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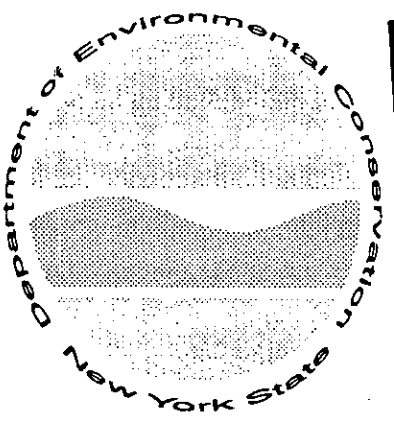
915126

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PRELIMINARY SITE ASSESSMENT

Clinton-Bailey
City of Buffalo

Site No. 915126
Erie County



Prepared for:

New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233
Thomas C. Jorling, *Commissioner*

Division of Hazardous Waste Remediation
Michael J. O'Toole, Jr., *Director*

By:
E.C. Jordan Co.
Portland, Maine

FEBRUARY 1991

NYSDEC CONTRACT NO. D002472

NYSDEC WORK ASSIGNMENT NO. D002472-6

E.C. JORDAN CO.

FINAL REPORT

TASK 1: DATA RECORDS SEARCH AND ASSESSMENT
PRELIMINARY SITE ASSESSMENT

CLINTON-BAILEY SITE
SITE NO. 915126
ERIE COUNTY

FEBRUARY 1991

Submitted by:

Elizabeth A. Ryan
Project Manager
E.C. Jordan Co.

Approved by:

William J. Weber
NSSC Program Manager
E.C. Jordan Co.

NOTICE

This Preliminary Site Assessment report about the Clinton-Bailey Site (Site No. 915126), in the City of Buffalo, Erie County, New York, was prepared expressly for the New York State Department of Environmental Conservation (NYSDEC) under the Superfund Standby Contract (No. D002472, Work Assignment No. D002472-6). The purpose of this report is to provide information necessary for NYSDEC to reclassify the site according to the Classes 2, 3, and Delist categories described in Section 2.0 of this report. The conclusions and recommendations in this report represent Jordan's professional judgment and opinion based on present, generally accepted engineering practices for conducting preliminary site characterizations and assessments. Conclusions in this report are based on records reviews, interviews, and site walkover performed by Jordan personnel. The health-based regulatory standards discussed in this report may change in the future. Levels of environmental contamination that are "acceptable" by current standards may not be so in the future.

Information contained in this report may not be suitable for any other use without adaptation for the specific purpose intended. Any such reuse of or reliance on the information, assessments, or conclusions in this report without adaptation will be at the sole risk and liability of the party undertaking the reuse.

JHG/NYSDEC/70B

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1.0 EXECUTIVE SUMMARY

The Clinton-Bailey Site, Site No. 915126, is an 11-acre vacant lot located in the City of Buffalo, Erie County, New York (Figure 1). From the late 1800's to the 1920's this site was used as a clay quarry and brickyard. Filling activities, including the disposal of foundry sands and construction debris, occurred in 1927. Scavenger dumping, including disposal of slag, foundry sands and wastes from steel fabrication processes, reportedly occurred between 1927 and 1956. The disposal of 55-gallon waste containers on-site has been documented in two investigations conducted in 1984 and 1988 (Figure 2).

In 1956, the property was purchased by Erie Land and Improvement Company. In 1980 the property was divided between Sen-Wel Industries (Sen-Wel)(the western 5.5 acres) and Norfolk Southern Corporation (Norfolk Southern)(the eastern 5.5 acres).

The Niagara Frontier Transportation Authority (NFTA) was interested in purchasing the property and retained a consultant in 1983 to assess the environmental impact of past waste disposal activities. A site investigation was conducted in March 1984 by Ecology and Environment International (E&E). Fifty-five gallon and other small containers, metal scrap, household trash, and industrial slag were observed on-site during the E&E investigation. Analytical data collected by E&E in January and February 1984 documented the presence of halogenated organic compounds, arsenic, iron, lead, and mercury in groundwater and soils. The concentration of arsenic, lead, and mercury in the groundwater exceeded New York State drinking water and ambient water quality standards. Arsenic, iron, and lead were detected in standing water collected from depressions (e.g. pits) on-site.

Samples collected from the waste containers were submitted for hazardous waste characteristic testing. Two samples ignited at room temperature; therefore, while the material in these containers is unknown, they can be classified as hazardous due to ignitability. Hazardous constituents detected in these samples included toluene, 1,1,1-trichloroethane, and cyanide. These containers were removed from the site sometime between February 1984, when E&E conducted their sampling program, and October 1985, when NUS Corporation (NUS) conducted an investigation for the U.S. Environmental Protection Agency (USEPA). Jordan did not find any record of the removal of containers from the site.

The New York State Department of Environmental Conservation (NYSDEC) conducted a site investigation in 1985 and recommended a Phase II investigation be initiated. NUS conducted a site investigation in May 1988, during which approximately 20 additional waste containers were observed in the southwestern section of the Norfolk Southern property. NUS did not indicate if there was any

material in the waste containers. Five soil samples were collected by NUS on the Norfolk Southern property. Access to the Sen-Wel property could not be obtained; therefore, no samples were collected from this portion of the site.

Analysis of the samples collected by NUS revealed the presence of several Target Compound List (TCL) compounds. The volatile organic compounds (VOC) chlorobenzene and total xylene were detected in one soil sample. A number of semi-volatile organic compounds (SVOCs) were detected at varying levels in all of the soil samples analyzed. These were mostly of the polynuclear aromatic hydrocarbon (PAH) class of compound. The polychlorinated biphenyl (PCB) Aroclor 1260 was also found in one sample. Several metals were found at various concentrations in all samples.

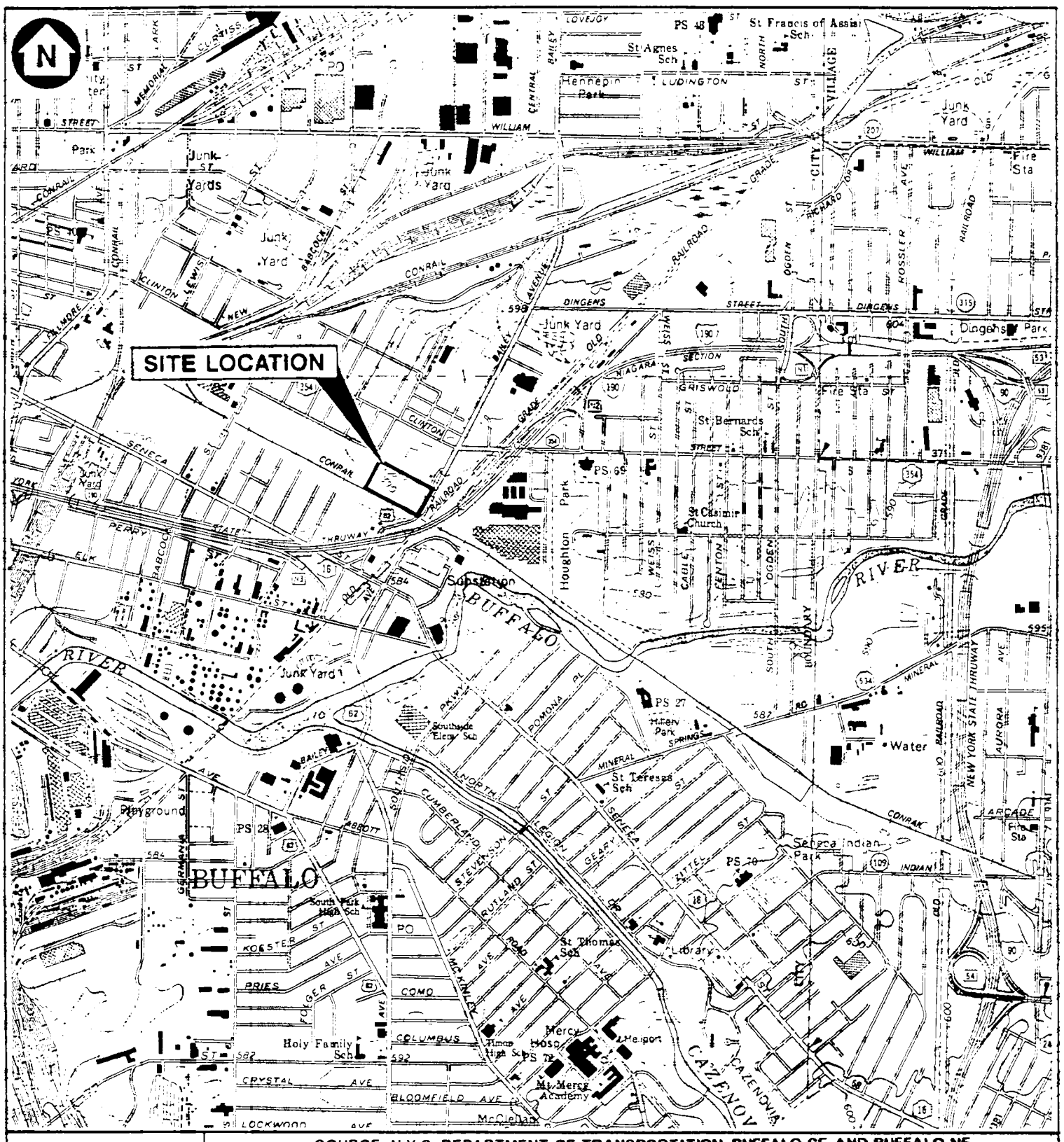
Jordan could not confirm the presence of the containers, reported by NUS, during the 1990 site walkover due to dense vegetation on the site. It is not known if these containers remain on-site or were removed.

