ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PRELIMINARY SITE ASSESSMENT

STATE FAIR LANDFILL
GEDDES (T)

SITE NO. 734033
ONONDAGA (C)

Prepared for:

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 Wolf Road, Albany, New York

Thomas C. Jorling, Commissioner

DIVISION OF HAZARDOUS WASTE REMEDIATION

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URS Consultants, Inc.
282 Delaware Avenue
Buffalo, New York 14202

OCTOBER 1991

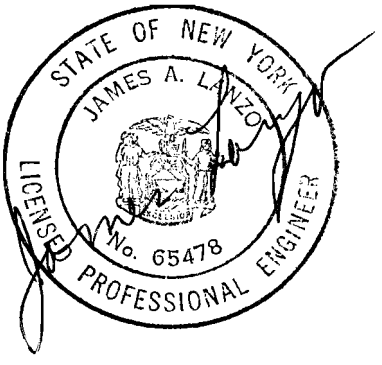
1152

PRELIMINARY SITE ASSESSMENT
TASK 1: DATA RECORDS SEARCH AND ASSESSMENT

STATE FAIR LANDFILL
SITE NO. 734033
GEDDES (T)/ONONDAGA (C)

OCTOBER 1991

Performed Under
NYSDEC CONTRACT NO. D002340
NYSDEC WORK ASSIGNMENT NO. D002340-3



By
URS CONSULTANTS, INC.

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

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

The State Fair Landfill, NYSDEC Site No. 734033, is located on State Fair Boulevard, in the Town of Geddes, west of Onondaga Lake (Figures 1 and 2). The site is currently classified 2A by the NYSDEC. The nearby community of Geddes is a suburb of the City of Syracuse, and is a combination of residential and commercial areas.

The 20 to 30 acre landfill was used for the disposal of sanitary waste generated by the New York State Fair between the 1940's and 1970. This waste was buried in trenches that were dug along an access road that runs through the site. A larger portion of the site was also used for the disposal of C&D debris from 1972 to 1986 that was also generated by the fairgrounds. Throughout its history, the landfill has had numerous instances of noncompliance with rules and regulations. According to the NYSDEC, and a report done by NUS, Crucible Steel dumped mill scale and waste caustic solids at the site. Previous sampling consisted of one limited analysis of leachate by the NYSDEC in 1976, and five surface water and sediment samples taken by NUS for the USEPA in 1986.

Although no evidence of hazardous waste disposal was found, results of sampling indicate that several contaminants, primarily PAHs, were detected at the State Fair Landfill site. Therefore, because the landfill is located in a NYSDEC regulated wetland, SYW-18, and is also adjacent to Ninemile Creek, the potential for contaminant migration into both the groundwater and surface water is very high. For this reason, additional sampling to verify the presence and extent of hazardous waste, and thus the significant threat to the environment from the site, should be conducted.

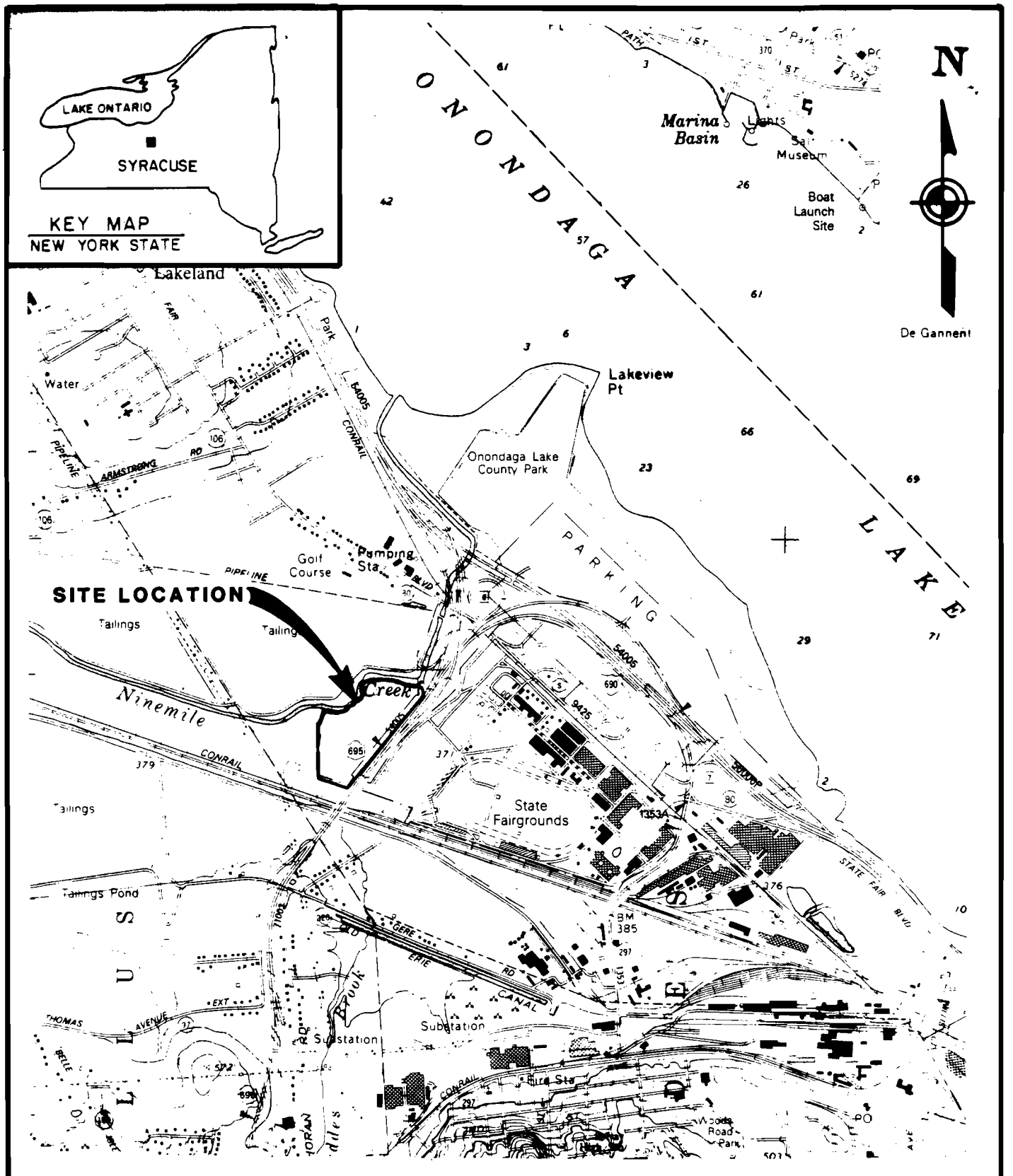
A site inspection was conducted on November 13, 1990 by Donald McCall (URS Consultants, Inc.) and Robert Kreuzer (URS Consultants, Inc.). During the site visit, Mr. Bill Fredericks and Mr. Harold Wheeler, both

employees of the New York State Fair, were interviewed. Bill Fredericks is property manager of the fairgrounds. A tour of the site was made with Harold Wheeler. Due to a cover of snow during the first site inspection, Robert Kreuzer returned to the site on November 16, 1990, in order to further inspect the site and take photographs. Photographs taken are presented as Figure 3.

No documentation of hazardous waste deposition was found at the State Fair Landfill. If any hazardous waste had been disposed of in this site, the most significant threat would be by direct contact or to Ninemile Creek, adjacent to the site and a tributary of Onondaga Lake.

Based on the information available at the State Fair Landfill site, URS Consultants recommends that additional soil, waste, ground and surface water sampling be performed to confirm the presence of hazardous waste at this site. The current Hazard Ranking System scoring, based on the information gathered for this report, is as follows.

