501 Carnegie Avenue
 Cleveland, Ohio

PROJECT NO: CR.73100.0244

DATE: 12/13/01

FIGURE 1

LEGEND

- Property Line
- Abandoned Monitoring Well Location
- Soil Boring
- Monitoring Well Location
- Curb Line
- Underground Electric
- Gas Line
- Water Line
- Underground Telephone



SCALE: 1" = 30'



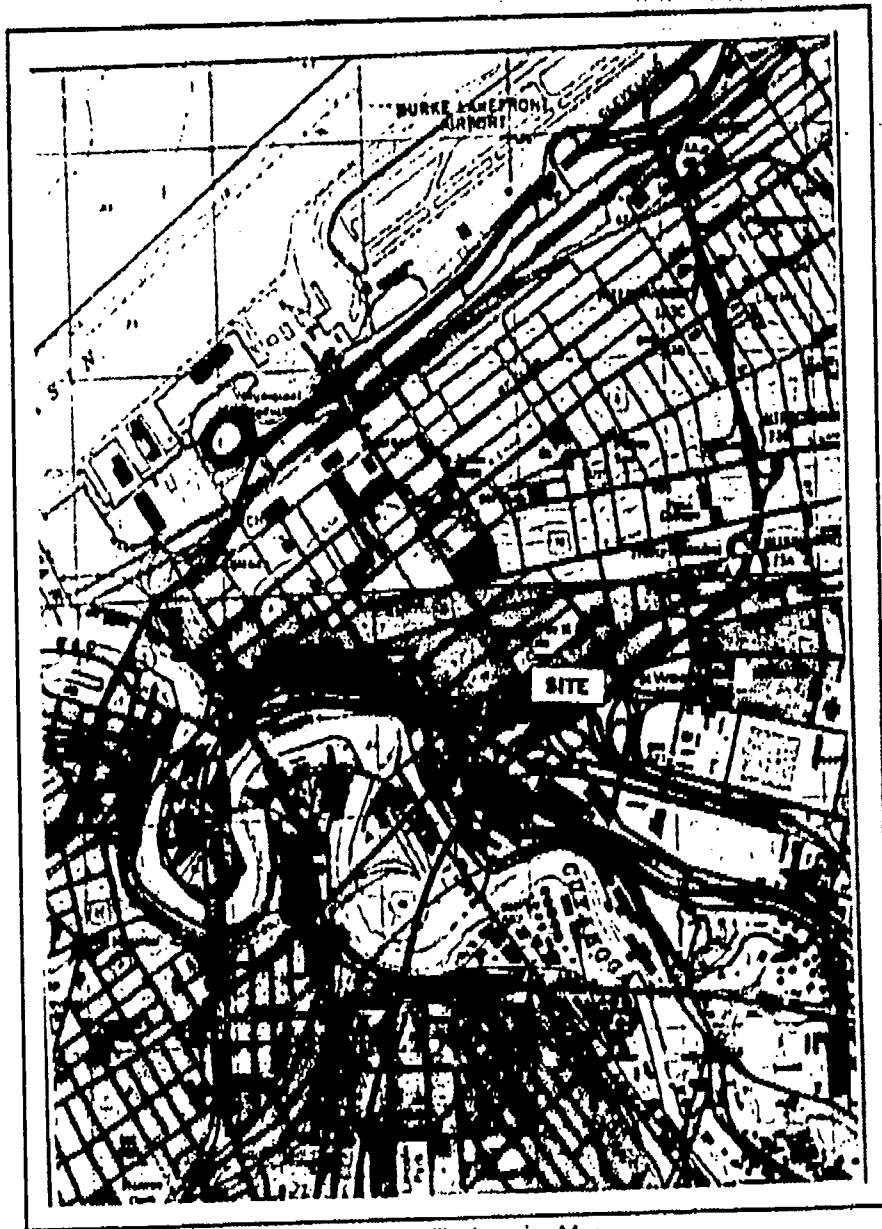
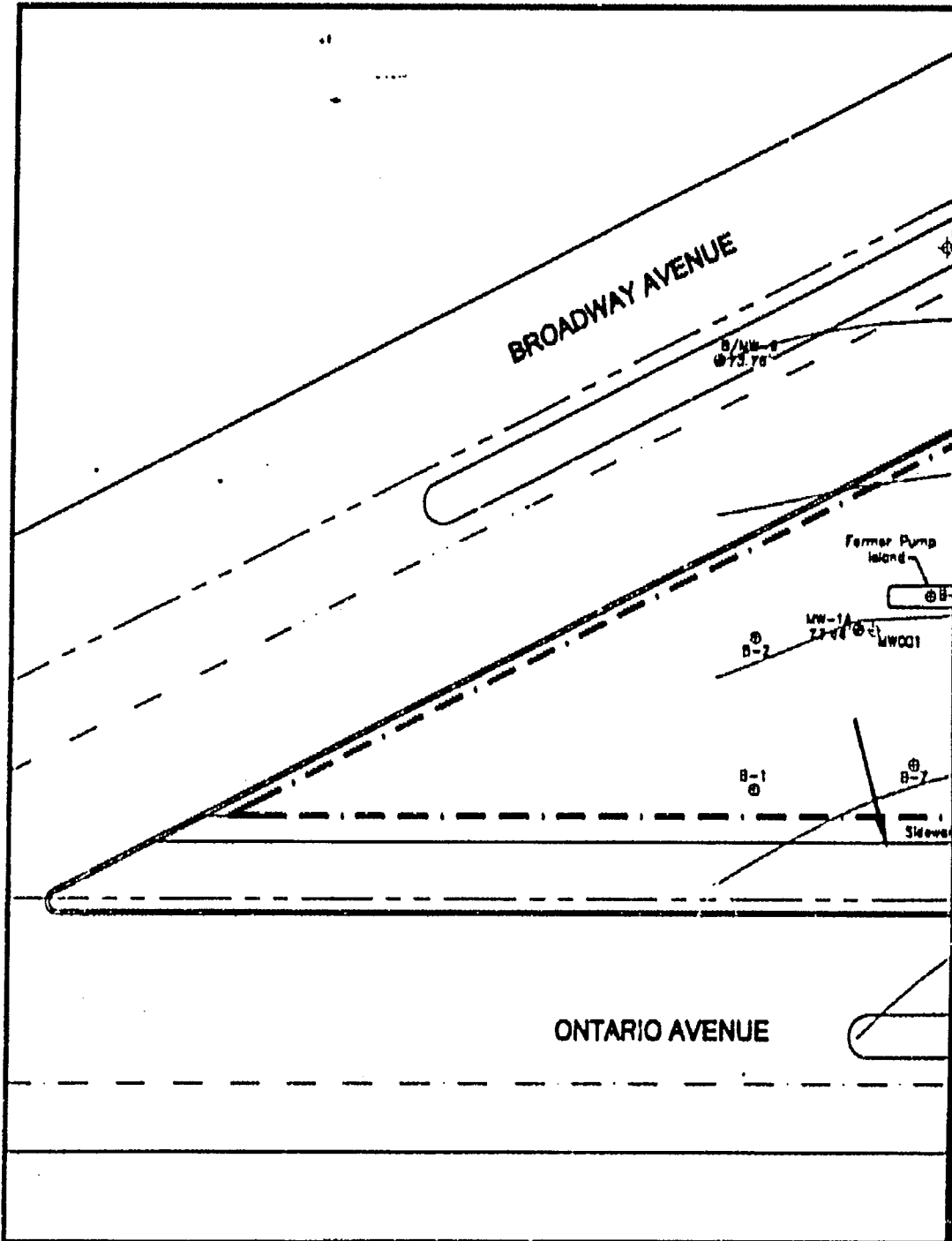


FIGURE 2: Site Location Map

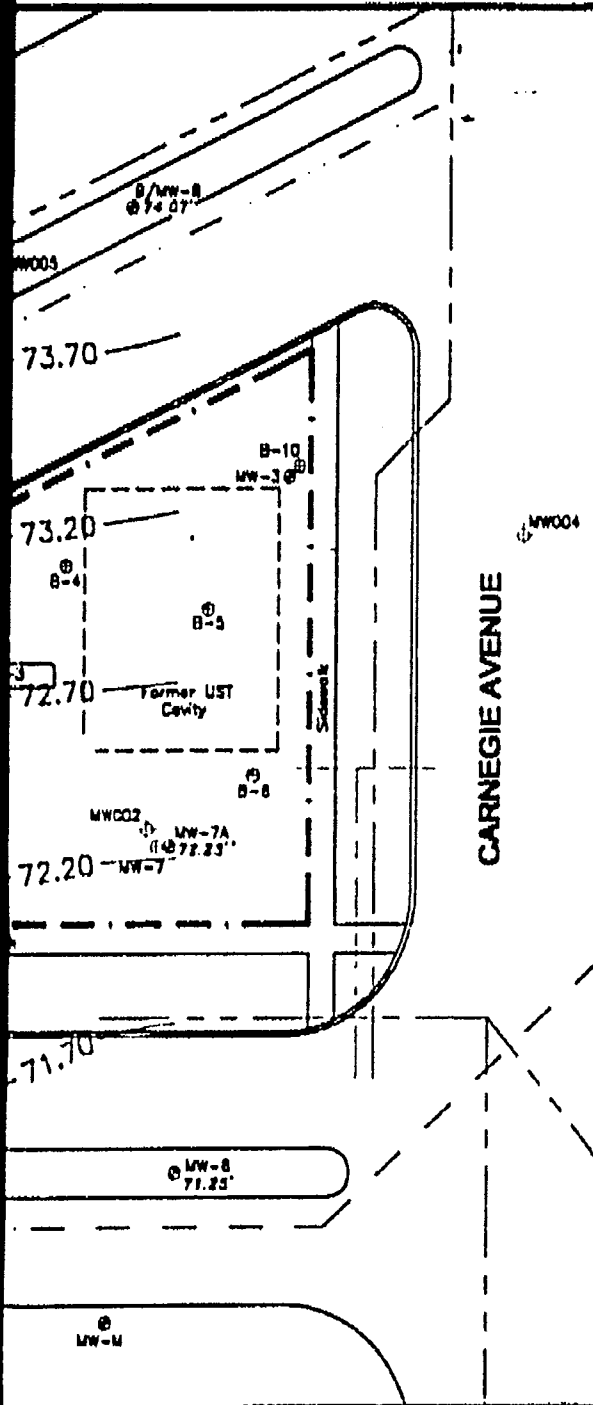
SOURCE:
USGS Quadrangles Cleveland
South, Ohio
1961 photos revised 1983
SCALE: 1" = 2000'



Tier II Evaluation
Former Shell Service Station
501 Carnegie Avenue
Cleveland, Ohio
AIC Project No. 08-7510010244



00001385



POTENTIOMETRIC SURFACE MAP

TIER I EVALUATION
 Former Shell Service Station
 (129542/87084983)
 501 Carnegie Avenue
 Cleveland, Ohio


PROJECT NO: 08.75100.0244

DATE 08/13/02


FIGURE 3


- LEGEND**
- Property Line
 - Abandoned Monitoring Well
 - ⊙ Soil Boring
 - ⊙ Monitoring Well Location
 - ==== Curb Line
 - ~ Groundwater Contour
 - Groundwater Flow
 - 70.01' Static Water Level

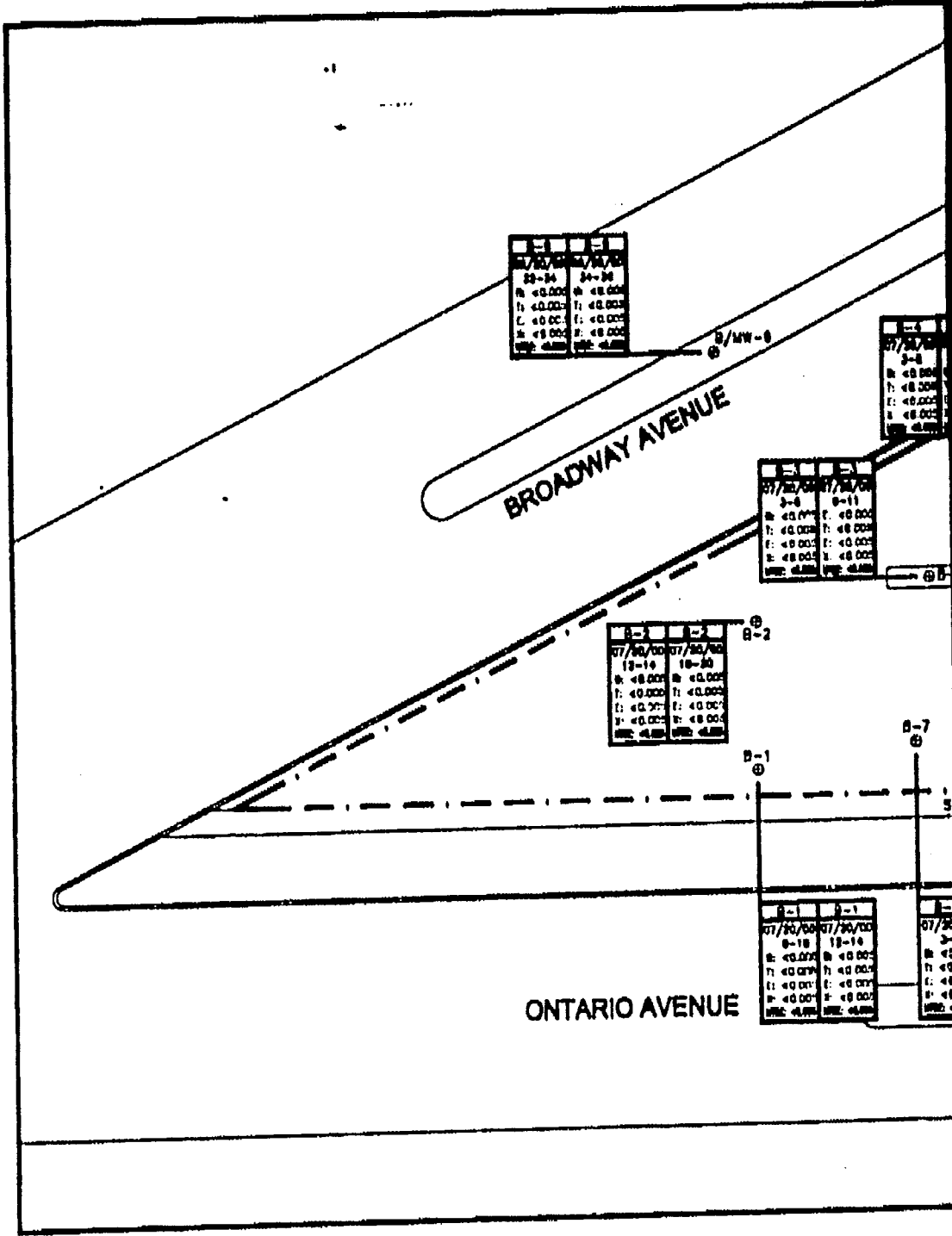
Wells Cugged On: 12/10/01



SCALE: 1" = 30'







ST/NO	CO/NO	NO/NO
22-24	24-26	
W: 48.000	E: 48.000	
T: 48.000	T: 48.000	
L: 48.000	L: 48.000	
S: 48.000	S: 48.000	
N: 48.000	N: 48.000	

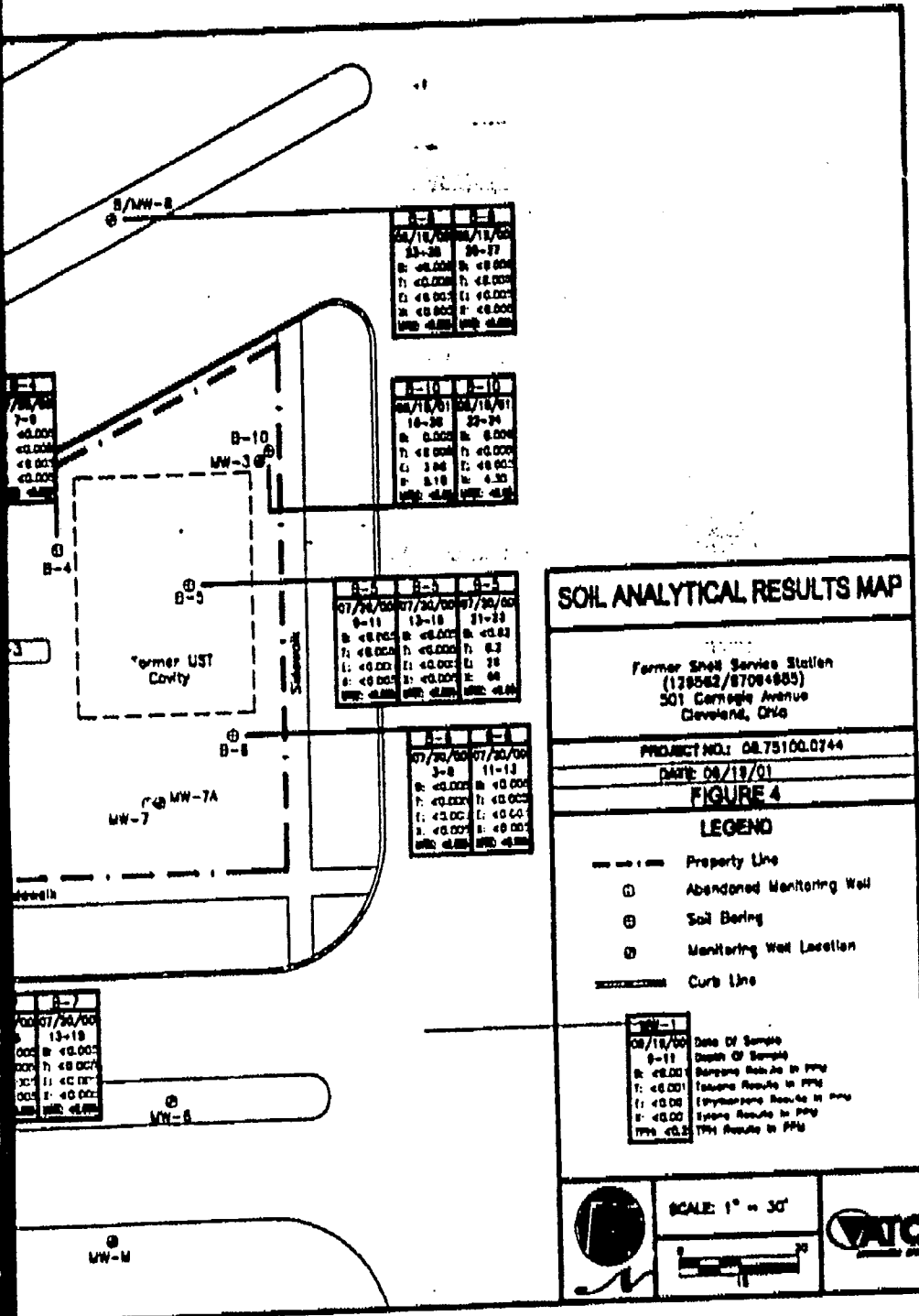
ST/NO	CO/NO	NO/NO
3-8	8-11	
W: 48.000	E: 48.000	
T: 48.000	T: 48.000	
L: 48.000	L: 48.000	
S: 48.000	S: 48.000	
N: 48.000	N: 48.000	

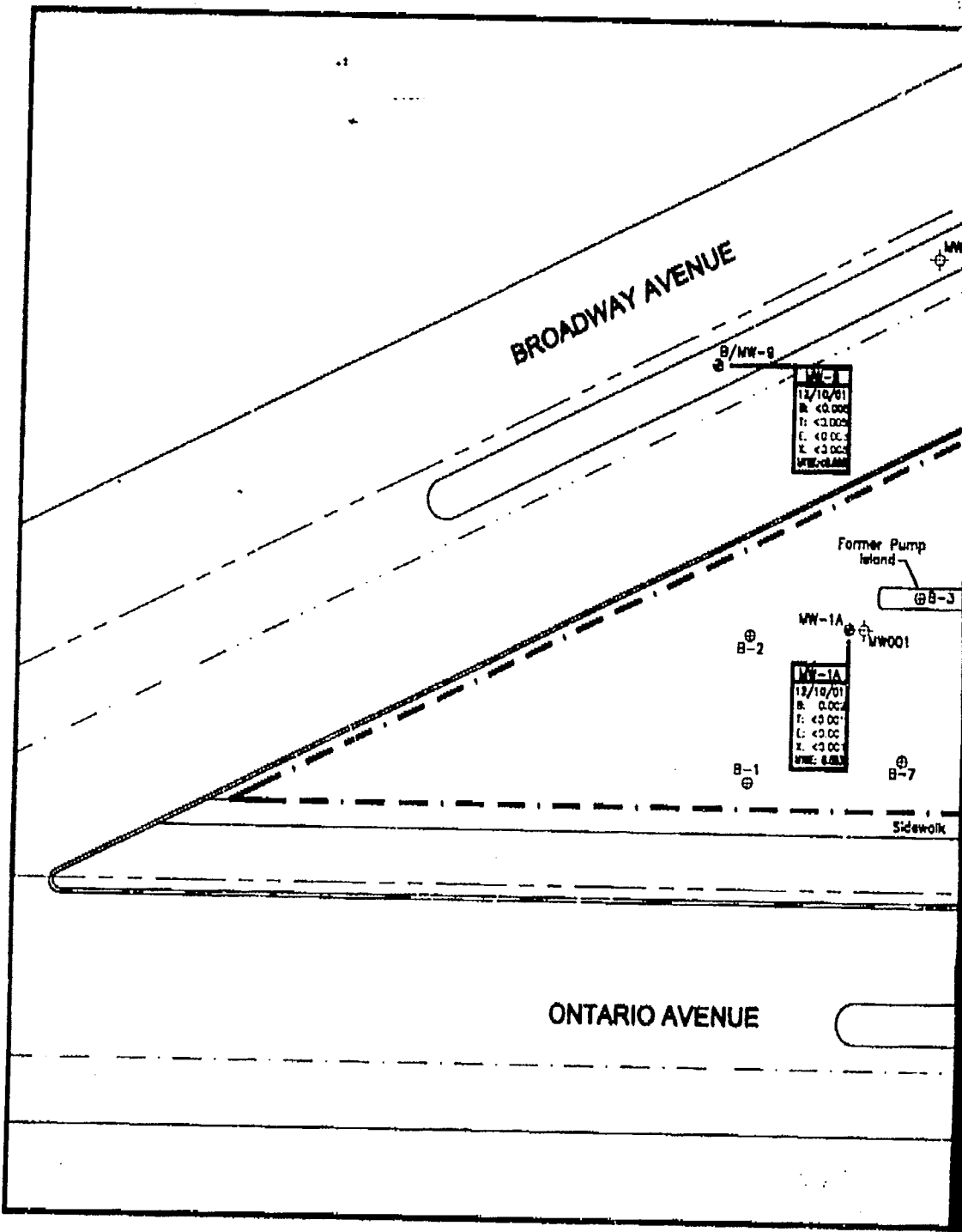
ST/NO	CO/NO	NO/NO
3-8	8-11	
W: 48.000	E: 48.000	
T: 48.000	T: 48.000	
L: 48.000	L: 48.000	
S: 48.000	S: 48.000	
N: 48.000	N: 48.000	

ST/NO	CO/NO	NO/NO
12-14	14-20	
W: 48.000	E: 48.000	
T: 48.000	T: 48.000	
L: 48.000	L: 48.000	
S: 48.000	S: 48.000	
N: 48.000	N: 48.000	

ST/NO	CO/NO	NO/NO
8-12	12-14	
W: 48.000	E: 48.000	
T: 48.000	T: 48.000	
L: 48.000	L: 48.000	
S: 48.000	S: 48.000	
N: 48.000	N: 48.000	

ST/NO	CO/NO	NO/NO
3-8	8-11	
W: 48.000	E: 48.000	
T: 48.000	T: 48.000	
L: 48.000	L: 48.000	
S: 48.000	S: 48.000	
N: 48.000	N: 48.000	

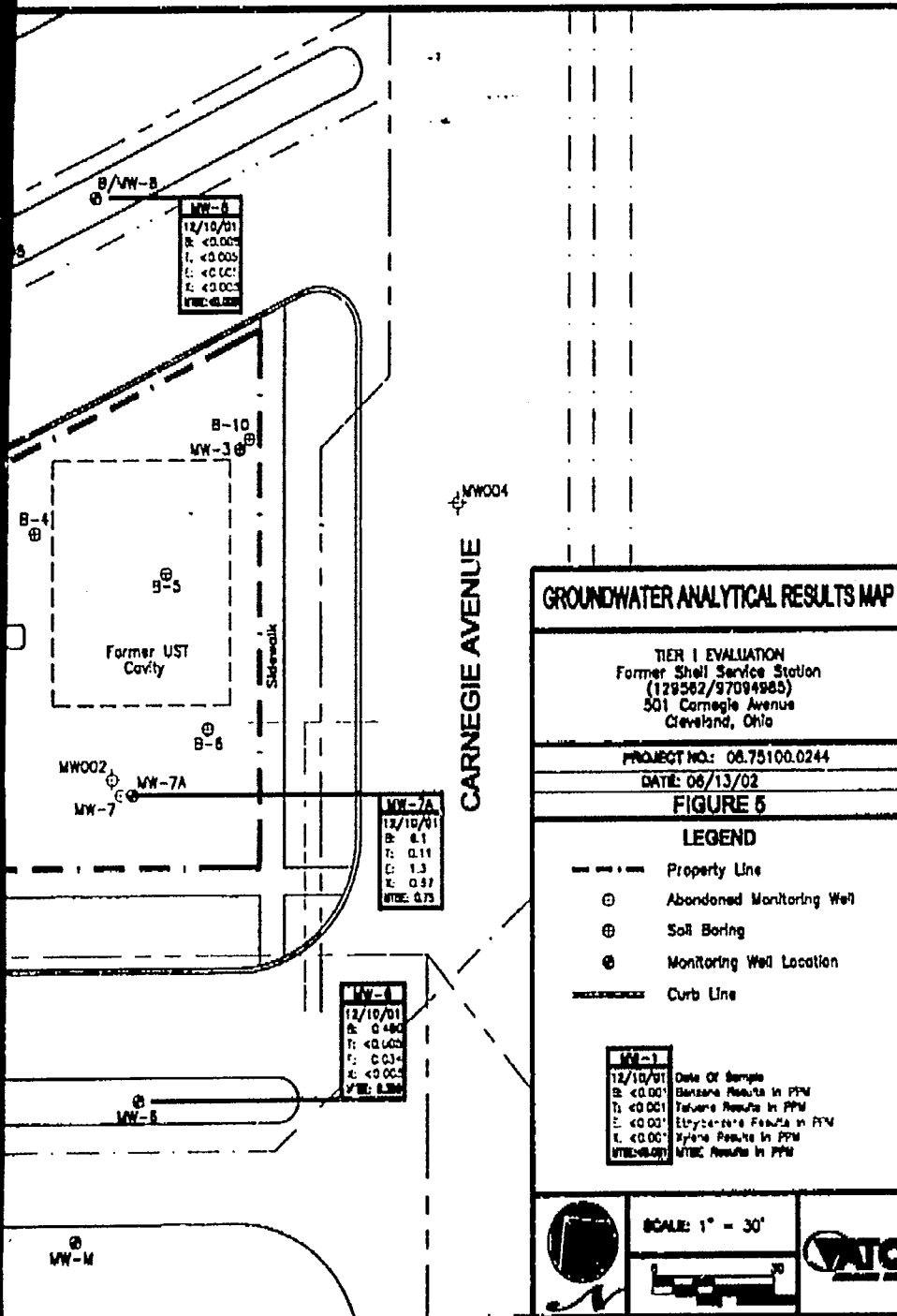




MW-1
12/10/01
B: <0.000
F: <0.000
G: <0.000
X: <0.000
TIME: 0.000

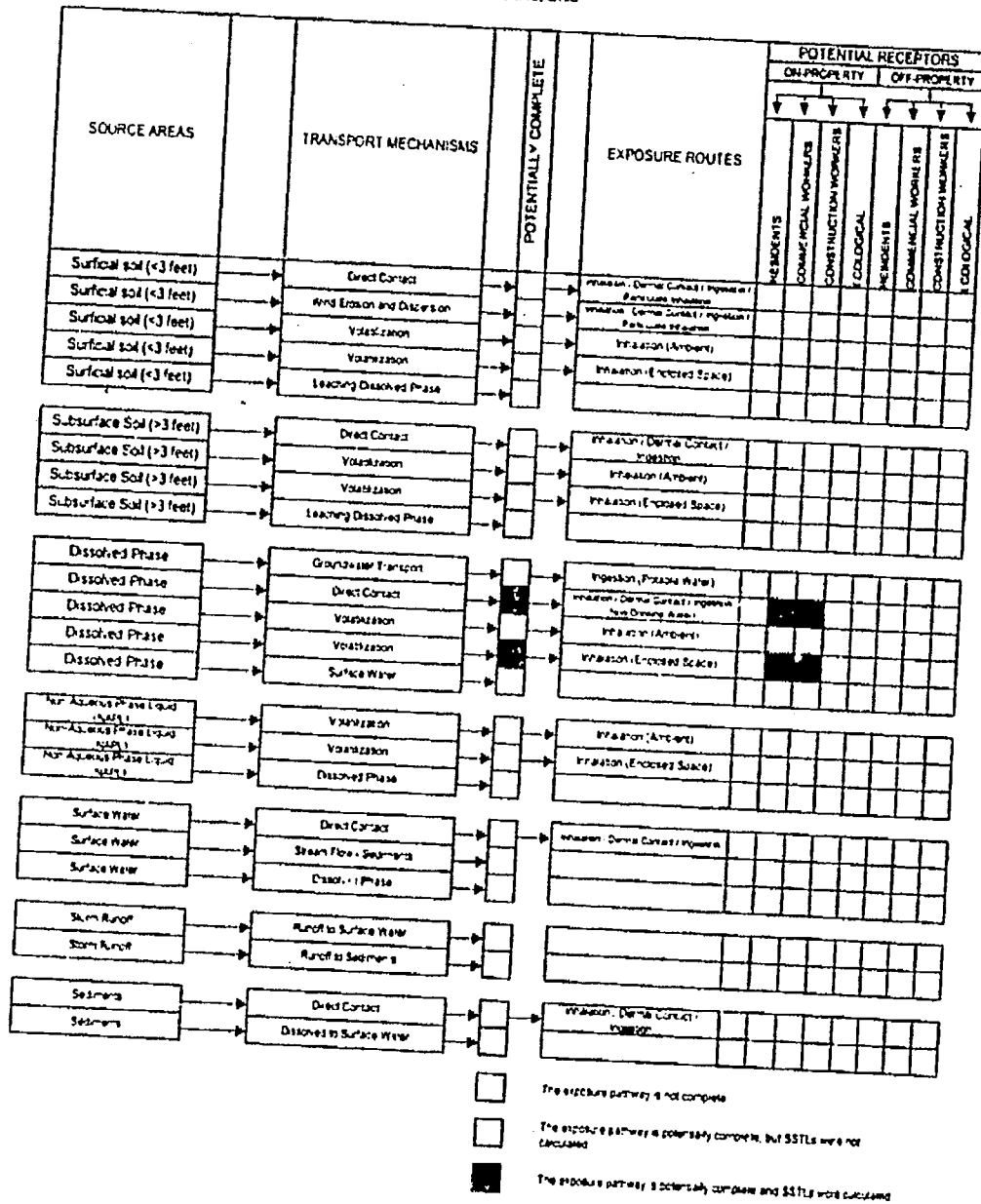
MW-1A
12/10/01
B: 0.000
F: <0.000
G: <0.000
X: <0.000
TIME: 0.000

ONTARIO AVENUE



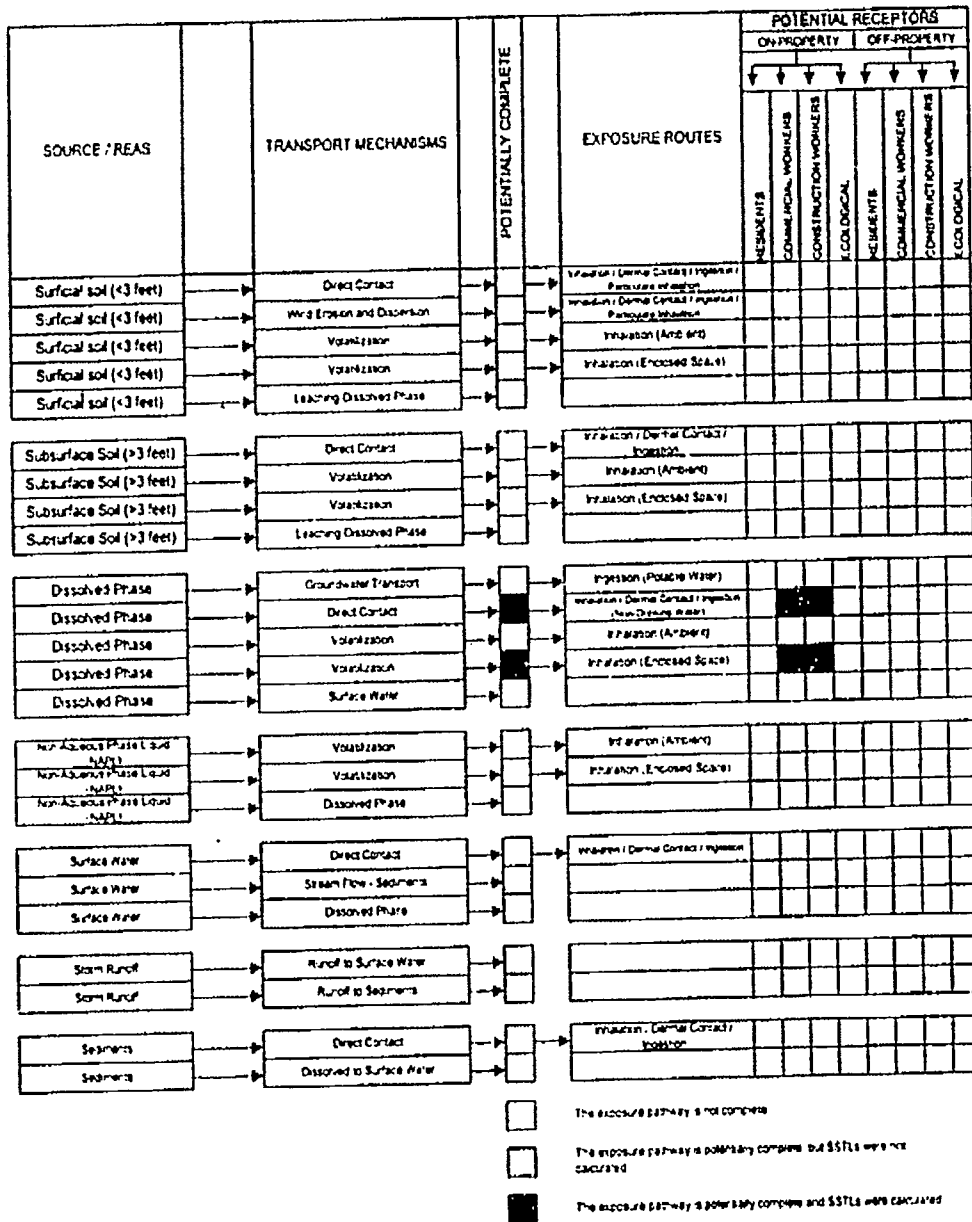
00001340

Figure 6
 Exposure Pathway Evaluation Flowchart - Current Land Use
 Former Shed Service Station #129562
 501 Carnegie
 Cleveland, Ohio



00001391

Figure 7
 Exposure Pathway Evaluation Flowchart - Future Land Use
 Former Shell Service Station #129562
 501 Carnegie
 Cleveland, Ohio



ATTACHMENTS

00001393

Attachment A

Tier II Checklist

Tier 2 Evaluation Checklist (Page 1 of 4)

Submit to BUSTR within 2 years of submitting the Tier Evaluation Notification.