Based on available information, Jordan cannot recommend changing the classification of the Clinton-Bailey Site on the New York State Registry of Inactive Hazardous Waste Disposal Sites. Hazardous waste disposal has been documented with the ignitability of the material sampled from containers found on-site. However, site conditions have changed since the last sampling episode in 1988. Jordan recommends initiating Preliminary Site Assessment (PSA) Task 3 activities to accurately characterize the current impact to environmental media at the Clinton-Bailey Site.

Elevated levels of lead (23,500 milligram per kilogram [mg/kg]) and arsenic (21,800 mg/kg) were detected in surface and subsurface soil samples. Samples collected in 1988 detected a number of inorganic constituents including lead and arsenic; however, concentrations of these two metals were considerably lower (lead 449 mg/kg and arsenic 38.6 mg/kg) than 1983 results. Since there are no state standards to which these concentrations can be compared Jordan cannot, within the scope of this task, assess the potential risk to public health or the environment from exposure to this medium.

Groundwater samples, collected from temporary monitoring wells in 1984, contained elevated levels of total halogenated organic compounds, arsenic, iron, lead, and mercury. These contaminant concentrations exceed New York State drinking water and ambient water quality standards. Samples collected from temporary wells however are generally only useful for indicating the presence or absence of contaminants in groundwater. The data obtained from temporary wells is not considered to accurately represent contaminant concentrations in groundwater since the wells were not likely to have been developed or allowed to equalize. Therefore, Jordan can not conclusively assess whether a significant risk is posed by the contamination of groundwater.

Therefore, upon completion of PSA Task 3 activities, PSA Task 4 should be initiated to assess whether the site poses a significant risk to public health or the environment. Jordan recommends the installation of monitoring wells upgradient, downgradient, and on-site to determine groundwater flow and assess potential impact to groundwater quality. Groundwater samples should be collected and analyzed for the TCL, or at a minimum, compounds detected in PSA Task 3 activities. Results of analyses would be compared to New York State ambient groundwater and drinking water standards to assess the potential threat to public health or the environment.



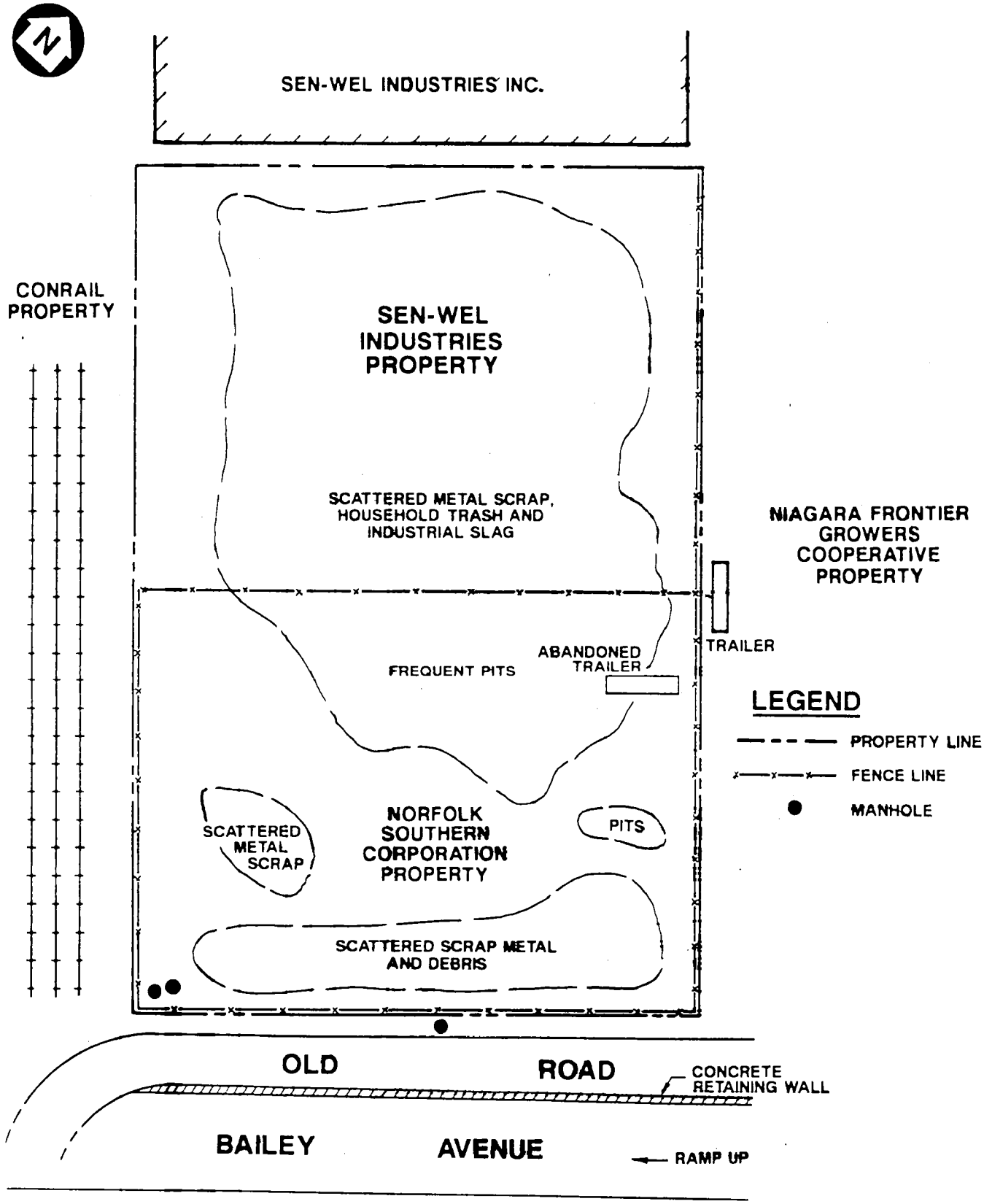
SOURCE: N.Y.S. DEPARTMENT OF TRANSPORTATION, BUFFALO-SE AND BUFFALO-NE QUADRANGLE DATED 1989, 7.5 MINUTE SERIES

SITE NO: 915126
LOCATION: CITY OF BUFFALO
ERIE COUNTY

FIGURE 1
SITE LOCATION MAP
CLINTON - BAILEY
PRELIMINARY SITE ASSESSMENT
NEW YORK STATE DEC

EC JORDAN CO

6291-30



NOTE:
NORFOLK SOUTHERN PROPERTY IS HEAVILY OVERGROWN WITH LARGE TREES AND BRUSH. THE PROPERTY HAS FREQUENT PITS. SEN-WEL INDUSTRIES PROPERTY HAS BEEN LEVELED AND IS NOT OVERGROWN.