S_M = 9.28 (S_{GW} = 11.51, S_{SW} = 11.19, S_A = 0.00)
S_{FE} = 0.00
S_{DC} = 37.50



SOURCE

USGS, SYRACUSE WEST, N.Y. QUADRANGLE
7.5 MINUTE SERIES, 1990

SCALE IN FEET

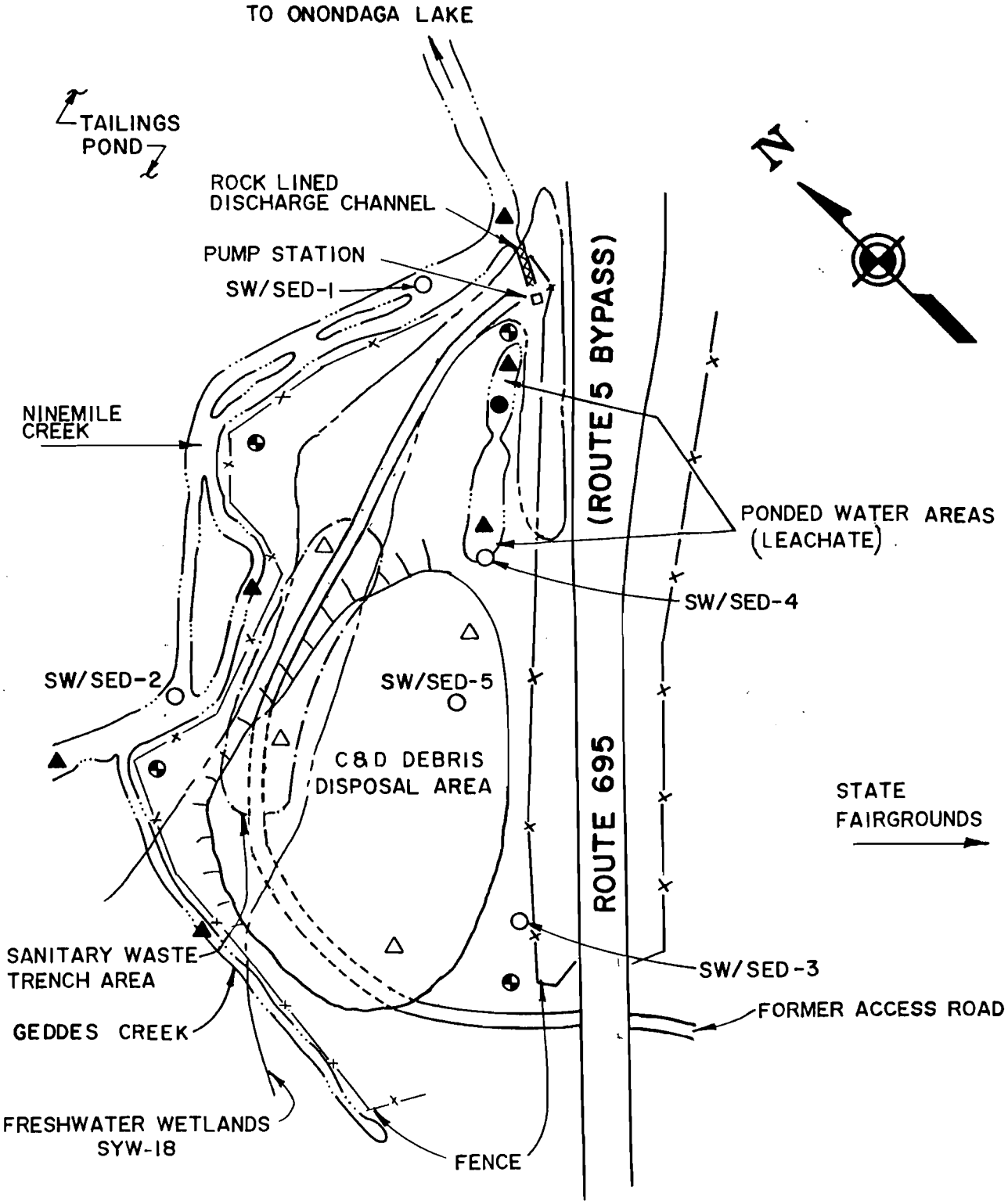
0 1000 2000

URS CONSULTANTS, INC.

STATE FAIR LANDFILL
SITE LOCATION MAP

FIGURE 1

A-3552



LEGEND

- ● PREVIOUS SURFACE WATER SAMPLE BY NYSDEC, 1976. SEE REF. 10.
- ○ PREVIOUS SURFACE WATER/SEDIMENT SAMPLES BY NUS, 1987. SEE REF. 28.
- ▲ PROPOSED SURFACE WATER & SEDIMENT SAMPLE LOCATION
- ◓ PROPOSED MONITORING WELL PAIRS
- △ PROPOSED SOIL / WASTE SAMPLE LOCATION

NOT TO SCALE

URS CONSULTANTS, INC.	STATE FAIR LANDFILL SITE SKETCH	FIGURE 2

A-3581

Facing southwest, showing the areas of C&D debris disposal. This area is flat, unvegetated, and used for parking during the fair.

Facing northeast, along the former access road. Thick vegetation grows on both sides of the road. This is the area where the sanitary waste was disposed of in trenches.

FIGURE 3-SITE PHOTOGRAPHS

State Fair Landfill

Facing southeast, from the access road, showing the area of the ponded water or leachate.

Facing southeast from the access road, showing the south end of the leachate ponds. An orange sheen was observed on this end of the pond.

FIGURE 3-SITE PHOTOGRAPHS

State Fair Landfill

47-15-25 (11/90)—9d

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

Original—BHSC
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
State Fair Landfill	734033	Geddes	Ondondaga

5. REGION	6. CLASSIFICATION	7. ACTIVITY
7	Current 2A /Proposed ____	☐ Add ☐ Reclassify ☐ Delist ☐ Modify ____

8a. DESCRIBE LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location)

From NYS Thruway 690, take either Exit 6 or 7 directly to State Fair Boulevard.

The Fairgrounds are located on the southern side of the Boulevard between the two exits. The actual area of disposal is located between Ninemile Creek and NYS Route 695.

b. Quadrangle Syracuse West c. Site Latitude 43° 04' 34" Longitude 76° 13' 54" d. Tax Map Number 26-01-04.0

9a BRIEFLY DESCRIBE THE SITE (Attach site plan showing disposal/sampling locations)

The site is a portion of the NYS Fairgrounds that was used for the disposal of sanitary waste and C&D debris generated by the Fair. The waste was buried in an area adjacent to Ninemile Creek that is in a NYSDEC wetlands.

b. Area 20-30 acres c. EPA ID Number NYD981561970 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

The NYSDEC registry form indicated that Crucible Steel disposed of mill scale and caustic coated solids at this site from 1972 to 1976. Although a report by NUS also reported that Crucible used the site for disposal, the disposal of hazardous waste has not been documented.

11a SUMMARIZED SAMPLING DATA ATTACHED

☐ Air ☐ Groundwater ☒ Surface Water ☐ Soil ☐ Waste ☐ EP Tox ☐ TCLP

X Sediment

b. List contravened parameters and values

Surface water: Iron, 10,500 ppb.

12 SITE IMPACT DATA

a. Nearest surface water Distance 0 ft. Direction Northwest Classification D

b. Nearest groundwater Depth 0.5-1 ft. Flow Direction Northeast ☐ Sole Source ☐ Primary ☐ Principal

c. Nearest water supply Distance unknown ft Direction ____ Active ☐ Yes ☐ No

d. Nearest building Distance 1600 ft Direction East Use Fair Buildings

e. Crops or livestock on site? ☐ Yes ☒ No

f. Exposed hazardous waste? ☐ Yes ☒ No

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 ____ Health Model Score ____

l. For Class 2: Priority Category ____

m. HRS Score Sm=9.28, Sfe=0.00 Sdc= 37.50

n. Significant Threat ☐ Yes ____ ☐ No ☒ Unknown

13. SITE OWNER'S NAME	14. ADDRESS	15. TELEPHONE NUMBER
NYS Dept. of Agriculture & Markets	Executive Offices, Albany, NY 12235	(518) 474-2121

16 PREPARER

Donald A. McCall, Chemical Engineer, URS Consultants, Inc.
Name, Title and Organization

1/24/91
Date

Donald A. McCall
Signature

17 APPROVED

____
Name, Title and Organization

____
Date

____
Signature

2. PURPOSE

Task 1, Data Records Search and Assessment, of the Preliminary Site Assessment (PSA) was conducted at the State Fair Landfill, Site No. 734033, in the Town of Geddes, Onondaga County, New York by URS Consultants under contract to the New York State Department of Environmental Conservation (NYSDEC) Superfund Standby Contract (Contract No. D002340, Work Assignment No. D002340-3).

The State Fair Landfill site (Figure 1) is a suspected inactive hazardous waste site recognized by NYSDEC. This site is currently classified as Class 2a because there is insufficient information to document hazardous waste disposal and/or assess the significance of potential risks to public health or the environment. The purpose of a PSA is to provide the information for NYSDEC to reclassify the 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 can not be documented.

3. SCOPE OF WORK

The Preliminary Site Assessment, Task I, investigation at the State Fair Landfill site comprised several interrelated tasks as follows:

3.1 File Reviews

An extensive data search was conducted, utilizing both site-specific and regional sources. This information was compiled from existing data as well as new sources. These include:

- Visit to the NYSDEC office in Albany to conduct a file search June 14, 1990. (518) 457-3157
- Visit to the NYSDEC Region 7 office to conduct a file search, November 13, 1990. (315) 426-7531
- Phone Conversation with the Onondaga County Health Department (Bob Burdick) regarding file information, January 14, 1991 (Ref. 1). (315) 469-6955
- Phone conversation with the New York State Health Department (Henrietta Hamel) regarding file information, January 10, 1991 (Ref. 2). (315) 426-7612

3.2 Site Inspection

A site inspection and interview with Bill Fredericks and Harold Wheeler was conducted on November 13, 1990, between 3:00 and 4:30 PM, in order to assess the surface characteristics of the site and vicinity, observe evidence, if any, of hazardous substances or wastes present, photograph the site, conduct preliminary air monitoring using a PID (HNu) and a radiation meter, and confirm information obtained from the initial

data search. A USEPA Site Inspection Report (EPA Form 2070-13) and the NYSDEC "Additions/Changes to the Registry of Inactive Hazardous Waste Disposal Sites" were completed following the site inspection.

The site inspection was conducted by the following personnel:

NAME	TITLE	AFFILIATION
Robert Kreuzer	Geologist	URS Consultants, Inc.
Donald McCall	Chemical Engineer	URS Consultants, Inc.
Harold Wheeler		New York State Fair

Mr. Bill Fredericks, property manager for the State Fair, gave URS permission to inspect the site.

During the site inspection, the site was monitored with an HNu and with a radiation meter. No readings were recorded above background levels on either instrument. Mr. Harold Wheeler, an employee of the New York State Fair, directed us to the location of the former landfill. (Because the ground was covered with snow during the first inspection, Robert Kreuzer returned to the site on November 16, 1990 to further inspect the site and to take photographs, including those which are included as Figure 3 of this report.)

Ninemile Creek is the western border of the site. The land along the creek, where the waste was apparently disposed, was wet, swampy, and covered with tall grass. The majority of the site, used for the disposal of C&D debris, is flat, gravel covered, and used for parking. Only small pieces of debris were visible through the soil. Two large areas of ponded water or leachate were also observed on the site. These areas are identified on Figure 2.