Contact Person: Edward Heike
Phone Number: 770-564-2501
Facility Name: Former Shell Service Station
Facility Address: 501 Carnegie
Cleveland, OH
County: Cuyahoga
Facility Number: 18000787
Site Longitude/Latitude: _____

Indicate page number for each item below:

Include current and historical descriptions of the UST site and surrounding area as:

Fig. 2 Applicable 7.5 Min. U.S. Geological Service quadrangle map including the UST site location; map number, longitude, latitude, and location of the quadrangle within the state boundaries;

____ Site and surrounding area map;

Fig. 1 Site map;

____ Site longitude and latitude;

____ Regional geology and hydrogeology; documentation of all information sources, including site cross-sections based on boring logs;

____ Information on current UST systems at the site or out-of-service UST systems still existing on the UST site, including age, materials of construction, size, contents, and available precision test results;

____ Any immediate response actions performed, including free product removal, soil excavation, and any actions taken to abate vapors or address safety concerns; include date(s) of each action, methods/techniques used, amount of material recovered, and current or most recent UST site conditions;

____ Appropriate documentation of recycling or disposal of any material recovered, including sampling data, analytical data, and lists summarizing the disposal manifests and weigh tickets.

Summarize data collection activities and the resulting data, including, as appropriate (See Appendix B for additional information on data presentation).

____ Rationale for sampling and testing activities;

Fig. 1 Sample location map;

____ Description of the field methodologies including instrument calibration techniques, and the make and model of equipment used.

Tier 2 Evaluation Checklist (Page 2 of 4)

_____ Field methodologies employed including instrument calibration techniques, including the make and model of equipment used;

Att. B Documentation from soil boring logs/well construction diagrams, including the type of sampler used (e.g., Shelby tube, California sampler, split-spoon):

- COCs identified by field readings and visual techniques (no olfactory techniques should be used);
- Depth at which saturated conditions were first encountered during drilling and the depth of the static water level;
- Complete description of the soil sample for each interval including moisture content, color, gradation consistency, denotation of horizontal and/or vertical fracturing, type and description of bedrock with differentiation between weathered and competent bedrock, denotation of any voids or significant pressure changes observed (in rock drilling), and graphic illustration of each interval;
- Denotation of which soil sample interval(s) were sent to the laboratory for analysis;
- Sample recovery for each interval.

P. 2 Well sampling and development logs, including the number and quantity of well purging volumes, purging conditions, date, time, and duration of collection and development;

_____ Ground water elevations and free product thickness namely:

- Depth-to-fluid, depth-to-water, free product thickness measurements, and top-of-casing and groundwater elevations in tabular form for each well; when available, include historical data in the table and reference the source(s) of all information presented;
- Corrected ground water elevations for free product thickness per American Petroleum Institute (API) Publication 1628.

Fig. 3 Ground water elevations:

- Potentiometric surface map using all relevant monitoring wells to establish ground water contour and flow direction; clearly indicate the collection date(s) for ground water measurements;
- Justification for the exclusion of specific monitoring wells in determination of flow direction, if any;
- The calculation of the hydraulic gradient in an Appendix.

Att. H Analytical laboratory results:

- Results in tabular form, by medium; on a separate table, present the most recent results along with historical results, when available; indicate sample collection date(s) and reference source(s) of all data points;
- Include the corresponding method detection limit for each analyte that was below detection limits (i.e., use of NA is not acceptable; show actual detection level);
- Soil and ground water analytical maps.

Tier 2 Evaluation Checklist (Page 3 of 4)

Fig. 4-5 Concentrations of chemical(s) of concern (COCs) including:

- Concentration maps for soil (in mg/kg) and ground water (in µg/L); soil maps must also include sample interval depth, and date of sample collection;
- UST site maps indicating the source area(s) locations, point(s) of exposure and concentrations, and spatial distribution of COCs.

All C-D Current & future ground water use determination:

- All water well logs within a 2,000 ft radius of the UST site;
- References for all information source(s) used to determine the current and future ground water use classification;

_____ Saturated zone characterization tests:

- Documentation of any models and calculations used to evaluate data;
- Test data (include at end of the report).

All H Geotechnical tests:

- Geotechnical test results for soil properties; present in tabular form referencing the ASTM method used for each test.

Summarize the exposure pathway analysis:

_____ The site conceptual exposure model including current and future land use scenarios;

_____ Land, ground water and surface water use determinations;

P. 7 Identification of complete exposure pathways to be evaluated in Tier 2 (if applicable).

T - 6-7 Results of exposure pathway evaluation:

- Exposure pathway evaluation, including identification of potential receptors, source areas, transport mechanisms, points of exposure, routes of exposure; potential receptors considering current and reasonably potential land use; fully document all information sources;
- Justification of exposure pathway elimination and site-specific exposure duration.

Summarize Tier 1 evaluation results, including identifying exposure pathways that require further tier evaluation (if applicable):

P. 8-9 Discussion of the tier evaluation results, including recommendations for NFA;

P. 7-8 Action level determination.

Tier 2 Evaluation Checklist (Page 4 of 4)

P. 7-9 Discuss the results of the tier evaluation performed, including recommendations for NFA;

Att. E SSTL determination:

- Present action level and SSTL in tabular form;
- Present and document all assumptions, equations, models, literature values, etc. used in determining action levels and SSTL.

_____ Attachments, including descriptions of any models used to evaluate data, providing all assumptions, input parameters, and output values;

_____ Details of any field vapor sampling or any collections of site-specific data;

Att. G Discussion of land use/resource use restrictions with source documentation that details the restriction(s).

_____ Summary of any interim response actions, including the volume of soil removed or ground water treated.

_____ Remedial action(s), if appropriate (details to be included on the Remedial Action Plan);

_____ Discussion of further tier evaluation, if appropriate (details to be included in the Tier 3 Work Plan);

_____ Summary of appropriate monitoring;

P. 8-9 Justification for NFA recommendation (if appropriate).

Attach the appropriate supporting documentation, including:

Att. E Printout of BUSTR's Tier 2 spreadsheet;

Att. E Printout of BUSTR's Tier 2 spreadsheet;

_____ Equipment and standard procedures used;

Att. H Chain-of-custody forms, analytical results, QA/QC procedures, and data quality objectives including all laboratory certificates of analysis (data sheets), completed Chain-of-Custody Forms indicating soil boring/monitoring well numbers and laboratory sample numbers;

_____ Bibliography of references.

Preparer Name Craig Whitaker

Preparer Signature [Signature] Date 7-9-02

Q/O Name Ed Henke

Q/O Signature [Signature] Date 7-2-02

ATTACHMENT B
Boring Logs Monitoring Well Completion Diagrams

00001399

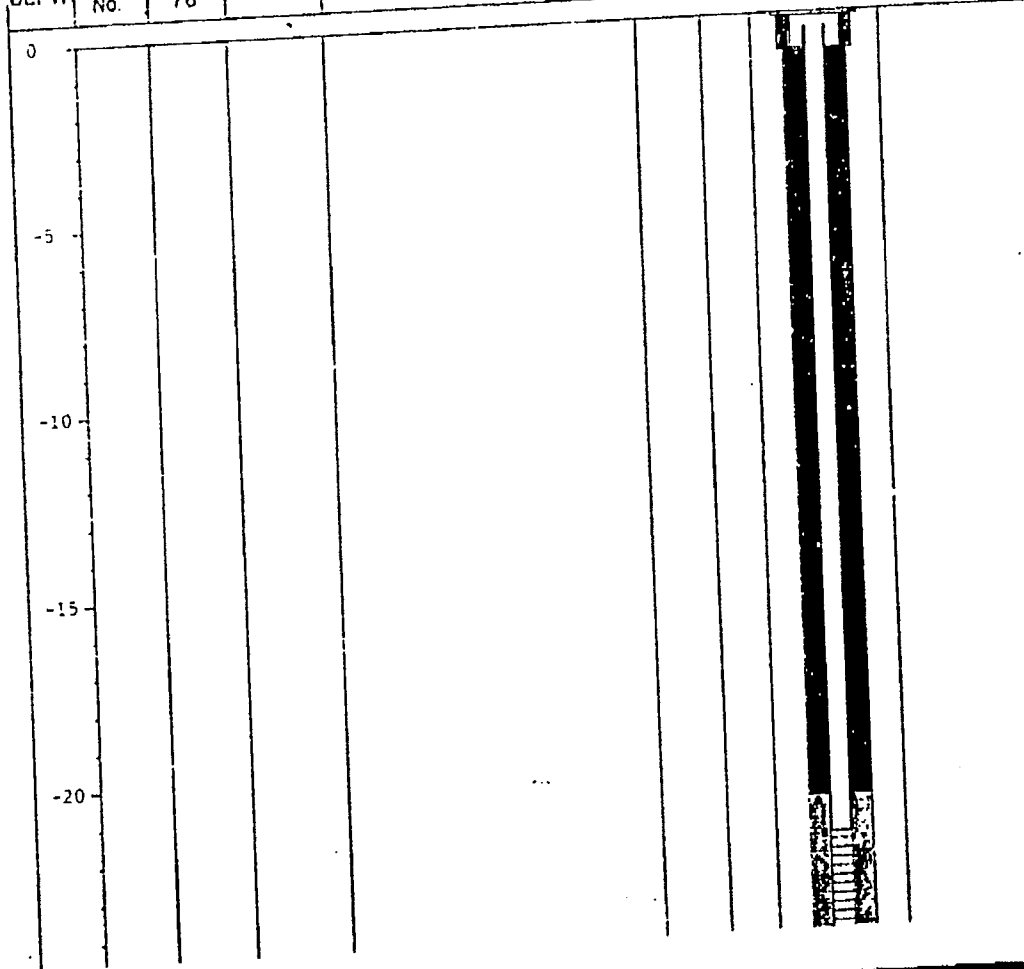
ATC Associates Inc.
 145 Ken Mar Industrial Parkway
 Broadview Heights, Ohio 44147

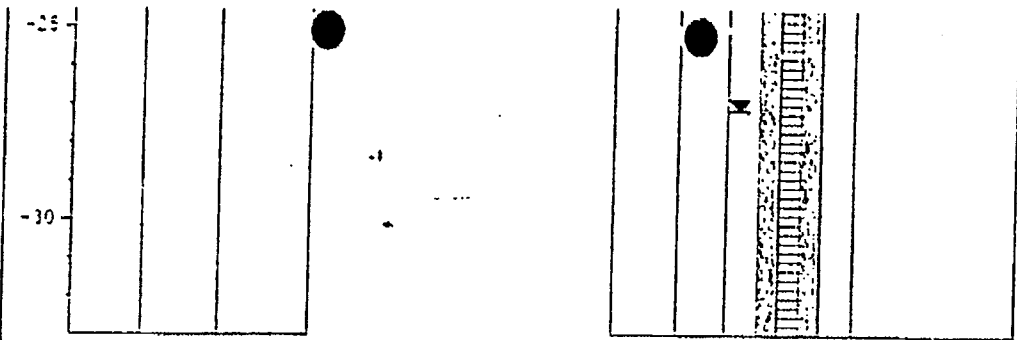
FIELD BOREHOLE LOG






BOREHOLE NO.: MW-1a
 TOTAL DEPTH: 33ft.

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	Former Shell Service Station	DRILLING CO.:	Ridgeway
LOCATION:	501 Carnegie Avenue	DRILLER:	Paul Simon
JOB NO.:	08.75100.0227	RIG TYPE:	550-CME
GEOLOGIST:	Craig Whitaker	METHOD OF DRILLING:	Hollow Stem Augers
PM:	Kurt Ness	SAMPLING METHODS:	
DATE:	5-15-01	HAMMER WT./DROP	
NOTES:	<input type="checkbox"/> Water level during drilling <input type="checkbox"/> Water level in completed well		Page 1 of 2

DEPTH	SAMP. No.	Blows /6"	PROFILE	SCIL DESCRIPTION	FID ppm	REC (%)	BORING COMPLETION	WELL DESCRIPTION
-------	-----------	-----------	---------	------------------	---------	---------	-------------------	------------------





<p>REC = SAMPLE RECOVERY NA = NOT AVAILABLE PID = PHOTO-IONIZATION DETECTOR</p>	<p><u>WELL CONSTRUCTION</u> <u>WELL DIAMETER:</u> 2" <u>CASING MATERIAL:</u> PVC Schedule 40 <u>SCREEN MATERIAL:</u> PVC Schedule 40 <u>SLGT SIZE:</u> 0.010" <u>METHOD:</u> Placed Through Auger</p>	<p> SAND PACK  BENTONITE SEAL  GROUT  WELL END PLUG  SCREEN</p>
---	--	--

ATC Associates Inc.

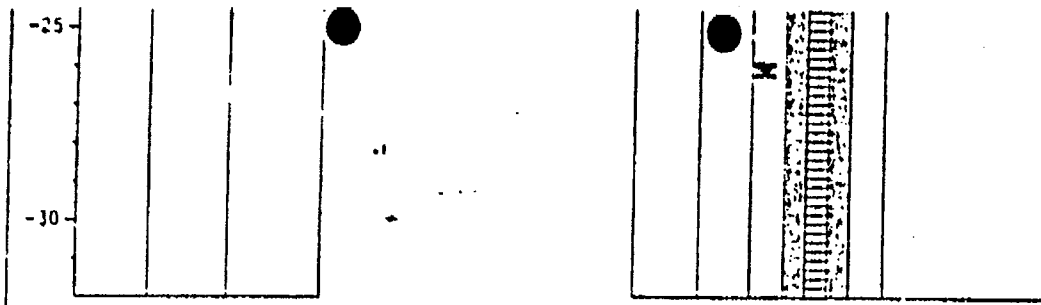
145 Ken Mar Industrial Parkway
Broadview Heights, Ohio 44147

FIELD BOREHOLE LOG

BOREHOLE NO.: MW-7a
TOTAL DEPTH: 32ft.

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	Former Shell Service Station	DRILLING CO.:	Ridgeway
LOCATION:	501 Carnegie Avenue	DRILLER:	Paul Simon
JOB NO.:	08.75100.0244	RIG TYPE:	550-CME
GEOLOGIST:	Craig Whitaker	METHOD OF DRILLING:	Hollow Stem Augers
PM:	Kurt Ness	SAMPLING METHODS:	
DATE:	5-15-01	HAMMER WT./DROP	
NOTES:		= Water level during drilling x Water level in completed well	

DEPTH	SAMP. No.	Blows / 6"	PROFILE	SOIL DESCRIPTION	PID ppm	REC (%)	BORING COMPLETION	WELL DESCRIPTION
0								
-5								
-10								
-15								
-20								



<p>REC - SAMPLE RECOVERY NA - NOT AVAILABLE PID - PHOTO-IONIZATION DETECTOR</p>	<p><u>WELL CONSTRUCTION</u> <u>WELL DIAMETER:</u> 2" <u>CASING MATERIAL:</u> PVC Schedule 40 <u>SCREEN MATERIAL:</u> PVC Schedule 40 <u>SLOT SIZE:</u> 0.010" <u>METHOD:</u> Placed Through Auger</p>	<p><input type="checkbox"/> SAND PACK <input checked="" type="checkbox"/> BENTONITE SEAL <input checked="" type="checkbox"/> GROUT <input checked="" type="checkbox"/> WELL END PLUG <input checked="" type="checkbox"/> SCREEN</p>
---	--	---

ATTACHMENT C
ODNR Well Logs



Associates Inc.

ENVIRONMENTAL GEOTECHNICAL AND MATERIALS PROFESSIONALS
143 Ken Star Industrial Parkway
Cleveland, Ohio 44147-2950
(440) 839-7177
Fax - (440) 839-7131

FAXED

TO: Staff Geologist

FROM: Robert Roether

FIRM: OUNR

E-MAIL: Roether8@atc-enviro.com

FAX #: 614-447-9503

DATE: November 27, 2000

PGS. W/
COVER: 2

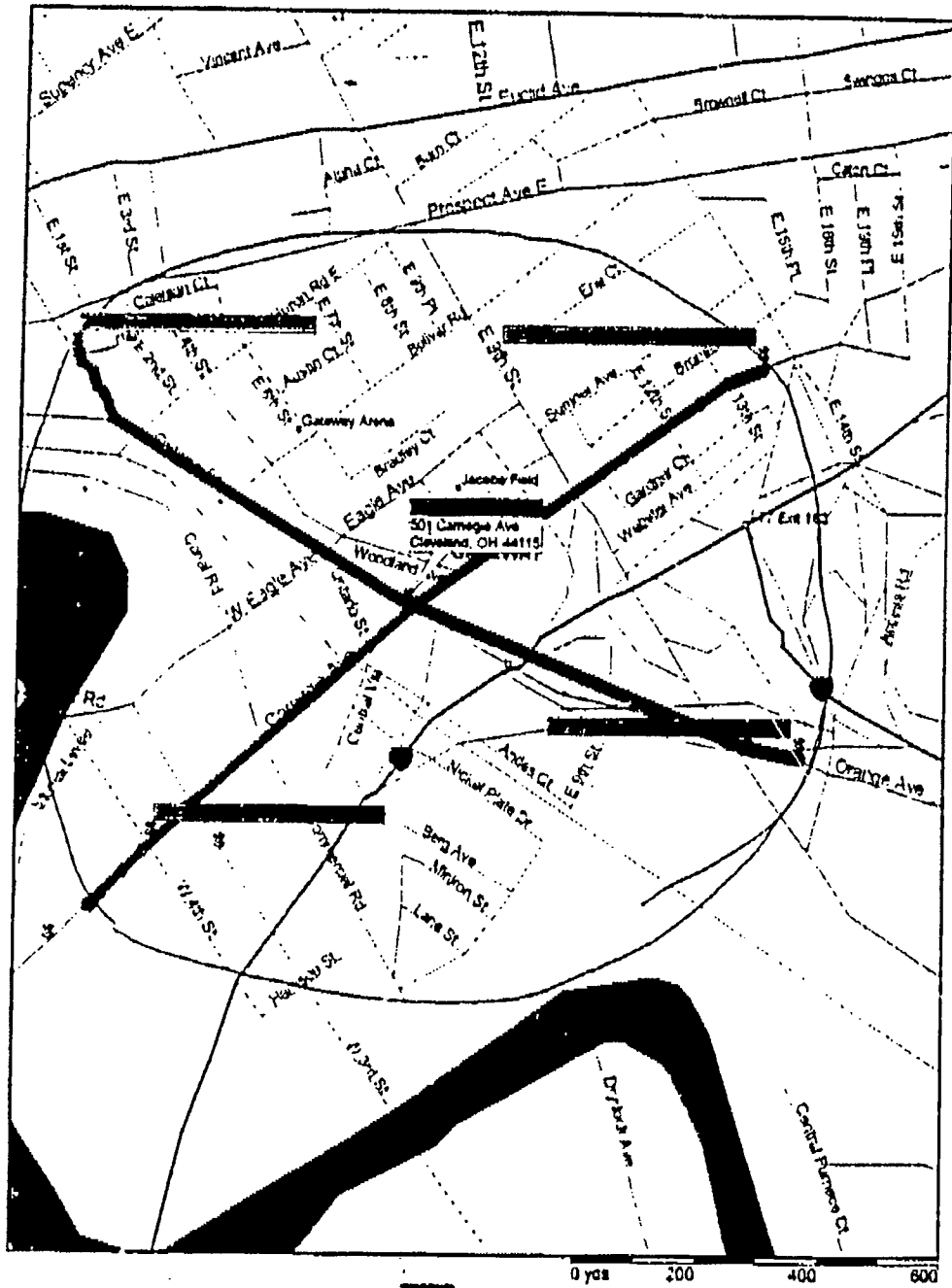
Subject: Water well locations and associated logs within 2000 foot radius of
the indicated site.

COMMENTS:

USGS Quadrangle - Cleveland South, OH
Requested by: 12/1/2000

fax TRANSMISSION

501 Carnegie



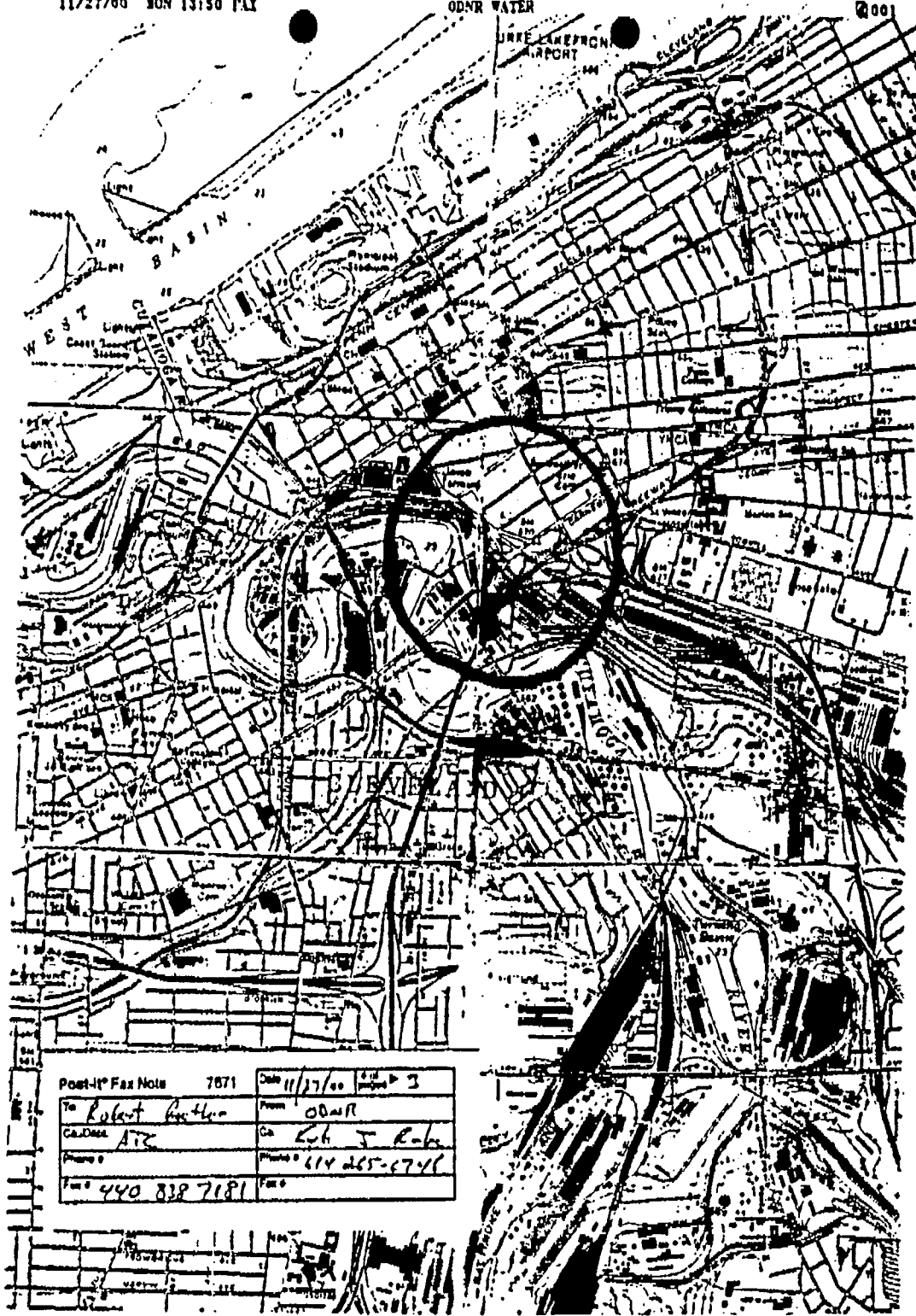
Streets98

00001991

11/27/00 MON 13:50 FAX

ODNR WATER

0001



Post-It® Fax Note	7571	Date	11/27/00	Page	3
To	Robert A. Butler	From	ODNR		
Cell	ATC	By	Rob J. Rob		
Phone		Phone	614 265-6746		
Fax	440 838 7181	Fax			

00001407

OHIO WATER SUPPLY BOARD

Well Record No. 188 13

Co. Cuyahoga Twp. Steubenburg Sec. Valley View
Well Location _____ Size _____
Map Cleveland

Owner Laurentthal Co. Address 1400 Canal Rd.
Driller HARPER DRILLING Co. Date 1945

Well Head Elev. or M. P. _____
Elev. of Ground at Well _____

Pumping Test 338 GPM

Static Level 41 ft. Date 1945
Normal Pumpage 250 GPM

Quality _____ Use MAKEUP

Adequacy of supply Good supply

Owner's Well No. or Other Designation _____

Source of Data HARPER DRILLING Co.
Collected by LCP Date 11/13/45

STRATA	DEPTH	
	From	To
99900000		
Clay	0	12
Sand, gravel	12	25
Clay	25	114
Sand	114	125
Clay	125	180
Sand	180	181
Sandy clay	181	175
Shale	175	179

x 2 238000
3000 x 11000
y 6370000

check
with nearby
this is
change
New pit
in house
like house
du

3

OHIO WATER SUPPLY BOARD

Well Record No. 103 J.H

Co. Cuyahoga ¹⁸ City of Cleveland ⁴
Well Location Canal St., Cleveland Size Cleveland
Map Cleveland

Owner - Siegfried Lowenthal Address _____
Driller Thwing/Disillery Date _____

Well Head Elev. or M. P. _____
Elev. of Ground at Well _____

Pumping Test: _____

Static Level _____ Date _____

Normal Pumpage _____

Quality _____ Use _____

Adequacy of supply _____

Owner's Well No. or Other Designation _____

Source of Data P. H. Thwing
Collected by M. T. Stuckard Date 12/44

9990005 STRATA	DEPTH	
	From	To
Castle Shale	0	1'
	177	30'
Not much water, some gas.		
South of High Level Bridge on flats near Canal Rd.		
X = 2,223,700 Y = 665,500-N		

Chief Aquifer

1947 City Directory

2905 Franklin St. W. 25th

NO

3

OHIO WATER SUPPLY BOARD

Well Record No. 103 J.H

Ca. ¹⁸ ⁴ ~~1808~~ City of Cleveland
Well Location Canal St., Cleveland Size Cleveland
Map Cleveland

Owner - Siegfried Lowenthal Address
Driller Thwing/Wellbore Date

Well Head Elev. or M. P.
Elev. of Ground at Well

Pumping Test

Static Level Date
Normal Pumpage

Quality Use

Adequacy of supply

Owner's Well No. or Other Designation

Source of Data F. A. Thwing
Collected by H. T. STEWART Date 12/44

STRATA	DEPTH	
	From	To
Casing	0	1'
Shale	177	30'
Not much water, some gas.		
South of High Level Bridge on flats near Canal Rd.		
$X = 2,223,700$ $Y = 665,500-N$		

1947 City Directory
2905 Franklin St. Wash.

NO



1/30/2001

Input

Horizontal: NAD 27, Ohio North - 3401, U.S. Survey Feet

Output

Horizontal: NAD 27 Geographic

Name

Input

Output

103

665500.00000 N 41 29 25.77990 N
2222700.00000 E 81 41 13.70344 W

Convergence 00 32 02.42818
Scale Factor 0.999966322

1/30/2001

Input

Horizontal: NAD 27, Ohio North - 3401, U.S. Survey Feet.

Output

Horizontal: NAD 27 Geographic

Name	Input	Output
132	637000.00000 N	41 24 42.74581 N
	2238000.00000 E	81 37 56.40391 W
Convergence	00 34 12.04745	
Scale Factor	0.999957146	

ATTACHMENT D
Chemelloy Corporation Response



Chemalloy Corporation, Inc.
2338 Canal Rd.
Cleveland, OH 44113

July 23, 2001

Craig Whitaker
ATC Associates Inc.
145 Ken Mar Industrial Parkway
Broadview Heights, Ohio

Dear Mr. Craig Whitaker:

I am writing this letter in regards to your request for information concerning a whether a potable water well exist on the property of Chemalloy Corporation. In regards to your request, I was not able to locate the assumed potable water well and currently are not using and or have any intentions to use a potable water well in the future.

Sincerely,

A handwritten signature in black ink, appearing to read 'Chris Juratic'.

Chris Juratic
Plant Manager

ATTACHMENT E
SSTL (Groundwater to Indoor Air)

BUSTR Tier 2 Groundwater To Indoor Air Pathway Evaluation

Version 1.0 (May 2001)

Chemical of Concern <input type="text"/>	Chemical Name <input type="text"/>	UIC <input type="text"/>	UIC <input type="text"/>	UIC <input type="text"/>	UIC <input type="text"/>	UIC <input type="text"/>	UIC <input type="text"/>
Receptor <input type="text"/>	Site Name (Title 1) <input type="text"/>	Left Page Footer 1 <input type="text"/>	Left Page Footer 2 <input type="text"/>	Right Page Footer 1 <input type="text"/>	Right Page Footer 2 <input type="text"/>	Right Page Footer 3 <input type="text"/>	Right Page Footer 4 <input type="text"/>
Depth to Groundwater (ft.) <input type="text"/>	Site Address (Title 2) <input type="text"/>	Print Tables					
Groundwater Depth (feet) <input type="text"/>	501 Company, Contacted On <input type="text"/>	Reset Tables					
Soil Type <input type="text"/>							
Building <input type="text"/>							
Commercial Structure <input type="text"/>							

00001411

Former Shell Service Station
501 Carnegie, Cleveland, OH

Table 1

Groundwater to Indoor Air
Summary of Input Parameters
(Commercial Workers / Sand/Gravel / Benzene)

Description	Source / Default	Symbol	Value	Units
Target Risk Levels				
Target Risk	Default	TR	1.0E-05	unitless
Target hazard quotient	Default	THQ	1.0	unitless
Exposure Parameters for Commercial Workers				
Averaging Time for Carcinogens	Default	AT _c	70	yr
Averaging Time for Non-Carcinogens	Default	AT _n	25	yr
Body Weight	Default	BW	70	kg
Exposure Duration	Default	ED	25	yr
Exposure Frequency	Default	EF	250	day
Exposure time for indoor air	Default	ET	1	hr-d
Indoor air inhalation rate	Default	IR _{ind}	0.831	m ³ /hr
Vadose Zone Hydraulic Parameters				
Depth to groundwater	ES (at 100)	dgw	457.20	cm
Thickness of capillary fringe	Default	h _{cap}	5.00	cm
Thickness of vadose zone	dgw-h _{cap}	yz	452.20	cm
Depth to bottom of basement	Default	db	241.84	cm
Depth to groundwater from bottom of basement	dgw-db	Lev	215.36	cm
Thickness of vadose zone below basement	Lev-h _{cap}	h _v	208.36	cm
Vadose Zone Soil Parameters for Sand/Gravel				
Total soil porosity vadose zone	Soil Specific / 0.43	θ _v	0.394	cm ³ /cm ³
Volumetric water content in vadose zone	Soil Specific / 0.12	θ _{so}	0.173	cm ³ /cm ³
Volumetric air content in vadose zone soils	θ _v - θ _{so}	θ _{so}	0.221	cm ³ /cm ³
Volumetric air content in capillary fringe soils	Default	θ _{cap}	0.043	cm ³ /cm ³
Volumetric water content in capillary fringe soils	Default	θ _{capw}	0.387	cm ³ /cm ³
Indoor Ventilation / Building Parameters for Commercial Structure				
Indoor-outdoor air exchange rate	Default	ER	2.30E-04	1/s
Indoor-space volume utilization area ratio	Default	U _o	487.68	cm
Indoor-space foundation or wall thickness	Default	L _{crack}	15	cm
Areal fraction of cracks in foundation walls	Default	η	0.001	cm ² /cm ²
Vol. air content in foundation wall cracks	Default	θ _{crack}	0.25	cm ³ /cm ³
Vol. water content in foundation wall cracks	Default	θ _{crackw}	0.19	cm ³ /cm ³
Chemical and Physical Properties for Benzene				
Diffusivity in air	Default	D ^{air}	8.01E-02	cm ² /s
Diffusivity in water	Default	D ^{so}	9.80E-06	cm ² /s
Henry's Law Constant	Default	H	2.28E-01	unitless
Slope Factor for Inhalation	Default	SF _i	2.30E-02	1/(mg kg-day)
Reference Dose Inhalation	Default	RfIA	ND	mg kg-day

Tr = 2.95E-05 (mg/l) 2.16E-01

00001417

Former Shell Service Station
501 Carnegie, Cleveland, OH

Table 2

Groundwater to Indoor Air - Benzene
Derivation of Volatilization Factor
(Commercial Workers / Sand/Gravel / Benzene)

$$D_{in}^d = (h_{sup} + h_s \left[\frac{h_{sup}}{D_{sup}^d} + \frac{h_s}{D_s^d} \right])$$

$$D_s^d = D^d \frac{\theta_{sup}^{133}}{\theta_s^d} + D^{sup} \frac{1 - \theta_s^{133}}{\theta_s^d}$$

$$D_{sup}^d = D^d \frac{\theta_{sup}^{133}}{\theta_s^d} + D^{sup} \frac{1 - \theta_{sup}^{133}}{\theta_s^d}$$

$$D_{soil}^d = D^d \frac{\theta_{soil}^{133}}{\theta_s^d} + D^{soil} \frac{1 - \theta_{soil}^{133}}{\theta_s^d}$$

$$VF = \frac{\left[\frac{D_{in}^d}{L_{inw}} \right]}{1 + \left[\frac{D_{in}^d}{IR \times L_p} \right] + \left[\frac{D_{soil}^d}{L_{soil}} \right]} \times 10^3$$

Parameter	θ_s cm/cm	D^d cm ² /s	D^{sup} cm ² /s	H cm/min	θ_{sup} cm ³ /cm ³	θ_{soil} cm ³ /cm ³	θ_{soil}^{133} cm ³ /cm ³	θ_{soil}^{133} cm ³ /cm ³	D eff crck cm ² /s	D eff s cm ² /s
Value	0.198	2.801E-12	9.901E-10	2.24E-01	0.225	0.173	0.19	0.25	5.49E-11	1.47E-11

Parameter	h_w cm	h_s cm	θ_{sup} cm ³ /cm ³	θ_{sup} cm ³ /cm ³	D eff cap cm ² /s	D eff ws cm ² /s	L_{in} cm	IR L/s	L_p cm	L_{soil} cm
Value	5	209.36	0.043	0.387	2.71E-15	8.96E-14	213.36	2.90E-14	487.64	19

Parameter	η cm ³ /cm ³	CF L/m ³	VF mg m ³ -air per mg l l/d
Value	0.001	1000	6.81E-14

00001119

Former Shell Service Station
501 Carnegie, Cleveland, OH

Table 3
Groundwater to Indoor Air - Benzene
Tier 2 SSTL Calculations
(Commercial Workers / Sand/Gravel / Benzene)

SSTL for Inhalation of vapors in air (carcinogenic effects)

$$SSTL_{air} = \frac{IR \times BW \times AI \times 365}{V \times M_{air} \times 10^6 \times 10^3} \times \frac{10^6 \text{ mg}}{\text{year}} \times \frac{10^3 \text{ mg}}{\text{m}^3} \times \frac{10^6 \text{ mg}}{\text{year}} \times \frac{10^3 \text{ mg}}{\text{m}^3} \times \frac{10^6 \text{ mg}}{\text{year}} \times \frac{10^3 \text{ mg}}{\text{m}^3}$$

Commercial Equation Residential Equation

Receptors	IR dimensionless	BW kg	AI ₀ year	CF days/year	CF ug/mg	EF, length-day	M _{air} m ³ /hr	ET hours/day	EF days/year	ED years	SSTL _{air} ug/m ³
Commercial Workers	1.00E-05	70	70	365	1.00E-03	2.3E-02	8.33E-01	8	253	25	1.48E-01

SSTL for Inhalation of vapors in air (non-carcinogenic effects)

$$SSTL_{air} = \frac{IHQ \times ED \times BW \times AI \times 365}{IR \times ET \times 10^6 \times 10^3} \times \frac{10^6 \text{ mg}}{\text{year}} \times \frac{10^3 \text{ mg}}{\text{m}^3}$$

Receptors	IHQ dimensionless	BW kg	AI ₀ year	CF days/year	CF ug/mg	IHQ mg/kg-day	M _{air} m ³ /hr	ET hours/day	EF days/year	ED years	SSTL _{air} ug/m ³
Commercial Workers	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SSTL for Inhalation of indoor vapors from groundwater (carcinogenic effects)

$$SSTL_{indoor} = \frac{SSTL_{air} \times 10^6 \text{ mg}}{V \times 10^3 \text{ mg}}$$

Receptors	V m ³ /hr	SSTL _{air} ug/m ³	CF mg/kg	SSTL _{indoor} mg/L
Commercial Workers	8.33E-01	1.48E-01	1.00E-03	1.66E-01

SSTL for Inhalation of indoor vapors from groundwater (non-carcinogenic effects)

$$SSTL_{indoor} = \frac{SSTL_{air} \times 10^6 \text{ mg}}{V \times 10^3 \text{ mg}}$$

Receptors	V m ³ /hr	SSTL _{air} ug/m ³	CF mg/kg	SSTL _{indoor} mg/L
Commercial Workers	NA	NA	NA	NA

Applicable Tier 2 SSTL (mg/l)

2.16E-01

Version 1.0 (May 2001)

GW31A.xls

00001419

ATTACHMENT
City of Cleveland Correspondence



City of Cleveland

Michael R. White, Mayor

Department of Public Utilities
Division of Water
1201 Lakeside Avenue
Cleveland, Ohio 44114-1173



June 21, 2001

VIA FACSIMILE AND REGULAR U.S. MAIL

FAX NO. 440-838-7131

Mr. Craig Whitaker
ATC Associates Inc.
145 Ken Mar Industrial Parkway
Broadview Heights, Ohio 44147-2930

Re: Percentage of Properties Served by Cleveland Division of Water

Dear Mr. Whitaker:

At your request, we have researched the following addresses for the Cleveland Division of Water accounts:

1357 through 1975 Carnegie Avenue

2191 through 1535 Ontario Street

One hundred percent of the foregoing properties are tied into the Cleveland water system. If you have any questions regarding this material or wish anything further please give me a call at (216) 664-2444, extension 5633.