NOT TO SCALE

FIGURE 2
SITE SKETCH MAP
CLINTON-BAILEY
PRELIMINARY SITE ASSESSMENT
NEW YORK STATE DEC

6291-30

ECJORDANCO

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

Copy—REGION
Copy—DEE
Copy—DOH
Copy—PREPARER

ADDITIONS/CHANGES TO REGISTRY OF INACTIVE HAZARDOUS WASTE DISPOSAL SITES

1. SITE NAME	2. SITE NO.	3. TOWN	4. COUNTY
Clinton-Bailey	915126	Buffalo	Erie

5. REGION	6. CLASSIFICATION	7. ACTIVITY
9	Current X /Proposed	☐ Add ☐ Reclassify ☐ Delist ☒ Modify

8a. DESCRIBE LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location).
The Clinton-Bailey Site is an 11-acre vacant lot fronting on Bailey Avenue between Niagara Frontier Growers Cooperative on the north and Conrail property on the south. The site is currently divided into two properties. The eastern property (5.5 acres) is owned by Norfolk Southern Corp. and the western property (5.5 acres) is owned by Sen-Wel Industries.

b. Quadrangle Buffalo-SE c. Site Latitude 42°52'72" Longitude 78°49'09" d. Tax Map Number

9a BRIEFLY DESCRIBE THE SITE (Attach site plan showing disposal/sampling locations) – The property was used as a clay quarry and brick yard from the late 1800's to the 1920's. Local hear-say indicates that the property was used as a dump by the City of Buffalo until 1927. Filling activities, which included disposal of foundry sand and construction debris, occurred in 1927. Scavenger dumping took place between 1927 and 1956 including the disposal of wastes from the steel fabrication process. Disposal of drums containing unknown material was first noted in March 1984. The site is relatively flat with scattered pits and depressions due to past dumping practice.

b. Area 11 acres c. EPA ID Number D9801560774 d. PA/SI ☒ Yes ☐ No

e. Completed: ☐ Phase I ☐ Phase II ☐ PSA ☐ Sampling

10. BRIEFLY LIST THE TYPE AND QUANTITY OF THE HAZARDOUS WASTE AND THE DATES THAT IT WAS DISPOSED OF AT THIS SITE

Disposal of containers filled with unknown material was first noted in March 1984. Testing of site soils, groundwater, and surface water detected elevated levels of arsenic, mercury, iron, and lead. Approximately 25-30 containers were documented on-site.

11a. SUMMARIZED SAMPLING DATA ATTACHED
☐ Air ☐ Groundwater ☐ Surface Water ☐ Soil ☐ Waste ☐ EP Tox ☐ TCLP.

b. List contravened parameters and values

No sampling was conducted for this Preliminary Site Assessment Task 1.

12. SITE IMPACT DATA

a. Nearest surface water: Distance 0.25 mi Direction South Classification Buffalo River
b. Nearest groundwater: Depth 4.5 ft. Flow Direction Unknown ☐ Sole Source ☐ Primary ☐ Principal
c. Nearest water supply: Distance 4.5mi ft Direction West Active ☒ Yes ☐ No
d. Nearest building: Distance adjacent ft. Direction Use Unknown
e. Crops or livestock on site? ☐ Yes ☒ No
f. Exposed hazardous waste? ☐ Yes ☐ No Unknown
g. Controlled site access? ☐ Yes ☒ No
h. Documented fish or wildlife mortality? ☐ Yes ☒ No
i. Impact on special status fish or wildlife resource? ☐ Yes ☒ No
j. Within a State Economic Development Zone? ☐ Yes ☒ No
k. For Class 2a: Code N/A Health Model Score
l. For Class 2: Priority Category N/A
m. HRS Score N/A
n. Significant Threat ☐ Yes ☐ No ☒ Unknown

13. SITE OWNER'S NAME	14. ADDRESS	15. TELEPHONE NUMBER
Norfolk Southern/Sen-Wel Ind.		( )

16. PREPARER
Cornelia B. Morin E.C. Jordan Co.
Name, Title and Organization
2/7/91 Date
Cornelia B. Morin Signature

17. APPROVED
Name, Title and Organization
Date
Signature

2.0 PURPOSE

The purpose of a PSA is to provide the information necessary for NYSDEC to reclassify a site according to the following classifications:

Class 2 - Hazardous waste sites presenting a significant threat to the public health or the environment.

Class 3 - Hazardous waste sites not presenting a significant threat to the public health or the environment.

Delist - Sites where hazardous waste disposal is not documented.

PSA Task 1, Data Records Search and Assessment, was conducted at the Clinton-Bailey Site, Site No. 915126, in Buffalo, New York by Jordan under contract to the NYSDEC Superfund Standby Contract (Contract No. D002472, Work Assignment No. D002472-6).

The Clinton-Bailey Site is a suspected inactive hazardous waste site recognized by NYSDEC. This site is classified as Class 2a because there is insufficient information to document hazardous waste disposal and/or assess the significance of potential risk to public health or the environment.

3.0 SCOPE OF WORK

PSA Task 1 consists of two data gathering activities: a file review/records search and a site walkover. Specific activities performed for the Clinton-Bailey Site under this task are described in the following subsections.

3.1 File Review

The Jordan project team began collecting information on the Clinton-Bailey Site at the NYSDEC central office in Albany, New York between June 25 and 27, 1990. In addition, Jordan personnel reviewed files and obtained site information at the New York State Department of Health (NYSDOH), the U.S. Geologic Survey, the U.S. Fish and Wildlife Service, the New York State Department of Transportation, and the New York State Geologic Survey.

On July 18, 1990 Jordan personnel reviewed files on the site at the Erie County Department of Environment and Planning (ECDEP) and the Buffalo offices of NYSDOH. On July 25, 1990 the Jordan team visited the Buffalo City Hall and the Erie County Registry of Deeds to gather site background information, property ownership, land use, and water supply information.

A review of the files provided by Gregory Sutton, P.E., Environmental Engineer II, at NYSDEC's Region 9 Office, was conducted on July 18, 1990.

3.2 Site Walkover

On July 24, 1990 a site walkover was conducted at the Clinton-Bailey Site. The following individuals attended the visit.

Name	Title	Affiliation
Kathleen Maguire	Geotechnical Engineer	E.C. Jordan Co.
Cornelia B. Morin	Assoc. Env. Scientist	E.C. Jordan Co.
Cynthia Whitfield	Environmental Engineer I	NYSDEC Central Office

The Jordan project team entered the site at 1 p.m. Before entering the site, the field team calibrated a photoionization detector (PID) and oxygen meter to monitor ambient air quality during the inspection. The resulting data were used to confirm that worker health was protected and safety procedures could be taken if concentrations were detected above background levels. No readings above background were observed during the site visit.

Ronald Miller, of Norfolk Southern Corporation, provided site access. Mr. Miller told the Jordan team that a fence had been

installed around the Norfolk Southern property in 1987. Mr. Miller opened the gate for the Jordan team; however, he did not accompany the Jordan team during the walkover.

The field team entered the eastern portion of the site and proceeded across the property in a clockwise direction. Due to the dense vegetation the Jordan team was only able to walk along the southeast side of the site by following the fence and make one traverse across the property to the northwest boundary. The Jordan team followed the fence back to the gate. Most of the Norfolk-Southern property was impassable. The property was heavily overgrown with trees and brush making it difficult to observe the surface soils and portions of the site. Jordan was unable to locate the soil borings conducted by E&E in 1984. The team observed numerous pits and depressions in the surface soil that contained scrap metal, household trash, and industrial slag.

There was evidence of trespassing within the Norfolk-Southern property. A large hole had been dug under a portion of the fence on the southeast side of the site. There was a path leading to a small clearing where several pallets and discarded mattresses were found. There were also several small pits that appeared to have been recently dug. The purpose of these holes and pits was not apparent. The NUS report does indicate that during the 1988 site investigation, Buffalo police indicated that people often dig at the site for antique bottles.

After exiting the Norfolk Southern property, the team walked around the site in an attempt to further observe site conditions through the fence. The dense vegetation prevented the evaluation of any additional site characteristics.

The team proceeded to the Sen-Wel property which comprises the western portion of the site. This property is fenced along the northeast and southeast sides and is bounded on the northwest by the Sen-Wel building. There was no representative from Sen-Wel at the site and site access was gained through the unfenced portion that runs parallel to the railroad tracks.

The Sen-Wel property was relatively flat and appeared to have been recently graded. Scrap metal, household waste, a wide variety of glass bottles, pottery, and industrial slag was mixed throughout the surface soils. Jordan personnel were unable to determine the current land-use of this property from the files and/or the site walkover.

Photographs were taken to be included in the site file. The site walkover was completed at 3 p.m.

4.0 SITE ASSESSMENT

The following subsections describe the information gained through the records search and site walkover at the Clinton-Bailey Site.