4. SITE ASSESSMENT

4.1 Site History

The State Fair Landfill (#734033) is an inactive landfill located on the western portion of the New York State Fairgrounds. The site is adjacent to Ninemile Creek in the Town of Geddes, Onondaga County. The Fairgrounds are owned by the New York State Department of Agriculture and Markets. For approximately 35 years, from 1940 to the mid 1970s, this land was used by the State Fair for the disposal of sanitary waste generated, for the most part, during the annual week-long State Fair. This waste was disposed of along the access road in trenches. The larger portion of the land was used from 1972 until 1986 to dispose of C&D debris generated by the fairgrounds (Ref. 3, 29).

During the years of its operation, the sanitary landfill had a history of violations. NYSDEC Refuse Disposal Area Inspection Reports from 1973 to 1978 indicate various problems, including dumping waste into water, leaching into a water course, burning of waste, and unsatisfactory cover (Ref. 4,5,6,7). It is also important to note that the only types of refuse mentioned as being disposed of at the site were commercial, demolition, and agricultural wastes. There is no mention of any industrial waste disposal. Letters and memos written by NYSDEC personnel from this time period also indicate problems and violations at the site. Unsatisfactory soil cover, improper spreading and compaction, leachate and garbage polluting the creek, and several other violations are mentioned (Ref. 8,9,10,11).

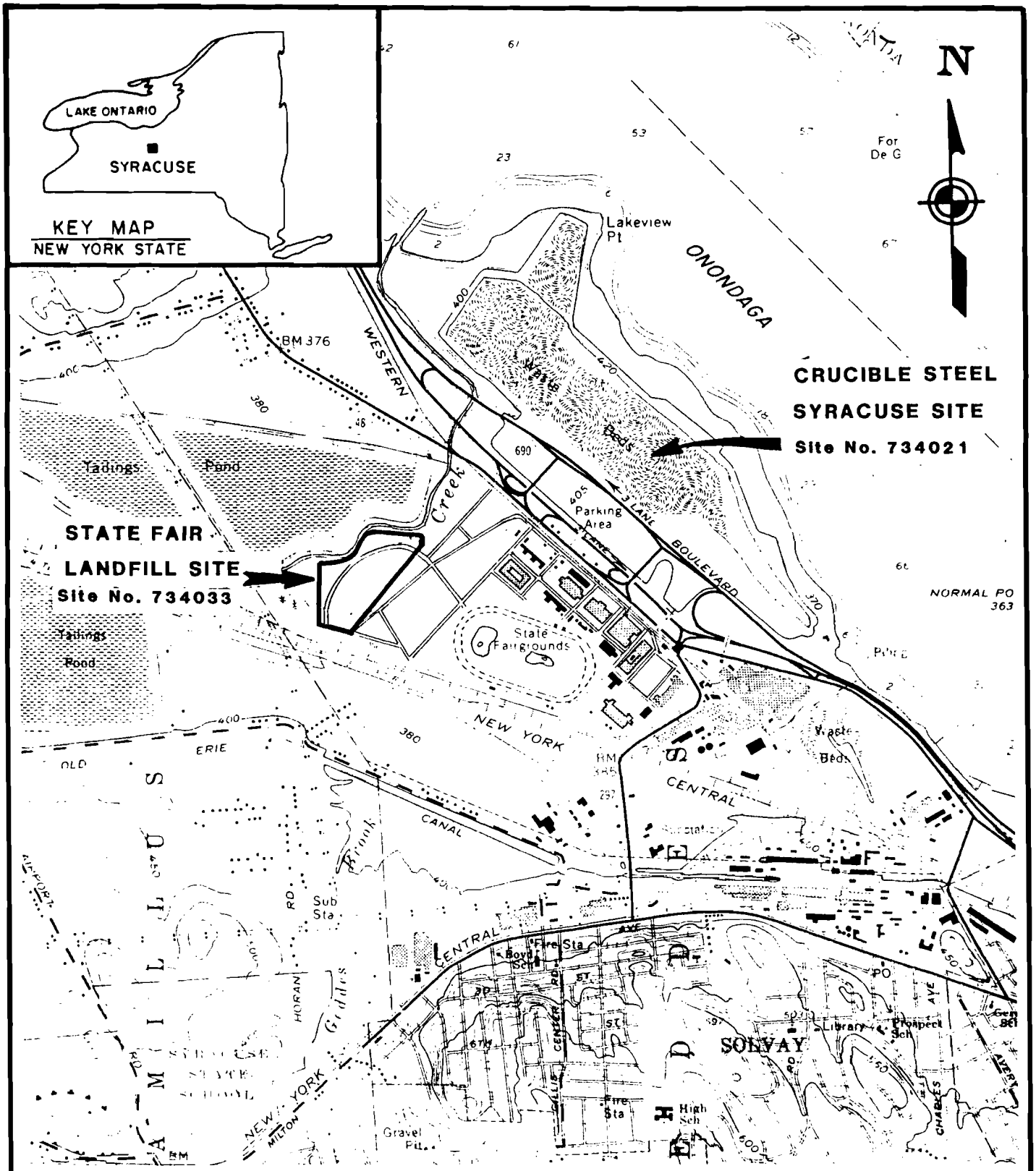
The NYSDEC Inactive Hazardous Waste Site registry sheets indicate that the site was owned and operated by Crucible Specialty Metals, Inc., from 1972 to 1976, and used for the disposal of mill scale and caustic coated solids. This information, according to the registry, was obtained from a plant engineer at Crucible (Ref. 12). However, the site was never

owned by Crucible. In correspondence from 1986 and 1991, both Crucible and the New York State Fair representatives report no knowledge of any involvement by Crucible at the site (Ref. 3,13,14). The only other source to mention dumping by Crucible was a site inspection report prepared by the NUS Corporation for the EPA in 1987. The site was reported as still being actively used for disposal of C&D debris from the NYS Fair in 1986 (Ref. 28). Crucible is known to have disposed of waste in the waste beds that were also located on State Fair Boulevard, across the street from the State Fairgrounds. These waste beds, formerly owned by the State Fair, and used by Crucible Metals, have already been investigated as NYSDEC site No. 734021. Figure 4 shows the location of the waste beds as they appeared in 1958. The site is now owned by Onondaga County and is used as a park (Ref. 3).

Future plans for the State Landfill site include plans for Conrail to put in a rail line in the area that was previously used for fill.

4.2 Site Topography

The State Fair Landfill site is a 20-30 acre portion of the New York State Fairgrounds. The site is bordered to the west and northwest by Ninemile Creek, and to the east by Route 695. The area along Ninemile Creek is overgrown and swampy. The land in this area is relatively flat, with some slope down towards the creek. The larger portion of the site that was used for the disposal of C&D waste is flat, and covered with little or no vegetation. A portion of this area is used for parking during the fair. At the northern corner of the site is a pump station with a rock lined discharge channel. The function of this pump station, and whether or not the station is still in use, is unknown. The NYSDOH was contacted but had no additional information on the facility (Ref. 30). Two large areas of ponded water or leachate were observed in this area.



SOURCE
USGS, SYRACUSE WEST, N.Y. QUADRANGLE
7.5 MINUTE SERIES, 1958

URS CONSULTANTS, INC.	STATE FAIR LANDFILL SITE LOCATION MAP	FIGURE 4

A-3653

The topography of the area surrounding the site is also relatively flat. Interstate Route 690 and Onondaga Lake are located north and east of the site. The areas south and west are a combination of small industrial and residential areas, as well as some larger industrial companies.

4.3 Site Hydrology

Surface Water Hydrology

As shown in Figures 1 and 2, Ninemile Creek, a Class D stream, forms the western and northwestern boundary of the general area where sanitary wastes were disposed at the Fairgrounds site. The surrounding area is relatively flat, with a slope of 0-3% to the northwest in the area around the creek. Previous inspections by the NYSDEC indicated dumping into water, and leaching into a water course (Ninemile Creek) occurring over the years the landfill was in operation (Ref. 4,5,6,7). Ninemile Creek flows into Onondaga Lake, which is slightly more than 1 stream mile from the site (Ref. 15).

NYSDEC Freshwater Wetlands SYW-18 is located directly adjacent to the area where the sanitary waste was disposed. This wetlands is approximately 30 acres in size (Ref. 16).

Groundwater Hydrology

The geology of this area is characterized by soils formed in red calcareous clay that was deposited in glacial lake plains (Ref. 17). The bedrock in this area is typically located at a depth of 100 feet and is the Syracuse formation, consisting of layers of shale, salt, and gypsum (Ref. 18, 28). The majority of the overlying soil at the State Fair Landfill site is classified as the Odessa series, with smaller areas of Lakemont soils. Odessa soils are deep and somewhat poorly drained, with

layers of silty clay loam, silty clay, and clay. Lakemont soils are deep, poorly drained, and moderately fine textured, and are often found in areas of Odessa soils (Ref. 17).

It is assumed that the groundwater in the upper layers of the overburden at the site flows towards Ninemile Creek. The groundwater in the deeper layers of the overburden and in the bedrock is assumed to flow northeast towards Lake Onondaga. The seasonal high water table in the area of the site is assumed to be only 1/2 to 1 foot below the ground surface (Ref. 17).