Very truly yours,

Karen M. Lisowski

Karen M. Lisowski
Consulting Engineer
City of Cleveland - Division of Water

cc: William Strong, Assistant Commissioner, Division of Water

ATTACHMENT G
City of Cleveland of Zoning Map

JSE DISTRICTS

- LIMITED ONE FAMILY -
- ONE FAMILY
- TWO FAMILY
- TOWNHOUSE
- LIMITED MULTI-FAMILY
- MULTI-FAMILY

The Building Zone Maps of the City of Cleveland, Section 331.01 of The Codified Ordinances of the City of Cleveland

(CORRECTED TO SEPTEMBER 15, 1983)



AREA DISTRICTS

SYMBOL	DESCRIPTION	MINIMUM LOT AREA (SQUARE FEET)	MINIMUM LOT AREA (SQUARE FEET)		
			ONE-FAM.	TWO-FAM.	MULTI-FAM.
	MANUFACTURED HOUSING PARK				
	RESIDENCE OFFICE	AA 1/2 LOT AREA	7200		
	LOCAL RETAIL BUSINESS	A 1/2 " "	4800	9600	
	UNIVERSITY (COLLEGE) RETAIL	B 1/2 " "	4800	9600	2400
	SHOPPING CENTER	C 1/2 " "	4400	8800	2400
	LIMITED RETAIL BUSINESS	D 1 " "	4800	9600	2100
	GENERAL RETAIL BUSINESS	E 1 1/2 " "	4800	9600	2100
	RESIDENCE-INDUSTRY	F 2 " "	4800	9600	2100
	SEMI-INDUSTRY	G 3 " "	4800	9600	2100
	GENERAL INDUSTRY	H 4 " "	4800	9600	2100
	UNRESTRICTED INDUSTRY	J 5 " "	4800	9600	2100
	PARKING DISTRICT	K 6 " "	4800	9600	2100

HEIGHT DISTRICTS

HEIGHT DISTRICT	HEIGHT LIMIT
1	35 FT HEIGHT LIMIT
2	60 " "
3	115 " "
4	175 " "
5	235 " "
6	800 FT HEIGHT LIMIT
7	7 TH " "
8	ND " "
9	ND " "

SET-BACK DIMENSIONS AND LINE INDICATIONS
 DIMENSIONS INDICATED TO SET-BACK IN FEET
 FROM STREET RIGHT-OF-WAY LINE
 DIMENSIONS INDICATED TO SET-BACK IN FEET
 FROM STREET CENTER LINE
 DIMENSIONS INDICATED TO SET-BACK IN
 FEET OF EXISTING CURB LINE, BUT NOT
 LESS THAN MINIMUM SET-BACK

AREA & HEIGHT DISTRICT BOUNDARY
 (A) AREA & HEIGHT DISTRICT

MOTOR FREIGHT DEPOT AND TRUCK TERMINAL ENTRANCES ON CITY PROMOTED:
 (1) ON STREETS WITHIN 50 FEET AND WITHIN 50 FEET OF AREAS BOUNDARY THIS
 (2) ON STREETS AND WITHIN 50 FEET OF STREETS BOUNDARY THIS
 AND ON INTERSECTING STREETS WITHIN 50 FEET OF STREETS THIS
 AND SPECIFIED IN SECTION 347.01

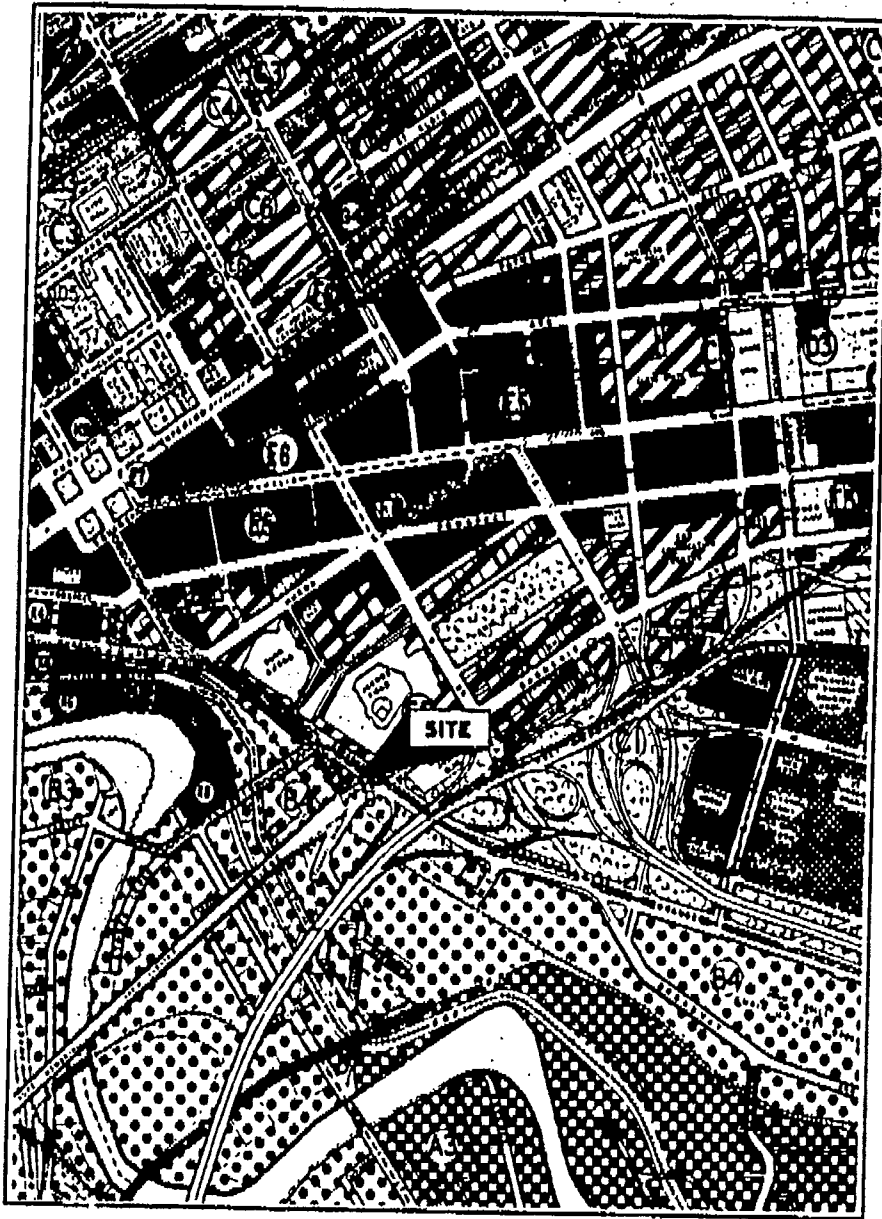


City of Cleveland Zoning Map Key

Building Zone Map
 City of Cleveland
 SCALE: 1" = 1000'



Tier II Evaluation
 Former Shell Service Station
 501 Carnegie Avenue
 Cleveland, Ohio
 ATC Project No. 08.75100.0244



City of Cleveland Zoning Map

Building Zone Map
 City of Cleveland
 SCALE: 1" = 1000'



Tier II Evaluation
 Former Shell Service Station
 501 Carnegie Avenue
 Cleveland, Ohio
 ATC Project No. 08.751(0) 0244

Attachment H
Laboratory Analytical Results



Ohio Department of Commerce

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
6606 Tussing Road • P.O. Box 687
Reynoldsburg, OH 43068-9009
(614) 752-7938 FAX (614) 752-7942
www.com.state.oh.us

Bob Taft
Governor

Gary C. Suhadolnik
Director

July 17, 2002

ED HENKE
EQUILON ENTERPRISES
5595 WYLMOOR DR
NORCROSS, GA 30093

SITE: SHELL OIL CO. #23416661595
501 CARNEGIE
CLEVELAND OH
CUYAHOGA COUNTY
RELEASE #18000257-N00001

RE: ADDITIONAL INFORMATION REQUESTED

Dear Mr. Henke:

The Bureau of Underground Storage Tank Regulations (BUSTR) has reviewed the report titled "Tier 2 Evaluation" dated July 1, 2002. Based on our review, BUSTR requests the following information:

1. All monitoring wells must be sampled to determine current levels of groundwater contamination.
2. What is the source area for the ground water contamination in MW-7A?

An order form and other publications that may help you to understand the requirements for compliance with BUSTR's rules and regulations may be found on the Internet at www.com.state.oh.us or by calling our office.

Please submit this information to BUSTR within 60 days from the date of this letter.

Thank you for your cooperation. If you have any questions, please contact me at 614-752-7093.

Sincerely,

Charles J. Lepp
Environmental Specialist

cc: Site File



Edward W. Henke, P.G.
Environmental Geologist,
MC Region Science & Engineering

September 18, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Department of Commerce
Ohio State Fire Marshal
Bureau of Underground Storage Tank Regulations
P.O. Box 687
Reynoldsburg, Ohio 43068

ATTN: Mr. Charles Zepp

RE: Tier 2 Addendum
Former Shell Service Station #129562
501 Carnegie Avenue
Cleveland, Ohio
ATC Project No: 08.75100.0254
BUSTR Incident No: 18000287-N00001

Dear Mr. Zepp:

This letter presents a summary of work performed by ATC Associates Inc. (ATC) related to the activities conducted at the referenced site (Figure 1 - Site Map). ATC completed a "Tier 2 Evaluation" report dated July 1, 2002, upon review the Bureau of Underground Storage Tank Regulations (BUSTR) issued a letter dated July 17, 2002 requesting additional information (Attachment A). The following items have been addressed in this letter report:

- Resample all monitoring wells to determine current levels of groundwater contamination.
- Identify the source area for the groundwater contamination in MW-7a.

Groundwater Sampling Event

ATC personnel gauged and sampled monitoring wells MW-1a, MW-6, MW-7a, MW-8, and MW-9 on August 8, 2002 in reply to the BUSTR letter. Separate Phase Hydrocarbons

(SPH) was not encountered in any of the monitoring wells at the site. Groundwater samples were obtained after purging a minimum of three volumes of water from each monitoring well or until dry. Samples were obtained using new disposable bailers. Sample aliquots were placed into appropriate laboratory supplied glassware. The groundwater samples were analyzed for benzene, toluene, ethyl benzene, total xylenes (BTEX) and methyl tertiary butyl ether (MTBE) via EPA Method 8260.

Liquids generated from decontamination and well purging activities were placed into a labeled, 55-gallon, 17-H approved drum.

Source Area Identification

The source area as documented in the "Tier 2 Evaluation Report" dated March 11, 2002, was determined to be the former underground storage tank (UST) pit area located along the northern portion of the site. On November 5, 1992 Shell Oil Products US (Shell) reported a suspected release to BUSTR in response to failed product line tightness tests for each gasoline UST. On March 22, 1996 Parsons ES (ES) supervised the excavation of three UST's, four dispensers and associated piping. Soil samples collected during the UST closure did not detect BTEX exceeding BUSTR action levels (see "Gasoline UST Closure" report dated June 6, 1996). On July 20, 2000 ATC advanced boring B-5 in the former tank pit, soil samples did not detect BTEX exceeding BUSTR action levels (see "Tier Evaluation" report dated September 24, 2001).

Two California sampling spoons were collected on March 1, 2002 to be submitted for site specific geotechnical analysis. The sample collected from 24.0 feet bgs to 26.0 feet bgs determined the site to be comprised of 79.9% sand, 20.1% silt and clay, and porosity at 44.7%. Geotechnical laboratory analysis is included in Attachment B. Considering site specific features such as lack of pavement and the porous nature of the subsurface material, the historical release from the UST system is believed to have migrated downward impacting the groundwater. The site specific data suggests that leaching due to precipitation has caused the chemicals of concern (COC's) to migrate from the soil into the groundwater.

Tier II Addendum
Former Shell Service Station #129562
501 Carnegie Avenue, Cleveland, Ohio
BUSTR Incident No: 15000287-N00001

September 18, 2002
Page 3 of 3

Findings

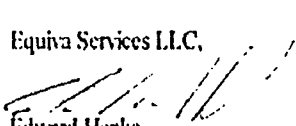
- Groundwater samples collected MW-1a, MW-6, MW-7, MW-8, and MW-9 did not detect BTEX or MTBE concentrations exceeding site specific target levels (SSTL's) developed in the Tier 2. A summary of laboratory analytical results for groundwater is included in Table 1 and Figure 2. The laboratory analytical report is included as Attachment B.
- Depth-to-water measurements in the monitoring wells during well gauging ranged from 25.75 feet bgs in MW-8 to 27.70 feet bgs in MW-6. A summary of groundwater elevation measurements is included in Table 2 and Figure 3.

Conclusions:

Based on the above discussion, Equiva Services LLC respectfully requests that the former Shell Service Station, located at 501 Carnegie, Cleveland, Ohio, be considered for a no further action (NFA) status. If there are any questions concerning this report, please do not hesitate to contact me at 770-564-2501.

Sincerely,

Equiva Services LLC,


Edward Henke
Environmental Geologist

Attachments

cc: Kurt Ness, ATC Associates
Williams & Ross

S:\Petroleum\Shell\Sites (Shell\Carnegie)\Reports\Tier II\Tier II addendum\Fier2addendum.doc

00001535

Tables

00001536

TABLE 1
 GROUNDWATER ANALYTICAL DATA
 Former Shell Service Station #129563
 501 Carnegie Avenue
 Cleveland, OH

Monitoring Well ID	Date Sampled	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylene ppm	Total BTEX	MDE
MW-1 (abandoned)	12-2-92	< 0.001	< 0.001	< 0.001	< 0.002	< 0.005	NS
	4-27-94	0.022	< 0.001	< 0.001	< 0.001	< 0.035	NS
	3-1-95	0.034	0.003	< 0.001	< 0.003	< 0.014	NS
	5-10-95	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
	8-25-95	0.062	< 0.001	< 0.001	< 0.003	< 0.007	NS
	11-10-95	< 0.001	< 0.001	< 0.001	< 0.001	< 0.006	NS
MW-1a	12-10-01	0.012	< 0.001	< 0.001	< 0.001	< 0.005	0.003
	8-3-02	0.006	< 0.003	0.006	< 0.003	0.022	0.003
MW-2 (abandoned)	12-2-92	0.003	0.002	0.034	0.174	0.229	NS
	4-27-94	1.400	0.004	0.058	0.260	1.692	NS
	3-1-95	2.900	0.004	0.170	0.370	3.344	NS
	5-10-95	2.909	0.001	0.037	0.120	2.958	NS
	8-25-95	3.033	< 0.050	0.070	0.130	< 3.250	NS
	11-10-95	1.700	0.004	< 0.001	< 0.001	< 1.708	NS
MW-3 (Abandoned 4-14-2001)	12-2-92	0.011	0.033	0.005	0.023	0.062	NS
	4-27-94	0.330	0.006	< 0.001	0.003	0.342	NS
	3-1-95	0.250	0.170	0.029	0.054	0.533	NS
	5-10-95	0.130	0.170	0.023	0.030	0.373	NS
	8-25-95	0.094	0.029	0.011	0.014	0.148	NS
	11-10-95	< 0.001	< 0.001	< 0.001	< 0.003	0.006	NS
	4-30-96	< 0.001	< 0.001	< 0.001	< 0.003	0.006	NS
	10-2-96	3.930	5.350	0.440	1.700	11.420	NS
	2-21-97	0.330	0.013	0.003	0.007	0.352	NS
	10-2-97	0.034	0.009	0.002	0.009	0.113	NS
	4-17-98	< 0.001	0.001	< 0.001	0.003	0.004	NS
	9-14-98	0.019	< 0.001	< 0.001	< 0.001	0.022	NS
	2-18-99	0.011	< 0.001	< 0.001	< 0.003	0.016	NS
	9-14-99	0.042	0.006	0.012	0.055	0.103	NS
	5-14-00	0.011	< 0.003	< 0.003	0.008	0.029	0.037
	MW-4 (abandoned)	3-15-93	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006
4-27-94		< 0.004	< 0.001	< 0.001	< 0.002	< 0.008	NS
3-1-95		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
5-10-95		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
8-25-95		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
11-10-95		< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
MW-5 (abandoned)	3-15-93	0.015	0.005	< 0.001	< 0.003	< 0.024	NS
	4-27-94	0.043	0.005	< 0.001	< 0.002	< 0.048	NS

**TABLE 1
GROUNDWATER ANALYTICAL DATA
Former Shell Service Station #129562
501 Carnegie Avenue
Cleveland, OH**

Monitoring Well ID	Date Sampled	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylene ppm	Total BTEX	MIBT
MW-6	3-15-91	0.101	< 0.032	0.001	< 0.009	< 0.042	NS
	4-27-91	0.034	< 0.001	0.002	0.010	< 0.017	NS
	3-1-93	2.24	< 0.001	< 0.001	< 0.003	< 2.905	NS
	5-10-93	2.26	< 0.001	< 0.001	< 0.003	< 2.205	NS
	4-25-95	0.93	< 0.010	< 0.010	< 0.030	< 0.960	NS
	11-10-95	< 0.001	< 0.001	< 0.001	< 0.003	< 0.006	NS
	4-03-96	0.250	< 0.001	< 0.001	< 0.003	< 0.255	NS
	10-2-96	0.570	< 0.001	0.001	< 0.003	< 0.675	NS
	2-21-97	0.560	< 0.001	< 0.001	< 0.003	< 0.563	NS
	10-2-97	5.60	0.004	0.004	0.001	5.609	NS
	4-17-98	2.00	0.012	< 0.001	< 0.001	< 2.013	NS
	9-14-98	2.50	< 0.005	< 0.005	< 0.005	< 2.515	NS
	2-18-99	0.021	< 0.001	< 0.001	< 0.001	< 0.024	NS
	4-14-99	1.300	< 0.010	< 0.010	< 0.010	< 1.330	NS
	4-14-00	0.010	< 0.005	< 0.005	< 0.005	< 0.025	0.21
	12-10-01	0.430	< 0.005	0.034	< 0.005	< 0.524	0.350
	4-9-02	1.100	0.025	0.170	0.163	1.458	0.400
MW-7 (Hand red & 14.2 cc)	4-30-96	1.50	0.006	0.009	0.035	1.571	NS
	10-2-96	3.40	0.420	0.400	1.100	7.400	NS
	2-21-97	3.00	0.645	0.110	0.110	3.860	NS
	10-2-97	13.00	0.270	0.140	0.120	13.530	NS
	4-17-98	21.00	0.030	0.270	0.077	21.377	NS
	9-14-98	17.00	0.100	1.500	2.100	20.600	NS
	2-18-99	6.20	< 0.020	0.330	0.097	< 6.647	NS
	4-14-99	5.20	< 0.160	1.600	1.200	< 11.160	NS
4-14-00	3.900	0.041	0.730	0.670	5.051	0.520	
MW-7a	12-10-01	5.100	0.110	1.300	0.670	8.180	0.750
	4-9-02	6.000	0.260	2.700	4.500	13.760	0.940
MW-M	4-14-00	0.051	< 0.005	0.700	0.005	< 0.761	0.340
	12-10-01						DRY
	4-9-02						DRY
MW-8	10-6-00	< 0.005	< 0.005	< 0.005	< 0.005	0.020	< 0.005
	12-10-01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.020	< 0.005
	4-9-02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.020	< 0.005
MW-9	10-6-00	< 0.005	< 0.005	< 0.005	< 0.005	0.020	< 0.005
	12-10-01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.020	< 0.005
	4-9-02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.020	< 0.005
Tier II SSTL (Depth to Water 15-30 feet)							
Groundwater to Indoor Air	21.00	N/A	N/A	N/A	N/A	N/A	N/A

NOTES
 NS - Not Sampled
 NA - Not Applicable
 ppm - parts-per-million
 MW-1 - MW-7 were installed by Parsons Engineering Science
 Monitoring well MW-M was found off-site during site reconnaissance
 SSTL - Site Specific Target Level

00001538

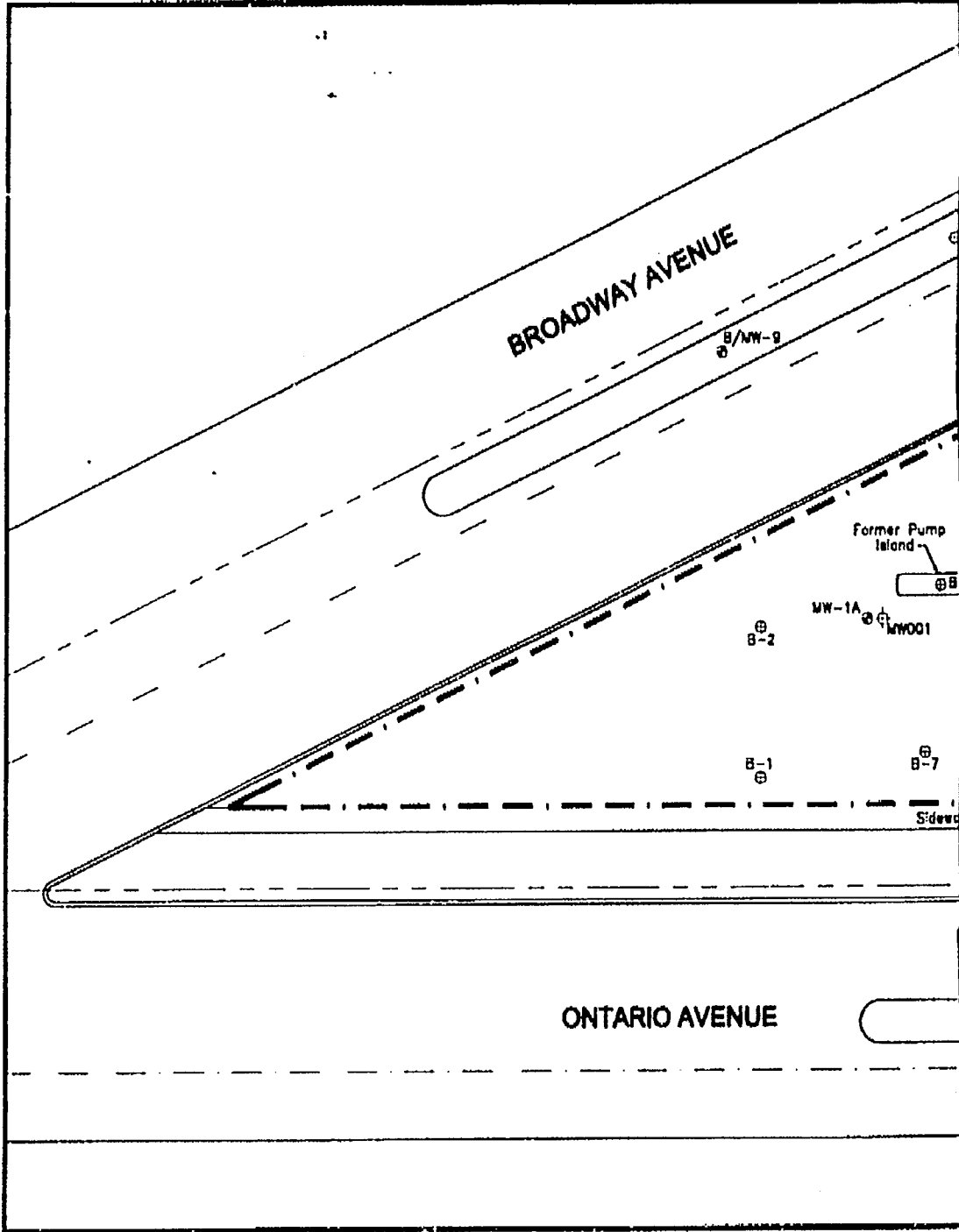
TABLE 2
GROUNDWATER ELEVATION DATA
 Former Shell Service Station #129562
 501 Carnegie Avenue
 Cleveland, OH
 * (All values are in feet)

Monitoring Well	Date Gauged	Elevation: Top of Casing	Depth to Product	Depth to Water	Thickness of Product	Elevation: Static Water Level
MW-1a	12-7-01	99.81		27.15		72.66
	8-8-02			26.71		73.10
MW-6	12-7-01	99.35		28.10		71.25
	8-8-02			27.70		71.65
MW-7a	12-7-01	98.43		26.20		72.23
	8-8-02			25.81		72.62
MW-8	12-7-01	100.02		25.95		74.07
	8-8-02			25.75		74.27
MW-9	12-7-01	99.86		26.10		73.76
	8-8-02			25.84		74.02
MW-M	12-7-01	98.87		DRY		NA
	8-8-02			DRY		NA

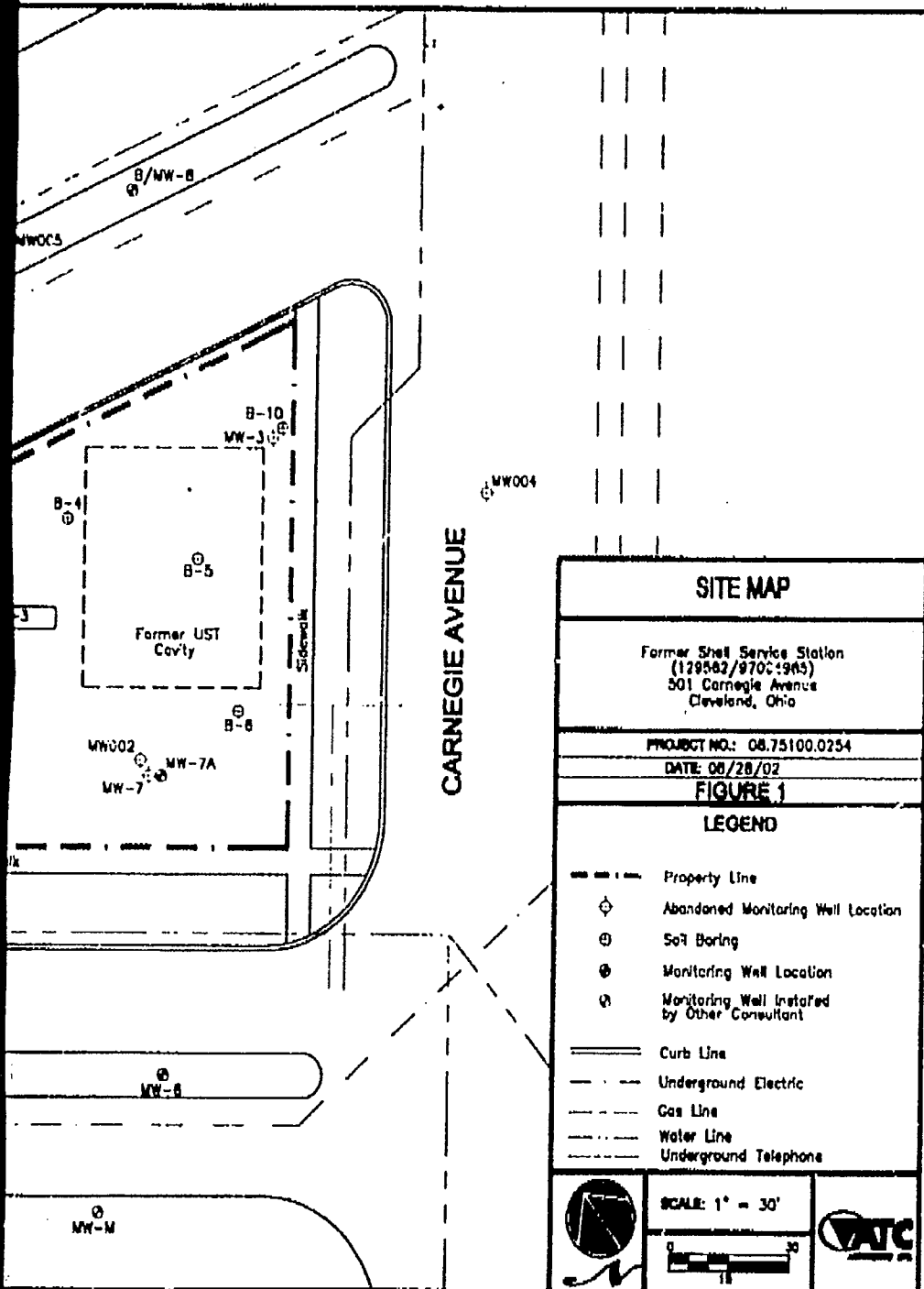
NOTES: Referenced datum is relative to an arbitrary assignment of 100 feet. The reference is the southeast screw bolt of light post located on the northwest corner of the site. Monitoring well MW-M was found off-site during site reconnaissance.