4.1 Site History

The Clinton-Bailey Site, No. 915126, is located in the City of Buffalo, Erie County, New York. The property was used as a clay quarry and brickyard from the late 1800s to the 1920s. Filling activities, which occurred on-site in 1927, include the disposal of foundry sand and construction debris. Scavenger dumping occurred between 1927 and 1956 and materials disposed included steel fabrication wastes. Disposal of containers filled with unknown materials was first noted in 1984.

In 1956, the property was purchased by Erie Land and Improvement Company, and in 1980 the property was divided equally between Sen-Wel and Norfolk Southern.

The NFTA was interested in purchasing the property and retained a consultant in 1983 to assess the environmental impact of past waste disposal activities. The initial investigation of the site was conducted in March 1984 by E&E. Fifty-five-gallon waste and small containers, scrap metal, household trash, and industrial slag were observed on-site during this investigation. Analytical data collected by E&E in January and February 1984 documented the presence of elevated levels of arsenic, iron, lead, and mercury in groundwater and soils (Appendix C). Arsenic, iron, and lead were also detected in standing water collected from the pits. Samples collected from the waste containers were tested for hazardous waste characteristics and classified as hazardous due to ignitability. Hazardous substances detected in these samples included toluene, 1,1,1,-trichloroethane and cyanide. These containers were removed from the site sometime after E&E's February 1984 sampling program and prior to October 1985. The ultimate disposition of these waste-containers is unknown.

A site inspection was performed by Engineering-Science for NYSDEC in 1985. The results of this Phase I investigation recommended that Phase II activities be initiated. In May 1988, NUS, under contract to the USEPA, conducted a site investigation and observed approximately 20 waste containers, of unknown origin, in the southwestern section of the Norfolk Southern property. Soil samples were collected by NUS; however, sampling was limited to the Norfolk Southern property because access to the Sen-Wel property could not be obtained.

Results of NUS analyses detected hazardous constituents in site soils. Chlorobenzene and total xylenes were detected in one sample. SVOCs, primarily PAHs, were detected in all soil samples,

as were a number of inorganics including, arsenic, beryllium, cadmium, lead, and mercury. PCBs were detected in one sample.

Jordan could not confirm the presence of any containers during the 1990 site walkover due to dense vegetation of the site. Therefore it is not known if these containers remain on-site or were removed.

4.2 Site Topography

The Clinton-Bailey Site is located in the south of the City of Buffalo, Erie County, New York. The site topography was originally characterized as a low-lying swampy area. Current topography is irregular due to past disposal and land use practices. The western portion of the site (Sen-Wel property) is relatively flat with some slight slope to the terrain. There is little ground cover on this portion of the site. Evidence of recent grading activities was observed during the 1990 site walkover. The eastern portion of the site, (Norfolk Southern property) is irregular with depressions and piles of wastes across the site. This part of the site is heavily vegetated with thick brush and trees.

The site is bordered to the southeast by Bailey Avenue, to the south by the Conrail railroad tracks and to the north by the Niagara Frontier Growers Cooperative Market Company. The land-use around the site is a mix of industrial, commercial, and residential. The site is currently a vacant lot and does not appear to be in use.

4.3 Site Hydrology

The following paragraphs describe the known hydrologic setting at Clinton-Bailey site.

<u>Surface Water Hydrology.</u> The site is surrounded by railroad tracks, the Sen-Wel building, a road, and a parking lot. The surface water run-off from the site flows either to the road or parking lot where it is collected by storm drains. The 1-year, 24-hour rainfall in this area is 2.1 inches (per year).

The nearest surface water is the Buffalo River located approximately 0.25 miles south of the site. The Buffalo River flows through the City of Buffalo to Lake Erie approximately 5 miles to the northwest of the site. The Buffalo River flows through heavily industrialized areas of the city and is used only for commercial shipping. Surface water within 3 miles of the site is not used for drinking, irrigation, or recreation uses.

The site is located in a swampy area of the City and ponded water has been observed during previous investigations. No standing water was observed during either the 1988 or 1990 site walkovers.

There are no state designated fresh water wetlands or critical habitats within 1 mile of the site.

Groundwater Hydrology. The unconsolidated surficial or shallow deposits in this area consist of glacial material deposited during the later part of the Pleistocene Epoch. The main unconsolidated unit in the area is a glaciolacustrine clay-sand deposit consisting of silt, fine to medium sand, and clay and containing laminae of alternating sand and clay. These deposits tend to decrease in thickness toward the east and north where bedrock rises to less than 5 feet below the ground surface. The clay unit is generally less than 2 feet below ground surface except where it has been removed by landfilling and waste disposal operations or urbanization. E&E boring logs indicate that most of the upper layer of the site consists of fill and/or sandy soil that has a permeability of 10^{-1} to 10^{-3} centimeters per second (cm/sec). Native clays in the area have a permeability of 10^{-8} cm/sec.

The bedrock aquifer beneath the site consists of Devonian Onondaga Limestone, Akron Dolomite, and Bertie Limestone. The Bertie Limestone is a gray and brown dolomite with some interbedded shale; the Akron Dolomite is a greenish-gray and buff fine-grained dolomite. The Bertie Limestone ranges from 50 to 60 feet thick, whereas the Akron Dolomite is estimated to be 8 feet thick. Both formations dip southward. The Onondaga Limestone overlies this limestone-dolomite unit; the two units are separated by an unconformity or an erosional contact. The Onondaga Limestone consists of three members. The lowest, which overlies the Akron Dolomite, is a gray coarse-grained limestone generally a few feet thick. The middle member consists of a gray limestone and blue chert and reaches a thickness of 40 to 45 feet. The upper member is a dark gray to tan limestone ranging in thickness from 50 to 60 feet. The thickness of the Onondaga Limestone is approximately 110 feet. The main sources of water in the bedrock are the fractures and solution cavities.

The residents in the vicinity of the site receive drinking water from a municipal supply. The municipal water intakes are on Lake Erie, 5 miles from the site. Groundwater is not used as a drinking water source within three miles of the site.

4.4 Contamination Assessment

Groundwater, surface water, surface and subsurface soils, and materials in the 55-gallon waste containers at the Clinton-Bailey Site have been sampled (E&E, 1984; NUS, 1982).

Two groundwater samples were collected by E&E in 1984 from temporary monitoring wells located downgradient of the property. The analytical results show maximum concentrations of arsenic at 715 micrograms per liter (µg/L), iron at 168 µg/L; lead at 91.9

lead, and mercury exceed New York State drinking water and ambient water quality standards for these inorganic constituents (arsenic 50 µg/L and 25 µg/L; lead 50 µg/L and 25 µg/L, and mercury 2 µg/L). Analyses of samples collected from the temporary monitoring wells at Clinton-Bailey do give an indication that groundwater quality has been impacted. However, since the wells were not developed or allowed to equalize the data obtained can not be considered as accurately representing the concentration of contaminants in groundwater.

One surface water sample was collected by E&E in 1984, from composite samples of standing water present in the pits on the site. The analytical results show concentrations of arsenic at 21.8 µg/L, iron at 887 µg/L and lead at 63.2 µg/l. Mercury concentrations were below the method limit of detection of 0.4 µg/L. Because the surface water on-site does not contribute to any classified surface water system it is not appropriate to compare these analytical results to the New York State ambient surface water quality standards. Therefore, the significance of these concentrations can not be determined.

In 1984, E&E collected ten surface soil and 15 subsurface soil samples from areas where waste containers and/or stained soils were observed. The maximum inorganic concentration detected in these samples were, arsenic 19.5 microgram per gram (µg/g); iron 72,800 µg/g; lead 23,500 µg/g, and mercury 2.58 µg/g. There are no New York State standards or guidelines for soil concentrations to which these analytical results can be compared.

One composite and three individual samples from the waste containers were collected by E&E in 1984. The composite sample included the contents of several open waste containers, and the individual samples were collected from three intact waste containers. Two of these samples were classified as hazardous due to ignitability. Hazardous substances detected in the samples include cyanide at 18.4 milligram per kilogram (mg/kg); toluene at 87,000 mg/kg; and 1,1,1-trichloroethane at 30,000 mg/kg.

May 1988 NUS collected soil samples from five locations on the Norfolk-Southern Property. Analysis of these samples revealed the presence of several TCL compounds. VOCs were detected in one soil sample. SVOCs, primarily PAHs, were detected at varying levels in all of the soil samples analyzed. The PCB Aroclor 1260 was also found in one sample. Several metals were found at various concentrations.

It should be noted that metals analysis of samples taken during the 1983 E&E site investigation detected levels of lead higher than the NUS results. Levels as high as 16,400 mg/kg were found in the surface soil in 1983, while the highest value detected by NUS was 449 mg/kg. A subsurface soil sample (2 foot depth) taken in 1983 had the highest level 23,500 mg/kg.