4.4 Contamination Assessment

Soil Contamination

No soil sampling has been conducted at the State Fair Landfill site. Sanitary waste generated from the fairgrounds, C&D debris, and possibly caustic coated mill scale are the only wastes known to be disposed of at the site. Should any hazardous wastes have been disposed of at the site, soil contamination would be very likely. All wastes were landfilled in unlined trenches and then covered with soil (Ref. 3). No visible evidence of soil contamination was seen during the site inspection.

Groundwater Contamination

No sampling of groundwater at the State Fair Landfill site has been conducted. However, if any hazardous wastes were disposed of at the site, groundwater contamination would be very likely. Waste was landfilled in unlined trenches that were dug along the access road. The seasonal high level of the water table in this area is only 1/2 to 1 foot below the surface. It is therefore assumed that any waste buried at the site would be in contact with the groundwater.

Surface Water Contamination

One water sample was collected and analyzed for metals and indicator parameters by the NYSDEC in August of 1976. Sample results are shown in Table 1. This sample was taken from the areas of ponded water or leachate as shown in Figure 2. It is believed that this water might eventually reach Ninemile Creek, a Class D stream (Ref. 19). Therefore, the sample results were compared to the standards and guidance values for a Class D stream (Ref. 27). As shown in Table 1, of those chemicals for which a limit is available, only iron was exceeded; however, phenols and cyanide are close to exceeding their limits.

Five surface water samples were collected and analyzed for Hazardous Substance List (HSL) parameters by NUS as part of their Site Inspection Report in 1987 (Ref. 28). Sample results were summarized for compounds detected and are shown in Table 2. Two samples were taken from Ninemile Creek, two from the active C&D area, and one from an onsite pond. Sample locations are shown in Reference 28. Compared to Class D limitations (Ref. 27), only iron was found to exceed the limits in all of the samples.

Sediment Contamination

For each of the five surface water samples collected by NUS in 1986, a sediment sample was also collected and analyzed for HSL parameters (Ref. 28). These results are shown in Table 3. Samples 3 and 5 were found to be more contaminated than any of the other samples. These samples, from the C&D area, contained significant amounts of Polynuclear Aromatic Hydrocarbons (PAHs) and the pesticide Dieldrin.

None of the samples taken indicated elevated levels of chromium, iron, or nickel, compared to the average concentration of soils in the Eastern US and class "D" ARARs. These metals are the major constituents of mill scale and waste caustic solids (Ref. 28).

TABLE 1

Summary of Analytical Data -- NYSDEC, August 1976 (Ref. 24)

State Fair Landfill

Parameter	Units	Results	Class D Limitations (Ref. 27)
Cadmium	mg/L	0.02	
Total Chromium	mg/L	0.1	
Copper	mg/L	0.05	
Iron	mg/L	3	0.3
Lead	mg/L	0.1	
Zinc	mg/L	0.05	
COD	mg/L	55	
Total Solids	mg/L	1140	
Total Volatile Solids	mg/L	180	
Total Fixed Solids	mg/L	960	
Sulfate as SO4	mg/L	78	
Phenols	mg/L	0.002	0.005
Cyanides as CN	mg/L	0.2	0.22
Conductivity		1600	
pH		7.4	6-9.5
Alkalinity	mg/L	512	
Nitrogen - Nitrite	µg/l	4	
Nitrogen - NO3 & NO2	mg/L	0.1	
Chloride	mg/L	240	
Total Phosphate	mg/L	0.1	
Nitrogen - Ammonia	mg/L	1	
Total Kjeldahl Nitrogen	mg/L	2.8	

TABLE 2

Summary of Surface Water Analytical Data -- NUS, January 1987 (Ref. 28)

State Fair Landfill

Parameter	Units	SW-1	SW-2	SW-3	SW-4	SW-5	Class D Limit (Ref. 27)
Sample Location		Ninemile Downstream	Ninemile Upstream	C&D Area Leachate	Pond	C&D Area	
Acetone	µg/L		80	140	42	74	
Carbon Disulfide	µg/L					56	
Toluene	µg/L					49	
Bis(2-ethylhexyl)Phthalate	µg/L				63		
Aluminum	µg/L	1130 J	2020 J	200 J	3180 J	1160 J	
Antimony	µg/L	50.9	53.9			110	
Barium	µg/L	111 J	133 J	114 J	162 J	177 J	
Cadmium	µg/L		6.81			5.29	*
Calcium	µg/L	353000	457000	82200	217000	280000	
Cobalt	µg/L	40.6 J					110
Copper	µg/L	10.2 J	12.2 J		17.8 J	23.5 J	*
Iron	µg/L	1650 J	2350 J	1380 J	10500 J	7380 J	300
Lead	µg/L				8.31	9.76	*
Magnesium	µg/L	35000	36200	37300	72900	66700	
Manganese	µg/L	115	175	384	387	2240	
Potassium	µg/L	7740	10100	6770	9030	48800	
Silver	µg/L	14.1	19		12.8	14.1	*
Sodium	µg/L	242000	302000	214000	216000	199000	
Zinc	µg/L		28	39.4	165	445	*

NOTE: All sample locations shown in Reference 28.

* – Limitations were calculated on a sample specific basis as outlined in Reference 27 and are shown on the following page.

J – Compound detected below the specified detection limit.

TABLE 2 (Cont'd)

Summary of Surface Water Analytical Data -- NUS, January 1987 (Ref. 28)

Calculation of ARARs

State Fair Landfill

Parameter	Units	SW-1		SW-2		SW-3		SW-4		SW-5	
		Value	Calc. Limit	Value	Calc. Limit	Value	Calc. Limit	Value	Calc. Limit	Value	Calc. Limit
Calcium	mg/L	353		457		82.2		217		280	
Magnesium	mg/L	35		36.2		37.3		72.9		66.7	
Ca + Mg	mg/L	388		493		120		290		347	
Cadmium	µg/L			6.81	23.7					5.29	15.9
Copper	µg/L	10.2	63.5	12.2	79.7			17.8	48.3	23.5	57
Lead	µg/L							8.31	317.8	9.76	398
Silver	µg/L	14.1	41.8	19	63.1			12.8	25.3	14.1	34.4
Zinc	µg/L			28	1208	39.4	372.4	165	777.2	445	901

NOTE: Limitations were calculated on a sample specific basis as outlined in Reference 27.

TABLE 3

Summary of Sediment Analytical Data -- NUS, January 1987 (Ref. 28)

State Fair Landfill

Parameter	Units	SED-1	SED-2	SED-3	SED-4	SED-5
Sample Location		Ninemile Downstream	Ninemile Upstream	C&D Area Leachate	Pond	C&D Area
Methylene Chloride	µg/kg	28				
Acetone	µg/kg	160	160			
Carbon Disulfide	µg/kg	2 J				
Trichloroethene	µg/kg	6 J				
Benzene	µg/kg	38				
Toluene	µg/kg	23 J				
4-Methylphenol	µg/kg	100 J		210 J		
Naphthalene	µg/kg	79 J		120 J		300 J
2-Methylnaphthalene	µg/kg			86 J		190 J
Acenaphthylene	µg/kg			330 J		83 J
Acenaphthene	µg/kg					510
Dibenzofuran	µg/kg					340
Fluorene	µg/kg					540
Phenanthrene	µg/kg			790		4000
Anthracene	µg/kg			240 J		1300
Fluoranthene	µg/kg			1800		4600
Pyrene	µg/kg			1500		4700
Benzo(a)Anthracene	µg/kg			1300		2900
Bis(2-ethylhexyl)Phthalate	µg/kg	73 J				
Chrysene	µg/kg			1300		2600
Benzo(b)Fluoranthene	µg/kg			1700 *		3900 *
Benzo(a)Pyrene	µg/kg			1300		2500
Indeno(1,2,3-cd)Pyrene	µg/kg			810		1900
Dibenzo(a,h)Anthracene	µg/kg			190		
Benzo(ghi)Perylene	µg/kg			770		1700
Dieldrin	µg/kg			24		300

TABLE 3 (Con't)

Summary of Sediment Analytical Data -- NUS, January 1987 (Ref. 28)

State Fair Landfill

Parameter	Units	SED-1	SED-2	SED-3	SED-4	SED-5	AVERAGE CONCENTRATION EASTERN US
Sample Location		Ninemile Downstream	Ninemile Upstream	C&D Area Leachate	Pond	C&D Area	
Aluminum	mg/kg	11600 J	12100 J	10300 J	31200 J	10800 J	33000
Antimony	mg/kg	154	139	111	163	122	0.52
Barium	mg/kg		51.4 J	89.3 J	131 J	69.4 J	31
Cadmium	mg/kg	4.35			4.47		NA
Calcium	mg/kg	103000 J	42300 J	114000 J	28500 J	46600 J	NA
Chromium	mg/kg	18.9	16.5	36.9	27.8	18.2	33
Cobalt	mg/kg	35.8	37.4 J	38.1	47.8		5.9
Copper	mg/kg	16.7 J	14.3 J	33.4	25	27.7	13
Iron	mg/kg	12600 J	16100 J	16300 J	33200 J	17300 J	14000
Lead	mg/kg	6.77 J	11.5 J	32.4 J	14.1 J	54.7 J	14
Magnesium	mg/kg	52200 J	17600 J	14900 J	18200 J	11300 J	NA
Manganese	mg/kg	261 J	256 J	212 J	591 J	294 J	260
Mercury	mg/kg			0.13		0.19	0.081
Potassium	mg/kg	4440	3480 J	2770 J	9310	2400 J	NA
Silver	mg/kg	9.73		33			NA
Sodium	mg/kg	1360 J	1560 J	438 J	578 J	382 J	NA
Tin	mg/kg	25.5 J	28.0 J	27.5 J	30.0 J	29.2 J	0.86
Vanadium	mg/kg			17.5 J	41.6		43
Zinc	mg/kg	26	76.2	65.7	93.3	79.6	40

NOTE: All sample locations shown in Reference 28.