Figures

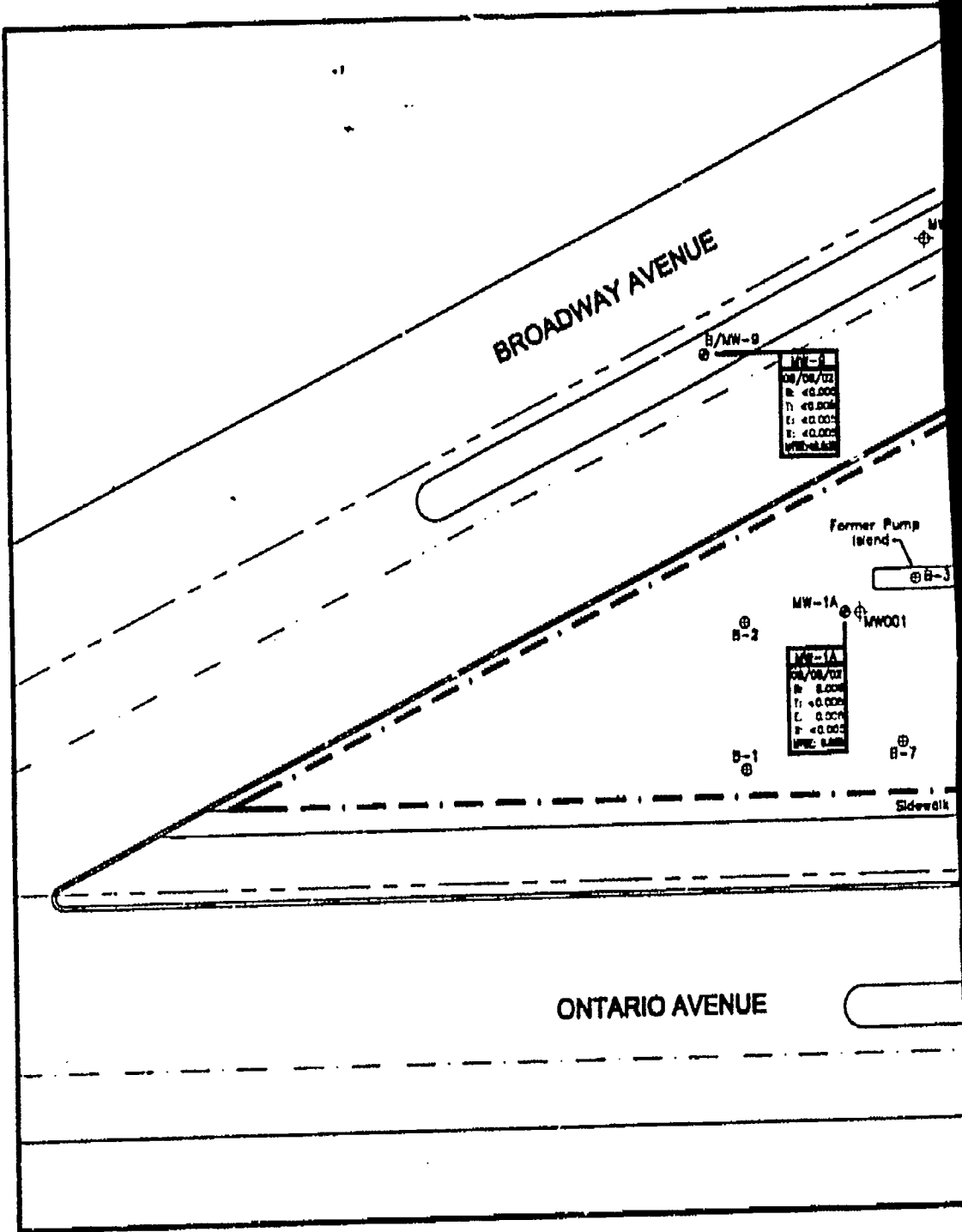
0000 1540



0000-1541



00001542



BROADWAY AVENUE

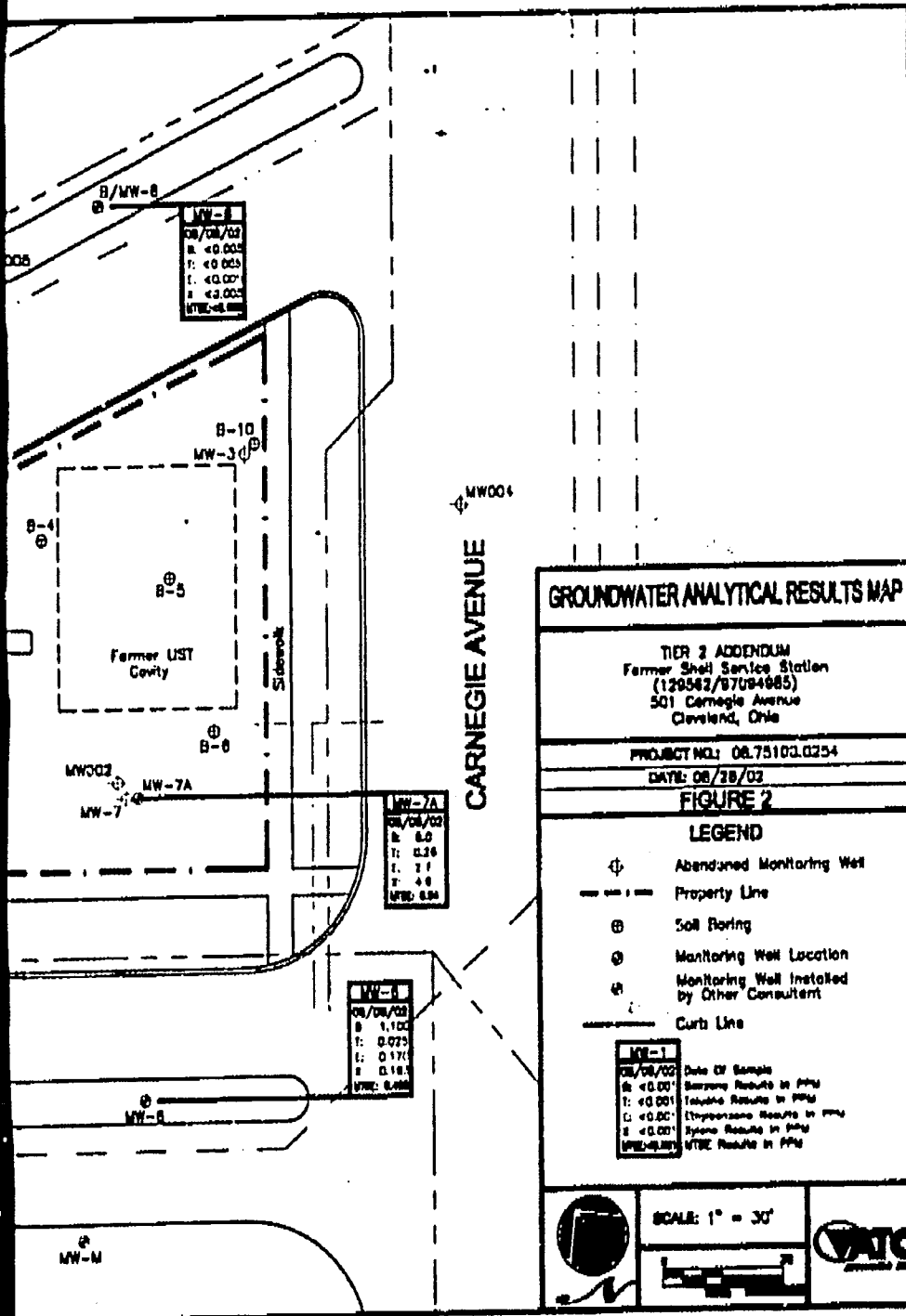
ONTARIO AVENUE

MW-1
04/08/03
0: <0.000
1: <0.000
2: <0.000
3: <0.000
MW-1A

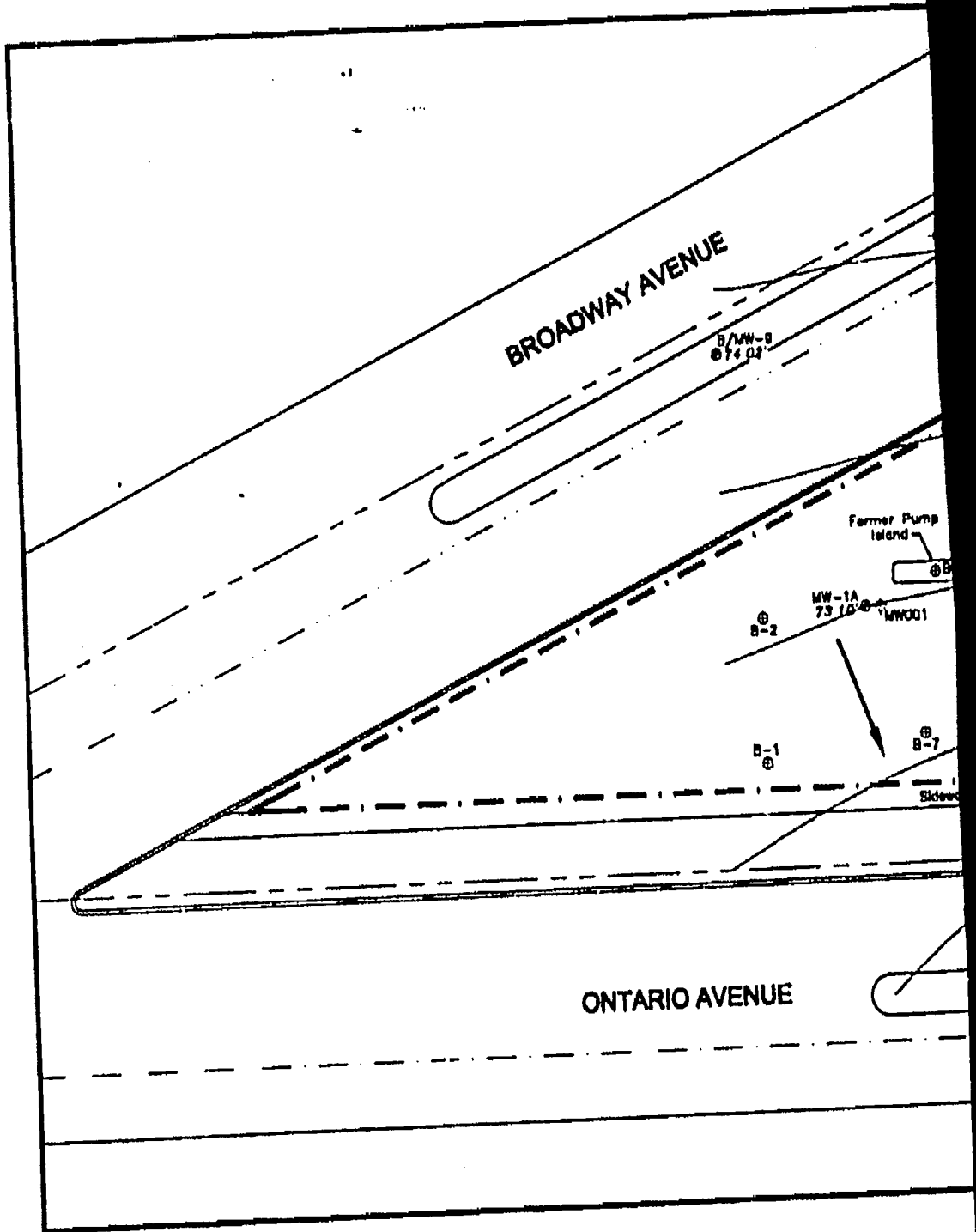
MW-1A
04/08/03
0: 0.000
1: <0.000
2: 0.000
3: <0.000
MW: 0.000

Former Pump Island

Sidewalk



00001544



BROADWAY AVENUE

ONTARIO AVENUE

B/W-8
674 02

Former Pump
Island

MW-1A
73 10

NW001

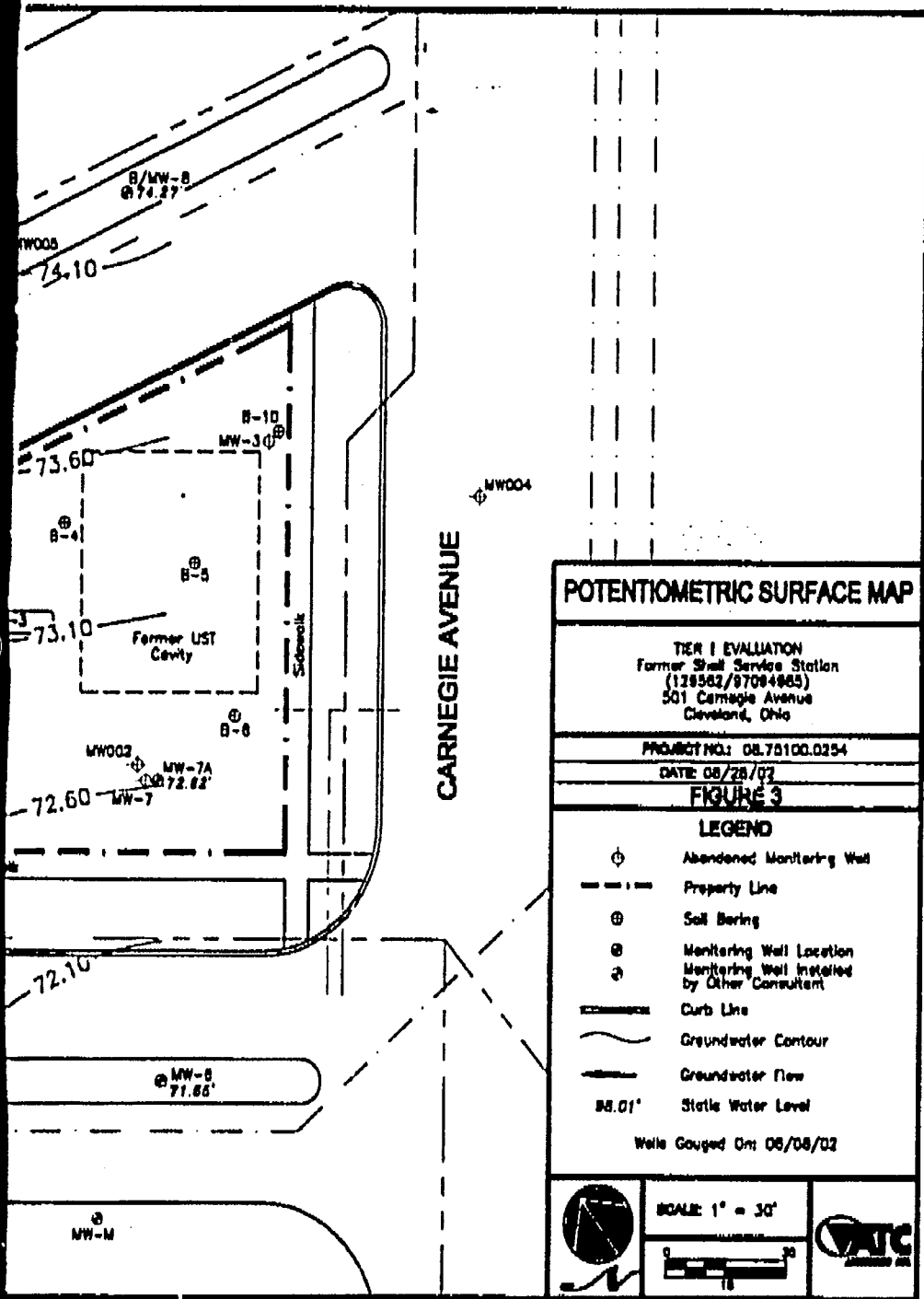
B-2

B-1

B-7

Sidewalk

0000 1541



00001546

Attachment A
BUSTR Letter



Ohio Department of Commerce

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
6606 Tusaug Road • P.O. Box 647
Reynoldsburg, OH 43068-9009
(614) 752-7938 • FAX (614) 752-7042
www.com.state.oh.us

Bob Taft
Governor
Gary C. Subedainik
Director

July 17, 2002

ED HENKE
EQUILON ENTERPRISES
5595 WYLMOOR DR
NORCROSS, GA 30093

SITE: SHELL OIL CO. #23416661595
301 CARNEGIE
CLEVELAND OH
CUYAHOGA COUNTY
RELEASE #18000287-N00001

RE: ADDITIONAL INFORMATION REQUESTED

Dear Mr. Henke:

The Bureau of Underground Storage Tank Regulations (BUSTR) has reviewed the report titled "Tier 2 Evaluation" dated July 1, 2002. Based on our review, BUSTR requests the following information:

- 1. All monitoring wells must be sampled to determine current levels of groundwater contamination.
2. What is the source area for the ground water contamination in MW-7A?

An order form and other publications that may help you to understand the requirements for compliance with BUSTR's rules and regulations may be found on the Internet at www.com.state.oh.us or by calling our office.

Please submit this information to BUSTR within 60 days from the date of this letter.

Thank you for your cooperation. If you have any questions, please contact me at 614-752-7093.

Sincerely,

[Handwritten signature]

Charles E. Jepp
Environmental Specialist

cc: Site File

KURT
CALL ME

Attachment B
Laboratory Analytical Report



Ohio Department of Commerce

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
8895 E Main St. • P.O. Box 687
Reynoldsburg, OH 43068-9009
(614) 752-7938 FAX (614) 752-7942
www.com.state.oh.us

Bob Taft
Governor

Lt. Governor Jennette Bradley
Director

March 20, 2003

ED HENKE
EQUILON ENTERPRISES
5595 WYLMOOR DR
NORCROSS, GA 30093

SITE: SHELL OIL CO. #23416661595
501 CARNEGIE
CLEVELAND OH
CUYAHOGA COUNTY
RELEASE #18000287-1-00001

RE: ADDITIONAL INFORMATION REQUESTED

Dear Mr. Henke:

The Bureau of Underground Storage Tank Regulations (BUSTR) has reviewed you're the information submitted to date for this site. Based on our review, BUSTR requests the following:

1. When calculating a soil leaching to ground water value, using a ground water concentration of 6 parts per million, a soil concentration of 39.5 parts per million is generated. This soil concentration exceeds the allowable soil to indoor air concentration.
2. It will be necessary to install an additional monitoring well 30 feet northeast of MW-7a. This monitoring well is needed to evaluate ground water contaminant levels in tank cavity (source area).

Publications that may help you to understand the requirements for compliance with BUSTR's rules and regulations may be found on the Internet at www.com.state.oh.us or by calling our office.

Please submit this information to BUSTR within 90 days from the date of this letter.

Thank you for your cooperation. If you have any questions, please contact me at 614-752-7093.

Sincerely,

Charles E. Zapp
Environmental Specialist

cc: Site File
enclosures

00001324



Mr. Charles Zepp
Department of Commerce
Bureau of Underground Storage Tank Regulations
8895 East Main Street
PO Box 687
Reynoldsburg, Ohio 43068

Shell Oil Products US
HSE Science & Engineering
5595 Wylmoor Drive
Norcross, GA. 30093
Tel (770) 564 2501
Fax (770) 564 2490
Email ewhenke@shellopus.com

May 14, 2003

CERTIFIED MAIL RETURN RECEIPT REQUESTED

RE: Response to BUSTR letter dated March 20, 2003
Former Shell Retail Facility
501 Carnegie Avenue
Cleveland, Ohio
Cuyahoga County
BUSTR Release Number: 180000287-N00001

STATE OF OHIO
DEPARTMENT OF REVENUE
DIVISION OF TAX SERVICES
COLUMBUS, OHIO 43260-1199

Dear Mr. Zepp:

Shell Oil Products US (Shell) is providing the following information in response to the BUSTR correspondence dated March 20, 2003. The BUSTR comments are in italics. A site plan depicting soil boring/monitoring well locations is attached. All analytical values are presented in parts per million.

Item 1. When Calculating a soil leaching to groundwater value, using a groundwater concentration of 6 parts per million, a soil concentration of 39.5 parts per million is generated. This soil concentration exceeds the allowable soil to indoor concentration.

Shell suggests that soil borings B-3, B-4, B-5 and B-6 serve to characterize chemicals of concern (COCs) in soil in the source area. All of the soil samples collected from borings B-3 through B-6 exhibit COC concentrations less than Tier 1 Action Levels. As previously stated in the correspondence to BUSTR dated September 18, 2002, site specific conditions (sand geology and permeable surface) coupled with the age of the release (1992) have mitigated the occurrence of COCs in the soil. It is not unusual to have residual groundwater impacts after sandy soils have attenuated.

Item 2. It will be necessary to install an additional monitoring well 30 feet northeast of MW-7a. This monitoring well is needed to evaluate groundwater contaminant levels in tank cavity (source area).

00001322

Shell suggests that monitoring well MW-3 serves to adequately delineate groundwater to Tier I Action Levels within the source area. This well is immediately adjacent to the tank pit, and based on geology and water depths, is in communication with the tank pit. Any impacts to the tank pit are reflected in MW-3.

Shell has responded to several requests for additional information for this site. The previously submitted information discusses many of the same issues. A summary of previous submittals is provided below.

Tier I Evaluation dated September 24, 2001

The Tier I Evaluation concludes that chemicals of concern (COCs) do not exceed Tier I action levels and that "no further action" is warranted.

BUSTR letter dated September 26, 2001

Monitoring wells MW-1a and MW-2a were installed as part of the additional assessment conducted in December 2001. The additional assessment report dated March 29, 2002 concludes a Tier II is necessary. Why was a monitoring well within the former UST cavity not requested by BUSTR in the September 26, 2001 letter?

Tier II Evaluation dated May 10, 2002

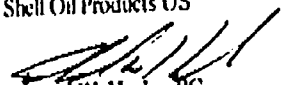
Site Specific Target Levels (SSTLs) were developed as part of the Tier II Evaluation. The Tier II concludes that COCs do not exceed SSTLs and "no further action" is warranted.

BUSTR letter dated July 17, 2002

Groundwater samples were collected from all existing monitoring wells at the request of BUSTR. The addendum dated September 18, 2002 provides a summary of the results as well as a description of the source area. This correspondence also provides a plausible explanation as to why an elevated benzene in soil concentration (39.5 parts per million) is not present even though benzene in groundwater is detected at six ppm. The addendum concludes that "no further action" is warranted.

Based on the soil borings in the source area, and concentrations in MW-3, it appears the source area has been adequately investigated. This combined with a decreasing trends in groundwater concentrations leads to the conclusion that any further assessment is unnecessary. Shell requests "no further action" status for the site. Should you disagree, Shell proposes a meeting to further discuss this location. If you have any questions please contact me at (770) 564-2501.

Sincerely,
Shell Oil Products US


Edward W. Henke, PG
Environmental Geologist

Attachments

Other Corrective Action Release Report
Release 18000287-N00001 printed by Gill

Responsible Party

W010093
EQUIPMENT ENTERPRISES LLC

Person Reporting Release

WARREN LUCY
SHELL OIL
7777 WASHINGTON VILLAGE DR
DAYTON, OH 45459
(513)436-5699

Release Location

18000287 - SHELL OIL CO. #23416661595

501 CARNEGIE
CLEVELAND, OH 44115
Cuyahoga

Release Information

Release Number: N00001
Date Reported: 11/4/94
Source: Inventory control
Content: Gasoline
Rules: 1999
Class: D
Deed Restriction: No
Date of Last Status Change: 12/1/03
EIF Code: 1 SUS CON from regulated UST
Status: TR2: Tier 2

Site Information

Site/Area Type: Commercial
GW Flow: S GW Depth: 28.35
Sensitive Area: No Wellhead Protection: No
Depth to Bedrock: Unk
Cleanup Tech:

Contamination

Soil Contamination: Yes
Soil Category: Sand/gravel soil Soil Class: SM
Total Gal IPR:
Contaminant: Benzene;Toluene;Ethyl-benzene;Total Xylenes:TPH
Above AL: Ethyl-benzene;Total Xylenes:TPH

GW Contamination: Yes
Type of GW: Drinking Water
All DW supplied: No
Total Gal GW remediated:
Contaminant: Benzene;Toluene;Ethyl-benzene;Total Xylenes
Above AL: Benzene

Priority Tracking System

Soil: 3 <5->2x
Water: 6 <1000x->100x
Free Product: 0 None
Drinking Water: 4 Potential

Printed on 12/01/03 at 4:06 PM

Page 1 of 2

00001321



Ohio Department of Commerce

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
8895 E. Main St. - P.O. Box 637
Reynoldsburg, OH 43068-9009
(614) 752-7938 FAX (614) 752-7942
www.com.state.oh.us

Bob Taft
Governor

Lt. Governor Jennette Bradley
Director

December 01, 2003

ED HENKE
EQUILON ENTERPRISES
5595 WYLMOOR DR
NORCROSS, GA 30093

SITE: SHELL OIL CO. #23416661595
501 CARNEGIE
CLEVELAND OH
CUYAHOGA COUNTY
RELEASE #18000287-N00001

RE: NO FURTHER ACTION STATUS REGARDING CORRECTIVE ACTION REQUIREMENTS

Dear Mr. Henke:

The Bureau of Underground Storage Tank Regulations (BUSTR) has reviewed all information submitted for this release. Based on the assumptions used in the tier evaluation report, BUSTR requires no further action (NFA) involving corrective action under Ohio Administrative Code (OAC) 1301:7-9-13, effective March 1999.

This NFA is dependent upon the maintenance of the following restrictions:

1. The site must maintain a non-residential use status.
2. No potable wells may be installed on the site or within 300 feet of the site.

Please contact us immediately if a restriction has been, modified, removed, or violated.

Thank you for your cooperation. If you have any questions, please contact our office at (614) 752-7938.

Sincerely,


Kelly J. Gill
Corrective Action Supervisor

cc: Site File

00001320

APPENDIX N

CLEVELAND FIRE PREVENTION BUREAU DOCUMENTS

CITY OF CLEVELAND

FR 0541-44
CK 6767
BUILDING RECORD
4/15/64
C.T.

~~75-2606~~
75 3665 8-27-70
75 28241 3289

DEPARTMENT OF PUBLIC SAFETY-DIVISION OF FIRE
FIRE PREVENTION BUREAU

STREET } Carnegie Ave HOUSE No. 501 BLDG. NAME _____
 STORIES 1 CONSTRUCTION II 30 X 30 X 12
 OCCUPANCY Mer.
 OWNER OR AGENT Shell Oil Co. ADDRESS _____

FOR PARTICULARS SEE INSPECTIONS BY WARDENS OR COMPANIES UNDER DATE LISTED BELOW IN INSPECTION FILE NO. _____

Enter All Fires In Chronological Order in Red Ink

Date	Inspector	Conditions Found	Closed
12/6/69	French	Gas Station Insp.	FILE
10/1/64	Damm	N.P.T. Permit - Issued Application	File
4/14/65	Wigman	Approved application for erectatory, brick, steel 2" wood roof deck 18' x 58' 10" service station 1 bay suspended (8' above floor) gas fired furnace. Water cut dispensing pumps to be located 5' from bay opening. 1-6,000, 2-4,000 gasoline 1/4" C.I. - 1000 C.I. down oil. Existing station to be razed, tanks removed.	
7/14/65	Eland	A/C test 1-1000 1-6,000 2-4000 Permit #2636 OK	File
8/12/65	Eland	Mechan setting of tank started	
8/13/65	Eland	Flow control not complete	File
9-20-65	Eland	Tanks not ready for air test Permit 2636	
9-21-65	Clements	1/2" gas piping	FILE
9-26-65	Eland	TEST 1-6000-2-4000-OK	File
10-21-65	Clements	1/2" tank safe	
2-1-67	Herduck	Insp. Tank removed Recharge of tank	FILE
2-19-70	Craight	Shell Service Station	
8-27-70	Mick	Approved application for 8000 g.p. gasoline tank Copy of plans will be mailed to R.P.B.	
1-2-70	Covey	Withdrew 1/2" tank test + test.	
9-9-70	Wade	Received plans: Reg: 8/27/70 = plans in file	
7-30-70	Murphy	Re piping test	
2-22-71	Janlik	Insp. 1 1/2" gas piping	FILE
1-5-71	Janlik	Re Insp. Gas Report	
1-13-71	Janlik	Re Insp. Tanks noted. Viol notice given.	
1-23-71	Janlik	Re Insp. 3 Viol. notes.	
1-13-73	Eland	Complaid - men not available at this time	
1-23-73	Letter received from J. L. Wadley		FILE
7-2-74	#16457 e 8 pm.	Auto accident.	\$1,000.00

STREET

HOUSE NO.

OTHER FRONTAGE

Carnegie Ave.
501
QA 230
WEEK 39
DIST-1
E3
E9-1

201 Carnegie Ave

DATE	INSPECTOR	REMARKS	
5/9/85	Tome	Bldg plans app. for Int'l Egt. alt.	
5/24/85	Humbler	Pipe Test - 0 - 0104	
2/10/86	Smith, L.	Complete Insp.	
1/30/89	Reed	Regulation permit app. for 01g Tanks. Kel	
1/4/90	Litch	Complete Insp. See report	file
4/2/93	Keith	Plans Review, see report	file
10-10-95	Austin	Complete	
2/6/96	Zhanigan	Target Insp - see report	file
3/22/96	Chambers	Tank removed - see report	file

FILE

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

Application No. 744

Fee: 1.00

Date May 3 1951

PERMIT APPLICATION FOR THE STORING, HANDLING, SALES OR USE OF HAZARDOUS SUBSTANCES

Elmer M. Cain, Chief
DIVISION OF FIRE:

SHELL OIL COMPANY Applicant.
(Name of Company, Person)

Location 501 Carnegie at Broadway

Building Height 1 Sty. Masonry Class _____

Exposures _____

Other Occupancies _____

Acetylene _____ Amount _____

Calcium Carbide _____ Amount _____

Flammable Liquids--Type #1 400 gals. Type #2 60 gals. Type #3 150 gals.

Corrosive Liquids _____

Compressed Gases _____

Fume Hazard Gases _____

Liquified Chlorine _____

Liquified Petroleum _____

Moisture Hazardous Substances _____

Pyroxylin Plastics _____

Portable Booths _____ Nitrocellulose Film _____

Spraying and Dipping _____

Tire Retreading and Rebuilding _____

*Check vent on drain oil tank 27°
Raise vent 1/4" from ground.*

(Over)

Finishing With-Flammable Liquids, in Bowling Alleys, Floors and similar surface

Storage in Cabinets..... On Floor..... In Vaults..... Tanks **X 3**

Location..... Use.....

Transporting..... Sales.....

Comments..... **4000 GALLONS GASOLINE IN UNDERGROUND TANKS**
50 GALLONS KEROSENE IN LUBSTER *150 gal drain oil*
60 GALLONS ALCOHOL IN DRUM

The acceptance of the permit herein applied for shall constitute an agreement on (my) (our) part to abide by all the conditions herein contained, and to comply with all ordinances of the City of Cleveland, the laws of the State of Ohio, and all the rules and regulations of the State Fire Marshal, the Chief of the Division of Fire and the Board of Building Standards and Building Appeals, relating to the Storing, Handling, Sales, Transportation and use of Hazardous Substances.

Shell Oil Co. by M. L. Mah Applicant

Date *5/3* 19 *51* Inspector *Captain Schumacher*

Property Owners Permission

Cleveland, Ohio *5-1* 19 *51*

....., the owner of the premises described in the foregoing application hereby grants the lesse or agent permission to store the above mentioned Hazardous Substances at this location,

Owner *Shell Oil Co.*

Address *700 United Office Bldg.*

Witness.....

Approved
WILLIAM R. FERRIE, Chief
FIRE PREVENTION BUREAU

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY
DIVISION OF FIRE
FIRE PREVENTION BUREAU

FILE

FILE

Dec 6, 1963 1963

SIR:

50: Carnegie

1st CORB Type II 30'x30'x12'H

Occupant: Merc.

Occupant: Filling station (Shell) H. Wyszacki, Merc
Owner: Shell Oil Co

~~Notes:~~ Overhead gas - NO HWH.

Viol: (1) Extinguisher recharge due.

(2) Overuse of ~~power~~ circuits (hot plate, coffee pot, lights, radio etc on one outlet.

(3) Poor housekeeping in rear room.

Obstand above conditions corrected.

This bldg will be replaced by new station after 1st of year, including new tanks.

4/6 tanks: 2 - 2000 gal } gasoline
1 - 1000 gal }
1 - 250 gal Slipp oil.

40:4 - Woodland:

Dalluchi's Wholesale Grocery. Did not inspect as this bldg will be razed shortly.

Inspector:

R. French

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

October 1

19 64

SIR: Bn. Chief John Schlund

X 2950 Payne Avenue

Standard Oil Service Station

70' x 34' x 14' H

OWNER:

Standard Oil Company

STRUCTURE:

One story concrete block walls. Steel beams. Plaster ceiling

GAS TANKS:

Four 4,000 gallon tanks

WASTE OIL:

One 1,000 gallon tank

PUMPS:

6 aboveground automatic units. U.L. approved dispensers

FIRE EXTINGUISHERS:

Two dry powder extinguishers.

ELECTRICAL OUTLETS:

Wall plugs and switches properly located. Approved height. Pump switch approved. All good working condition.

HEAT:

Three overhead heaters - gas

HOTWATER TANK:

8' off floor, enclosed - self-close fire door

PERMIT:

Flammable Liquid Permit #316

VIOLATIONS:

None cited.

Y 501 Carnegie Avenue

Shell Oil Service Station

22' x 28' x 12' H

OWNER:

Shell Oil Company, 50 West 50th St., New York, New York

STRUCTURE:

One story, concrete block walls - wood joists, wood roof. Mercantile III C

GAS TANKS:

3 gas tanks. One 2,000 gallon tank, two 1,000 gallon tanks

WASTE OIL:

100 gallon tank

PUMPS:

6 aboveground pumping units

ELECTRICAL OUTLETS:

Base plugs and switches satisfactory condition. Lighting in conduit.

HEAT:

One overhead heater - gas

FIRE EXTINGUISHER:

One dry powder extinguisher

VIOLATIONS:

No Flammable Liquid Permit.

ISSUED APPLICATION

Inspector:

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

Permit No. 18453 Fee \$ 2.00 Date OCT. 1st 19 69

Expiration Date _____ 19 _____

Permit Application
For the Storing, Handling, Sales or Use of
Hazardous Substances

Elmer M. Cain, Chief
Division of Fire

Applicant HENRY WYSOCKI

Location 501 CARNEGIE AVE
(NUMBER AND STREET)

Building Height 12 Stories 1 Area: 616' L 28' W 22' Construction 1-2-3-4 A-B-d

Occupancy SHELL SERVICE STATION Other occupancy _____

One Application for each No. Item.

List Kind and Quantity of Substance.

1. Calcium Carbide _____ 4. Fume Hazard Gases _____

2. Corrosive Liquids _____ 5. Moisture Hazards _____

3. Flammable Liquids: _____ 6. Nitrocellulose Film _____

Class 1 9,000 GAL. 7. Pyroxlin Plastic _____

Class 2 _____ 8. Tire Ret'g. & Rebdg. _____

Class 3 _____

9. Refinishing with Highly Flammable Liquids, i.e., bowling alleys, other assemblies _____

10. Dip tanks _____ Spray Booths _____ Spray Rooms _____

11. Unfired Pressure Vessels: L.P. _____ H. _____ O. _____ Acetylene _____ Other _____

12. Other Substances _____

STORAGE

Cabinets _____ Floor _____ Tanks 3 U.G. Vaults _____ Shelves _____

Sealed Containers _____ Dispensing _____

Use _____ Sales _____

REMARKS

THERE ARE 3 TANKS. (1) 2000 gal. - (2) - 1000 GAL.

The acceptance of the permit herein applied for shall constitute an agreement on (my) (our) part to abide by all the conditions herein contained, and to comply with all ordinances of the City of Cleveland, the laws of the State of Ohio, and all the rules and regulations of the State Fire Marshal, the Chief of the Division of Fire and the Board of Building Standards and Building Appeals, Relating to the storing, Handling, Sales, Transportation and use of Hazardous Substances.

Applicant Henry S. Mysacki Mysacki
NAME TITLE

(Approved) (Disapproved) by St. John F. Gannon
INSPECTOR

Date Oct. 28, 1968

Reasons for disapproval _____

PROPERTY OWNERS PERMISSION

Cleveland, Ohio Oct 28 19 68

The owner of the premises described in the foregoing application hereby grants the leesee or agent permission to store the above mentioned Hazardous Substances at this location.

Owner Shell Oil Co.

Address 501 Carnegie Ave

Witness _____

1-2,000 Gal. Tank and 2-1,000 Gal. Tanks
Removed . Taken from the report of Capt.
Zupan. Date-- 4-14-1965

CITY OF EVELAND
Department of Public Safety
Division of Fire

Permit # 2636
Date of Application 4-14-55

Total Fee \$ 55.00

APPLICATION TO INSTALL 4 TANKS for ALL SUBSTANCES, other than water, above ground underground inside outside other

LOCATION) 501 CARNEGIE (OCCUPANT) Shell Oil Company
Tank spec's ASME API ICC UL Other

IPS: type submerged inline remote relief valves req'd; excess flow impact internal check swing line other

UNDERGROUND: Depth of fill cover (circle) $1\frac{1}{2}$; 2; $3\frac{1}{2}$; $4\frac{1}{2}$; 4. Type of fill cover; CONCRETE Sand bed & fill, $6\frac{1}{2}$ " $12\frac{1}{2}$ "

ABOVE GROUND: Dikes (state dimensions, capacity & material)

Grounding arrangement: support protection: _____

1 Tank(s) cap. 6000 size 7' x 21' gauge 14" Vent size 2", arrester req. Yea fill size 4" Fee \$ 15.00
normal emrg. type

Distances to, lot line 5' 6' street line 6' between tanks 3' building 24'. Contents GASOLINE ident. _____

2 Tank(s) cap. 4000 size 7' x 14' gauge 14" Vent size 2", arrester req. Yea fill size 4" Fee \$ 30.00
normal emrg. type

Distances to, lot line 15' & 25' street line 6' between tanks 3' building 9' & 14'. Contents GASOLINE ident. _____

1 Tank(s) cap. 1000 size 5'4" x 6' gauge 14" Vent size 1 1/2", arrester req. Yea fill size 2" Fee \$ 10.00
normal emrg. type

Distances to, lot line 10' street line _____ between tanks 0 building 5'. Contents DRAIN OIL ident. _____

The acceptance of the permit herein applied for shall constitute an agreement on (my) part to abide by all the conditions herein contained and to comply with all the ordinances of the City of Cleveland, the Laws of the State of Ohio and all the rules and regulations of the State Fire Marshal, the Chief of the Division of Fire and the Board of Building Standards and Building Appeals, relating to the Storage of hazardous Substances.