The potential for direct contact with these contaminants is high. The Sen-Wel portion of this site is open from the railroad tracks, there is evidence of trespassing on the Norfolk-Southern property, and an open-air food market is adjacent to the site. There is a high likelihood of groundwater contamination emanating from the site, as wastes were deposited directly on the ground surface. Samples of groundwater taken from temporary wells dug during E&E's 1983 investigation revealed arsenic, lead, and mercury in the groundwater.

5.0 ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

5.1 Hazardous Waste Deposition

Analytical results of the waste material obtained from 55-gallon containers disposed of on the Norfolk Southern portion of the Clinton-Bailey Site detected hazardous constituents, including cyanide, toluene, and 1,1,1-trichloroethane. Samples of these wastes also failed characteristic testing for ignitability. This material is an ignitable waste and is defined by 6 NYCRR Part 371.3(a)(1) as a hazardous waste.

5.2 Significant Threat Determination

A potential significant threat to public health and the environment is indicated by the analytical results of groundwater sampling conducted on the Norfolk-Southern property. As outlined in subsection 4.4, arsenic, lead, and mercury from samples collected from temporary monitoring wells were detected at concentrations that exceed the New York State drinking water and ambient groundwater quality standards for these parameters. However, data from temporary wells may not be representative of actual contaminant concentrations in groundwater. Therefore, Jordan is unable to make a determination of significance of the risk posed by contaminated groundwater.

In addition, elevated levels of arsenic, mercury, and lead were detected in surface and subsurface soils and standing water samples analyzed in 1983. The same inorganics were detected again, but at lower concentrations, in 1988. Since there are no standards or guidelines for contaminants in these media, Jordan cannot assess the significance of this contamination within the scope of this PSA Task.

Hazardous waste disposal has only been documented on the Norfolk-Southern Property because access to and samples from the Sen-Wel property could not be obtained. Although, Jordan could not confirm the disposal of hazardous materials on the Sen-Wel property, the files indicate that similar wastes may have been disposed of on this portion of the site. Environmental samples collected along the boundary of the two properties show elevated levels of hazardous constituents to be present. Therefore, it is likely that contamination exists on this property.

5.3 Recommendations

Based on information collected and reviewed, Jordan cannot recommend changing the classification of the Clinton-Bailey Site on the New York State Registry of Inactive Hazardous Waste Disposal Sites. Hazardous waste disposal has been documented with the ignitability of the material sampled from containers found on-site. However, conditions on the site have changed since 1984 when this

sample was collected. Jordan recommends initiating PSA Task 3 activities to accurately characterize the current impact to environmental media at the Clinton-Bailey Site.

Groundwater samples, collected from temporary monitoring wells in 1984, contained elevated levels of total halogenated organic compounds, arsenic, iron, lead, and mercury. These contaminant concentrations do exceed New York State drinking water and ambient water quality standards. However, samples collected from temporary wells are best used for indicating the presence or absence of contaminants in groundwater. Therefore, Jordan can not conclusively determine whether a significant risk is posed by the contamination of groundwater.

Elevated levels of contaminants were also detected in surface and subsurface soils. Since there are no standards to which these concentrations can be compared, Jordan cannot assess the potential risk to public health or the environment from exposure to this media. Therefore, upon completion of PSA Task 3 activities, PSA Task 4 be initiated to assess whether the site poses a significant risk to public health or the environment. Jordan recommends the installation of monitoring wells upgradient, downgradient, and on-site to determine groundwater flow and assess potential impact to groundwater quality. Groundwater samples should be collected and analyzed for the TCL, or at a minimum, compounds detected in PSA Task 3 activities. Results of analyses would be compared to groundwater and drinking water standards to assess the potential threat to public health or the environment.

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

cm/sec	centimeters per second
ECDEP	Erie County Department of Environment and Planning
E&E	Ecology and Environment International
Jordan	E.C. Jordan Co.
mg/kg	milligram per kilogram
NFTA	Niagara Frontier Transportation Authority
Norfolk Southern	Norfolk Southern Corporation
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PAHs	polynuclear aromatic hydrocarbons
PCBs	polychlorinated biphenyl
PID	photoionization detector
PSA	Preliminary Site Assessment
Sen-Wel	Sen-Wel Industries
SVOCs	semi-volatile organic compounds
TCL	target compound list
µg/g	microgram per gram
µg/L	microgram per liter
USEPA	U.S. Environmental Protection Agency
VOCs	volatile organic compounds

APPENDIX A

REFERENCES

REFERENCES

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APPENDIX B

SITE INSPECTION REPORT
(USEPA FORM 2070-13)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

EPA

I. IDENTIFICATION	
01 STATE: New York	01 SITE NUMBER: D9801560774

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Clinton-Bailey	Clinton Street and Bailey Avenue

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG. DIST
Buffalo	New York	14240	Erie	029	37

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
42 52 72.N	78 49 09.W	X A. PRIVATE _ B. FEDERAL _____ _ C. STATE _ D. COUNTY _ E. MUNICIPAL _ F. OTHER _____ _ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION		
7 / 24 / 90 (MONTH DAY YEAR)	_ ACTIVE X INACTIVE	1920's (BEGINNING YEAR)	1956 (ENDING YEAR)	___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
_ A. EPA _ B. EPA CONTRACTOR _____ (Name of firm) _ C. MUNICIPAL _ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
_ E. STATE X F. STATE CONTRACTOR E.C. Jordan Co. (Name of firm) _ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Kathleen Maguire	Geotechnical Engineer	E.C. Jordan Co.	(207) 775-5401
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Cornelia Brown	Assoc. Env. Scientist	E.C. Jordan Co.	(207) 775-5401
Cynthia Whitfield	Sanitary Engineer	NYSDEC Central Office	(518) 457-0638
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
Ronald L. Miller	Pollution Control Coord.	P.O. Box 349, Bellevue, Ohio 44811	(419) 483-1450
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
X PERMISSION ☐ WARRANT	1:00 pm	Clear, Sunny, 86° F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Sri Maddineni	New York State Department of Environmental Conservation	(518) 457-0638

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Elizabeth Ryan		E.C. Jordan Co.	(207) 775-5401	8 / 1 / 90 (MONTH DAY YEAR)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	01 SITE NUMBER
New York	D981560774

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] A. SOLID
- [X] B. POWDER, FINES
- [ ] C. SLUDGE
- [ ] D. OTHER (Specify) _____
- [ ] E. SLURRY
- [ ] F. LIQUID
- [ ] G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____
CUBIC YARDS _____
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- [X] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [ ] D. PERSISTENT
- [ ] E. SOLUBLE
- [ ] F. INFECTIOUS
- [ ] G. FLAMMABLE
- [X] H. IGNITABLE
- [X] I. HIGHLY VOLATILE
- [ ] J. EXPLOSIVE
- [ ] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [ ] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS	20	Containers	20 containers observed on-site, analyses showed
PSD	PESTICIDES			elevated concentrations of solvents
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	Unknown		Elevated concentrations detected in soils

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04/STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SOL	toluene	108-88-3	landfill	87,000	mg/kg
SOL	1,1,1-TCA	25323-89-1	landfill	30,000	mg/kg
MES	mercury	7439-97-6	landfill	2.25	mg/kg
MES	lead	7439-92-1	landfill	23,500	mg/kg
MES	arsenic	7440-38-2	landfill	2.25	mg/kg

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, February 1991, E.C. Jordan Co., and references cited therein.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE: New York	01 SITE NUMBER: D981560774

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 X A. GROUNDWATER CONTAMINATION — 02 X OBSERVED (DATE: 1984) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

198_ Analytical results showed elevated levels of mercury, lead, and arsenic in groundwater.

01 X B. SURFACE WATER CONTAMINATION — 02 X OBSERVED (DATE: 1984) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 100-1,000 — 04 NARRATIVE DESCRIPTION

1984 Analytical results of standing water collected on-site showed elevated levels of arsenic and lead.

01 _ C. CONTAMINATION OF AIR — 02 _ OBSERVED (DATE:) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

N/A

01 _ D. FIRE/EXPLOSIVE CONDITIONS — 02 _ OBSERVED (DATE:) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

N/A

01 X E. DIRECT CONTACT — 02 X OBSERVED (DATE: 1984) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 100-1,000 — 04 NARRATIVE DESCRIPTION

Elevated levels of arsenic, mercury, and lead were detected in surface soils. Evidence of trespassing on-site was observed during the 1990 site walkover.