* - Analysis can not differentiate between Benzo(b)Fluoranthene and Benzo(k)Fluoranthene.

J - Compound detected below the specified detection limit.

Air Contamination

No sampling of air in the vicinity of the site has been conducted. Based on the nature of the waste disposal at the site, air contamination is not considered to be a significant factor at the site. Monitoring of the site with an HNu during the site inspection did not indicate any readings above background levels.

5. ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

5.1 Hazardous Waste Deposition

Wastes known to be disposed of at the location were those wastes generated by the State Fair. These wastes were sanitary wastes, generated mostly during the week of the annual fair, and C&D debris, generated from ongoing operations on the fairgrounds. Sanitary wastes were disposed of at the site from 1940 to the mid-1970s. C&D wastes were disposed at the site from 1972 until 1986 (Ref. 29). Both the NYSDEC registry forms and a report by NUS for the EPA indicate that Crucible Specialty Metals, Inc. used the site for the disposal of caustic coated mill scale. The Environmental & Energy Engineer at Crucible stated that they have no documentation of any hazardous waste being placed in the site (Ref. 13). State Fair employees also maintain that the landfill was only for State Fair use, and do not believe that Crucible ever dumped at the site (Ref. 3). Additionally, neither of the NYSDEC Refuse Disposal Area Inspection Reports nor any letters from this time period, indicate the disposal of any industrial wastes at the site (Ref. 4-11). It is possible that the State Fair Landfill site was confused with a waste bed disposal site that was located on the other side of the State Fair Boulevard. This site (Crucible Steel - Syracuse Operation, #734021) was used by Crucible for the disposal of waste, but has already been investigated, and is now part of the Onondaga Lake County Park, owned and operated by Onondaga County.

5.2 Significant Threat Determination

No evidence of hazardous waste disposal was found at the State Fair Landfill site. Should any hazardous waste have been disposed of at the site, the most significant threat would be by direct contact. Although the geohydrology of the site, and the method of waste disposal would increase contaminant migration from the site, the threat to groundwater is minimal, since no residents are located downgradient of the site. The

threat to surface water is greater because Ninemile Creek, that runs adjacent to the site, flows into Onondaga Lake. This lake is used for recreational purposes, but not however, for drinking water. NYSDEC Wetlands SYW-18 is also located in the disposal area.

5.3 Recommendations

Based upon the available information, it is recommended that a sampling of soil, waste, surface and groundwater be performed to verify whether or not any hazardous waste was disposed of at the site and to more adequately define any potential threats present at the site.

According to Mr. Bill Fredericks, Conrail has plans to put a rail line through the area where the landfill was located. Conrail has stated that they might pay for necessary sampling in order to expedite the process of putting in the new line (Ref. 3).

Specific Recommendations include:

- A geophysical study should be done, prior to drilling, to locate metal objects which could interfere with well drilling equipment; as well as to delineate the area of C&D disposal.

- Soil/waste sampling should, at a minimum, consist of two samples from the sanitary waste area, and two from the C&D area. These samples should be analyzed for TCL parameters and EP Toxicity as well as hazardous waste characteristics to determine if hazardous waste is present.

- A minimum of four groundwater monitoring well pairs should be installed as shown on Figure 2. The well pairs would consist of one well in the upper layers of overburden, and one well in the deeper layers of the overburden. Two well pairs should be

installed between the creek and the waste disposal area and two wells should be installed upgradient of the site. These samples should be analyzed for TCL parameters.

- Surface water and sediment samples should be taken along Ninemile Creek upstream, adjacent, and downgradient of the site. Samples should also be taken from the area of ponded water/leachate. These samples should be analyzed for TCL parameters.

If no evidence of hazardous waste deposition is uncovered as a result of this sampling program, the NYSDEC should delist this site.

APPENDIX A

References

APPENDIX A

REFERENCES

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N ORK STATE DEPARTMENT OF ENVIRONMENTAL CON ATION

(4)

REFUSE DISPOSAL AND INSPECTION REPORT

NAME OF SITE	LOCATION (Town, Village, City)	COUNTY	REGION NO.
N.Y.S. Fairgrounds	Geddes (T)	Onondaga	7
OPERATOR	**ADDRESS**		**SITE NO.**
N.Y.S. Dept. Ag & Markets			
OWNER	**ADDRESS**		
N.Y.S. Dept. Ag & Markets			

EXPLAIN YES ANSWERS ON REVERSE SIDE

	YES	NO
1. Burning at Time of Inspection.	☐	☑
2. Evidence of On-site Burning.	☑	☐
3. Dumping into Water.	☑	☐
4. Leachate Observed At The Site.	☐	☑
5. Leaching into a Water Course.	☐	☑
6. Refuse not Confined to a Manageable Area.	☑	☐
7. Unsatisfactory Daily Soil Cover.	☑	☐
8. Refuse Protruding through Completed Areas.	☑	☐
9. Improper Spreading and Compaction of the Refuse.	☑	☐
10. Pooling of Water, Cover Soil Cracking, Soil Erosion, or Improper Slope on Completed Area.	☐	☑
11. Evidence of Rodents and Insects.	☐	☑
12. Blowing Paper Problem.	☐	☑
13. Salvaging of Refuse Creating a Nuisance.	☐	☑
14. Approach Road Impassable to Vehicular Traffic During part of the year.	☐	☑

CONTROL OF SITE

☐ Signs ☐ Fence and Gate ☐ Supervision ☑ None

EQUIPMENT AT SITE

Type		
None at site		
Size		

TYPE OF REFUSE DISPOSED

☐ Residential ☑ Commercial ☐ Industrial ☑ Demolition ☑ Agricultural ☐ Scavenger

PERSON INTERVIEWED	DATE	TIME
	9-21-73	4:00 P.M
INSPECTED BY (Signature)	**TITLE**	
Larry Gross	Sanitary Engineer.	

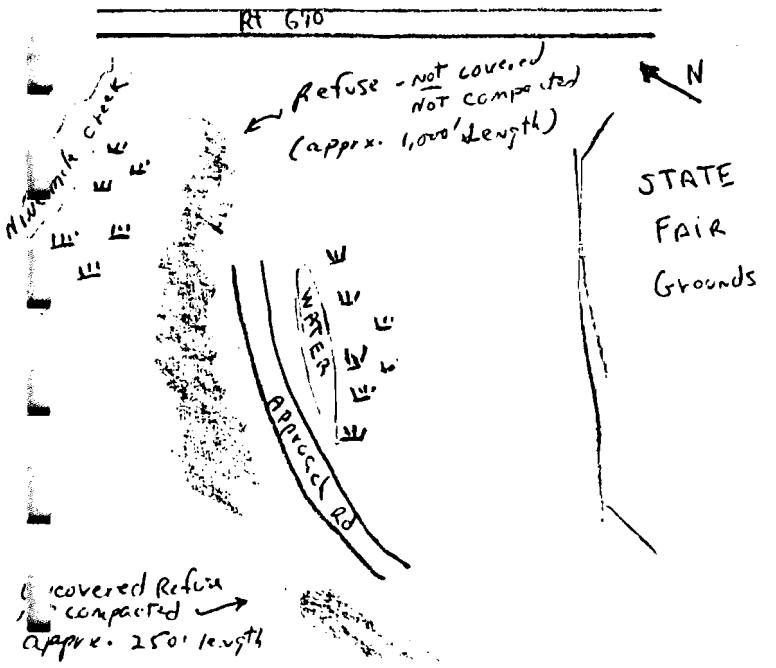
SW-1 (12/71)

QUESTION NO.	EXPLANATION OF YES ANSWER
2	Ashes present from fires that occurred week of 8/13/73
3	Refuse dumped in wetland adjacent to Nine-mile Creek.
6.	No means of confining Refuse. Refuse dumped along Stretch of approach road. Area spread out quite far making it difficult to operate properly
7+8	Old Refuse still not compacted or covered. Most of the refuse still remains from St. Fair week.
9.	No signs of any spreading or compaction

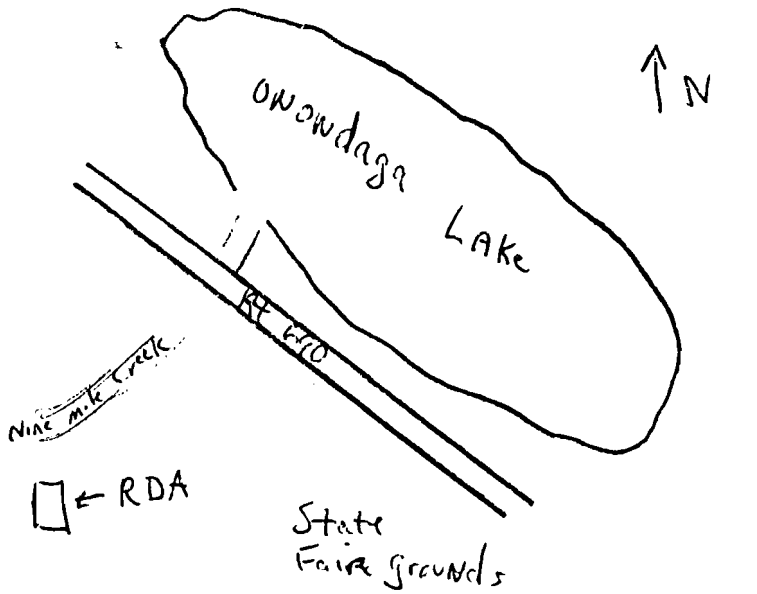
Cover material was being brought into the site during inspection. Cover material was being stockpiled between refuse and approach road

See photographs taken during inspection

REFUSE SITE SKETCH



LOCATION SKETCH



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

(5)

REFUSE DISPOSAL AREA INSPECTION REPORT

NAME OF SITE	LOCATION (Town, Village, City)	COUNTY			REGION NO.	
[illegible] STATE FAIR GROUNDS	[illegible] GEDDES	ONONDAGA			7	
OPERATOR	ADDRESS				SITE NO.	
N. Y. S. SYRACUSE [illegible]						
OWNER	ADDRESS					
N. Y. S.						