Applicant L. C. Ericsson Chief William Gray Zoning: Map _____ Sh _____
SIGNATURE per FIRE PREVENTION BOARD Use

SHELL OIL CO BRECKSWICK Tel. 526-1200
SHELL OIL CO BRECKSWICK

Installed by L. C. ERICSSON Approved by DIVISION OF BUILDING
SHELL OIL CO BRECKSWICK signature space.

Notes: THAT LOCATIONS PER ATTACHED DRAWING
Agreeing, pulled 5' from fly opening

NOTE: If disapproved, draw line through signature space.

SITE plan on reverse side.

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY
DIVISION OF FIRE

FIRE PREVENTION BUREAU

Handwritten initials: NKD

Sept 21 1965

SIR: Chief John Schlund
Fire Prevention Bureau

Report of activity for Sept 21, 1965

~~McKesson-Robbins Drug Co. 1352 W 9~~

~~Conferred with bldg supt. Mr. Naggers
informed him of disconnection of C. F. D.
Alarm Box.~~

~~Mr. Naggers reported that employees have
been notified and bulletin issued concerning
same.~~

501 Carnegie Ave. Shell Oil Co.

Inspection of U. S. Tank Piping.
No violations noted. Leaks repaired to conform
to test requirements.

Inspector *H. E. Clark*

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY
DIVISION OF FIRE
FIRE PREVENTION BUREAU

July 2 1966

SIR:

*Information only
No inspection*

501 Carnegie

1 story conc blk w/wood roof 15' high

21 x 60 Type III

M. unscathed

Shell gasoline station

Inspector

Robert E. [Signature]

FILE

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

1 Feb 67

19

SIR: 501 Carnegie - 1st

owner Shell Co.

occupant Shell Service Station

Greg A. Chavalia Leasing/operating

occupancy Mercantile

Construction: II - 1 Sty 12 x 30 x 30
unprotected steel - wood deck
BRICK & Glass WallsUnderground tanks 1-1000, 1-6000, & 2 4000 vents
& Pumps appear to be in good condition

Heat - Raised Gas Forced Air - No Hot Water

Gas Meter SE Front

Elect Service East Wall

Fire Protection: 1 Dry Chemical Needs
Recharging.

Covered Cans for wiping (Reg).

Violations Verbs to Chavalia (Outbuilt to Dealwith)

1. Re Charge & Extinguisher

Inspector:

L. D. Hendrick

FILE

17-497

FILE

CITY OF CLEVELAND
Department of Public Safety
Division of Fire

Permit # 3665

Date of Application August 27, 1970

Total Fee \$ 15.00

APPLICATION TO INSTALL 1 TANKS for ALL SUBSTANCES, other than water, above ground underground X inside outside other

501 Carnegie Avenue
Shell Oil Co.
(OCCUPANT)

Tank spec's ASME API ICC UL X Other

PUMPS: type submerged X inline remote Valves req'd; relief excess flow impact internal check
other 6" relief cone. other swing line

UNDERGROUND: Depth of fill cover (circle) 1 1/2; 2; 2 1/2; 3; 4. Type of fill cover; Pea Gravel Sand bed & fill, 6"; 12"
ABOVE GROUND: Dikes (state dimensions, capacity & material)

Grounding arrangement: support protection:

1 Tank(s) cap. 8,000 gal. size 8' x 25'-6" gauge Fiber glass size 2", arrestor req. , fill size 4 Fee \$ 15.00
normal emrg. type

Distances to, lot line 10' street line 20' between tanks 5' building 20'. Contents gasoline ident.

Tank(s) cap. gauge Vent size , arrestor req. , fill size Fee \$
normal emrg. type

Distances to, lot line street line between tanks building . Contents ident.

Tank(s) cap. gauge Vent size , arrestor req. , fill size Fee \$
normal emrg. type

Distances to, lot line street line between tanks building . Contents ident.

The acceptance of the permit herein applied for shall constitute an agreement on (my) (our) part to abide by all the conditions herein contained and to comply with all the ordinances of the City of Cleveland, the laws of the State of Ohio and all the rules and regulations of the State Fire Marshal, the Chief of the Division of Fire and the Board of Building Standards and Building Appeals, relating to the Storage of hazardous Substances.

Applicant Economy Building & Remodeling Co. Chief John F. Ellis / J.F. Zoning: Map Sh 5 - Fee
SIGNATURE FIRE PREVENTION BUREAU Use GEN IND

Installed by Economy Bldg. Tel. 932-6122 Approved by A. J. Turk
DIVISION OF BUILDING 8/27/70

Remarks Tank owner: No product other than water shall be placed in tank until piping is installed & tested. signature space.
Type of piping material: NOTE: If disapproved, draw line through

Best 600 s to be provided. New 800 to be Super
Plot plan will be mailed to Fire Prevention MKK

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY
DIVISION OF FIRE
FIRE PREVENTION BUREAU

FILE

March 22, 1971

501 Carnegie Ave.

Owner: Shell Oil Co.

Const. Type III- 1 Story Unprotected steel, wood roof
brick and glass walls.

Occupant: Ralph Burch, talked to same.

Gas and Elect. Located in east room center, overhead
gas heater. Power supply on South wall.

Tanks; 1-8000 Gal. Gasoline.
1-6000 " "
2-4000 " "
1- 1000 " Waste Oil

This is a retail gas service station open 24 hours a day.
Minor repair work is done, there is no welding or burning
done inside.

Violations: 1-10# Dry Powder Extinguisher is needed.

Metal Can is required for oil rags.

No permits for flammable liquids, application
will be issued when violations are abated.

Verbal Orders given to Ralph Burch.

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

Permit No. 21919 Fee \$ 5.00 Date 4.22 19 71
 Expiration Date _____ 19 _____

Permit Application
 For the Storing, Handling, Sales or Use of
 Hazardous Substances

Elmer M. Cain, Chief
 Division of Fire

Applicant RALPH BURCH

Location 501 CARNEGIE AVE
(NUMBER AND STREET)

Building Height 15 Stories 1 Area: 160 W 30 Construction 1-2-4 A-B-C

Occupancy MERC. SERVICE STATION Other occupancy _____

One Application for each No. Item.

List Kind and Quantity of Substance.

- | | |
|--|--------------------------------|
| 1. Calcium Carbide _____ | 4. Fume Hazard Gases _____ |
| 2. Corrosive Liquids _____ | 5. Moisture Hazards _____ |
| 3. Flammable Liquids: _____ | 6. Nitrocellulose Film _____ |
| Class 1 <u>22,000 gal</u> | 7. Pyroxlin Plastic _____ |
| Class 2 _____ | 8. Tire Ret'g. & Reblgd. _____ |
| Class 3 <u>50 gal</u> | |
| 9. Refinishing with Highly Flammable Liquids, i.e., bowling alleys, other assemblies _____ | |

10. Dip tanks _____ Spray Booths _____ Spray Rooms _____

11. Unfired Pressure Vessels: L.P. _____ H. _____ O. _____ Acetylene _____ Other _____

12. Other Substances _____

STORAGE

Cabinets _____ Floor _____ Tanks _____ Vaults _____ Shelves _____

Sealed Containers _____ Dispensing _____

Use _____ Sales _____

REMARKS

1 - 8000 gal. Gas
 1 - 6000 " " } Underground
 2 - 4000 " " }
 1 - 50 gal. kerosene

The acceptance of the permit herein applied for shall constitute an agreement on (my) (our) part to abide by all the conditions herein contained, and to comply with all ordinances of the City of Cleveland, the laws of the State of Ohio, and all the rules and regulations of the State Fire Marshal, the Chief of the Division of Fire and the Board of Building Standards and Building Appeals, Relating to the storing, Handling, Sales, Transportation and use of Hazardous Substances.

Applicant Ralph Buick NAME TITLE

(Approved) (Disapproved) by J. Paul H. INSPECTOR

Date 4-22-71

Reasons for disapproval _____

PROPERTY OWNERS PERMISSION

Cleveland, Ohio _____ 19 _____

The owner of the premises described in the foregoing application hereby grants the lessee or agent permission to store the above mentioned Hazardous Substances at this location.

Owner _____

Address _____

Witness _____

- BUILDING -

C.P.O. \$10.00

Permit No.
Plan No.
Per Plan.

CITY OF CLEVELAND

DEPARTMENT OF COMMUNITY DEVELOPMENT
DIVISION OF BUILDING
ROOM 505, CITY HALL

DO NOT FILL IN

Floor Area 144 sq. ft.
2 UNITS \$
@ \$1.25 \$
MIN \$ 20.00
Total Fees \$ 20.00

REGISTRATION APPROVED: JUL 12 1977 *Eck*
DATE: MAR 8 1977
PER: *S. Kennedy*

APPLICATION FOR PERMIT
NEW STRUCTURES ONLY
(Permit will include ONLY such work
as detailed in this application)
(FILL IN INK)

BUILDING HOUSING
COMMUNITY DEVELOPMENT

Cleveland, O. MARCH 4, 1977

To the Commissioner of Building:—
LENNARD C. ERICSSON
Application is hereby made by
..... (REGISTERED CONTRACTOR)
for a PERMIT as described in this application and the accompanying drawings which are a part of this application,
on behalf of SHELL OIL COMPANY owner.

LOCATION AND DESCRIPTION OF LOT

No. and Street 501 CARNEGIE ST. Sublot No. 80, 81, & 82
Allotment Side of Street NORTH
Between ONTARIO Street ~~and~~ and BROADWAY S.E. ~~Street~~ Ave.
Being 118.55 feet front and 284.97 feet deep on the EAST Side
E TRIANGLE feet rear and 259.14 feet deep on the WEST Side

ONE OR TWO FAMILY DWELLINGS

Purpose or Use Width Length Stories
Construction Type Number of Families to Occupy Bldg.
Any Occupancy other than Residential Total No. of Rooms
Suite Size—1R 2R 3R 4R 5R 6R 7R 8R
Roof Covering Heating System Fuel
Shortest distance to any main building on adjacent lots
Shortest distance to any main building on the same lot

X Is Sewer installed in street No 3 Br Comb Sew. in ONTARIO Estimated cost \$
J. J. Stamps WH 3/8/77

MISCELLANEOUS—PRIVATE GARAGES, POLES, SIGNS, FENCES, BILLBOARDS, ETC.

Purpose or Use No. of Cars
Width Length Stories Height
Material Type
Shortest distance to any main building on the same lot
Shortest distance to any main building on adjacent lots
Additional Description
Kind Floor Estimated Cost \$

Permit No.
Plan No.
Per an.

ISLANDS & CANOPY
CITY OF CLEVELAND

DEPARTMENT OF COMMUNITY DEVELOPMENT
DIVISION OF BUILDING
ROOM 505, CITY HALL

DO NOT FILL IN
ROUND DRIP 1,894"
Floor Area
17 units \$
3 @ 1.25 \$ 21.25
2 units \$ 6.00
3 @ 3.00 \$
Total Fees \$ 27.25

REGISTRATION
APPROVED JUL 12 1977 ECK
DATE: MAR 8 1977
PER: *[Signature]*

APPLICATION FOR PERMIT 21510-01
NEW STRUCTURES ONLY
(Permit will include ONLY such work
as detailed in this application)
(FILL IN INK)

BUILDING HOUSING
COMMUNITY DEVELOPMENT

Cleveland, O., MARCH 4, 1977

To the Commissioner of Building:-

Application is hereby made by

LENNARD C. ERICSSON

(REGISTERED CONTRACTOR)

for a PERMIT as described in this application and the accompanying drawings which are a part of this application,

on behalf of SHELL OIL COMPANY

owner.

LOCATION AND DESCRIPTION OF LOT

NE COR. OF ONTARIO ST.

No. and Street 501 CARNEGIE AVE. ST.

Sublot No. 80, 81, 82

Allotment Side of Street NORTH

Between ONTARIO Street or Ave. and BROADWAY S.E. Street or Ave.

Being 118.55 feet front and 284.97 feet deep on the EAST Side

Be. TRIANGLE feet rear and 259.14 feet deep on the WEST Side

ONE OR TWO FAMILY DWELLINGS

Purpose or Use Width Length Stories

Construction Type Number of Families to Occupy Bldg.

Any Occupancy other than Residential Total No. of Rooms

Suite Size—1R..... 2R..... 3R..... 4R..... 5R..... 6R..... 7R..... 8R.....

Roof Covering Heating System Fuel

Shortest distance to any main building on adjacent lots

Shortest distance to any main building on the same lot

Is Sewer installed in street N^o 3 BR COMB SEW. W ONTARIO Estimated cost \$

MISCELLANEOUS—PRIVATE GARAGES, POLES, SIGNS, FENCES, BILLBOARDS, ETC.

ERECT TWO PUMP ISLANDS (1) 10' X 38' AND (1) 5' X 20' 5"
WITH ONE ISLAND CANOPY 28' 0" WIDE X 60' 6" LONG

Purpose or Use OVER ISLANDS, No. of Cars

Width ISLANDS 5' X 10' Length ISLANDS 38' 6" Stories Height CANOPY 17' 6"
CANOPY 28' CANOPY 60' 6" ISLANDS 6"

Material WITH ALUMINUM SHEET METAL ISLANDS CONCRETE Type IN STEEL FORM.

Shortest distance to any main building on the same lot NONE

Shortest distance to any main building on adjacent lots NONE

Additional Description

Kind Floor Estimated Cost \$ 12,000

Permit No.
Plan No.
Per)

CITY OF CLEVELAND
DEPARTMENT OF COMMUNITY DEVELOPMENT
DIVISION OF BUILDING
ROOM 505, CITY HALL

DC NOT FILL IN
Floor Area 1440^{sq}
2.42175 \$
\$ #250 \$
MIN \$ 10.00
\$ 10.00
Total Fees \$ 20.00

REGISTRATION
APPROVED: LAGI 2 T 70 ECR
DATE: MAR 8 1977
PER: E. H. ...

APPLICATION FOR PERMIT
ADDITIONS - ALTERATION ONLY
(Permit will include ONLY such work
as detailed in this application)

BUILDING
COMMUNITY DEVELOPMENT

Acct # 28-940-33 (FILL IN INK)
HOUSING

Comm # 002160
OFF BROADWAY

Cleveland, O. MARCH 4 1977

To the Commissioner of Building:— Application is hereby made by
LENNARD C. ERICSSON, (REGISTERED CONTRACTOR)
for a PERMIT as described in this application and the accompanying drawings which are a part of this application,
on behalf of SHELL OIL COMPANY owner.

LOCATION AND DESCRIPTION OF LOT

No. and Street 501 CARNEGIE ST. Sublot No. 80, 81, 82
Allotment Side of Street NORTH
Between ONTARIO Street or Ave. and BROADWAY S.E Street or Ave.
Being 118.55 feet front and 284.97 feet deep on the EAST Side
Bei. TRIANGLE feet rear and 259.14' feet deep on the WEST Side

ONE OR TWO FAMILY DWELLING ALTERATION, ADDITION, OR USE

The present building is a Story structure, occupied as a
By families, and is FEET wide and FEET long. The proposed Alteration or Addition or use consists of
Width of Addition Length Stories
Total Number of Families to Occupy Building
Est. Cost of Alteration \$ Est. Cost of Additions \$ Total Est. Cost \$

MISCELLANEOUS—PRIVATE GARAGES, POLES, SIGNS, FENCES, BILLBOARDS, ETC.

The present Structure is a
Width Length Height No. of Stories
Enclosing Walls Roof Construction Floor Construction
The proposed Alteration or Addition or use consists of
W) of Addition Length Height No. of Stories
Shortest distance to any main building on same lot
Shortest distance to any main building on adjoining lot
Est. Cost of Alterations \$ Est. Cost of Additions \$ Total Est. Cost \$

ALTERATION AND ADDITIONS AND USE FOR MULTI-FAMILY, BUSINESS, INDUSTRIAL, COMMERCIAL AND PUBLIC BUILDINGS

Description of Present Building

Width 24' Length 56' Stories ONE
 Height of each story: Basement..... 1st 15' 2nd..... 3rd..... 4th..... 5th.....
 Now occupied SERVICE STATION No. of families or persons occupying building 3+
 Number of Stairs NONE Construction..... Enclosure.....
 Number of Elevators NONE Type..... Enclosure.....
 Material of Outside Walls MASONRY Depth below grade..... Sprinkler System.....
 Floor Construction CONC. SLAB Roof Construction WOOD FRAME Heating System.....

Description of Proposed Work

The proposed Alteration or Addition or use consists of TO DEMOLISH EXISTING SERVICE STATION BUILDING TO GRADE AND REMOVE ALL DEBRIS FROM THE PROPERTY - BUILDING BEING REMOVED TO MAKE WAY FOR NEW GASOLINE SALES FACILITY. (ALL APPURTANCES ALSO TO BE REMOVED)

Width of Addition..... Length..... Stories..... Area.....
 Now occupied..... Total No. of families to occupy building.....
 Brick or Frame..... Floor Construction.....
 Roof Construction..... Roof Covering.....
 Heating System..... Ventilating System..... Stand. pipes.....
 Number of New Stairs..... Construction..... Enclosure.....
 Number of New Elevators..... Construction..... Enclosure.....
 Shortest distance to any building on same lot.....
 Shortest distance to any building on adjacent lots.....
 Type:..... Est. Cost of Alterations \$.....
 Est. Cost of Additions \$..... Total Est. Cost \$.....

TABLE OF DATA REQUIRED (For All Buildings)

Stories	B	1	2	3	4	TYPICAL			R
Story Heights									
Thickness of Walls									
Desig'd Live Load									
Desig'd Dead Load									
Occupancy									
No. of Per. or Fam.									

Soil Pressure.....
 Architect's Name and Registered No.
 Engineer's Name and Registered No.
 General Cont'r. LENNARD C. ERICSSON Address 7123 PEARL ROAD MIDDLEBURY VT
 Mason Cont'r..... Address.....
 Plumber Cont'r..... Address.....
 Carpenter Cont'r..... Address.....
 Electrical Inspr..... Address.....
 Concrete Inspr..... Address.....
 Building Inspr..... Address.....
 Lumber Inspr..... Address.....
 Demolition Cont'r..... Address.....
 Special Inspr..... Address.....

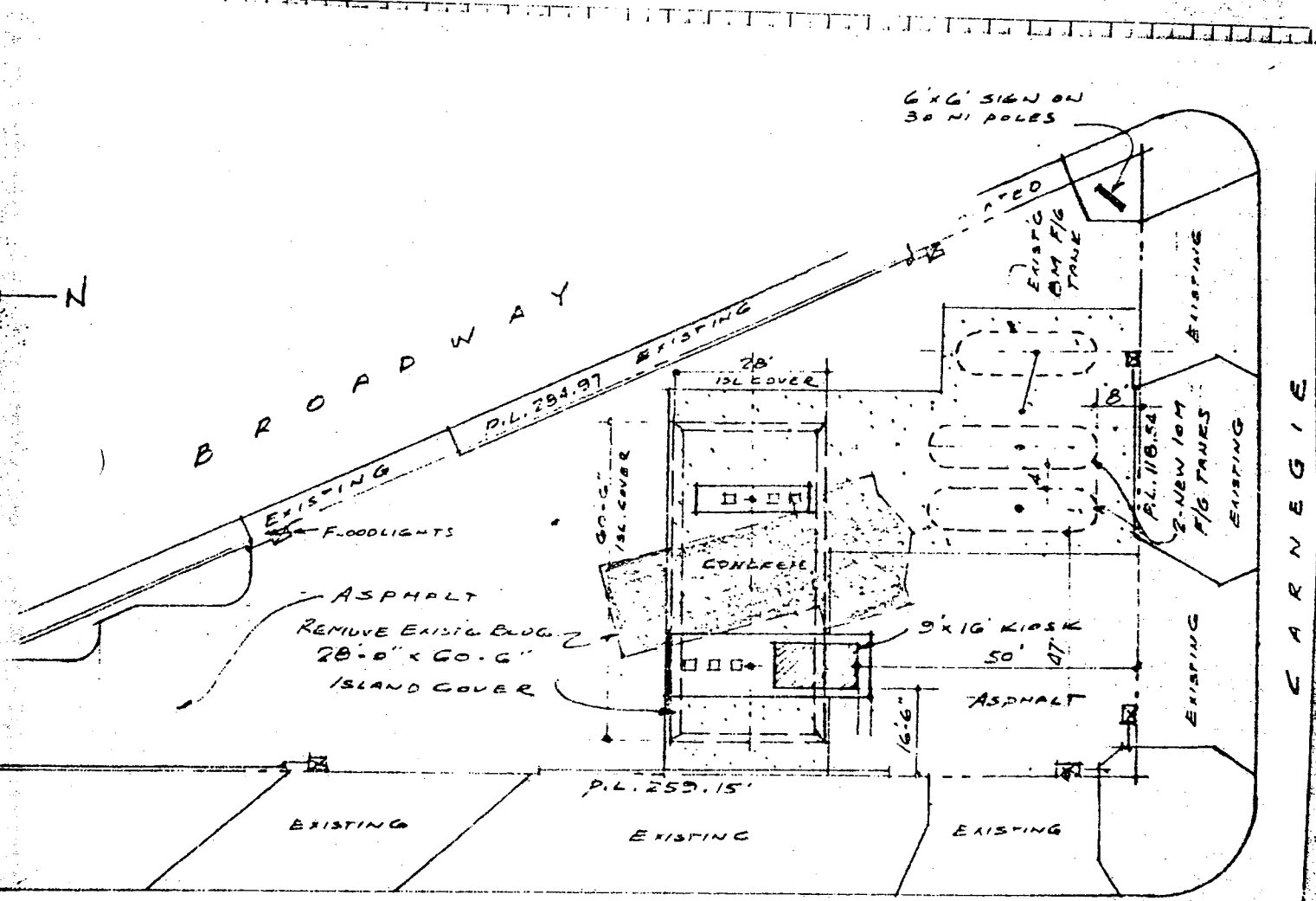
OFFICE REFERENCE—DO NOT FILL IN

Sanborn Map Vol. 1A Page 49A Zoning Map Sh. 5
 Zoning: Use GENERAL INDUSTRIAL Area B Height A
 Fire I (Inner) Outer Urban
 Record Clerk

BBS-BZA REFERENCE:

SITUATION PLAN

Plan to be drawn to scale in ink.
 Show all lot lines and all lot dimensions.
 Show all streets and alleys bounding property.
 Give distances from building to lot and street lines, and other buildings
 on same lot, also to buildings within 10 feet on adjacent lots.



O N T A R I O

REMARKS:

The acceptance of the Permit herein applied for shall constitute an agreement on ^{our} my part to abide by all the conditions herein contained, and to comply with all ordinances of the City of Cleveland and the laws of the State of Ohio relating to the work to be done thereunder; and said agreement is a condition of said permit.

It is a further condition of this permit that only REGISTERED Sub-Contractors will be engaged or employed.

James C. Eames
J. C. Eames

Owner's Name SHELL OIL CO

SIGNED: (REGISTERED CONTRACTOR)

Owner's Address 7123 PEARL ROAD

7123 PEARL ROAD MIDDLEBURGH HTS 44130
(ADDRESS)

(AUTHORIZED AGENT)

842-4000

To the Commissioner:

I hereby certify that I have examined the data furnished by the applicant and same is approved.

- Examiner of Plans.....
- Examiner of Construction.....
- Bureau of Plumbing.....
- Bureau of Heat. & Vent.....
- Bureau of Wiring.....
- Bureau of Air Conditioning.....
- Division of Housing.....
- Dept. of Community Development.....
- Division of Fire *William C. Barry Chief*
- Bureau of Smoke.....
- Division of Health.....
- Division of Traffic.....
- City Plan.....
- Dept. of Law.....
- Dept. of Parks.....
- Division of Streets (Room 25).....
- Other *6-17-22*.....

TO REMOVE (A) TANKS AS PER DRAWING

S. W. W. R.

Work to be completed by.....

Cleveland, Ohio, 19.....

I hereby approve the above application for a Permit

COMMISSIONER

Per

CITY OF CLEVELAND
Department Public Safety
Division of Fire

Permit #

Date of Application MARCH 1977

DATE OF APPROVAL - July 26, 1977

Total fee \$ 40.00

APPLICATION to INSTALL Two TANKS for ALL SUBSTANCES, other than water, above ground X underground X inside X outside X other _____

501 CARNEGIE ST. SHELL OIL COMPANY Tank spec's ASME _____ API _____ ICC _____ UL X Other _____

(LOCATION) _____ (OCCUPANT) _____

Pipe type: submerged inline _____ remote _____ Valves req'd: _____ relief _____ excess flow _____ impact _____ internal check _____
other LEAK DETECTORS & PUMP swing line _____

UNDERGROUND: Depth of fill cover (circle) 1 1/2; 2; 2 1/2; 3; 4. Type of fill cover: 6" R.F. CONC. Sand bed & fill, 6"; 12"
ABOVE GROUND: Dikes (state dimensions, capacity & material) _____

Grounding arrangement: _____ support protection: _____

Two Tank(s) cap. 10,000 GAL size 8 DIA X 31' gauge _____ Vent size 2", arrester req. _____ fill size 4" Fee \$ 10.00
47' TO ONTARIO normal emrg. type FIBERGLAS.

Distances to, lot line _____ street line 8' between tanks 4' building 26'. Contents GASOLINE ident. _____

Tank(s) cap. _____ size _____ gauge _____ Vent size _____, arrester req. _____ fill size _____ Fee \$ _____
normal emrg. type _____

Distances to, lot line _____ street line _____ between tanks _____ building _____ Contents _____ ident. _____

Tank(s) cap. _____ size _____ gauge _____ Vent size _____, arrester req. _____ fill size _____ Fee \$ _____
normal emrg. type _____

Distances to, lot line _____ street line _____ between tanks _____ building _____ Contents _____ ident. _____

The acceptance of the permit herein applied for shall constitute an agreement on (my) part to abide by all the conditions herein contained and to comply with all the ordinances of the City of Cleveland, the laws of the State of Ohio and all the rules and regulations of the State Fire Marshal, the Chief of the Division of Fire and the Board of Building Standards and Building Appeals, relating to the Storage of Hazardous Substances.

Applicant [Signature] Chief _____ Zoning: Map _____ Sh _____
SIGNATURE

Installed by _____ per _____ Use _____
SHELL OIL COMPANY 842-4000 FIRE PREVENTION BUREAU

Approved by _____ DIVISION OF BUILDING

Tel: _____

NOTE: If disapproved, draw line through signature space.

Remarks: NO PROTECT OTHER THAN WATER SHALL BE INSTALLED IN THIS DIALER INSPECTOR'S SIGNATURE SPACE.

TYPE OF PIPING MATERIAL USED:
TYPE OF PIPING MATERIAL USED:

2. Minimum thickness of building floor 4. Floor must be concrete or masonry floor.

COF 73-228 F.P.B. 8/1/68 PROVIDE SEPARATE GROUND.

ATTACHED

SITE plan on reverse side.

8/26/68

Entered on card 7-21-77 (m)

Total Fee \$40.00

CITY OF EVELAND
Department of Public Safety
Division of Fire

Permit # 4762
Date of Application MARCH 7 1977
Date of approval July 20, 1977

APPLICATION to INSTALL TWO TANKS for ALL SUBSTANCES, other than water, above ground underground inside outside other

501 CARNEGIE ST. SHELL OIL COMPANY (OCCUPANT)
Tank spec's ASME API ICC UL Other

PS type submerged inline remote Valves req'd relief excess flow impact interfil check
other LEAK DETECTORS PUMP swing line

UNDERGROUND: Depth of fill cover (circle) 1/2; 2; 2 1/2; 3; 4. Type of fill cover, R.F. CONC. Sand bed & fill, 6"; 12"

ABOVE GROUND: Dikes (state dimensions, capacity & material)

Grounding arrangement: support protection:

Two Tank(s) cap. 10,000 GAL size 8' DIA x 31' gauge . Vent size 2", arrester req. YES fill size 4" Fee \$ 40.00
47' TO ONTARIO normal emrg. type FREEGLASS

Distances to, lot line street line 8' 2' between tanks 4' building 25' Contents GASOLINE ident.

Tank(s) cap. size gauge Vent size normal emrg. arrester req. fill size Fee \$

Distances to, lot line street line between tanks building Contents normal emrg. type ident.

Tank(s) cap. size gauge Vent size normal emrg. arrester req. fill size Fee \$

Distances to, lot line street line between tanks building Contents normal emrg. type ident.

The acceptance of the permit herein applied for shall constitute, an agreement on (my) (our) part to abide by all the conditions herein contained and to comply with all the ordinances of the City of Cleveland, the laws of the State of Ohio and all the rules and regulations of the State Fire Marshall, the Chief of the Division of Fire and the Board of Building Standards and Building Appeals, relating to the Storage of Hazardous Substances.

Applicant L. P. Egan SIGNATURE

Chief William F. Barry Zoning: Map B. 4 Sh. 5 -

SHELL OIL COMPANY 842-9000

per John Del Monte, Capt. Use General Industry
FIRE PREVENTION BUREAU

Installed by _____ Approved by B. F. Building
DIVISION OF BUILDING

NOTE: If disapproved, draw line through signature space.

1. PORTLAND PIPE (STEEL ON VENT LINES)
2. HAVITT - ROANS FLEX. CONNECTORS ON SUB-PUMP & DISPENSER CONNECTIONS.
3. REMOVE (ONE) 1000 (TWO) 4000 ALSO (ONE) 6000 GAL. STEEL TANKS.

SITE plan on reverse side.

Entered on card 7-27-77 (M)

Total Fee 40.00

CITY OF CLEVELAND
Department Public Safety
Division of Fire

Permit # 4762
Date of Application MAR 7 1977
Date of approval July 29, 1977

APPLICATION to INSTALL Two TANKS for ALL SUBSTANCES, other than water, above ground _____ underground X inside _____ outside X other _____

501 CARNEGIE ST. SHELL OIL COMPANY (OCCUPANT)
Tank spec's ASME _____ API _____ ICC _____ UL _____ Other _____

P.S. type submerged inline _____ remote _____ Valves req'd; _____ relief _____ excess flow _____ impact _____ internal check _____
other LEAK DETECTORS & PUMP _____ swing line _____

UNDERGROUND: Depth of fill cover (circle) 1 1/2; 2; 2 1/2; 3; 4; Type of fill cover; 6" R.F. CONC. Sand bed & fill, 6"; 12"
ABOVE GROUND: Dikes (state dimensions, capacity & material) _____

Grounding arrangement: _____ support protection _____

Two Tank(s) cap. 10,000 GAL size 8' DIA x 31' gauge _____ Vent size 2" normal emrg. _____, arrestor req. YES fill size 4" Fee \$ 40.00
47' TO ONFARIE type FIBERGLAS

Distances to, lot line _____ street line 8' between tanks 4' building 26' Contents ASACINE ident. _____

_____ Tank(s) cap. _____ size _____ gauge _____ Vent size _____ normal emrg. _____, arrestor req. _____ fill size _____ Fee \$ _____

Distances to, lot line _____ street line _____ between tanks _____ building _____ Contents _____

_____ Tank(s) cap. _____ size _____ gauge _____ Vent size _____ normal emrg. _____, arrestor req. _____ fill size _____ Fee \$ _____

Distances to, lot line _____ street line _____ between tanks _____ building _____ Contents _____

The acceptance of the permit herein applied for shall constitute an agreement on my (our) part to abide by all the conditions herein contained and to comply with all the ordinances of the City of Cleveland, the laws of the State of Ohio and all the rules and regulations of the State Fire Marshall, the Chief of the Division of Fire and the Board of Building Standards and Building Appeals, relating to the storage of hazardous Substances.

Applicant L. C. [Signature] Chief William E. Barry Zoning: Map B. 4 Sh 5
SHELL OIL COMPANY 842-9000 per John Del Monte, Capt. Use General-Industry
FIRE PREVENTION BUREAU

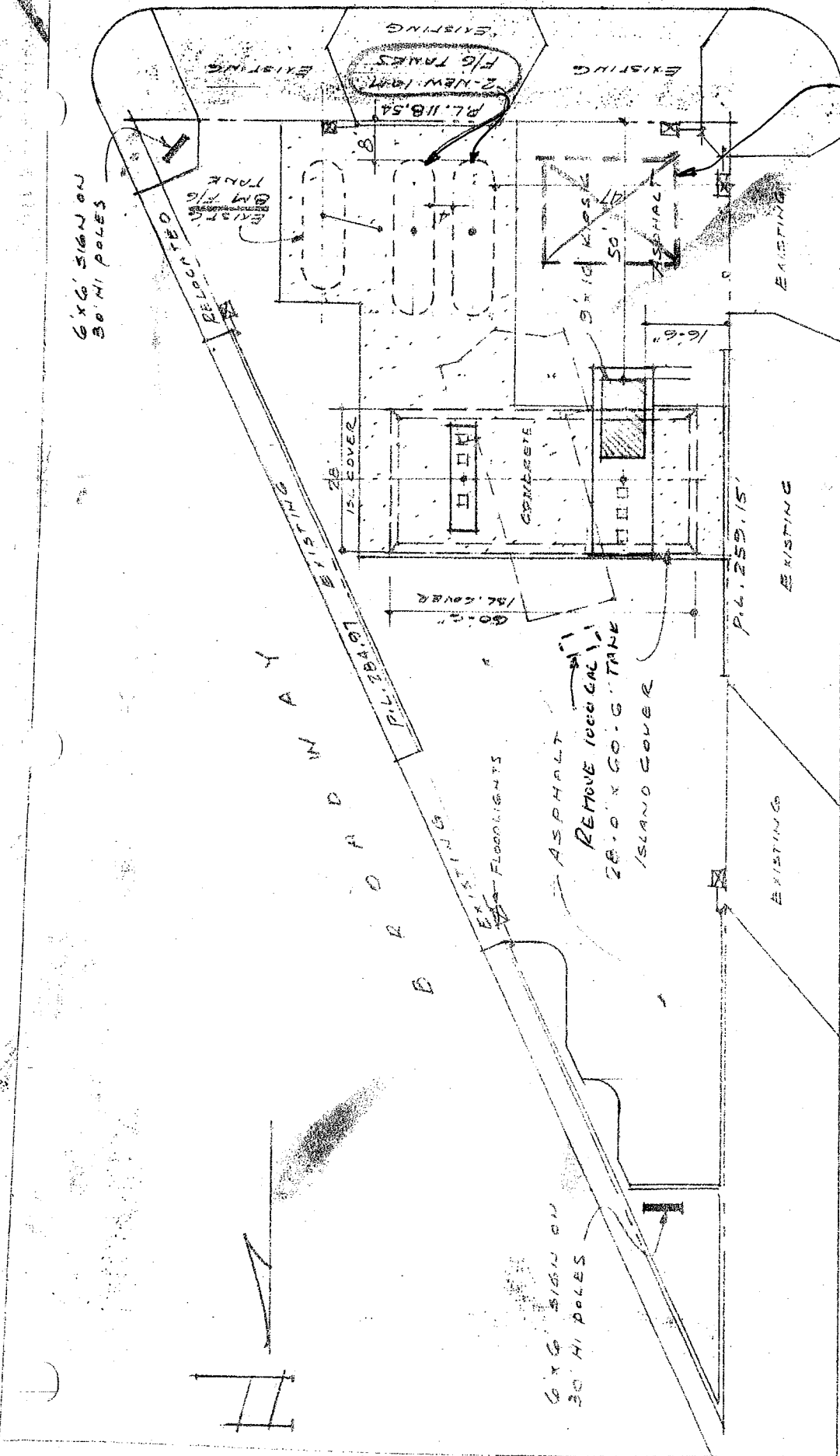
Installed by _____ Tel: _____
Approved by [Signature] DIVISION OF BUILDING

NOTE: If disapproved, draw lines through signature space.