01 X F. CONTAMINATION OF SOIL — 02 X OBSERVED (DATE: 1984) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 100-1,000 — 04 NARRATIVE DESCRIPTION

Analytical results of surface and subsurface soils showed elevated levels of arsenic, lead, and mercury.

01 _ G. DRINKING WATER CONTAMINATION — 02 _ OBSERVED (DATE:) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

N/A

01 X H. WORKER EXPOSURE/INJURY — 02 _ OBSERVED (DATE:) X POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10-100 — 04 NARRATIVE DESCRIPTION

Railroad maintenance workers and equipment operators who graded the Sen-Wel property could potentially be exposed to hazardous materials on-site.

01 _ I. POPULATION EXPOSURE/INJURY — 02 _ OBSERVED (DATE:) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

N/A

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	01 SITE NUMBER
New York	D981560774

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 _ J. DAMAGE TO FLORA — 02 _ OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
04 NARRATIVE DESCRIPTION

None observed.

01 _ K. DAMAGE TO FAUNA — 02 _ OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

None observed.

01 _ L. CONTAMINATION OF FOOD CHAIN — 02 _ OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
04 NARRATIVE DESCRIPTION

Unknown

01 X M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 X OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

Drums were observed on-site in 1984, and in 1988.

01 _ N. DAMAGE TO OFFSITE PROPERTY — 02 _ OBSERVED (DATE: _____) X POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

N/A

01 _ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 _ OBSERVED (DATE: _____) _ POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

None observed.

01 X P. ILLEGAL/UNAUTHORIZED DUMPING — 02 _ OBSERVED (DATE: _____) _ POTENTIAL X ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION

Records indicate that illegal dumping occurred at the site between 1927 and 1956.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

Evidence of trespassing was observed during the 1990 site walkover. People have been observed digging on-site for antique bottles.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 100-1,000

IV. COMMENTS

The site can easily be accessed from the railroad lines. People have been observed digging for antique bottles. Elevated levels of heavy metals have been documented in surface and subsurface soils. Fate of surface water runoff is presumed to be to municipal stormwater system, but this is not confirmed.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, February 1991, E.C. Jordan Co., and references cited therein.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION	
01 STATE	01 SITE NUMBER
New York	D981560774

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
_ A. NPDES				
_ B. UIC				
_ C. AIR				
_ D. RCRA				
_ E. RCRA INTERIM STATUS				
_ F. SPCC PLAN				
_ G. STATE (specify)				
_ H. LOCAL (specify)				
_ I. OTHER (specify)				
X J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
_ A. SURFACE IMPOUNDMENT		
_ B. PILES		
X C. DRUMS, ABOVE GROUND	approx. 20	Drums
_ D. TANK, ABOVE GROUND		
_ E. TANK, BELOW GROUND		
_ F. LANDFILL		
_ G. LANDFARM		
_ H. OPEN DUMP		
X I. OTHER fill material (specify)	unknown	

04 TREATMENT (check all that apply)
- _ A. INCINERATION
- _ B. UNDERGROUND INJECTION
- _ C. CHEMICAL/PHYSICAL
- _ D. BIOLOGICAL
- _ E. WASTE OIL PROCESSING
- _ F. SOLVENT RECOVERY
- _ G. OTHER RECYCLING/RECOVERY
- _ H. OTHER _____ (specify)

05 OTHER
- _ A. BUILDINGS ONSITE

06 AREA OF SITE
11 (acres)

07 COMMENTS

The waste containers sampled by E&E were removed prior to October 1985. There is no information on this removal action.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (check one)

_ A. ADEQUATE, SECURE X B. MODERATE _ C. INADEQUATE, POOR _ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

Drums have been observed on-site. Approximately 20 rusted containers were reported by NUS in 1988.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: X YES _ NO

02 COMMENTS

The site consists of two properties. The eastern property (Norfolk Southern) is currently fenced. The western property (Sen-Wel Ind.) is fenced on three sides and open along the Conrail property. People have been observed on-site.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, February 1991, E.C. Jordan Co., and references cited therein.

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

EPA

PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	01 SITE NUMBER
New York	D981560774

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (check as applicable)	SURFACE	WELL
COMMUNITY	A. X	A. _
NON-COMMUNITY	B. _	B. _

02 STATUS		
ENDANGERED	AFFECTED	MONITORED
A. _	B. _	C. X
D. _	E. _	F. _

03 DISTANCE TO SITE
A. 4.5 (mi)
B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (check one)

_ A. ONLY SOURCE FOR DRINKING
_ B. DRINKING (other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)
_ C. COMMERCIAL INDUSTRIAL IRRIGATION (Limited other sources available)
X D. NOT USED, UNUSABLE

02 POPULATION SERVED BY GROUNDWATER None within 3 miles

03 DISTANCE TO NEAREST DRINKING WATER WELL _____ (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
- 4.5 (ft)	southwest	~ 30 (ft)	unknown (gpd)	_ YES X NO

09 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)

10 RECHARGE AREA		11 DISCHARGE AREA	
_ YES _ NO	COMMENTS	_ YES X NO	COMMENTS - Area is relatively flat

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

_ A. RESERVOIR, RECREATION DRINKING WATER SOURCE
_ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES
X C. COMMERCIAL INDUSTRIAL
_ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Buffalo River	_	0.2 (mi)
	_	(mi)
	_	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 12,900 NO. OF PERSONS	B. 69,000 NO. OF PERSONS	C. 262,500 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION
0.2 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE
18,200

04 DISTANCE TO NEAREST OFF-SITE BUILDING
0.1 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within written vicinity of site, e.g., rural, village, densely populated urban area)

The Clinton-Bailey Site is located in an industrial area of the City of Buffalo. This area is densely populated. There are residential homes located within a 3 mile radius of the site.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION	
01 STATE	01 SITE NUMBER
New York	D981560774

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

X A. 10^{-6} - 10^{-8} cm/sec _ B. 10^{-4} - 10^{-6} cm/sec _ C. 10^{-4} - 10^{-3} cm/sec _ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

_ A. IMPERMEABLE (Less than 10^{-6} cm/sec) X B. RELATIVELY IMPERMEABLE (10^{-4} - 10^{-6} cm/sec) _ C. RELATIVELY PERMEABLE (10^{-2} - 10^{-4} cm/sec) _ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL Ph
32.5-34.5 (ft)	unknown (ft)	unknown

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
8-10 (in)	2.1 (in)	0 %	N/A	0 %

09 FLOOD POTENTIAL

SITE IS IN > 100 YEAR FLOODPLAIN

10 _ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTAURINE	OTHER
A. _____ (mi)	B. 2.0 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

> 2 (mi)

ENDANGERED SPECIES: Perigrine Falcon, Bald Eagle, Golden Eagle

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS PRIME AG LAND	AGRICULTURAL LANDS AG LAND
A. ≤ 0.1 (mi)	B. 0.1 (mi)	C. > 10 (mi)	D. > 10 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The Clinton-Bailey Site is currently a vacant lot consisting of 2 parcels of land on Bailey Avenue between the Niagara Frontier Growers Cooperative on the north and the Contrail property to the south. The site is relatively flat as is the surrounding area. Historically the site is in a swampy area and ponded water has been observed in the past; however no standing water was observed during the site walkover.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, February 1991, E.C. Jordan Co., and references cited therein.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 STATE	01 SITE NUMBER
New York	D981560774

II. SAMPLES TAKEN - No samples were collected as part of PSA Task 1 activities

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Photoionization	No readings above background
LEL	No readings above background

IV. PHOTOGRAPHS AND MAPS

01 TYPE X GROUND _ AERIAL

02 IN CUSTODY OF Sri Maddineni, NYSDEC
(Name of organization or individual)

03 MAPS
X YES
_ NO

04 LOCATION OF MAPS
Sri Maddineni, NYSDEC

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

No other field data was collected during July 1991 site inspection.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, February 1991, E.C. Jordan Co., and references cited therein.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE: New York	01 SITE NUMBER: D981560774