EXPLAIN YES ANSWERS ON REVERSE SIDE

	YES	NO
1. Burning at Time of Inspection.	☐	☑
2. Evidence of On-site Burning.	☐	☑
3. Dumping into Water.	☑	☐
4. Leachate Observed At The Site.	☑	☐
5. Leaching into a Water Course.	☑	☐
6. Refuse not Confined to a Manageable Area.	☑	☐
7. Unsatisfactory Daily Soil Cover.	☑	☐
8. Refuse Protruding through Completed Areas.	☑	☐
9. Improper Spreading and Compaction of the Refuse.	☑	☐
10. Pooling of Water, Cover Soil Cracking, Soil Erosion, or Improper Slope on Completed Area.	☑	☐
11. Evidence of Rodents and Insects.	☐	☑
12. Blowing Paper Problem.	☐	☑
13. Salvaging of Refuse Creating a Nuisance.	☐	☑
14. Approach Road Impassable to Vehicular Traffic During part of the year.	☐	☑

CONTROL OF SITE

☐ Signs ☑ Fence and Gate ☐ Supervision ☐ None

EQUIPMENT AT SITE

Type	—	—	—
Size	—	—	—

TYPE OF REFUSE DISPOSED

☐ Residential ☑ Commercial ☐ Industrial ☑ Demolition ☑ Agricultural ☐ Scavenger

PERSON INTERVIEWED	DATE Month	Day	Year	TIME
—	05	24	76	9:04 - 9:53 AM

INSPECTED BY (Signature) Daniel C. Abbott

TITLE ENVIRONMENTAL HEALTH TECH.

SC 1 (12/71)

NEW STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

(6)

REFUSE DISPOSAL AREA INSPECTION REPORT

NAME OF SITE	LOCATION (Town, Village, City)	COUNTY	REGION NO.
STATE FAIR DUMP	GEDDES	ONONDAGA	7
OPERATOR	**ADDRESS**		**SITE NO.**
N.Y.S. FAIR MAINTENANCE	DEPARTMENT		
OWNER	**ADDRESS**		
N.Y.S.			

EXPLAIN YES ANSWERS ON REVERSE SIDE

	YES	NO
1. Burning at Time of Inspection.	☐	☑
2. Evidence of On-site Burning.	☐	☑
3. Dumping into Water.	☑	☐
4. Leachate Observed At The Site.	☑	☐
5. Leaching into a Water Course.	☑	☐
6. Refuse not Confined to a Manageable Area.	☑	☐
7. Unsatisfactory Daily Soil Cover.	☑	☐
8. Refuse Protruding through Completed Areas.	☑	☐
9. Improper Spreading and Compaction of the Refuse.	☑	☐
10. Pooling of Water, Cover Soil Cracking, Soil Erosion, or Improper Slope on Completed Area.	☐	☑
11. Evidence of Rodents and Insects.	☐	☑
12. Blowing Paper Problem.	☐	☑
13. Salvaging of Refuse Creating a Nuisance.	☐	☑
14. Approach Road Impassable to Vehicular Traffic During part of the year.	☐	☑

CONTROL OF SITE

☑ Signs ☐ Fence and Gate ☐ Supervision ☑ None

EQUIPMENT AT SITE

Type		
BULLDOZER		
Size		
MEDIUM		

TYPE OF REFUSE DISPOSED

☐ Residential ☑ Commercial ☐ Industrial ☑ Demolition ☑ Agricultural ☐ Scavenger

PERSON INTERVIEWED	DATE (Month / Day / Year)	TIME
—	08 / 26 / 76	12:50 - 1:37 P.M.

INSPECTED BY (Signature): David C. Abbott

TITLE: ENVIRONMENTAL HEALTH TECH.

SW-1 (12/71)

Ray Bill

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

REFUSE DISPOSAL AREA INSPECTION REPORT

(7)

NAME OF SITE	LOCATION (Town, Village, City)	COUNTY	REGION NO.
NEW YORK STATE FAIRGROUNDS DUMP	GEDDES	ONONDAGA	
OPERATOR NEW YORK STATE FAIRGROUNDS MAINTAINANCE	**ADDRESS** SOLVAY, NEW YORK		**SITE NO.**
OWNER NEW YORK STATE	**ADDRESS**		

EXPLAIN YES ANSWERS ON REVERSE SIDE

	YES	NO
1. Burning at Time of Inspection.	☐	☑
2. Evidence of On-site Burning.	☐	☑
3. Dumping into Water.	☑	☐
4. Leachate Observed At The Site.	☑	☐
5. Leaching into a Water Course.	☑	☐
6. Refuse not Confined to a Manageable Area.	☐	☑
7. Unsatisfactory Daily Soil Cover.	☑	☐
8. Refuse Protruding through Completed Areas.	☑	☐
9. Improper Spreading and Compaction of the Refuse.	☑	☐
10. Pooling of Water, Cover Soil Cracking, Soil Erosion, or Improper Slope on Completed Area.	☑	☐
11. Evidence of Rodents and Insects.	☐	☑
12. Blowing Paper Problem.	☐	☑
13. Salvaging of Refuse Creating a Nuisance.	☐	☑
14. Approach Road Impassable to Vehicular Traffic During part of the year.	☐	☑

CONTROL OF SITE

☑ Signs ☐ Fence and Gate ☐ Supervision ☐ None

EQUIPMENT AT SITE

Type			
Size			

TYPE OF REFUSE DISPOSED

☐ Residential ☑ Commercial ☐ Industrial ☑ Demolition ☑ Agricultural ☐ Scavenger

PERSON INTERVIEWED	DATE Month	Day	Year	TIME
	06	28	78	3:15 - 3:28 P.M.

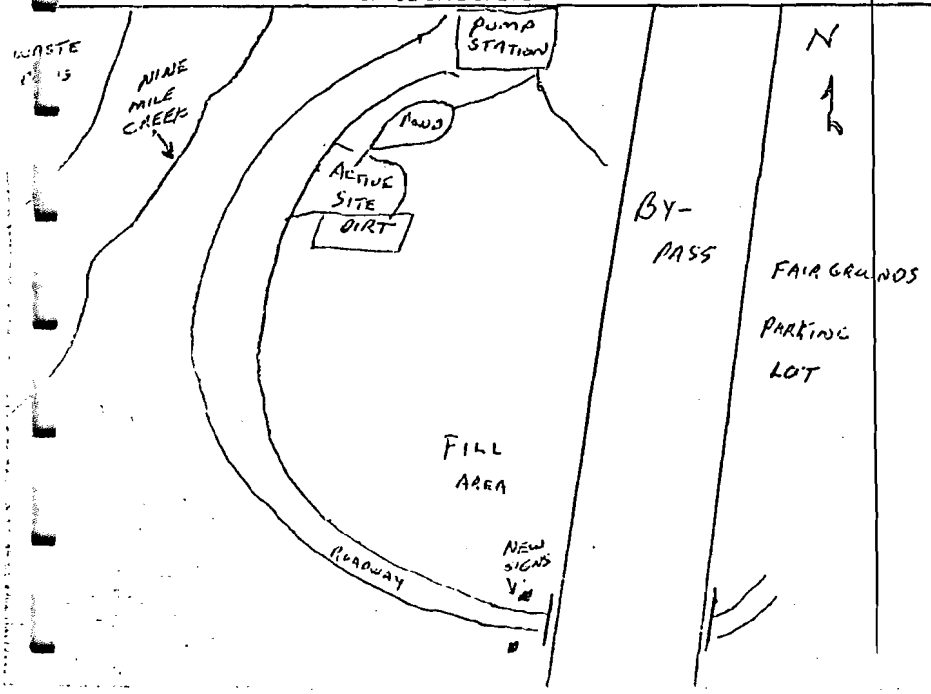
INSPECTED BY (Signature) Daniel C. Abbott

TITLE ENVIRONMENTAL HEALTH TECH. II

EW-1 (12/71)

QUESTION NO.	EXPLANATION OF YES ANSWERS
	NEW, NO DUMPING SIGNS, HAVE BEEN PUT UP AT ENTRANCE TO DUMP. (7)
7c, 8, 9, 10,	TOOK PICTURE OF UNCOVERED REFUSE. FORWARD EDGE OF REFUSE IS NOT COMPACTED, & SLOPED OR COVERED WITH DIRT. NO EQUIPMENT BEING OPERATED. DIRT WAS BEING ~~HAULED~~ HAULED INTO SITE.
3.	REFUSE STILL BEING DUMPED INTO WATER.
4, 5	LEACHATE AT THE BASE OF ACTIVE DUMPING EDGE GOING INTO POND WHICH THEN FLOWS TO NINE MILE CREEK.

REFUSE SITE SKETCH



LOCATION SKETCH

(8)

Region 7, Environmental Quality Office

May 16, 1973

Mr. Bernard Fetter
Director
New York State Fair
New York State Fairgrounds
Administrative Building
Syracuse, New York

Dear Mr. Fetter:

This is to confirm our inspection and discussions regarding the State Fairgrounds refuse disposal area.