Remarks
 1. RE-THREAD PIPING (STEEL ON VENT LINES)
 2. HERWIT - ROBINS FLEX. CONNECTORS ON SUB-PUMP & DISPENSEL CONNECTIONS.
 3. REMOVE (ONE) 1000 (TWO) 4000 AND (ONE) 6000 GAL STEEL TANKS.

COFC 73-226 F.P.B. 4/1/64 (APPLICATORS IN PROCESS FOR BUILDING PERMITS) 7/24/77

SITUATION PLAN



REMOVE TWO-4000 AND ONE 6000 GAL TANKS IN THIS AREA

C N T A E I O

SKETCH LAYOUT

SHELL OIL COMPANY
501 CARNEGIE ST.
CLEVELAND OHIO

1"=30'0" 3.8.77

CARNEGIE I.M.

501 Carnegie

DIST: 1

<u>DATE</u>	<u>PERMIT NO.</u>	<u>PLAN TYPE & REMARKS</u>
4/70	3665	U/G Tank (E)
4-22-71	21919	FLAMMABLE LIQUIDS
3-7-77	4762	STORAGE TANKS(GASOLINE)

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

JULY 20 19 27

501 CORNELL SHELL OIL CO. (NEW SERVICE STATION)

RE: BLDG. PLANS TO APPLICATION FOR A PERMIT TO CONSTRUCT:

① GASOLINE SALES KIOSK 9'0" X 16'0" 1 ST.

BRICK WITH WOOD FRAME ROOF.

② ISLAND CANOPY 28'0" WIDE X 60'6" LONG.

STEEL FRAME W/ ALUMINUM SHEET METAL.

TWO PUMP ISLANDS (1) 10' X 38' + (1) 5' X 20' 8"

③ APPLICATION TO INSTALL (2) TWO U/G TANKS

@ 10,000 GALS. - GASOLINE.

REMOVE THE FOLLOWING U/G TANKS.

2 @ 4000 GALS.

1 @ 6000 GALS.

1 @ 1000 GALS.

OWNER - SHELL OIL CO.

~~CONTRACTOR~~ - LEN ERICSSON 842-4000 AGENT.

BIDS TO BE LET & MR ERICSSON TO INSTRUCT CONTRACTOR TO NOTIFY F.P.B TO WITNESS ABANDONMENT OF ABOVE U/G TANKS.

④ PERMIT APPLICATION TO PROVE EXISTING.

24' X 56' X 15' H SERVICE STATION TO GRADE.

(REPORT CONTD)

1 of 2.

Inspector [Signature]

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

JULY 20 1977

501 CARNEGIE (COND.)

③ APPROVED APPLICATIONS FOR:

① GASOLINE SALES KIOSK

② TWO PUMP ISLANDS + ISLAND CANOPY.

③ RAZE EXISTING SERVICE STATION BUILDING

④ TWO (2) 10,000 GALS. U/G GASOLINE

STORAGE TANKS.

REFER TO ELECTRICAL BUREAU. (Sgt # 211-77 (inv))

LOCATION: 501 CARNEGIE (Shell Service Station)

SUBJECT: NOTICE OF NON-METALLIC PIPE INSTALLATION
TO UNDERGROUND GASOLINE STORAGE TANKS.

DT ABOVE LOCATION.

If there are any questions concerning the foregoing, please call
Capt. Eric ...

2062

Inspector: Joe ... Capt # 1

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

FILE

19-

501 Carnegie Ave Shell Gas Station
RE. Re Check Station Self serve.
Permit No 59089 & 59008

Created business sale kiosk & erect
2 pump islands.

Contacted Dorothy Ogletree Station Manager
696-4053
Inspected station & found construction
to be proper.

On completion of inspection Ms Ogletree
stated that on delivery of gas, you can
see fumes venting from 2 manhole
covers (Ohio Bell) 50' south of station
along tree lawn on Carnegie.

Contacted Tom Bartnikowski of Shell Oil &
we will try to find & correct condition in
near future.

Inspector

J. V. Peterson D-7

9:30

CALENDAR NO. 77-39: 501 Carnegie Avenue, S.E.

(Wd. 31) 5 notices

Freida H. Miller, owner, and Shell Oil Company, c/o Len Ericsson, lessee, to erect a 9' x 16' one-story masonry sales building (kiosk) on a 285' x 119' triangular shaped corner lot located in a General Industry District on the N.E. corner of Ontario Street and Carnegie Avenue at 501 Carnegie Avenue, said building not being 400 sq. ft. in area as required for a service station by Section 343.13 (b) of the Codified Ordinances of the City of Cleveland. (Original Zoning. Filed 3/8/77) (New service station building withdrawn in 75-73)

4-4-77
Capp. Eric Miller

Granted, subject to the C. O.

CITY OF CLEVELAND
DEPARTMENT OF PUBLIC SAFETY - DIVISION OF FIRE
FIRE PREVENTION BUREAU

July 28, 19 77

File No. 217-77

TO: Bldg. Elect.
Hsg. Air Pol.
Other

501 Carnegie - Shell Service Station

Notice of non-metallic pipe installation to underground
gasoline storage tanks at above location.

If there are any questions concerning the foregoing,
please call Captain Del Monte at 621-1230.

Capt. Del Monte

INSPECTOR

John R. Schlund, En. Chief

CHIEF, FIRE PREVENTION BUREAU

1/21/77-2M

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY
DIVISION OF FIRE
FIRE PREVENTION BUREAU

FILE

August 25th 1977

501 Carnegie Ave.
Mercantile

Shell Oil Station
Owner - Shell Oil Co.

The service station bldg on this lot has been razed as was previously reported.

On this date - 4 u/g storage tanks were removed and during the course of the day were transported from the location.

The tanks and their capacities are as follows:

1 - 6,000 gal. steel tank used for gasoline.

2 - 4,000 gal. " " " " " "

1 - 1,000 gal. " " " for waste oil.

One 8,000 gal. gasoline tank will remain.

Two, 19,000 gal. fibreglas tanks will be installed in the near future as well as 2 pump islands and a sales kiosk.

Voided Ticket # 2636

Inspector:

John E. Gannon, Lt.

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

FILE

1-18-78

19

501 OPRENEGIE - SHELL GAS STATION

RE: COMPLAINT FROM OHIO BELL CREWMAN

"ODOR OF GASOLINE IN UNDERGROUND VAULT."

CONTACT

TOM PARTNATOWSKI - SHELL STATION OWNER - 524-9787

LEN FRIESSON - ENGINEER - SHELL OIL 842-4000

Bill Pompili - " " " 696-5870.

MR KRALL - GEN CONTRACTOR -

MIKE SMITH - HERB KAY

DENNIS RABITTS - " "

R. E. CRAWFORD - OHIO BELL - SUPT - 271-9500.

BERNARD ROBERTS OHIO BELL CREWMAN.

AN ODOR OF GASOLINE WAS NOTICED BY WORKMEN IN AN UNDERGROUND VAULT LOCATED ON THE NORTH SIDE OF OPRENEGIE, BETWEEN BROADWAY & ONTARIO. EXPHUSIMETER TESTINGS IN THE VAULT REVEALED A 10% CONCENTRATION & THEN THE READINGS WERE ZERO, AFTER THE MANHOLE COVER WAS REMOVED FOR A SHORT PERIOD OF TIME, THE ODOR DIMINISHED. A SHELL SELF-SERVE GASOLINE STATION IS LOCATED NORTH OF THIS VAULT, WITH 3 O/G GASOLINE TANKS IN CLOSE PROXIMITY TO THE VAULT. ON INSPECTION OF THE PIPING & APPLIANCES TO THE GASOLINE TANKS (ATTN)

1 of 3

Inspector *[Signature]*

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

1-18-78

19

WAS CONDUCTED & REVEALED THE FOLLOWING

A STRIPPED THREADED UNION WAS FOUND AT THE SUBMERGED PUMP AT THE WESTERLY 10,000 GAL 1/6 TANK. A STICK READING & WATER LEVEL INDICATING PASTE REVEALED THE FOLLOWING:

- ① 8000 GAL TANK - 64" + 1/4" WATER
- ② 10,000 " " 54 1/2" + 1/4" "
- ③ 10,000 " " 35 1/2" + 1/4" " (UNLEADED).

AN INVENTORY CHECKED SHOWED 2336 GALLONS OF UNLEADED GASOLINE UNACCOUNTED. INVENTORY RECORDS SHOWED DELIVERY WAS MADE ON 1-4-78 & THE STATION OPENED FOR SERVICE ON 1-9-78.

THIS INSPECTION CAUSED THE FOLLOWING ACTIONS:

- ① A SAMPLE OF THE LIQUID IN THE FLOOR OF THE VAULT REVEALED NO VISIBLE EVIDENCE OF PRODUCT. OBT CREWMEN PUMPED OUT THE LIQUID.
- ② REPLACE STRIPPED UNION & 90° ELBOW THAT WAS LEAKING GASOLINE.
- ③ VISUAL INSPECTION FOR LEAKAGE AT TANK FILL & DISPENSING PUMP AREAS.
- ④ NEGATIVE EXPLOSIMETER READINGS WERE TAKEN AT SEWER DRAIN ON PROPERTY & AT CORNELL & ONTARIO.

2163

Inspector

John De... [Signature]

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

1-18-78

⑤ NOTIFIED O.B.T.'S R.E. WRAWFORD, THRU.

MR. HANK KALEMBA, OF THE POSSIBLE HAZARDOUS SITUATION + TO TAKE PRECAUTIONS TO VENTILATE + MONITOR GASOLINE CONCENTRATIONS IN VAULT.

⑥ REPORTED MY FINDINGS TO CHIEF SCHLUND + RETURNED TO THE GASOLINE STATION + WITNESSED THE REPLENISH UNION + 90° FLL IN 200R + WITH THE DISPENSING PUMP DETACHED, NO GASOLINE LEAKS, VISIBLE

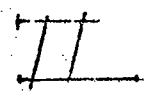
SEE ATTACHED PLAN.

3 of 3.

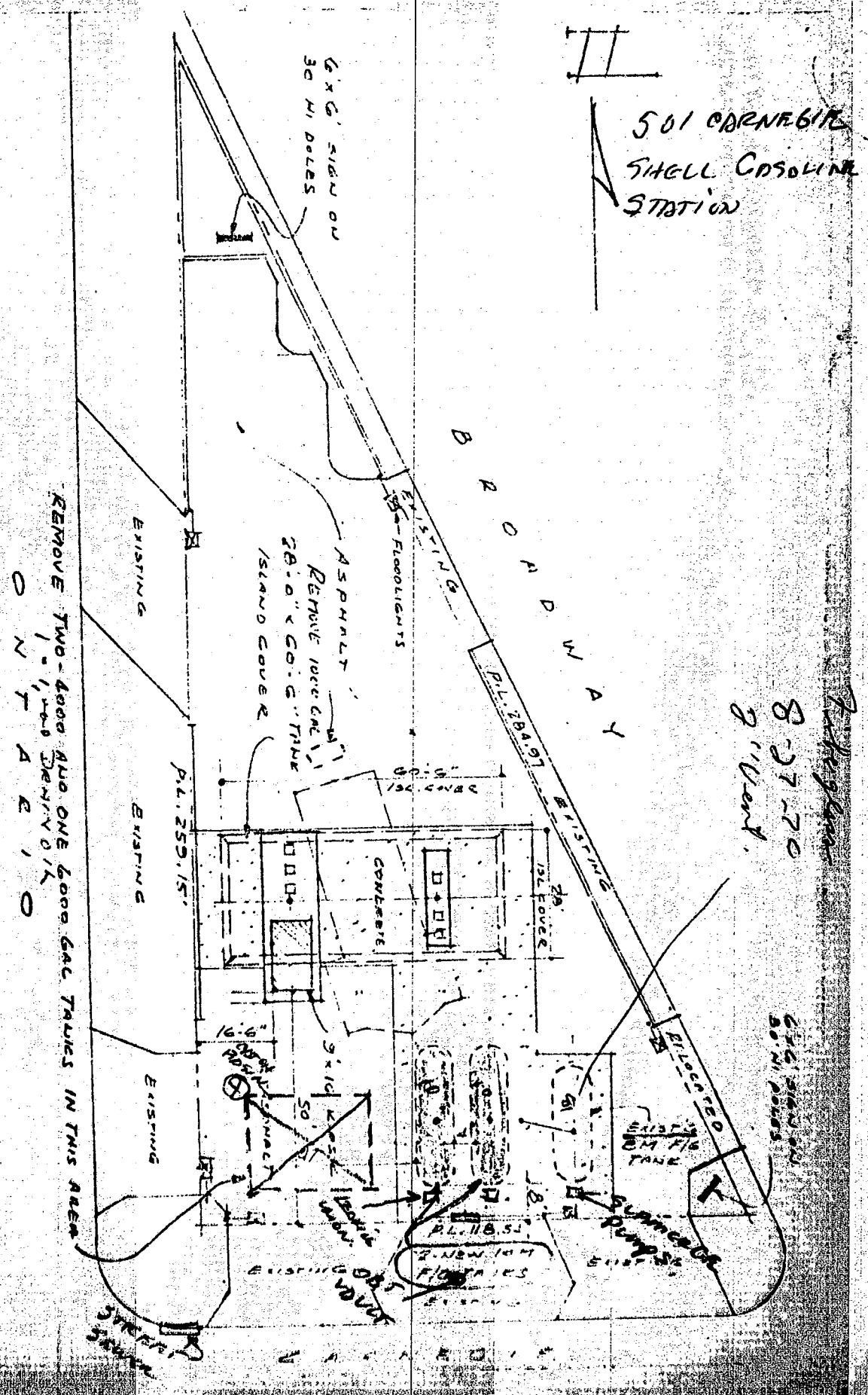
Inspector

John A. ...

SITUATION PLAN



501 CARNegie
SHELL GASOLINE
STATION



REMOVE TWO 4000 AND ONE 6000 GAL TANKS IN THIS AREA
O N T A R I O

SKETCH LAYOUT
SHELL OIL COMPANY
501 CARNegie ST
CLEVELAND OHIO
1"=30'-0" 8-5-77

8-27-70
J. Ward

6' x 6' SIGN ON
5' x 11' POSTS

PUMP
TANK

EXISTING
P.L. 118.51
2 NEW 1000
GAL TANKS

STREET
SYSTEM

Registration Permit Application for Underground Storage Tanks

Ohio Department of Commerce
Division of State Fire Marshal



THIS IS A TWO PAGE APPLICATION. PLEASE READ THE GENERAL INFORMATION PRINTED ON THE REVERSE SIDE.

STATE USE ONLY

I.D. Number

Date Received

OH

INSTRUCTIONS

Please type or print in ink all items except "signature" on page one and if it is a NEW INSTALLATION also page two. An application must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy page two or you may obtain additional copies by calling (614) 752-8200.

Indicate number of page two sheets attached.

1

I. OWNERSHIP OF TANK(S)

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

Shell Oil Company
Street Address
1129 Miamisburg-Centerville Rd
County
Montgomery
City
Dayton, Ohio State
ZIP Code
45449
Area Code
(513) Phone Number
866-6201

Type of Owner (Mark all that apply)

Current State or Local Gov't Private or Corporate
 Former Federal Gov't (GSA facility I.D. no.) Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section I, mark box here)

Facility Name or Company Site Identifier, as applicable

Shell Service Station
Street Address or State Road, as applicable
501 Carnegie / Ontario
County
Cuyahoga
City (nearest)
Cleveland, Ohio State
ZIP Code
44115

Indicate number of tanks at this location

3

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

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here)

Richard Adams

Job Title

Dealer Operator

Area Code

(216)

Phone Number

696-9099

IV. TYPE OF APPLICATION

New Permit Application Renewal Permit Application Modified Permit Application

V. LOCAL FIRE DEPARTMENT

Fire Department Name

Station # 1

Street Address

1645 Superior Avenue

City

Cleveland, Ohio State

State

ZIP Code

44114

STATE USE ONLY

VI. PERMIT FEE CALCULATION - COMPLETE ONLY BLOCK A OR B

A. NEW/RENEWAL PERMIT APPLICATION

TOTAL TANKS AT THIS LOCATION
MULTIPLY BY REGISTRATION FEE X \$ 20.00
TOTAL FEE

B. MODIFIED PERMIT APPLICATION

TOTAL NEW TANKS INSTALLED
MULTIPLY BY REGISTRATION FEE X \$ 20.00
TOTAL FEE

MAKE CHECK OR MONEY ORDER PAYABLE TO: STATE FIRE MARSHAL FOR THE TOTAL FEE AMOUNT

RETURN WHITE COPY OF PAGE 1 AND 2 AND YOUR REGISTRATION FEE TO:

Bureau of Underground Storage Tank Regulations
P.O. Box 525
Reynoldsburg, OH 43068-3395

MAIL PINK COPY OF PAGE 1 AND 2 TO THE LOCAL FIRE DEPARTMENT

(SEE SECTION V. ABOVE)

VII. CERTIFICATION (Read and sign after completing page two)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative

R.F. Bookbinder, District Manager

Signature

[Signature]

Date Signed

1/27/89

CONTINUED ON PAGE TWO

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

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No. 5
A. Status of Tank (Mark all that apply <input checked="" type="checkbox"/>)					
1. Currently in Use	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Temporarily Out of Use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Permanently Out of Use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Installed (mo/yr.)	<u>12/76</u>	<u>10/77</u>	<u>10/77</u>	<u>1</u>	<u>1</u>
C. Listed Total Capacity (Gallons)	<u>8,000</u>	<u>10,000</u>	<u>11,000</u>		
D. Tank Material of Construction (Mark one <input checked="" type="checkbox"/>)					
1. Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Fiberglass Reinforced Plastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Other, Please Specify					
E. Tank Internal Protection (Mark all that apply <input checked="" type="checkbox"/>)					
3. Cathodic Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. Interior Lining (e.g., epoxy resins)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0. Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Other, Please Specify					
F. Tank External Protection					
Cathodic Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. Sacrificial Anodes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Impressed Current	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Steel-FRP-Composites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Painted (e.g., asphaltic)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Other, Please Specify					
0. None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. Piping (Mark all that apply <input checked="" type="checkbox"/>)					
1. Bare Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Galvanized Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Fiberglass Reinforced Plastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Cathodically Protected	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0. Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Other, Please Specify					
H. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply <input checked="" type="checkbox"/>)					
8 a. Empty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Petroleum					
2. Diesel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Kerosene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. Gasoline (including alcohol blends)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Used Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Other, Please Specify					
c. Hazardous Substance					
7. Please Indicate Chemical Abstract Service (CAS) No. of Principal CERCLA Substance					
Mark box <input checked="" type="checkbox"/> if tank stores a mixture of substances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0. Inert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Corrosion Protection (if tank or piping are steel)					
As specified for factory-installed cathodic protection for steel tanks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As specified for field-installed cathodic protection for steel tanks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As specified for steel piping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Another method approved by the State Fire Marshal. Specify:					
J. Installation (Mark all that apply <input checked="" type="checkbox"/>) New tank systems only					
1. The installation was inspected by state or local fire officials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Manufacture-supplied checklists of installation procedures were completed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The tank and piping were tested for leaks during and after installation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Other, Specify:					
K. Release Detection (Mark all that apply <input checked="" type="checkbox"/>)					
1. Vapor monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Groundwater monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Monitoring above an impermeable barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Automatic in-tank monitoring and inventory control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Secondary containment with interstitial monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Tank Testing: product inventory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Another method approved by the State Fire Marshal. Specify					
L. Release Detection Pressure Piping					
Rapid Detection					
1. Automatic flow restrictors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Automatic shutoff device	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Continuous monitoring system (alarm within 1 hour)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interstitial monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vapor monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Backup method					
1. Line tightness test (annual)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Monthly method					
Vapor monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interstitial monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other approved method					
M. Release Detection Suction Piping					
1. Monthly methods					
Vapor monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interstitial monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Line tightness test (every 3 years)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. None (if system meets design standards)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N. Additional information (for tanks permanently taken out of service)					
1. Estimated date last used (mo/yr)	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
2. Estimated quantity of substance remaining (gal.)					
3. <input checked="" type="checkbox"/> if tank was filled with inert material (e.g., sand, concrete)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
O. Financial responsibility in accordance with Subpart I:					
Method					
Insurer					
Policy #					

P. OATH. I certify that the information concerning installation provided in item 10 is true, to the best of my belief and knowledge.
 Installer: SIGNATURE [Signature]
 NAME R. E. J. [Signature]
 POSITION District Manager
 COMPANY Shell Oil Company

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

FILE

May 9

1957

501 Carnegie Ave

Shell Oil Service Station

Occupancy - Group M

Reviewed & approved plans for interior & exterior alterations to existing kiosk bldg.

No structural change.

Reviewed and approved plans to remove existing pump island & install (2) 5' x 8' and (1) 5' x 12' islands on floor.

Captain Tom, F.P.B.

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

FILE

MAY 24 1925

501 CARNEGIE "SHELL GAS STATION"

WITNESSED PIPE TEST ON PRODUCT LINES. THERE WAS
INSTALLATION OF TWO NEW DISPENSORS & RELOCATION OF
1 EXISTING DISPENSOR BEING SMITTED.

TEST WAS DONE BY O. STEACHARD PLUMBING - HEADING
3204 E. CLEVELAND ST. from E. CLEVELAND (See contract)

NO VIOLATIONS NOTED

MAIN CONTRACTOR — DON BEAL INC.

Inspector: *[Signature]*

Name of Business Walt Whit Date 2/10/86 Last Inspection Date 8/25/81

Address 501 Carnegie Ave. Occupancy Merch.

Name of Owner/Manager Robert Adams Emergency Phone No. 881-6644

Building Height 1 sty Dimensions 8' L 10' W 15' Construction Type III

GENERAL		Yes	No	VIOLATIONS/REMARKS
1. Roof Openings No.	Type <u>NONE</u>		X	
2. Elevators No.	Type <u>NONE</u>		X	
3. Exits Provided & Maintained No.	<u>250R/W/1</u>	X		
4. Stairways Provided & Maintained Enclosed	Open <u>NONE</u>		X	
5. Extinguishers Provided & Maintained Type	<u>ABC</u>	X		
6. Sprinkler System* O.S. & Y Location	Type		X	} N/A
7. Standpipe* Location of Outlet	Type		X	
8. Fire Department Connections* Location			X	
9. Fire Alarm Control Panel			X	
Other Fire Control Systems* Type			X	
ELECTRICAL & HEATING				
1. Proper Wiring/Fuses	<u>BREAKERS</u>	X		
2. Proper Clearance for Heating Type	<u>Electric Overhead</u>	X		
3. Proper Installation of Water Tank Type	<u>ELECTRIC</u>	X		
4. Gas Shutoff Accessible Location	<u>NONE</u>		X	
5. Electrical Shutoff Provided Location	<u>Outside Wall</u>	X		
HOUSEKEEPING				
1. Good Housekeeping		X		
2. Permits		X		
3. Proper Storage of Compressed Gases			NA	
4. Proper Storage of Flammable Liquids		X		<u>Underground Tanks</u> <u>1,000</u> <u>8,000</u>
5. Proper Storage of Oily Rags			NA	
6. Proper Storage of Corrosives			NA	
7. Proper Storage of Oxidizers			NA	
8. Proper Storage of Other Combustibles		X		

*Requires Building Diagram Violation Notice Issued N/A Reinspection Date N/A
Referred to F.P.B. Target Sheet Inspected By Shawn J. [Signature]
Special Hazard Major Assist Ordinary Standard

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

FILE

April 20, 1957

561 Carnegie Shell Gas Station U/G Piping Test

Witnessed the pressure test of U/G Piping at the subject location. Piping (fibre-glass) was tested at a pressure of 50 lbs p.s.i. for a period of time in excess of 2 hours and showed no signs of leakage.

Approved:

File

Inspector: J. W. S. ...

CITY OF CLEVELAND
 Department of Public Safety
 Division of Fire

Total Fee 50.00 Permit # 6541
 Date of Application 11/2

APPLICATION to INSTALL N/A TANKS for ALL SUBSTANCES, other than water, above ground inside underground outside other other

501 CARMELITE SHELL OIL CO Tank spec's ASME API ICC UL Other Other

(LOCATION) (OCCUPANT)

PUMPS: type submerged inline remote Valves req'd; relief excess flow impact internal check
 other swing line

UNDERGROUND: Depth of fill cover (circle) 1 1/2; 2; 2 1/2; 3; 4. Type of fill cover; Sand bed & fill, 6"; 12"
 ABOVE GROUND: Dikes (state dimensions, capacity & material)

Grounding arrangement: support protection:

Tank(s) cap. size gauge normal emrg. Vent size normal emrg. arrester req. fill size type ident. Fee \$
 Distances to, lot line street line between tanks building Contents

Tank(s) cap. size gauge normal emrg. Vent size normal emrg. arrester req. fill size type ident. Fee \$
 Distances to, lot line street line between tanks building Contents

Tank(s) cap. size gauge normal emrg. Vent size normal emrg. arrester req. fill size type ident. Fee \$
 Distances to, lot line street line between tanks building Contents

The acceptance of the permit herein applied for shall constitute an agreement on (my) (our) part to abide by all the conditions herein contained and to comply with all the ordinances of the City of Cleveland, the laws of the State of Ohio and all the rules and regulations of the State Fire Marshall, the Chief of the Division of Fire and the Board of Building Standards and Building Appeals, relating to the Storage of Hazardous Substances.

Applicant Worth Mfg Co. Inc. Chief Robert V. Zimmerman Zoning: Map Sh
Albert J. Seroborvich SIGNATURE
 per St. Paul FIRE PREVENTION BUREAU Use

Installed by HERB TAYLOR CO INC Tel: 216 861 9200
7300 CARRIAGE AVE 44102

Remarks REPLACE 3 UNDERGROUND FLEX COMPRESSORS
AT SUB PUMP. I.D. 10-90. 1253 EXP. 8/4/93

Approved by DIVISION OF BUILDING
 NOTE: If disapproved, draw line through signature space.

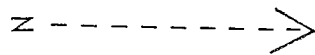
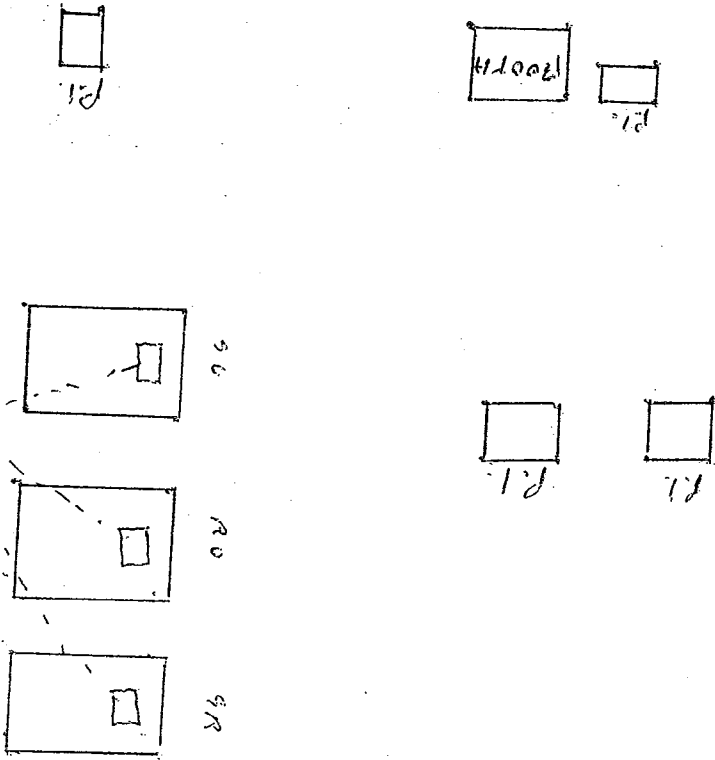
C.O.F.C. 73-226 F.P.B. 4/1/64
 SITE plan on reverse side. 8/26/68 - 3M

SITUATION PLAN

Show all lot, building, other storage above or below grade, street lines and distances.

501 CARRN GIE
CLEVELAND, OHIO

EXCAVATIONS



Total Fee \$ 150.00

CITY OF CLEVELAND
Department of Public Safety
Division of Fire

Permit #

6767

Date of Application

4-1-94

APPLICATION to INSTALL ADDITIVE TANKS for ALL SUBSTANCES, other than water, above ground underground inside outside other

(LOCATION) 307 Cameron SHELL OIL CO
(OCCUPANT)

Tank spec's ASME API ICC UL Other

PUMPS: type submerged inline remote relief excess-flow impact internal check
 other swing line

UNDERGROUND: Depth of fill cover (circle) 1 1/2; 2; 2 1/2; 3; 4; Type of fill cover: Sand bed & fill, 6" 12"
ABOVE GROUND: Dikes (state dimensions, capacity & material)

Grounding arrangement: 2 Tank(s) cap. 10000 (E-15116) size 90' by 30' by 4 gauge F-6. Vent size 2 normal emrg. arrestor req. fill size 4 Fee \$
Distances to, lot line between tanks building contents arrestor req. type ident.

1 Tank(s) cap. 9000 (E-15116) size 92' by 26' gauge F-6. Vent size 2 normal emrg. arrestor req. fill size 4 Fee \$
Distances to, lot line between tanks building contents arrestor req. type ident.

1 Tank(s) cap. 9000 (E-15116) size 92' by 26' gauge F-6. Vent size 2 normal emrg. arrestor req. fill size 4 Fee \$
Distances to, lot line between tanks building contents arrestor req. type ident.

1 Tank(s) cap. 9000 (E-15116) size 92' by 26' gauge F-6. Vent size 2 normal emrg. arrestor req. fill size 4 Fee \$
Distances to, lot line between tanks building contents arrestor req. type ident.

The acceptance of the permit herein applied for shall constitute an agreement on (my) (our) part to abide by all the conditions herein contained and to comply with all the ordinances of the City of Cleveland, the laws of the State of Ohio and all the rules and regulations of the State Fire Marshall, the Chief of the Division of Fire and the Board of Building Standards and Building Appeals, relating to the Storage of Hazardous Substances.

Applicant Richard Loosli Chief William Lee (FC) Zoning: Map Sh Sh

SIGNATURE per [Signature] Use
FIRE PREVENTION BUREAU

Installed by R. Loosli CONSTR. MAINT. INC. TEL. 711 BAGLEY RD. UNITS BEREA, OH 44017

Approved by DIVISION OF BUILDING

NOTE: If disapproved, draw line through signature space.

Remarks INSTALL STAGE II PIPING, SPILL & OVERFILL

FEE \$ 150.00

CITY OF CLEVELAND
DEPARTMENT OF PUBLIC SAFETY
DIVISION OF FIRE

No 6767

PERMIT for the installation of STORAGE TANKS
for HAZARDOUS SUBSTANCES

LOCATION 501 Carnegie, Shell Oil Company
Owner R. Locali Contr. Address 711 Bagley Rd. 4401
Installer (2) 10,000 Existing (1) 8000 Existing
Number and Capacity of tanks Gasoline
Contents Gasoline

The acceptance of this permit shall constitute an agreement on (my) (our) part to abide by all the conditions contained in the application and in the specifications.

Date issued 7/26/46 Expires 4/26 1948

Installation approved by _____
Approved by William B. ... Chief
Division of Fire

SEE REVERSE SIDE

To be POSTED in a CONSPICUOUS place

EMPACO EQUIPMENT CORPORATION

2958 BRECKSVILLE ROAD
POST OFFICE BOX 535 RICHFIELD, OHIO 44286-0535
PHONE: 216/659-9393
FAX NO. 216/659-4772

October 30, 1995

Release Prevention Supervisor
Division of State Fire Marshal - B.U.S.T.R.
8895 East Main Street
P.O. Box 687
Reynoldsburg, Ohio 43068-0687

RE: Shell Oil Company
501 Carnegie Avenue
Cleveland, Ohio 44122
Thirty (30) Day Notification Letter

Dear Sir:

This letter is to be considered the 30-day notification as required by regulations. A copy of this letter is also being sent to the local Fire Department.

Please be advised we have a contract to remove the following tanks at the above referenced location.

2 - 10,000 Gallon Gasoline
1 - 8,000 Gallon Gasoline

If you have any questions on this matter, please do not hesitate to call me at (216) 659-9393.

Sincerely,



Paul J. Backo
CONSTRUCTION SUPERVISOR

PJB/caw

cc: City of Cleveland Fire Department/Terry Chambers
Mark Garcia

CITY OF CLEVELAND
 Department Public Safety
 Division of Fire

Total F 150.00

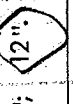
Permit # 0982
 Date of Application 11-95

APPLICATION TO REMOVE 3 TANKS for ALL SUBSTANCES, other than water, above ground underground inside outside other

501 CARNEGIE AVENUE, CLEVELAND, SHELL OIL COMPANY
 (OCCUPANT)

Tank spec's ASME API ICC UL Other

PUMPS: type submerged in line remote Valves req'd; relief excess flow impact internal check
 other swing line



UNDERGROUND: Depth of fill cover (circle) 1 1/2; 2; 2 1/2; 3; 4. Type of fill cover; PEA GRAVEL Sand bed & fill, 6"
 ABOVE GROUND: Dikes (state dimensions, capacity & material)

Grounding arrangement: support protection:

2 Tank(s) cap. 10,000 size gauge X Vent size X arrester req. fill size 4" Fee \$ 100.00
 normal emrg. type

Distances to, lot line 100 ft street line 28' between tanks 3 building 30' Contents GASOLINE ident.