II. CURRENT OWNER(S)			PARENT COMPANY (If applicable)		
01 NAME: Sen-Wel Industries		02 D+B NUMBER	08 NAME		09 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.): 500 Convention Towers		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE
05 CITY: Buffalo	06 STATE: New York	07 ZIP CODE: 14240	12 CITY	13 STATE	14 ZIP CODE
01 NAME: Norfolk and Western Railroad		02 D+B NUMBER	08 NAME: Norfold Southern Corp.		09 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.): 8 North Jefferson Street		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.): 8 North Jefferson Street		11 SIC CODE
05 CITY: Roanoke	06 STATE: Virginia	07 ZIP CODE: 24042	12 CITY: Roanoke	13 STATE: Virginia	14 ZIP CODE: 24042
01 NAME		02 D+B NUMBER	08 NAME		09 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER	08 NAME		09 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)			IV. REALTY OWNER(S) (If applicable; list most recent first)		
01 NAME: Erie Land and Improvement Co.		02 D+B NUMBER	01 NAME		02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE
05 CITY	06 STATE: NJ	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER	01 NAME		02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER	01 NAME		02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, February 1991, E.C. Jordan Co., and references cited therein.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION	
01 STATE: New York	01 SITE NUMBER: D981560774

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER
City of Buffalo	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
City Hall	

05 CITY	06 STATE	07 ZIP CODE
Buffalo	New York	14240

08 YEARS OF OPERATION	09 NAME OF OWNER
Until 1927	City of Buffalo

PREVIOUS OPERATOR'S PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, February 1991, E.C. Jordan Co., and references cited therein.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 STATE	01 SITE NUMBER
New York	D981560774

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE

III. OFF-SITE GENERATOR(s)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, February 1991, E.C. Jordan Co., and references cited therein.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	01 SITE NUMBER
New York	D981560774

II. PAST RESPONSE ACTIVITIES

01 _ A. WATER SUPPLY CLOSED	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ B. TEMPORARY WATER SUPPLY PROVIDED	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ C. PERMANENT WATER SUPPLY PROVIDED	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ D. SPILLED MATERIAL REMOVED	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ E. CONTAMINATED SOIL REMOVED	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ F. WASTE REPACKAGED	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ G. WASTE DISPOSED ELSEWHERE	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ H. ON SITE BURIAL	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ I. IN SITU CHEMICAL TREATMENT	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ J. IN SITU BIOLOGICAL TREATMENT	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ K. IN SITU PHYSICAL TREATMENT	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ L. ENCAPSULATION	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ M. EMERGENCY WASTE TREATMENT	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ N. CUTOFF WALLS	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ O. EMERGENCY DIKING/SURFACE WATER DIVERSION	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ P. CUTOFF TRENCHES/SUMP	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		
01 _ Q. SUBSURFACE CUTOFF WALL	02 DATE _____	03 AGENCY _____
04 DESCRIPTION		
N/A		

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE	01 SITE NUMBER
New York	D981560774

II. PAST RESPONSE ACTIVITIES (Continued)

01 _ R. BARRIER WALLS CONSTRUCTED	02 DATE	03 AGENCY
04 DESCRIPTION		
N/A		
01 _ S. CAPPING/COVERING	02 DATE	03 AGENCY
04 DESCRIPTION		
N/A		
01 _ T. BULK TANKAGE REPAIRED	02 DATE	03 AGENCY
04 DESCRIPTION		
N/A		
01 _ U. GROUT CURTAIN CONSTRUCTED	02 DATE	03 AGENCY
04 DESCRIPTION		
N/A		
01 _ V. BOTTOM SEALED	02 DATE	03 AGENCY
04 DESCRIPTION		
N/A		
01 _ W. GAS CONTROL	02 DATE	03 AGENCY
04 DESCRIPTION		
N/A		
01 _ X. FIRE CONTROL	02 DATE	03 AGENCY
04 DESCRIPTION		
N/A		
01 _ Y. LEACHATE TREATMENT	02 DATE	03 AGENCY
04 DESCRIPTION		
N/A		
01 _ Z. AREA EVACUATED	02 DATE	03 AGENCY
04 DESCRIPTION		
N/A		
01 _ 1. ACCESS TO SITE RESTRICTED	02 DATE	03 AGENCY
04 DESCRIPTION		
N/A		
01 _ 2. POPULATION RELOCATED	02 DATE	03 AGENCY
04 DESCRIPTION		
N/A		
01 X 3. OTHER REMEDIAL ACTIVITIES	02 DATE Prior to October 1985	03 AGENCY
04 DESCRIPTION		

Drums were removed from the site sometime prior to October 1985. There is no information documenting this removal action. It is not known who authorized the removal action and/or where the waste containers were disposed.

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, February 1991, E.C. Jordan Co., and references cited therein.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	01 SITE NUMBER
New York	D981560774

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION _ YES X NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

No enforcement actions have been taken to date.

Site investigations and environmental sampling were conducted in 1984 and 1988.

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

Preliminary Site Assessment Report, February 1991, E.C. Jordan Co., and references cited therein.

APPENDIX C

ANALYTICAL RESULTS

Attachment A

Data from E & E site investigation (report date 3/30/84)

Table 1: Soil data (all mg/kg)

Sample #	As	Fe	Pb	Hg	Total Halogenated Organics (as Lindane)
S-1*	7.21	10,300	495	.568	.31
S-11#	11.1	15,500	541	.661	.36
S-2*	9.32	28,600	495	.568	1.04
S-12#	11.3	7,600	1,550	1.02	.32
S-3*	.89	9,120	427	.435	.19
S-13#	11.9	38,600	23,500	1.3	.94
S-4*	12.0	11,400	904	.964	.25
S-14#	19.5	16,300	1,220	.787	.49
S-5*	13.4	15,500	14,800	1.37	.48
S-15#	15.3	13,800	813	2.25	.16
S-6*	16.2	9,250	529	.179	.04
S-16#	14.6	13,000	.72	.816	.71
S-7*	14.3	15,800	16,400	.890	1.94
S-17#	14.2	12,700	8.81	.917	2.24
S-8*	6.45	28,500	1,250	.431	.49
S-18#	13.4	24,700	11.3	1.06	.21
S-9*	9.64	26,300	11,700	2.58	.36
S-19#	8.72	41,300	24.9	.315	.75
S-10*	7.21	40,400	11,900	.120	.07
S-20#	1.96	72,800	24.9	.315	.36
B-1	7.10	17,200	10.3	<.080	.18
B-2	7.84	9,910	4.80	<.080	.19
B-3A	15.4	19,400	136	<.080	.26
B-4A	14.3	20,600	15.1	<.080	.16
B-5A	7.70	15,800	10.4	<.080	.06

* Surface soil sample.
# Sub-surface soil sample (2 feet).

Table 2: Groundwater data (ug/l)

Sample #	As	Fe	Pb	Hg	Total Halogenated Organics (as Lindane)
B-3	111	168	91.9	3.00	.14
B-4	715	41.3	51.5	2.48	.10
W-1	21.8	887	63.2	<.40	.039

SITE NAME: CLINTON-BAILEY
TDD#: 02-8708-05
SAMPLING DATE: 05/25/88
EPA CASE NO.: 9653
LAB NAME: COLUMBIA ANALYTICAL SERVICE

INORGANICS

Sample ID No.	NYWA-S-1(MS/MSD)	NYWA-S-2(DUP)	NYWA-S-3	NYWA-S-4	NYWA-S-5	NYWA-S-7	NYWA-RIN-1	NYWA-TBLK-1
Traffic Report No.	MB0401	MB0402	MB0403	MB0404	MB0405	MB0407	MB0408	N/A
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	WATER	N/A
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L	ug/L
Aluminum	13600	7720	9820	12300	5830	17100	J	NR
Antimony								NR
Arsenic	8.8	J	38.6	13.7	6.1	8.5	J	NR
Barium	77.1 E	62.6 E	185 E	257 E	45.2 E	76.8 E	J	NR
Beryllium	J	J	1.9	1.8	J	1.2		NR
Cadmium	J		J	1.3				NR
Calcium	55000	R	14400	38100	38600	36200	J	NR
Chromium	20.8	16.4	18.3	38.8	15.1	17.2		NR
Cobalt	11.6	J	J	J	J	12.4		NR
Copper	44.5	33.5	106	106	30.2	47.7		NR
Iron	R	R	R	R	R	R	103	NR
Lead	[illegible]	[illegible]	341	449	28.7	89.3	J	NR
Magnesium	12700	13400	1540	7880	12400	13400		NR
Manganese	450	376	536	1670	483	543	J	NR
Mercury	0.2	1.1	0.35	0.85	0.29			NR
Nickel	33	15.2	25.4	26.6	19.3	31.2		NR
Potassium	2490	1260	J	1450	J	2630	J	NR
Selenium	J	J	5.5	1.5		J		NR
Silver		J	J	J				NR
Sodium	1250	J	J	J	J	1620	J	NR
Thallium								NR
Vanadium	26.4	16.5	27	29.7	12.3	44.8		NR
Zinc	127 E	131 E	346 E	546 E	83.8 E	144 E	J	NR