Our inspections indicated that the refuse disposal area is not being operated in compliance with Part 19 of the State Sanitary Code. As we discussed, refuse must be compacted and covered with six inches of soil on a daily basis. Refuse must be confined to a manageable area and fences or other means must be used to control blowing papers. You indicated that you would immediately see to it that all refuse at the site would be compacted and properly covered.

Our office is presently reviewing all refuse disposal sites in the County and the Region. All sites that are not in compliance are being subjected to legal action to either upgrade their operation or phase them out. Naturally in order to make our program as effective as possible, any refuse disposal area operated by an agency of the State of New York should be at least in minimum compliance with our regulations if not a model operation itself.

Covering all existing refuse at the site may bring the site into compliance with our regulations. However, a long term solution will probably be desirable. Continued operation of the existing site will probably only lead to more problems. It may be difficult and expensive for the State Fair to compact and cover all refuse every day of operation. In addition with the consummation of the new Civic Center, the site will be in [illegible] to passenger [illegible]. Needless to say, this may result in complaints from passing motorists regarding a visual eyesore.

(8)

As you may be aware, the County Solid Waste Authority has been created for the express purpose of disposing of all solid wastes generated within the County in an environmentally sound manner. Therefore, I would recommend that the best alternative might be to set up a transfer station at the State Fairgrounds and periodically have the waste hauled to the County Solid Waste Authority disposal site.

If I can be of any assistance in these matters, feel free to contact me.

Thank you for your cooperation in this matter.

Very truly yours,

Larry Croce
Sanitary Engineer
Solid Waste Engineering

cc: Mr. S. Bundick
Bureau of Solid Waste
Mr. Hicks

File State Fair

(9)

TO: Peter Hogan - Director Office of Budget and Accounting

FROM: Larry Gross - Region 7 Headquarters sent via Teletype 10/21/75

SUBJECT: State Fairgrounds Refuse Compactor

This is in reference to your phone conversation with Bill Hicks regarding the solid waste compactor for the State Fairgrounds.

The State Fairgrounds maintains their own refuse disposal area. This area has never been in compliance with Department rules and regulations. In fact, the site is adjacent to Nine Mile Creek and its presence has at times resulted in leachate and garbage polluting the creek.

The location of the disposal site has been out of sight from the general public. However, a new interstate highway is under construction which will make the area clearly visible to all travelers. Certainly the knowledge of this situation will cause an outcry from the public and embarassment to the Department and other State officials.

The Department has been promoting a comprehensive solid waste management program as a solution to this and other similar problems. The county has developed and is attempting to implement a program calling for regionalized shredding and landfill with future resource-recovery. Hopefully other state agencies will help to make this program a success while eliminating their own environmental programs.

The problem at the State Fair is year round. Certainly the majority of the waste is generated during a 3 week period - before, during and after the fair. However, the fairgrounds is open and receives heavy use during the entire year for exhibits, sporting events and other shows. The compactor system would, therefore, be in use year-round.

We investigated a number of alternate solutions with the State Fair people. The system with the compactor is by far the most economical and flexible. It can be used year round in a convenient safe and environmentally sound manner. The system

can cut down expensive collection and haul costs, and is adaptable to any disposal system the county or the Fairgrounds decides to use.

Needless to say, we strongly recommend the Department of Agriculture and Markets to implement this system.

cc: Mr. Gross
KEVIN
file

(10)

Mr. Halton
Mr. Sheneman
Landfill Leachate Inspection
New York State Fairgrounds
June 9, 1976

On May 24, 1976, Dan Abbott of the Onondaga County Health Department, Kevin Hanifin and I inspected the landfill area used by the New York State Fairgrounds. Leachate was found to be flowing in moderate amounts along the eastern edge of the fill area toward Nine Mile Creek.

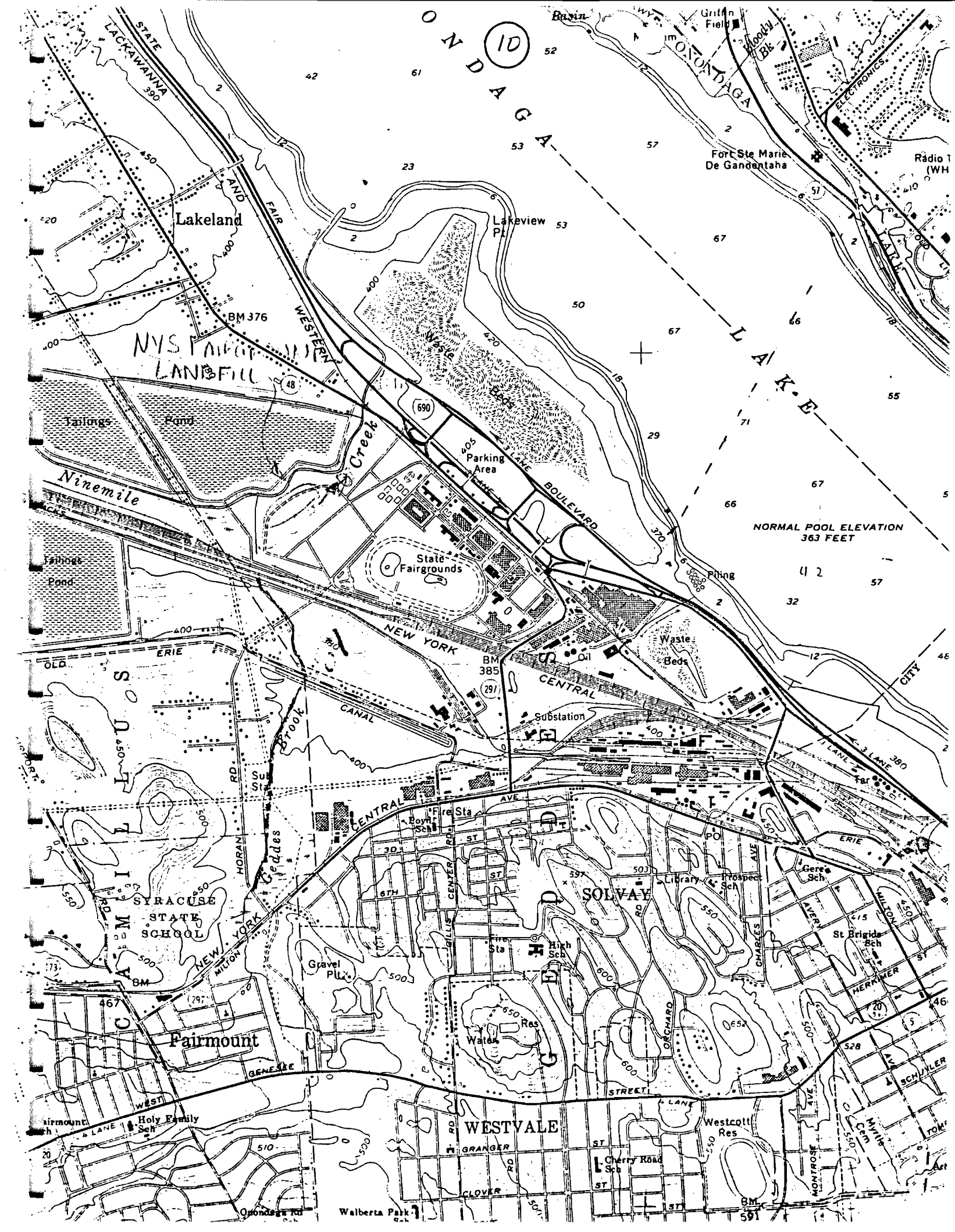
The stream carrying the leachate flow went underground at the northeast corner of the landfill in the vicinity of a pump station which periodically discharges to Nine Mile Creek. We were unable to determine if the leachate is discharged along with the flow from the pump station but I will attempt to find out.