1 Tank(s) cap. 8,000 size gauge X Vent size X arrester req. fill size 4" Fee \$ 50.00
 normal emrg. type

Distances to, lot line 100 ft street line 17' between tanks 3 building 30' Contents GASOLINE ident.

1 Tank(s) cap. size gauge between tanks building Contents fill size Fee \$
 normal emrg. type

Distances to, lot line street line between tanks building Contents

The acceptance of the permit herein applied for shall constitute an agreement on (my) (our) part to abide by all the conditions herein contained and to comply with all the ordinances of the City of Cleveland, laws of the State of Ohio and all the rules and regulations of the State Fire Marshal, the Chief of the Division of Fire and the Board of Building Standards and Building Appeals, relating to the Storage of hazardous Substances.

Robert A. Beach
 SIGNATURE

William (Leggs)
 Chief Zoning: Map Sh

Applicant EMPACO EQUIPMENT CORPORATION per *Ray* FIRE PREVENTION BUREAU Use

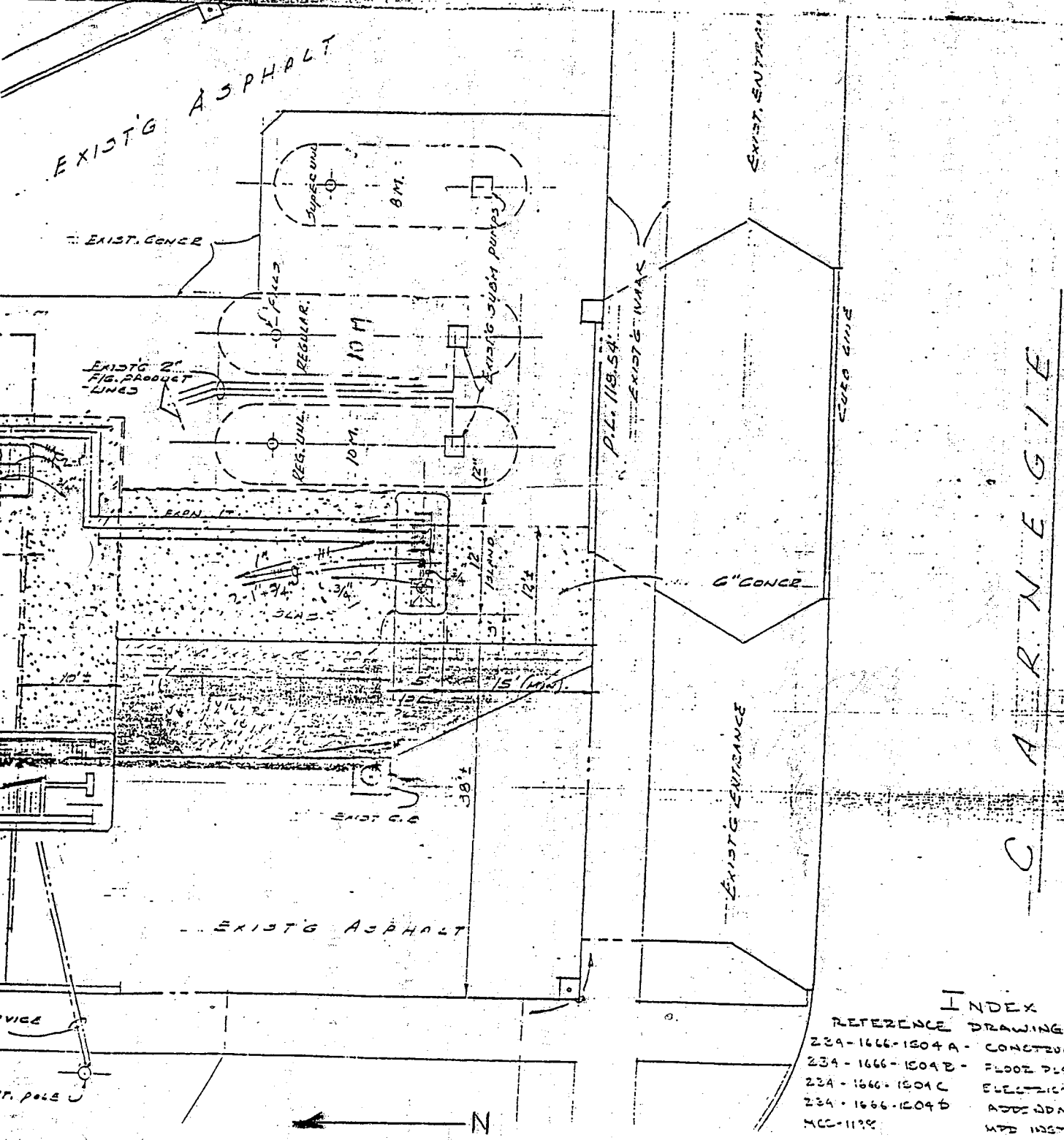
Removed by EMPACO EQUIPMENT CORPORATION Tel: (216) 659-9393

2958 BRECKSVILLE ROAD, RICHFIELD, OH 44286 Check 1982

Remarks

SITUATION PLAN

Show all lot, building, other storage above or below grade, street lines and distances.



C A R N E G I E

INDEX

REFERENCE DRAWINGS	DESCRIPTION
234-1666-1504A	CONSTRUCT.
234-1666-1504B	FLOOR PLAN
234-1666-1504C	ELECTRICAL
234-1666-1504D	ADD'DNA.
MC-1198	WTD INST.

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SAFETY

DIVISION OF FIRE

FIRE PREVENTION BUREAU

FILE

FEB. 6, 1966

19-

501 CARNELIA AVE

SHELL OIL

(GAL STATION)

AN INSPECTION WAS MADE ON ABOVE DATE AND FOUND THIS GAL STATION TO BE CLOSED. (BOARDED-UP)

I RESEARCHED THE FILE AND PROPERTY AND FOUND 3 UNDERGROUND TANKS REMAIN ON THE PROPERTY. I REFERRED THIS MATTER TO INSP. CHAMBERS

Inspector:

Pat Flanagan (18)

CLEVELAND FIRE DEPARTMENT

Date 3-22-96

Type of Inspection
 Special Hazard
 Major
 Target
 Ordinary
Violation notice issued _____
 1st Reinspection Date _____
 2nd Reinspection Date _____
 Referred to the FPB _____

Parcel # _____	Census Tr. <u>1091</u>
Building No. _____	Station No. _____
Address <u>501 CARNELINE</u>	
Owner's Name <u>SHELL OIL</u>	
Owner's Phone <u>861-3664</u>	
Last Inspection Date _____	

Battalion No. _____
 Company No. _____
 Companies Assisting _____

Business Name SHELL OIL COMPANY Occupancy Type B
 Managers Name MARK GARCIA Business Phone 861-3664 Emergency Phone _____
 Building Height 10 No. of Stories 1 Construction Type I II III IV Razed _____
 Sprinkler Last Tested _____ Standpipe Last Tested _____ Fire Pump Last Tested _____

General	Yes	No	Violations/Comments	Abated
Roof Openings Type + Number				
Elevators Type + Number				
Exits provided and maintained \ No.				
Stairways Closed \ Open				
Extinguishers Maintained & Type				
Sprinkler System Type + O.S.&Y Location			Wet - Dry - Combination - Partial	
Standpipe Type + Location of Outlet				
Fire Dept. Connections & Locations				
Fire Alarm Control Panel & Location				
Other Fire Control Systems & Type				
Proper Wiring/Fuses & Electrical Shutoff Loc.				
Gas Shutoff Accessible \ Location				
A.R.A. Facility				
H.S.				

Storage Tanks Above Grade No. Used _____ No. Unused _____ Products Stored _____
 Storage Tanks Below Grade No. Used _____ No. Unused _____ Products Stored _____

For each of the following an individual Hazardous Substance Permit is required. List the **Permit No.** and the **Expiration Date** for each that apply.

Permit No.	Exp. Date	Permit No.	Exp. Date
1. Corrosives _____		7. Liquefied Petroleum Gases _____	
2. Flammable Liquids _____		8. Oxidizers _____	
3. Combustible Liquids _____		9. Reactive Chemicals _____	
4. Flammable Solids _____		10. Nitrocellulose Film _____	
5. Compressed Gases _____		11. Pyrolytic Plastic _____	
6. Organic Peroxides _____		12. Radioactive _____	
3. Ref. with Highly Flammable Liquids i.e., bowling alleys, other assemblies _____			
4. Dip Tanks, Spray Booths or Spray Rooms _____			
5. Other Substances _____			

Best Means of Entry _____
 Special Hazards/Information REMOVED (2) 10000 lbs TANKS (1) 8000 lbs TANKS
CHAMBERLAIN

DELEGATED PERMIT FOR UNDERGROUND STORAGE TANKS

Permit No.:
 Issue Date:

I. Ownership of Tanks Owner No:			II. Location of Tanks Facility No:		
Owner/Operator Name SHELL OIL COMPANY			Facility Name SHELL OIL COMPANY		
Address 2201 WEST 3RD STREET			Address 501 CARNEGIE AVENUE		
City	State	Zip Code	City	State	Zip Code
CLEVELAND,	OH	44114	CLEVELAND,	OH	44122
Attn.: (Contact Person)		Area Code - Phone	Area Code - Phone		County
MARK GARCIA		(216) 861-3664	771-6931		CUYAHOGA
III. Contractor			IV. Local Fire Department		
Contractor's Name EMPACO EQUIPMENT CORPORATION			Fire Department Name CLEVELAND FIRE DEPARTMENT		
Contact Person		Area Code - Phone	Address		
PAUL BACKO		(216) 659-9393	1645 SUPERIOR AVENUE		
Address 2958 BRECKSVILLE ROAD			City	State	Zip Code
RICHFIELD, OH 44286			CLEVELAND,	OH	44114

V. Permit Issued For: See Below (Note: Owner's Copy of Permit must be available on job site.)

Removals/Abandons:

[101] Tank(s): (2) / 10000 G) 8000 [102] Piping: *1000* [103] Total Systems: (3)

Installations:

[201] Tank(s): [202] Piping: [203] Total Systems:

Replacement:

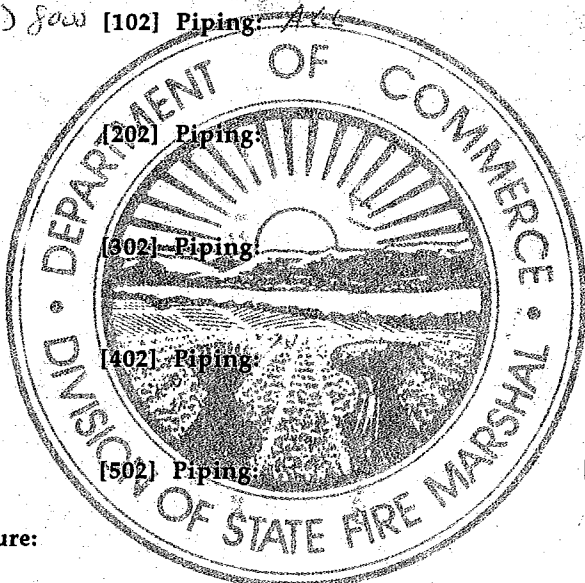
[301] Tank(s): [302] Piping: [303] Total Systems:

Repairs:

[401] Tank(s): [402] Piping: [503] Leak Detection:

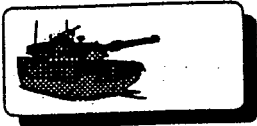
Upgrades:

[501] Tank(s): [502] Piping: [503] Leak Detection:



FIRE DEPARTMENT USE ONLY

Certified Installer: ROGER BURBY ID No: 10-93-2103
 Inspector's Signature: Tony [Signature] Date: 3-22-96



DATE: March 22, 1996

TIME: _____

TANK INSTALLATION & REMOVAL ROUTING FORM

LOCATION: 501 Carnegie

FACILITY: Shell Oil

 A/G TANKS SIZE & NUMBER: _____

XX U/G TANKS SIZE & NUMBER: (2) 10,000 (1) 8000 Gallon FRP Tank

CONTRACTOR: Empaco Equipment 659-9393 Roger Bibey in charge
10-93-2103

INSPECTOR (S): Terry Chambers

SITE CONDITIONS: _____

Yes A. GENERAL SAFETY (SOURCE OF IGNITION , ETC.) _____
Yes B. TANKS EMPTY OF PRODUCT [note type of product] Gasoline

Yes C. TANKS PURGED (HOW ?) Air

XX D. CONDITION OF TANK (S): Good

XX E. CONTAMINATION: Stockpile appears to be somewhat hot. The
cavity appears to be somewhat clean.

F. PERMITS (TANK INSTALLATION / HAZ. SUB.) _____
Removal #0982

VOIDED ? _____ PERMIT NO. (S). _____

REMARKS: I Inspector Chambers witnessed the removal of two 10,000 gallon
one 8000 gallon FRP tank. Charles Burkert from Engineering Science on hand to
take soil samples and due closure report.
FPB revised 3/5/93

X: Terry Chambers

APPENDIX O

CLEVELAND DEPARTMENT OF BUILDING AND HOUSING DOCUMENTS

501 Carnegie Ave

NO. 1	NO. 2	NO. 3	NO. 4	NO. 5
NO. 6	NO. 7	NO. 8	NO. 9	NO. 10

NO. CARDS 2

SHELL OIL CO-----2157 W. 3rd St.

63513

ALSO SEE FILE NO. 36492 re: 420-40 Broadway Ave. in the jacket of the FILE NO. 63513.

RECORD OF PERMITS ISSUED

BUILDING PERMITS

PERMIT NO	PURPOSE	DATE
E 21633	SERVICE STATION	10-12-37
D 21617	3 PUMP ISLANDS	1-23-37
E 21806	3-GAS STORAGE TANKS ^{2-1,000} 1-2,000	1-29-37
G 21841	One sign Pole	12/9/37
G 21842	One Sign Pole	12/9/37
G 21843	One Sign Pole	12/9/37
G 21940	4 STEEL FLOOD LIGHT POLES	1-27-38
D 27827	GROUND SIGN	1-31-41
50025	STEEL POLE SEWER PERMITS	5-17-51

PERMIT NO.	PURPOSE	DATE
P 1261	2 wc 2 Lav 1 Dsp	2-1/37

ELECTRICAL PERMITS

PERMIT NO.	PURPOSE	DATE
A 5209	15 outlets	11/12/37
A 5647	1 reflectory type sign	12/9/37
A 5648	1 Reflector Type Sign	12/9/37
A 5649	1 Reflector Type Sign	12/9/37
AA 4351	Additional	2/1/38
42199 B	4 meters	9-29-47
B 83657	5 fix	5-17-51

PERMIT NO.	PURPOSE	DATE
B 45860	2 out	2-24-48

ELEVATOR PERMITS

PERMIT NO.	PURPOSE	DATE
------------	---------	------

BUILDING PERMITS

PERMIT NO.	PURPOSE	DATE
K 62413	RAZE 1 STY. MSRY SERV. STATION	5-5-65
K 62414	1STY. BRK. GASOLINE SERV. STATION	5-5-65
K 62415	FOUR (4) FLOODLIGHT POLES	5-5-65
K 62416	ONE CONC. PUMP ISLAND	5-5-65
K 62417	HARDSURFACE PARKING LOT AREA	5-5-65
K 63202	SIGN ON POLE ON ROOF OF BLDG	5-24-65

K 64775	Single-faced sign	7-1-65
L 28914	Two temporary signs	4-3-70
M 4003	Erect illum. sign	9-23-70

PERMIT NO.	PLUMBING & SEWER PERMITS	DATE
4606 G	1 w.c. 1 lav. 1 f.d. 1 c.b.	6-4-65
4607 G	1 Gas Opening	6-4-65

PERMIT NO.	ELECTRICAL PERMITS	DATE
10097 EE	6 Outlets	5-24-65
12224 EE	50 Outlets	9-24-65
12559 EE	48 outlets, f 38 fixtr, 4 motors	9-30-65
19230 G	1 out 1 fix	9/23/77
3765 H	5 outlets, 5 fix.	7-26-71
3766 H	5 outlets, 5 fix.	7-26-71
3767 H	5 outlets, 5 fix.	7-26-71

PERMIT NO.	HEATING & VENTILATING PERMITS	DATE
D 1826	Install W.A. Htg., system	10-27-65

PERMIT NO.	ELEVATOR PERMITS	DATE
------------	------------------	------

SI
SI
NA
OW
AGE
THE CIT

RECORD OF PERMITS ISSUED

BUILDING PERMITS		
PERMIT NO.	PURPOSE	DATE
D 55507	PRV. ELECTRIC SIGN	2/10/53
G 58500	ELECTRIC SIGN ON POLE	5/28/53
J 7043	PROJECTING ELECTRIC SIGN	1/25/54
K 18439	Double Face Sign on Pole	4/21/61
K 19300	Concrete Pump Island	5/18/61
K 22151	3 Poles for Pump Islands	8-15-61
M 10390	Erect double faced sign	7-26-71
M 10391	Erect double faced sign	7-26-71
M 10392	Erect double faced sign	7-26-71
PERMIT NO.	PLUMBING & SEWER PERMITS	DATE
50326 D	1 gas open	11-17-58
ELECTRICAL PERMITS		
PERMIT NO.	PURPOSE	DATE
BB19734	1 out 1 fix	2-12-53
BB 22769	REPLACE SIGN	5/29/53
BB 32529	12 Outlets 12 Fix	1/26/54
BB35092	10 out 10 fix	5-11-54
38878 CC	3 out 1 mot	11-14-58
4949 DD	1 out, 5 fix	4-21-61
7601 DD	3 Outl; 3 Fix; 45 Mot; 30 Gen	8/15/61
PERMIT NO.	HEATING & VENTILATING PERMITS	DATE
F 1071	Inst ceiling furnace	11-18-58
ELEVATOR PERMITS		
PERMIT NO.	PURPOSE	DATE

BUILDING PERMITS

PERMIT NO.	PURPOSE	DATE
M 59088	Erect Gasoline Sales Kiosk	7-26-77
M 59087	Raze Service Station Bldg.	7-26-77
M 59089	Erect 2 Pump Islands	7-26-77
M 59090	Erect 6 Floodlight Poles	7-26-77
M 59091n	Erect 4 Single Faced Signs	7-26-77
M 59092	Erect 2 Double Faced Pole Signs	7-26-77
M 59093	Hardsurface Parking & Driveway Area	7-26-77
M 60477	Attach sign business identification	9-19-77

PERMIT NO.	PLUMBING & SEWER PERMITS	DATE
41138 J	1wc, 1Lav, 2cb, 1dsp, 1heater	8-22-77
AA 2520	1 W.C. 2 Lav. 3 F.D.	10-20-77
49456 J	1 w.c.	7-9-80

PERMIT NO.	ELECTRICAL PERMITS	DATE
16682 J	39 outlets, 16 fixtures, 4 motors	9-21-77
J 27249	6 motors, replace 6 gas pumps	4-8-81

PERMIT NO.	HEATING & VENTILATING PERMITS	DATE
------------	-------------------------------	------

PERMIT NO.	ELEVATOR PERMITS	DATE
------------	------------------	------

*Void
L.C. 9/13/77*

W/2 MPD units

BUILDING PERMITS

PERMIT NO.	PURPOSE	DATE
M 99383	Erect Flag Pole	5-16-83
M 99384	Erect Flag Pole	5-16-83
M 99941	Erect D.F. Illum. Pole Sign	6-9-83
M 99942	Erect D.F. Illum. Pole Sign	6-9-83

PERMIT NO.	PLUMBING & SEWER PERMITS	DATE

PERMIT NO.	ELECTRICAL PERMITS	DATE
J 34127	2 fixt./Lighting for flag pole	5-17-83
J-34353	2 Elect signs M-99941	6-8-83

PERMIT NO.	HEATING & VENTILATING PERMITS	DATE

PERMIT NO.	ELEVATOR PERMITS	DATE

Permit No. D 21817
 Plan No.
 Per Plan
 Bd. of App. Cal.
 File No.

CITY OF CLEVELAND
 DEPARTMENT OF PUBLIC SAFETY
 DIVISION OF BUILDING AND SMOKE
 ROOM 505, CITY HALL
APPLICATION FOR PERMIT
NEW STRUCTURE

Floor Area
 \$
 \$ 600
 \$
 \$ 600
 Total Fees \$

(Permit will include ONLY such work as detailed in this application)

Cleveland, Ohio, Nov. 18, 1937

To the Commissioner:

I, Shell Petroleum Corporation (Owner) hereby make application for a PERMIT to erect or build a structure as described in this application and the accompanying drawings, which are a part of this application.

LOCATION AND DESCRIPTION OF LOT

No. and Street 501 Carnegie Ave Sublot No. 81
 Allotment Side of Street North Ward
 Between Swadlow Street or Ave. and Ontario Street or Ave.
 Being 112+ feet front and 105 feet deep on the Ontario Side
 Being 70'+ feet rear and 115'+ feet deep on the Swadlow Side

DESCRIPTION OF BUILDING

RESIDENTIAL BUILDINGS

Purpose or Use Class Grade
 Length Width Stories Construction
 Suite Size—1R.....2R.....3R.....4R.....5R.....6R.....7R.....8R.....
 Dwellings Any Occupancy other than Residential
 Dwgs. & Store Number of Families Occupying Bldg..... Total No. of Rooms
 Tenements Roof Covering Heating System
 Ten. & Stores Number of Stairs Construction Enclosure
 Hotels Number of Elevators..... Type Enclosure
 Dormitories Character of Soil Footings Foundation
 Lodging Houses Shortest distance to any building on adjoining lots
 Shortest distance to any building on the same lot
 Is Sewer installed in street Estimated cost \$

Purpose 3-Concrete Pump Islands
 Length 10' 14" 0" Width 3' Height 6" Tanks Cap. 2
 No. of Pumps 2 ea
 Material Concrete
 Shortest distance to any building on the same lot 16' 0"
 Shortest distance to any building on adjacent lots 90' 4"
 Additional Description
 Estimated Cost \$ 6000

MISCELLANEOUS
 Sheds
 Pumps
 Fuel Tanks
 Fences
 Towers
 Crane Runway
 Retaining Walls

OFFICE REFERENCE—DO NOT FILL IN

Hopkins Atlas..... Vol..... Record Clerk.....
 Sanborn Map..... 2..... Vol. 13..... Zoning: Use *Retail* Area *F* Height: *5* Inspector.....
 Zoning Map..... Sh. *5* Fire Limits: Inner..... Outer..... Urban..... County Auditor.....

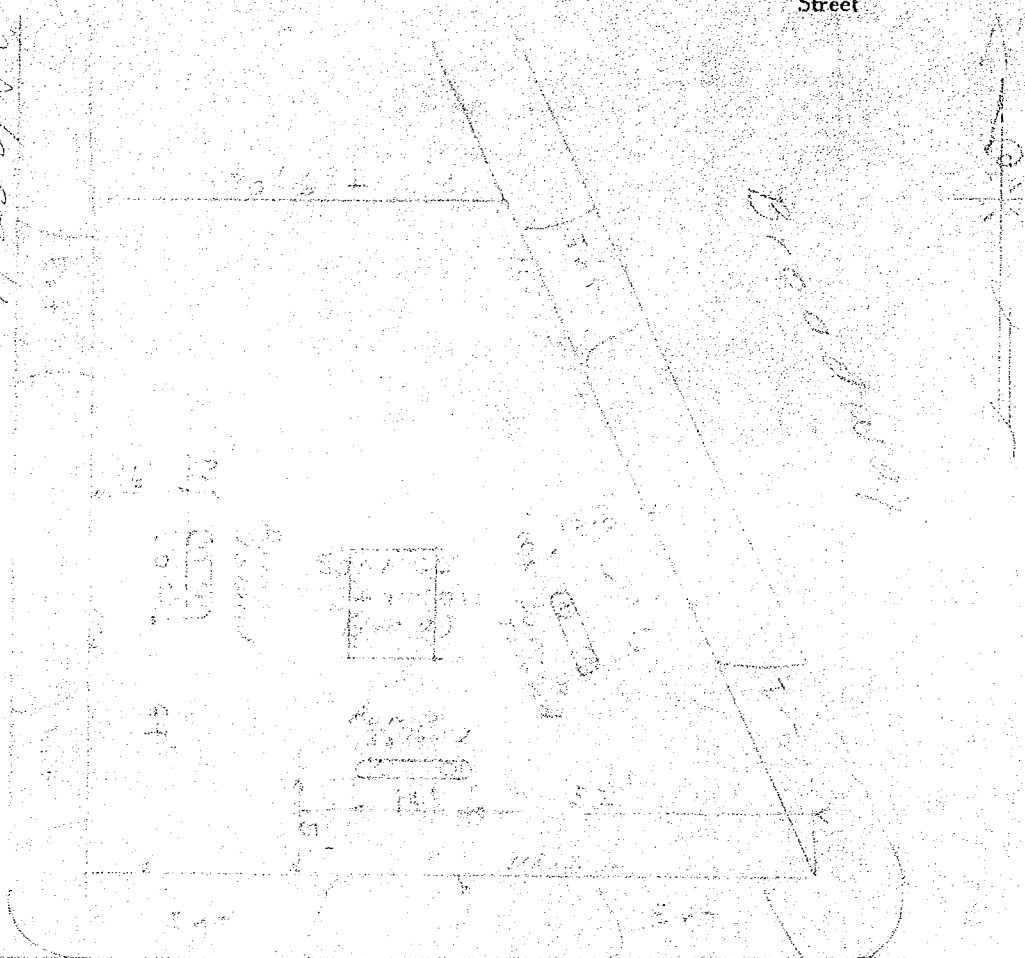
SITUATION PLAN

- Plan to be drawn to scale in ink.
- Show all lot lines and all lot dimensions
- Show all street and alleys bounding property
- Give distances from building to lot and street lines, and other buildings on same lot, also to buildings within 10 feet on adjacent lots.

Line Avenue
 Street

LOCATION OF PROPOSED BUILDING LINE APPROVED

*114 property of City of Chicago
 8 Broadway and 11-23-37
 Street Line of Lot 19-20
 11-23-37*



North St Line at Center of Lot

Copy

Permit No. E 21806
 Plan No.
 Per Plan
 Bd. of App. Cal.
 File No.

CITY OF CLEVELAND
 DEPARTMENT OF PUBLIC SAFETY
 DIVISION OF BUILDING AND SMOKE
 ROOM 505 CITY HALL
 APPLICATION FOR PERMIT
 NEW STRUCTURE

Floor Area.....
 \$.....
 \$305.15
 \$.....
 \$.....
 Total Fees \$15.00

(Permit will include ONLY such work as detailed in this application)

Cleveland, Ohio, Nov 26, 1937

To the Commissioner:

I, Shell Petroleum Corp. (Owner) hereby make application for a PERMIT to erect or build a structure as described in this application and the accompanying drawings, which are a part of this application.

LOCATION AND DESCRIPTION OF LOT

No. and Street 501 Carnegie Ave Sublot No.
 Allotment Side of Street Ward
 Between Broadway Street or Ave and Ontario Street or Ave
 Being 118+ feet front and 115+ feet deep on the Broadway Side
 Being 70+ feet rear and 105 feet deep on the Ontario Side

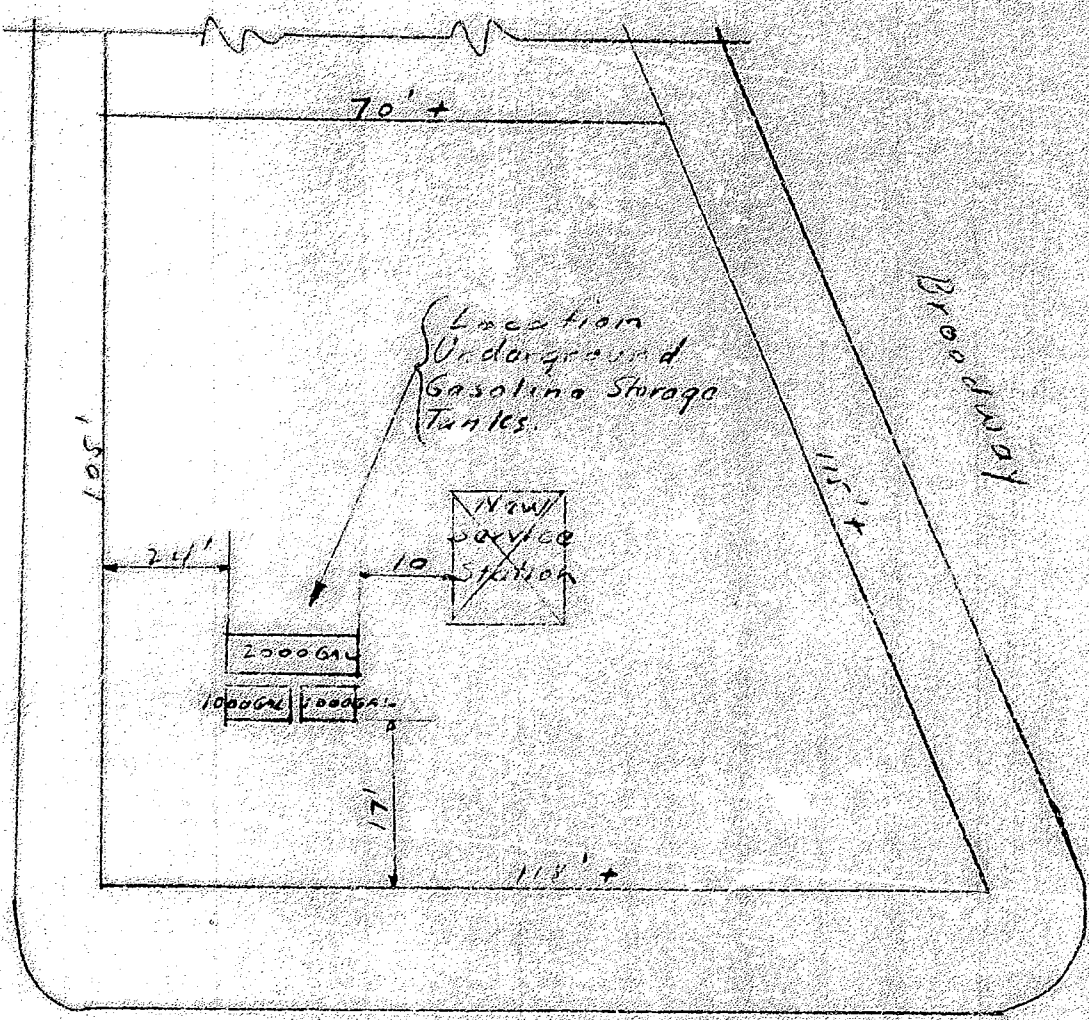
DESCRIPTION OF BUILDING

RESIDENTIAL BUILDINGS	Purpose or Use.....	Class.....	Grade.....					
	Length.....	Width.....	Stories.....					
	Suite Size—1R.....	2R.....	3R.....	4R.....	5R.....	6R.....	7R.....	8R.....
	Dwellings	Any Occupancy other than Residential.....						
	Dwgs. & Store	Number of Families Occupying Bldg.....			Total No. of Rooms.....			
	Tenements	Roof Covering.....			Heating System.....			
	Ten. & Stores	Number of Stairs.....			Construction.....		Enclosure.....	
	Hotels	Number of Elevators.....			Type.....		Enclosure.....	
	Dormitories	Character of Soil.....			Footings.....		Foundation.....	
	Lodging Houses	Shortest distance to any building on adjoining lots.....						
	Shortest distance to any building on the same lot.....							
	Is Sewer installed in street..... Estimated cost \$.....							

Purpose 3. Underground storage Tanks
 Length..... Width..... Height..... Tanks Cap. 4-1200 gal Sheds
 No. of Pumps 1-2000 Pumps
 Material..... Fuel Tanks
 Shortest distance to any building on the same lot 10' Fences
 Shortest distance to any building on adjacent lots 100'+ Towers
 Additional Description..... Crane Runway
 Estimated Cost \$ 125.00 Retaining Walls



ONTARIO



Carnegie Ave

Permit No. **K 12300**
 Plan No.
 Per Plan

CITY OF CLEVELAND
 DEPARTMENT OF URBAN RENEWAL & HOUSING
 DIVISION OF BUILDING
 ROOM 505, CITY HALL

DO NOT FILL IN

Floor Area
 ONE \$
 CONC \$
 PUMP \$
 IISD \$
 Total Fees \$ **2.00**

REGISTRATION
 APPROVED:

DATE: **5-18-61**

PER: *E. P. ...*

APPLICATION FOR PERMIT

(Permit will include ONLY such work
 as detailed in this application)

BUILDING

Cleveland, O., **MAY 15**, 19...

To the Commissioner of Building:--

Application is hereby made by

HERB KAY CO., INC.

(REGISTERED CONTRACTOR)

for a PERMIT as described in this application and the accompanying drawings which are a part of this application,

on behalf of **SHERRILL OIL CO**

LOCATION AND DESCRIPTION OF LOT

No. and Street **501 CARNEGIE** (NE COR. ONTARIO AVENUE)
 Allotment Side of Street **NORTH**
 Between **ONTARIO** Street or ~~RD~~ and **ROADWAY** SE Street or Ave.
 Being **147' - 9"** feet front and **120' ±** feet deep on the **W.** Side
 Being **93.64 ±** feet rear and **131.5' ±** feet deep on the **N.E.** Side

ONE OR TWO FAMILY DWELLINGS

Purpose or Use Width Length Stories
 Construction Type Number of Families to Occupy Bldg.
 Any Occupancy other than Residential Total No. of Rooms
 Suite Size — 1R 2R 3R 4R 5R 6R 7R 8R
 Roof Covering Heating System Fuel
 Shortest distance to any main building on adjacent lots
 Shortest distance to any main building on the same lot
 Is Sewer installed in street Estimated cost \$

MISCELLANEOUS—PRIVATE GARAGES, POLES, SIGNS, FENCES, BILLBOARDS, ETC.