NOTES:

Blank space - compound analyzed for but not detected

E - estimated value

J - estimated value, compound present below CRDL but above IBL

R - analysis did not pass EPA QA/QC

NR - analysis not required

[illegible]	NYHA S 1(MS/MSD)	NYHA S 2(DUP)	NYHA S 3	NYHA S 4	NYHA S 5	NYHA S 6	NYHA RIN 1	NYHA TRIP 1
Sample ID No.	BT149	BT150	BT151	BT152	BT153	BT155	BT156	BT157
Traffic Report No.	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	WATER	WATER
Matrix	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l	ug/l
Units	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00
Dilution Factor	13	10	25	17	7	13		N/A
Percent Moisture								
Pentachlorophenol								NR
Phenanthrene	650 J	2100 J	3300 J	5000 J	J	530 J		NR
Anthracene				4.80 ✓	J			NR
Di-n-butylphthalate								NR
Fluoranthene	1000	1800	2500	2400	360	900		NR
Pyrene	880 J	1900	2300	2300 J	J	840		NR
Butylbenzylphthalate								NR
3,3'-Dichlorobenzidine								NR
Benzo(a)anthracene	500	1100	1400	1400	J	450		NR
Chrysene	710	1300	1600	1700	J	710		NR
bis(2-Ethylhexyl)phthalate	700 J					1000 J	15	NR
Di-n-octylphthalate								NR
Benzo(b)fluoranthene	640 J	J	J	1600 J	J	450 J		NR
Benzo(k)fluoranthene			J	J	J	J		NR
Benzo(a)pyrene	560 J	840 J	1000 J	1400 J	J	530 J		NR
Indeno(1,2,3-cd)pyrene		1000 E J	1100 E J	640 J	J	J		NR
Dibenz(a,h)anthracene				J 490	J	J		NR
Benzo(g,h,i)perylene								NR

NOTES:

Blank space = compound analyzed for but not detected

B = compound found in lab blank as well as sample, indicates possible/probable blank contamination

E = estimated value

J = estimated value, compound present below CRQL but above IDL

R = analysis did not pass EPA QA/QC

N = Presumptive evidence of the presence of a compound, but can't be identified

NR = analysis not required

Detection limits elevated at Dilution Factor 11 and/or percent moisture 10%

Sample ID No.	NYMA S [illegible]	NYMA S [illegible]	NYMA S 1	NYMA S 4	NYMA S 5	NYMA S 7	NYMA RIN 1	NYMA TRIP 1
Laboratory Report No.	RE149	RE150	RE151	RE152	RE153	RE155	RE156	RE157
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	WATER	WATER
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/L	ug/L
Dilution Factor	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00
Percent Moisture	13	10	20	17	7	13	--	N/A
Phenol			J					NR
bis(2-Chloroethyl)ether								NR
2-Chlorophenol								NR
1,3-Dichlorobenzene								NR
1,4-Dichlorobenzene								NR
Benzyl alcohol								NR
1,2-Dichlorobenzene								NR
2-Methylphenol								NR
bis(2-Chloroisopropyl)ether								NR
4-Methylphenol								NR
N-Nitroso-di-n-dipropylamine								NR
Hexachloroethane								NR
Nitrobenzene								NR
Isophorone								NR
2-Nitrophenol								NR
2,4-Dimethylphenol								NR
Benzoic acid								NR
bis(2-Chloroethoxy)methane								NR
2,4-Dichlorophenol								NR
1,2,4-Trichlorobenzene								NR
Naphthalene	J	J	J	J	J	J	R	NR
4-Chloroaniline	R			R	R	R		NR
Hexachlorobutadiene			R					NR
4-Chloro-3-Methylphenol								NR
2-Methylnaphthalene	J	J	J	430	J	J		NR
Hexachlorocyclopentadiene		R						NR
2,4,6-Trichlorophenol								NR
2,4,5-Trichlorophenol								NR
2-Chloronaphthalene								NR
2-Nitroaniline								NR
Dimethylphthalate								NR
Acenaphthylene	J	J	J	J		J		NR
2,6-Dinitrotoluene								NR
3-Nitroaniline								NR
Acenaphthene	J	J	J	J		J		NR
2,4-Dinitrophenol								NR
4-Nitrophenol								NR
Dibenzofuran	J	J	J	J		J		NR
2,4-Dinitrotoluene								NR
Diethylphthalate								NR
4-Chlorophenyl-phenyl ether								NR
Fluorene		J	J	J				NR
4-Nitroaniline	R			R	R	R	R	NR
4,6-Dinitro-2-methylphenol								NR
N-nitrosodiphenylamine								NR
4-Bromophenyl-phenyl ether								NR
Hexachlorobenzene								NR

	NYM4-S-1(MS/MSD)	NYM4 S 2(DUP)	NYM4 S 3	NYM4 S 4	NYM4-S-5	NYM4 S 6	NYM4 RIN 1	NYM4 TRIP 1
Sample ID No.	BT149	BT150	BT151	BT152	BT153	BT155	BT156	BT157
Traffic Report No.	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	WATER	WATER
Matrix	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l	ug/l
Units	1.00	1.00	1.00	1.00	1.00	1.00	10.0	50.0
Dilution Factor	15	8	22	15	6	15		
Percent Moisture								
Chloromethane								
Bromomethane								
Vinyl Chloride								
Chloroethane								
Methylene Chloride								J
Acetone	R	R	R	R	R		2000	B
Carbon Disulfide								
1,1-Dichloroethene								
1,1-Dichloroethane								
Trans-1,2 Dichloroethene (total)								
Chloroform								
1,2-Dichloroethane								
2-Butanone							R	J
1,1,1-Trichloroethane								
Carbon Tetrachloride								
Vinyl Acetate	R	R	R	R	R			
Bromodichloromethane								
1,2-Dichloropropane								
cis-1,3 Dichloropropene								
Trichloroethene								
Dibromochloromethane								
1,1,2-Trichloroethane								
Benzene								
trans-1,3-Dichloropropene								
Bromoform								
4-Methyl-2-Pentanone								
2-Hexanone								
Tetrachloroethene								
Toluene								
1,1,2,2-Tetrachloroethane								J
Chlorobenzene								
Ethylbenzene					24			
Styrene								
Xylenes (Total)					17			

NOTES:

Blank space - compound analyzed for but not detected

B - compound found in lab blank as well as sample, indicates possible/probable blank contamination

E - estimated value

J - estimated value, compound present below CRQL but above IDL

R - analysis did not pass EPA QA/QC

N - Presumptive evidence of the presence of a compound, but can't be identified

NR - analysis not required

Detection limits elevated if Dilution

PESTICIDES	MYMA-S-1(MS/MSD)	MYMA-S-2(DUP)	MYMA S 3	MYMA S 4	MYMA S 5	MYMA S-7	MYMA RIN 1	MYMA TRIK 1
Sample ID No.	BT149	BT150	BT151	BT152	BT153	BT155	BT156	BT157
Traffic Report No.								
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	WATER	WATER
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l	ug/l
Dilution Factor	10.0	10.0	1.00	1.00	0.20	0.10	1.00	1.00
Percent Moisture	12	10	20	17	7	13	--	N/A
alpha-BHC								NR
beta-BHC								NR
delta-BHC								NR
gamma-BHC (Lindane)								NR
Heptachlor								NR
Aldrin								NR
Heptachlor epoxide								NR
Endosulfan I								NR
Dieldrin								NR
4,4'-DDE								NR
Endrin								NR
Endosulfan II								NR
4,4'-DDD								NR
Endosulfan sulfate								NR
4,4'-DDT								NR
Methoxychlor								NR
Endrin ketone								NR
alpha-Chlordane								NR
gamma-Chlordane								NR
Toxaphene								NR
Aroclor-1016								NR
Aroclor-1221								NR
Aroclor-1232								NR
Aroclor-1242								NR
Aroclor-1248								NR
Aroclor-1254								NR
Aroclor-1260				480				NR

NOTES:

Blank space - compound analyzed for but not detected

B - compound found in lab blank as well as sample, indicates possible/probable blank contamination

E - estimated value

J - estimated value, compound present below CRQL but above IDL

R - analysis did not pass EPA QA/QC

N - Presumptive evidence of the presence of a compound, but can't be identified

NR - analysis not required

Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%