Purpose or Use **PUMP ISLAND** No. of Cars
 Width **12 FT** Length **3 1/2 FT** Stories Height **APP 8"**
 Material **CONC.** Type
 Shortest distance to any main building on the same lot **30 FT**
 Shortest distance to any main building on adjacent lots
 Additional Description **CONC 12x3 1/2 FT APP 8" HIGH CURB SEE PLOT PLAN**
 Kind Floor **FOR LOCATION** Estimated Cost **\$ 2.00**

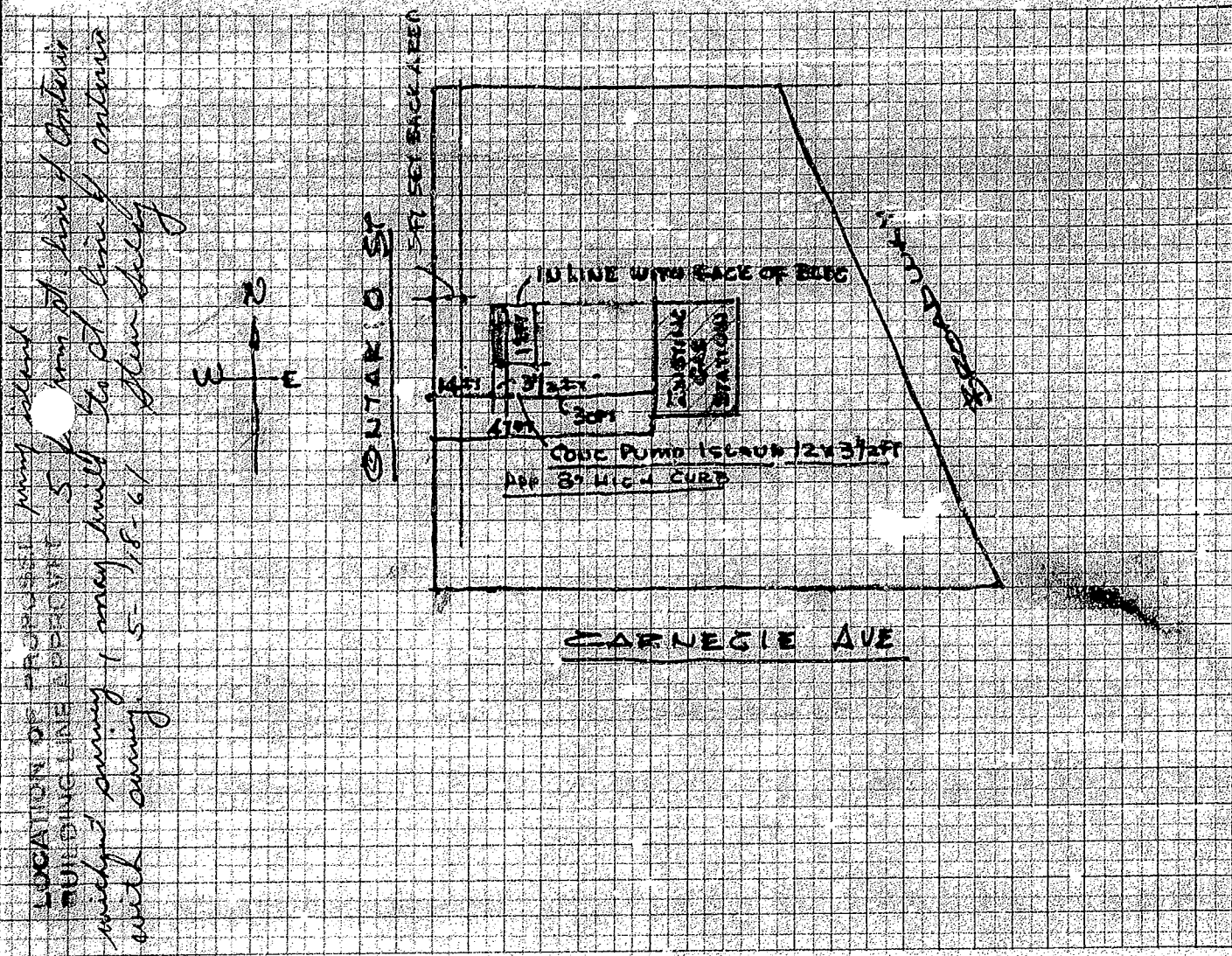
OFFICE REFERENCE—DO NOT FILL IN

Sanborn Map Vol. 3 Page 13 Zoning Map Sh. 5
 Zoning: Use GEN. INDUST. DIST. Area B Height 4
 Fire Limits: Inner.....Outer.....Urban.....
 Record Clerk.....

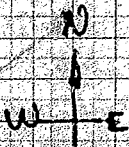
BBS-BZA REFERENCE:

SITUATION PLAN

Plan to be drawn to scale in ink.
 Show all lot lines and all lot dimensions.
 Show all streets and alleys bounding property.
 Give distances from building to lot and street lines, and other buildings
 on same lot, also to buildings within 10 feet on adjacent lots.



LOCATION OF PROPOSED pump island
 BUILDING LINE PRESENT 5 ft from pt. line of Ontario
 which survey 1 may build to pt. line of Ontario
 with survey 5-18-67 then survey



REMARKS: _____

Fe
 Pla
 Pe
 RE
 AP
 DA
 PE
 BU
 To
 for
 on l
 No
 All
 Be
 Be
 Pu
 Co
 An
 Sui
 Ro
 She
 She
 Is
 Pur
 Wid
 Mat
 Sho
 Sho
 Adc
 Kid
 Caf

Calendar No: 77-39

501 Carnegie Avenue

File No: 63513 & 36492 → RE: *420-46 Broadway Ave*

Permits

Date

Purpose

X K 62414 5-5-65 Erect brick service station, 1 story, 24'4" x 17'4" x 58'10"

4-4-77 Calendar No: 77-39 (See Over) . GRANTED.

FOR YOUR PROTECTION
USE
REGISTERED CONTRACTOR
ONLY

CITY OF CLEVELAND
DEPARTMENT OF COMMUNITY DEVELOPMENT
DIVISION OF BUILDING
ROOM 505 CITY HALL

63513
FILE NO 22519

NOTICE OF VIOLATION OF BUILDING ORDINANCES

LOCATION 501 Carnegie DATE 3-1-1973

Contractor _____ Address _____
 Owner Shell Oil Company, c/o Kent Rodgers Address 7025 West 130th Street
 Lessee Reg. Chevrolet Address 501 Carnegie Avenue
 Other John Kelly Address 7342 Canal Rd
 Kind of Structure Gasoline Station Zoning: B-4 General Inv. PERMIT NO. _____

NO.	SECTION VIOLATED	NATURE OF VIOLATION
		<u>DIS. MGR.</u> Non-conforming use
		An inspection of the above addressed premises on <u>2-23-73</u> disclosed violation of the listed sections of the Codified Ordinances of the City of Cleveland, and you are therefor directed to comply as specified below:-
		You are hereby directed and/or notified to remove, discontinue and/or correct and/or secure permits.
	<u>5.112301</u>	No commercial tractor, trailer, semi-trailer or pole trailer and/or two-by trucks, no commercial cars is allowed to stand upon the premises of a service station for more than four (4) hours within anyone twenty-four hour period, except in cases of emergency. Discontinue the parking and / or storage of Forest City Trucks.
	<u>5.110236</u>	You are notified that no junk cars, cars thereof or other junk shall be stored, parked, or allowed to stand upon the premises of a service station.
	<u>5.110286</u>	Remove all such vehicles and discontinue this practice.
	<u>5.5015</u>	Remove all automobile debris that is stored on these premises.
	<u>5.9902</u>	Failure to comply will result in penalties as prescribed by Law.
		<u>All violations satisfactorily corrected 4-11-73</u>

Above violations to be corrected by 4-1-1973 197 3
 For further information about this notice
 Phone 694-2610
 between 8A.M. - 9 A.M.
 Inspector D.L. Sanifer No. 201
 CARLTON RUSH, Commissioner

File No. 65513

900 200
3-4

CITY OF CLEVELAND
DEPARTMENT OF COMMUNITY DEVELOPMENT
DIVISION OF BUILDING
INVESTIGATION REPORT

Date 1-28 1975

Location 501 CARNEGIE

Owner or Agent SHELL OIL CO.

Address 7025 W. 130TH ST.

Reported by Field

Received by

Inspector D. C. SANDIFER No. 223 Permit No. Violation Filed 1-29-75

Note and Report on Following:

DESCRIPTION
ONE STORY Bldg III B masonry

OCCUPANCY
SHELL GASOLINE STATION

VIOLATION
DAMAGED NON-KIDDING AUTO'S
STORED OR PARKED ON PREMISES
AUTO MADE DEBRIS

COMMENTS
NONE

Investigated 1-28 1975 AM PM D. C. SANDIFER Inspector

(OVER)

Permit No. M. 59087

Plan No.
Per Plan

CITY OF CLEVELAND
DEPARTMENT OF COMMUNITY DEVELOPMENT
DIVISION OF BUILDING
ROOM 505, CITY HALL

DO NOT FILL IN

Floor Area 1440^{ft}
241-75 \$
@ \$250 \$
min \$ 10.00
max \$ 10.00
Total Fees \$ 20.00

REGISTRATION APPROVED 661 2 1 70
DATE: MAR 8 1977
PER: [Signature]

ECR
E.A.
7-20-77

APPLICATION FOR PERMIT
ADDITIONS - ALTERATION ONLY
(Permit will include ONLY such work as detailed in this application)
(FILL IN INK)

Count 002160
OFF BROADWAY

BUILDING
COMMUNITY DEVELOPMENT

Cleveland, O. MARCH 4 1977

To the Commissioner of Building:-

Application is hereby made by

LENNARD C. ERICSSON

(REGISTERED CONTRACTOR)

for a PERMIT as described in this application and the accompanying drawings which are a part of this application,

on behalf of SHELL OIL COMPANY owner.

LOCATION AND DESCRIPTION OF LOT

N.E. COR. OF ONTARIO ST.

No. and Street 501 CARNEGIE ST. Sublot No 80, 81, 82

Allotment Side of Street NORTH

Between ONTARIO Street or Ave. and BROADWAY S.E. Street or Ave.

Being 118.55 feet front and 284.97 feet deep on the EAST Side

Being TRIANGLE feet rear and 257.14' feet deep on the WEST Side

ONE OR TWO FAMILY DWELLING ALTERATION, ADDITION, OR USE

The present building is a Story structure, occupied as a
BRICK OR FRAME

By families, and is wide and long. The proposed Alteration or Addition or use consists of

Width of Addition Length Stories

Total Number of Families to Occupy Building

Est. Cost of Alteration \$ Est. Cost of Additions \$ Total Est. Cost \$

MISCELLANEOUS—PRIVATE GARAGES, POLES, SIGNS, FENCES, BILLBOARDS, ETC.

The present Structure is a

Width Length Height No. of Stories

Enclosing Walls Roof Construction Floor Construction

The proposed Alteration or Addition or use consists of

Width of Addition Length Height No. of Stories

Shortest distance to any main building on same lot

Shortest distance to any main building on adjoining lot

Est. Cost of Alterations \$ Est. Cost of Additions \$ Total Est. Cost \$

PE

ALTERATION AND ADDITIONS AND USE FOR MULTI-FAMILY, BUSINESS, INDUSTRIAL, COMMERCIAL AND PUBLIC BUILDINGS

Description of Present Building

Width 24' Length 50' Stories ONE
 Height of each story: Basement..... 1st 15' 2nd..... 3rd..... 4th..... 5th.....
 How occupied SERVICE STATION No. of families or persons occupying building 3+
 Number of Stairs NONE Construction — Enclosure —
 Number of Elevators NONE Type — Enclosure —
 Material of Outside Walls MASONRY Depth below grade — Sprinkler System —
 Floor Construction CONC. SLAB Roof Construction WOOD FRAME Heating System —

Description of Proposed Work

The proposed Alteration or Addition or use consists of TO DEMOLISH EXISTING SERVICE STATION BUILDING TO GRADE AND REMOVE ALL DEBRIS FROM THE PROPERTY - BUILDING BEING REMOVED TO MAKE WAY FOR NEW GASOLINE SALES FACILITY. (ALL APERTANCES ALSO TO BE REMOVED.)

Width of Addition..... Length..... Stories..... Are.....
 How occupied..... Total No. of families to occupy building.....
 Brick or Frame..... Floor Construction.....
 Roof Construction..... Roof Covering.....
 Heating System..... Ventilating System..... Stand. pipes.....
 Number of New Stairs..... Construction..... Sprinkler System.....
 Number of New Elevators..... Construction..... Enclosure.....
 Shortest distance to any building on same lot.....
 Shortest distance to any building on adjacent lots.....
 Type:..... Est. Cost of Alterations \$.....
 Est. Cost of Additions \$..... Total Est. Cost \$ 2,500.00

TABLE OF DATA REQUIRED (For All Buildings)

Stories	B	1	2	3	4	TYPICAL			R
Story Heights									
Thickness of Walls									
Desig'd Live Load									
Desig'd Dead Load									
Occupancy									
No. of Per. or Fam.									
Soil Pressure									

Architect's Name and Registered No.
 Engineer's Name and Registered No.
 General Cont'r LENNARD C. ERICSSON Address 7123 PENEL ROAD HIDDLEBURGH HTS
 Mason Cont'r..... Address.....
 Sub-Cont'r..... Address.....
 Carpenter Cont'r..... Address.....
 Steel Inspr..... Address.....
 Concrete Inspr..... Address.....
 Welding Inspr..... Address.....
 Wrecking Inspr..... Address.....
 Demolition Cont'r..... Address.....
 Special Inspr..... Address.....

The acceptance of the Permit herein applied for shall constitute an agreement ^{our} on my part to abide by all the conditions herein contained, and to comply with all ordinances of the City of Cleveland and the laws of the State of Ohio relating to the work to be done thereunder; and said agreement is a condition of said permit.

It is a further condition of this permit that only REGISTERED Sub-Contractors will be engaged or employed.

Owner's Name SHELL OIL CO

Owner's Address 7123 PEARL ROAD

L. J. ...
L. J. ...

SIGNED: (REGISTERED CONTRACTOR)

7123 PEARL ROAD MIDDLEBURG HTS 44130
 (ADDRESS)

(AUTHORIZED AGENT)

842-4000

To the Commissioner:

I hereby certify that I have examined the data furnished by the applicant and same is approved.

7123 PEARL
 LOCATION:

PERMISSION:

- Examiner of Plans
- Examiner of Construction
- Bureau of Plumbing
- Bureau of Heat. & Vent.
- Bureau of Wiring
- Bureau of Air Conditioning
- Division of Housing
- Dept. of Community Development
- Division of Fire *William E. Barry Chief*
- Bureau of Smoke
- Division of Health
- Division of Traffic
- City Plan
- Dept. of Law
- Dept. of Parks
- Division of Streets (Room 25)

TO REMOVE (4) TANKS AS PER DRAWING

SPWV, EXISTING SEWER MAIN SERVING EXISTING BUILDING TO BE REUSED FOR NEW STRUCTURE AND PAVED/ET DRAINAGE

PERSONAL Dept 7-20-77 [Signature]

Work to be completed by AUGUST 19TH 1977

Cleveland, Ohio, July 20TH 1977

I hereby approve the above application for a Permit

Call to Rush

COMMISSIONER

Per

B. B. ...

NO. 39

C.O.D. \$10.00

DO NOT FILL IN

Floor Area 144.99 FT.
 301.75 \$
 881.25 \$
 MIN \$ 20.00
 \$
 Total Fees \$ 20.00

Permit No. M. 59088
 Plan No.
 Per. Plan. M. 59088

CITY OF CLEVELAND

DEPARTMENT OF COMMUNITY DEVELOPMENT
 DIVISION OF BUILDING
 ROOM 505, CITY HALL

REGISTRATION APPROVED: JUL 12 1977
 DATE: MAR 8 1977
 PER: [Signature]

APPLICATION FOR PERMIT
 NEW STRUCTURES ONLY
 (Permit will include ONLY such work
 as detailed in this application)
 (FILL IN INK)

BUILDING HOUSING
 COMMUNITY DEVELOPMENT

Cleveland, O., MARCH 4 1977

To the Commissioner of Building:— Application is hereby made by
LENNARD C. ERICSSON (REGISTERED CONTRACTOR)
 for a PERMIT as described in this application and the accompanying drawings which are a part of this application,
 on behalf of SHELL OIL COMPANY owner.

LOCATION AND DESCRIPTION OF LOT

No. and Street 501 CARNEGIE ST. Sublot No. 80, 81, 292
 Allotment Side of Street NORTH
 Between ONTARIO Street ~~and~~ and BROADWAY S.E. Street ~~or~~ Ave.
 Being 118.55 feet front and 284.97 feet deep on the EAST Side
 Being TRIANGLE feet rear and 259.14 feet deep on the WEST Side

ONE OR TWO FAMILY DWELLINGS

Purpose or Use Width Length Stories
 Construction Type Number of Families to Occupy Bldg.
 Any Occupancy other than Residential Total No. of Rooms
 Suite Size— 1R 2R 3R 4R 5R 6R 7R 8R
 Roof Covering Heating System Fuel
 Shortest distance to any main building on adjacent lots
 Shortest distance to any main building on the same lot
 X Sewer installed in street NO 3 BR. CMB. Sew. In ONTARIO Estimated cost \$
J. J. [Signature] 3/8/77

MISCELLANEOUS—PRIVATE GARAGES, POLES, SIGNS, FENCES, BILLBOARDS, ETC.

Purpose or Use No. of Cars
 Width Length Stories Height
 Material Type
 Shortest distance to any main building on the same lot
 Shortest distance to any main building on adjacent lots
 Additional Description
 Kind Floor Estimated Cost \$
 C O F C 6 6 - B R E V pE

**BUSINESS—COMMERCIAL—INDUSTRIAL
AND PUBLIC BUILDINGS**

DESCRIPTION OF BUILDING

Purpose or Use GASOLINE SALES KIOSK Width 9'-0" Length 16'-0" Stories 1
 Occupancy on first floor SALES KIOSK Occupancy on floors above NONE
 Brick or Frame BRICK Roof Construction WOOD FRAME
 Total number of families or persons to occupy building ONE TO TWO PERSONS
 Suite Size—1R.....2R.....3R.....4R.....5R.....6R.....7R.....8R.....
 Character of Soil SANDY CLAY Footings CONCRETE Foundation CONC. BLK
 Heating System HOT AIR Will a Ventilating System be installed? NO Type.....
 Fuel ELECTRIC Area of Flue NONE Height above grade.....
 No. of Stairs NONE Construction..... Enclosure.....
 No. of Elevators NONE Type..... Enclosure.....
 Will Sprinkler System be installed? NO Kind.....
 No. of Stand Pipes to be installed NONE Where located?.....
 Will Fire Alarm System be installed? NO Kind.....
 Shortest distance to any building on the same lot NO OTHER BLDG. ON PROPERTY
 Shortest distance to any building on adjacent lots NONE
 Does any part of building encroach on public property? NO
 Type:..... Estimated Cost \$ 7500.⁰⁰

TABLE OF DATA REQUIRED (For All Buildings)

Stories	B	1	2	3	4	TYPICAL			R
Story Heights		7'-4"							
Thickness of Walls		8"							
Desig'd Live Load		30 [#]							
Desig'd Dead Load		20 [#]							
Occupancy									
No. of Persons		2							

Soil Pressure.....

Additional Information.....

Architect's Name and Registered No.

Engineer's Name and Registered No.

General Cont'r LENNARD C. ERICSSON

Address 7123 PEARL RD 44130

Mason Cont'r.....

Address.....

Sub-Cont'r.....

Address.....

Carpenter Cont'r.....

Address.....

Steel Insptr.....

Address.....

Concrete Insptr.....

Address.....

Welding Insptr.....

Address.....

Wrecking Insptr.....

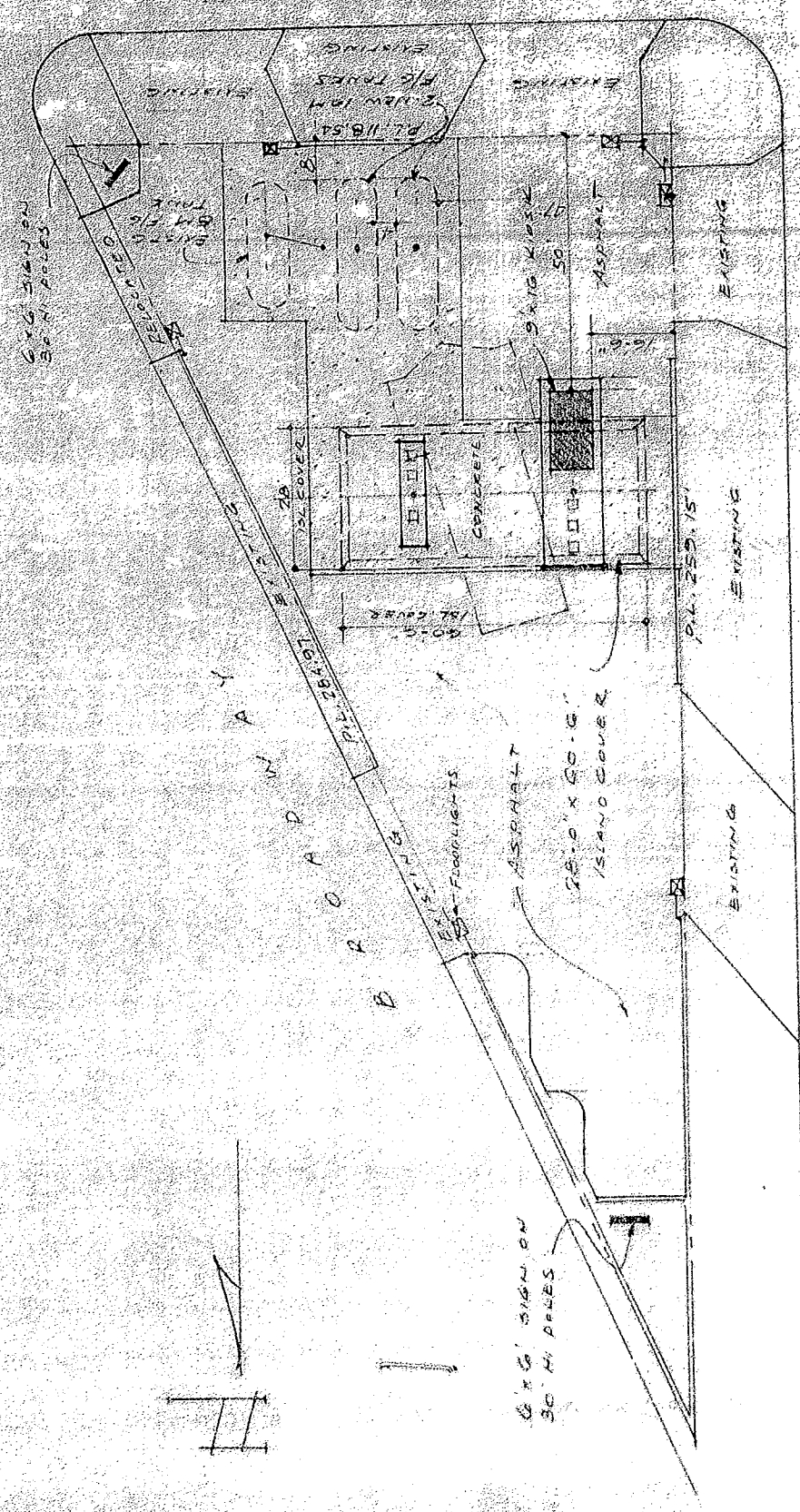
Address.....

Demolition Cont'r.....

Address.....

Special Insptr.....

Address.....



N A K N E G I S

SKETCH LAYOUT
 SHELL OIL COMPANY
 501 CARNERIE ST
 CLEVELAND OHIO
 11-30-61 3-9-77

O N T A R I O

Permit No. M. 59089.
 Plan No.
 Per Plan M. 59088

ISLANDS & CANOPY
CITY OF CLEVELAND

DEPARTMENT OF COMMUNITY DEVELOPMENT
 DIVISION OF BUILDING
 ROOM 505, CITY HALL

DO NOT FILL IN
Revised DRIP 1,894
 Floor Area

ISLAND CANOPY	\$
17 UNITS	\$	21.25
2 UNITS	\$	6.00
3.00	\$
Total Fees	\$	27.25

REGISTRATION APPROVED **JUL 12 1977**
 DATE: **MAR 8 1977**
 PER: *E. P. ...*

APPLICATION FOR PERMIT
NEW STRUCTURES ONLY
 (Permit will include ONLY such work as detailed in this application)
 (FILL IN INK)

BUILDING HOUSING
 COMMUNITY DEVELOPMENT

Cleveland, O., **MARCH 4**, 1977

To the Commissioner of Building:— Application is hereby made by
LENNARD G. ERICSSON (REGISTERED CONTRACTOR)
 for a PERMIT as described in this application and the accompanying drawings which are a part of this application,
 on behalf of *SHELL OIL COMPANY* owner.

LOCATION AND DESCRIPTION OF LOT

No. and Street *501 CARNEGIE AVE ST.* Sublot No. *80, 81, 82*
 Allotment Side of Street *NORTH*
 Between *ONTARIO* Street or Ave. and *BROADWAY B.E.* Street or Ave.
 Being *118.55* feet front and *384.77* feet deep on the *EAST* Side
 Being *TRIANGLE* feet rear and *259.14* feet deep on the *WEST* Side

ONE OR TWO FAMILY DWELLINGS

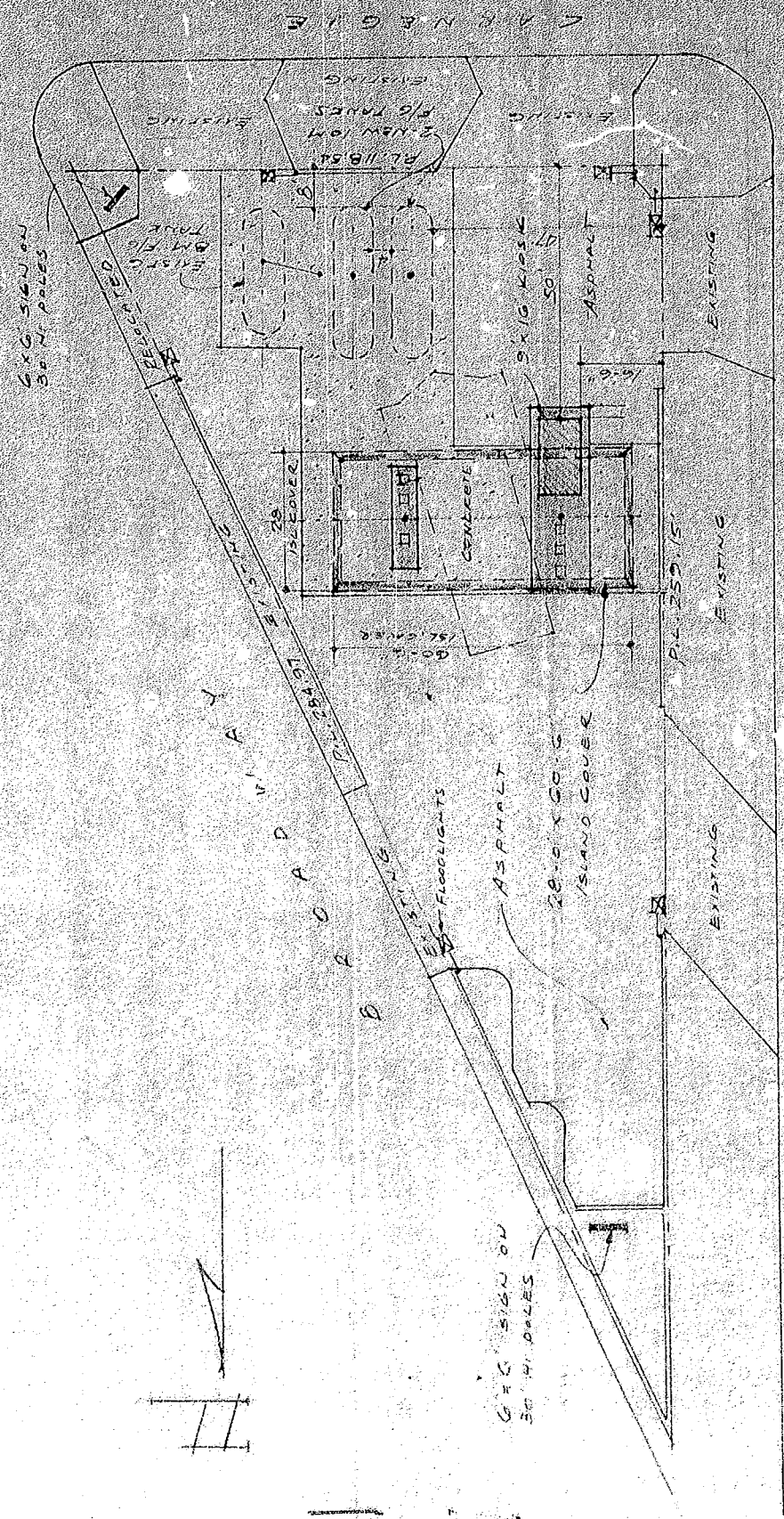
Purpose or Use Width Length Stories
 Construction Type Number of Families to Occupy Bldg.
 Any Occupancy other than Residential Total No. of Rooms
 Suite Size— 1R 2R 3R 4R 5R 6R 7R 8R
 Roof Covering Heating System Fuel
 Shortest distance to any main building on adjacent lots
 Shortest distance to any main building on the same lot

Sept. installed in street *N^o 3 BE COMB. SEW. IN ONTARIO* Estimated cost \$
J. P. ... *2/8/77*

MISCELLANEOUS—PRIVATE GARAGES, POLES, SIGNS, FENCES, BILLBOARDS, ETC.

ERECT TWO PUMP ISLANDS (1) 10' X 38' AND (1) 5' X 20' 8"
WITH ONE ISLAND CANOPY 28' 6" WIDE X 60' 6" LONG
 Purpose or Use *OVER ISLANDS* No. of Cars
 Material *CANOPY 28' 5' 6" 10' Length ISLANDS 38' 6" 20' 8" CANOPY 17' 6" 6"*
 Height
 Material *WITH ALUMINUM SHEET MET. ISLANDS CONCRETE IN STEEL FORM.* Type
 Shortest distance to any main building on the same lot *NONE*
 Shortest distance to any main building on adjacent lots *NONE*
 Additional Description
 Kind Floor Estimated Cost \$ *12,000*

P.E.



SHELL OIL COMPANY
 501 CARNegie ST
 CLEVELAND OHIO
 1" = 30'-0" 5.3.77

CONTRACT NO.

PLAN A G I B

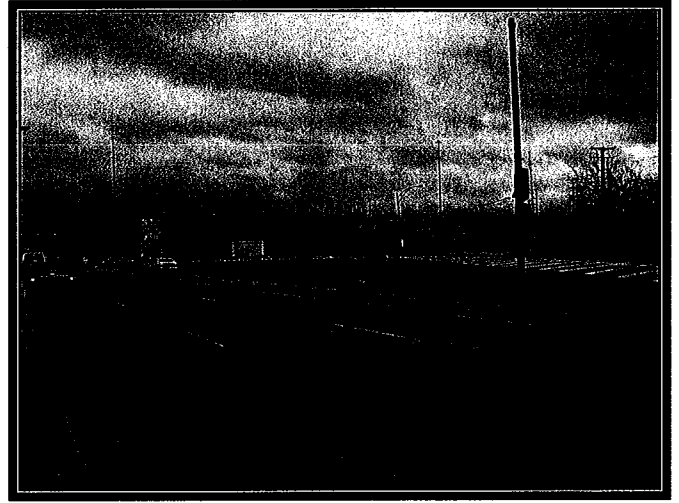
APPENDIX P

PHOTOGRAPHIC DOCUMENTATION



Photograph 1

View looking southwest across the northwestern corner of the Property, across Broadway Avenue.



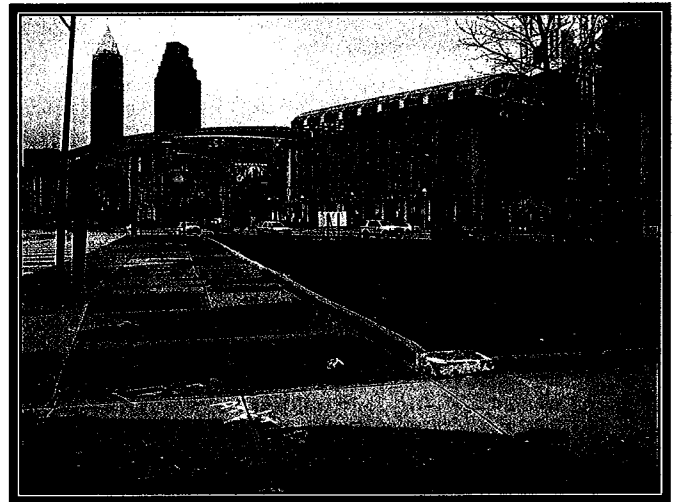
Photograph 2

View looking south at the Property from the northwestern corner. Broadway Avenue is on the left hand side of the photograph and Ontario Avenue is on the right hand side.



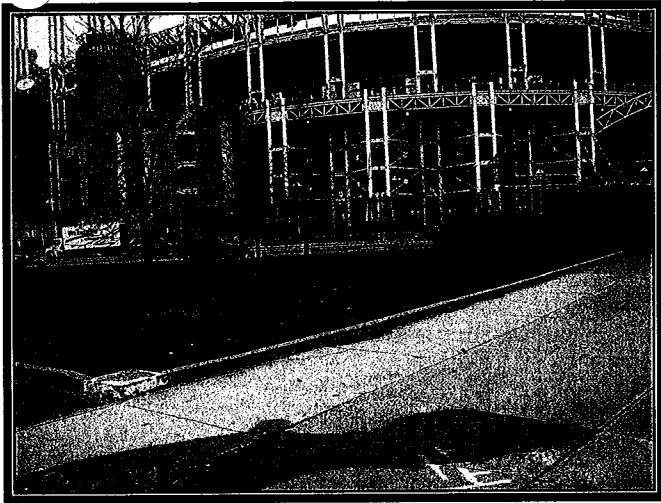
Photograph 3

View looking southeast at the Property from the northwestern corner. Ontario Avenue is on the right hand side of the photograph.



Photograph 4

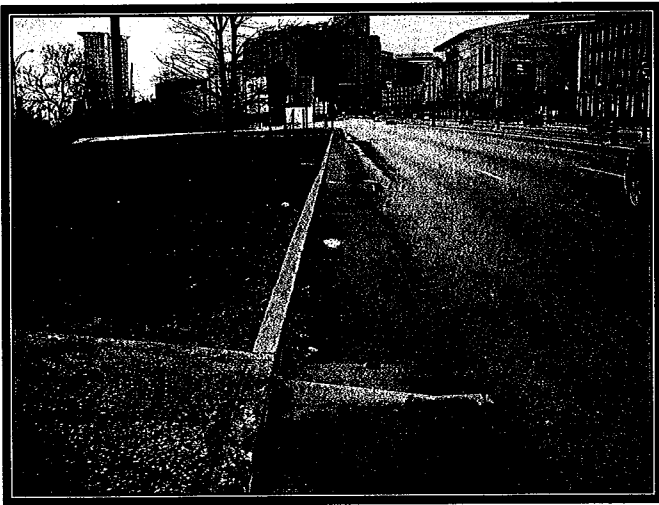
View looking northwest at the Property from the southernmost point of the Property.



Photograph 5
View looking north at the Property from the southernmost point of the Property. The cars in the photograph are on Broadway Avenue.



Photograph 6
View looking northeast at the southeastern border of the Property from the southernmost point of the Property. Carnegie Avenue is on the right hand side of the photograph.



Photograph 7
View looking northwest along the northeastern border of the Property along Broadway Avenue from the southeastern corner of the Property.



Photograph 8
View of a water meter located centrally along the northeastern border of the Property.



Photograph 9
View looking northwest at the northwestern corner of the Property.



Photograph 10
View looking west at the sewer drain and concrete wall observed in the northwestern portion of the Property.