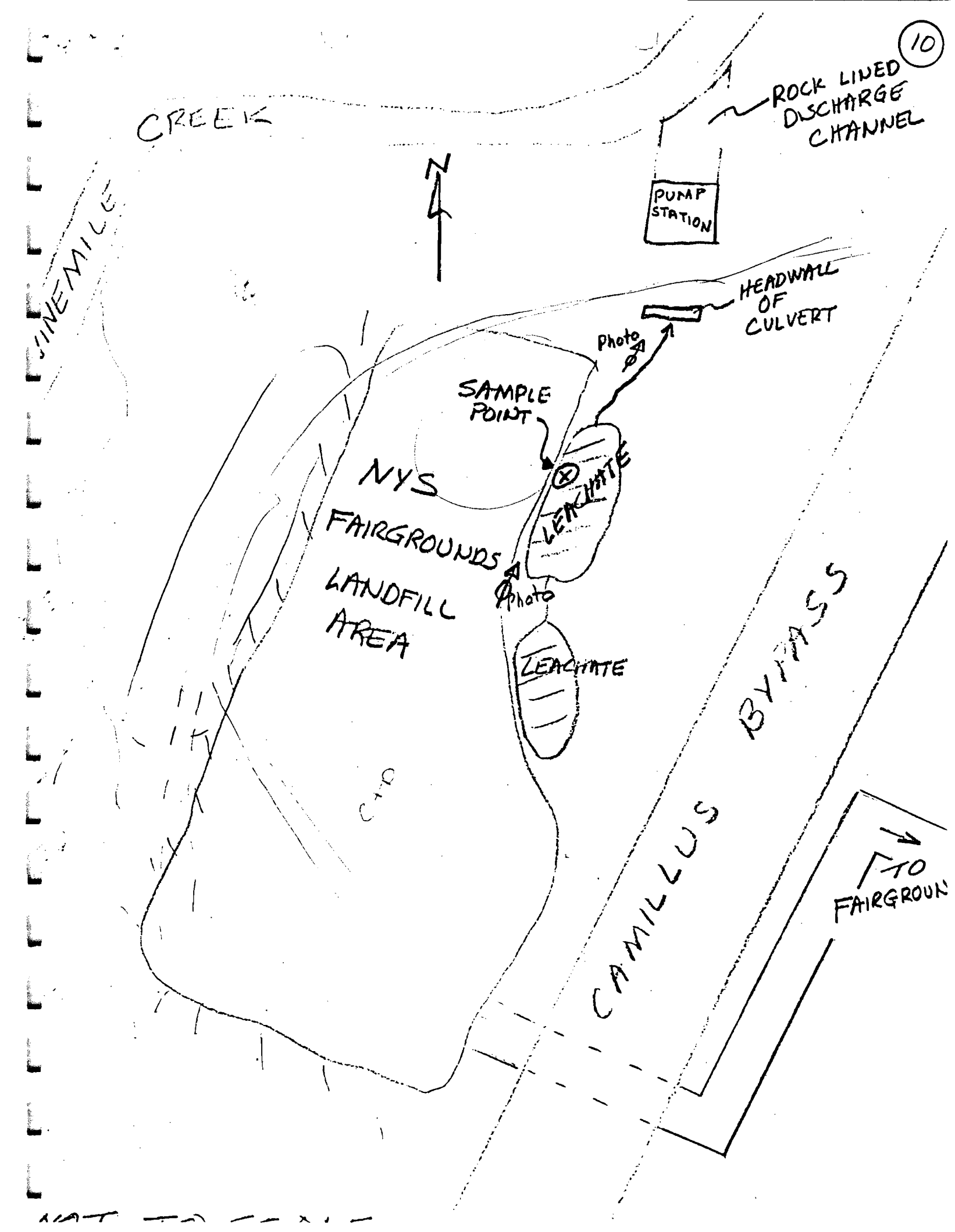
One set of samples was taken from a pond of leachate on the eastern side of the landfill. Two photographs, one depicting the leachate pond, the other showing the culvert into which the above mentioned stream flows, were taken.

The location and layout of the landfill are shown on the attached map and sketch.

attach.

cc: Mr. Gross


ONONDAGA LAKE
Basin
Griffin Field
Moody Bk
ELECTRONICS
Fort Ste Marie De Gandentaha
Radio T (WH
STATE LACKAWANNA
AND
FAIR
WESTERN
Lakeland
Lakeview Pt
BM 376
NYS Fair LANDFILL
Waste Beds
Tailings Pond
Creek
Ninemile
Parking Area
BOULEVARD
NORMAL POOL ELEVATION 363 FEET
Piling
State Fairgrounds
Tailings Pond
NEW YORK
CENTRAL
ERIE
OLD
BM 385
Oil
Waste Beds
CANAL
Substation
Brook
SYRACUSE
HORAN RD
Geddes
CENTRAL AVE
Fire Sta
Boys Sch
PO
Library
Prospect Sch
Gere Sch
SOLVAY
SYRACUSE STATE SCHOOL
NEW YORK
MILTON
Gravel Pit
High Sch
St Brigids Sch
HERKIMER
Fairmount
Water Res
ORCHARD
GENESEE
STREET
WEST
Holy Family Sch
WESTVALE
Westcott Res
GRANGER
Cherry Road Sch
CLOVER
Onondaga Rd
Walberta Park Sch
BM 591
Cem
Myrtle
MONTROSE
SCHUYLER
CITY


CREEK
ROCK LINED DISCHARGE CHANNEL
N
PUMP STATION
HEADWALL OF CULVERT
Photo
SAMPLE POINT
NYS FAIRGROUNDS LANDFILL AREA
LEACHATE
Photo
LEACHATE
CAMILLUS BYPASS
TO FAIRGROUN

Peter Berle
xxxxxxxxxxxx

Region 7, Environmental Quality Office

June 1, 1976

Mr. Thomas Young
Director
New York State Fairgrounds
Syracuse, NY 13209

Dear Mr. Young:

On May 24, 1976 Mr. Daniel Abbott of the Onondaga County Health Department inspected the Fairgrounds refuse disposal area. The inspection report indicated that the disposal area is in violation of Part 360 of the Environmental Conservation rules and regulations.

Specific violations include:

- Unsatisfactory daily soil cover

- Refuse protruding through completed areas

- Improper spreading and compaction

Please take appropriate action to correct the above. If you have any questions or we can be of any assistance, please contact me.

Very truly yours,

Kevin B. Hanifin
Senior Engineering Technician
Solid Waste Management

cc: Onondaga County Health Department

(12)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE: 2a REGION: 7 SITE CODE: 734033
EPA ID:

NAME OF SITE : State Fair Landfill
STREET ADDRESS: Adjacent to Route 695

TOWN/CITY:	COUNTY:	ZIP:
Solvay	Onondaga	13209

SITE TYPE: Open Dump- Structure- Lagoon- Landfill-X Treatment Pond-
ESTIMATED SIZE: 20 Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: NYS Dept. of Agriculture and Markets
CURRENT OWNER ADDRESS.: State Office Bldg. Campus, Albany, NY
OWNER(S) DURING USE...: Crucible Specialty Metals, Inc.
OPERATOR DURING USE...: Crucible Specialty Metals, Inc.
OPERATOR ADDRESS.....: State Fair Blvd., Syracuse, NY
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From 1972 To 1976

SITE DESCRIPTION:
A fenced-in site within close proximity to I-695 the New York State Fairgrounds. Site is surrounded by swampland to the east. According to the Crucible Co. plant engineer, caustic coated mill scale from the steel mill operation was disposed of here from 1972-76. An EPA site investigation has been completed. The site was also investigated by DEC staff in July of 1985. A Phase I investigation is planned.

HAZARDOUS WASTE DISPOSED:	Confirmed-	Suspected-X
TYPE		QUANTITY (units)

42

(12)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE: 2a REGION: 7 SITE CODE: 734033
EPA ID:

NAME OF SITE : State Fair Landfill
STREET ADDRESS: Adjacent to Route 695
TOWN/CITY: COUNTY: ZIP:
Solvay Onondaga 13209

SITE TYPE: Open Dump- Structure- Lagoon- Landfill-X Treatment Pond-
ESTIMATED SIZE: 20 Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: NYS Dept. of Agriculture and Mar
CURRENT OWNER ADDRESS.: State Office Building Campus, Albany, NY
OWNER(S) DURING USE...: Crucible Specialty Metals, Inc.
OPERATOR DURING USE...: Crucible Specialty Metals, Inc.
OPERATOR ADDRESS.....: State Fair Blvd., Syracuse, NY
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From 1972 To 1976

SITE DESCRIPTION:
A fenced in site within close proximity to I-695 the New York State Fairgrounds. Site is surrounded by swampland to the east. According to the Crucible Co. plant engineer, caustic coated mill scale from the steel mill operation was disposed of here from 1972-76. An EPA site investigation was done here. The site was also investigated by DEC staff in July of 1985.

- See attached -

HAZARDOUS WASTE DISPOSED: TYPE	Confirmed-	Suspected-X QUANTITY (units)

14

SITE CODE: 734033

ANALYTICAL DATA AVAILABLE:
Air- Surface Water- Groundwater- Soil-X Sediment- None-X

CONTRAVENTION OF STANDARDS:
Groundwater- Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE..: State- Federal-
STATUS: Negotiation in Progress- Order Signed-

REMEDIAL ACTION:

Proposed- Under design- In Progress- Completed-
NATURE OF ACTION:

GEOTECHNICAL INFORMATION:
SOIL TYPE:
GROUNDWATER DEPTH:

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

unknown

ASSESSMENT OF HEALTH PROBLEMS:

Medium	Contaminants Available	Migration Potential	Potentially Exposed Population	Need for Investigation
Air				
Surface Soil				
Groundwater				
Surface Water				

Health Department Site Inspection Date :

MUNICIPAL WASTE ID: 34-S-13

(12.)

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35231.00.11400 JOB NAME NYSDEC Standby - State Fair Landfill

MEMO OF TELECON

DATE 2-1-91 TELEPHONE (315) 426-7551

PERSON CALLING D. McCall PERSON CALLED JOHN MAY

REPRESENTING URS - Buffalo REPRESENTING SANITARY ENGINEER - NYSDEC

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED: INFO. ON THE NYSDEC REGISTRY INFORMATION

TEXT OF TELECON

ACCORDING TO JOHN, THE EPA STUDY WAS DONE AT THE SITE BY NUS BUT THEY DON'T HAVE THE REPORT AT THE DEC. HE DOESN'T BELIEVE THAT THE 1985 NYSDEC STUDY WAS EVER DONE AT THIS SITE.

cc:

C. Goddard thru Rosenbush
a:a

Materials
Corporation

Crucible Materials Corporation
Box 977
Syracuse, New York 13201
[illegible]/487-4111
TX 757559

13

TK
I Check this out - please
RHO
keep me posted would like
T
writing.
1986.

960943

Mr. Henry G. Williams
Commissioner
Dept. of Environmental Conservation
50 Wolf Road
Albany, New York 12233-0001

Re: Inactive Site Code 734033

Dear Mr. Williams:

Your letter of January 7 indicates your records [illegible]ible Specialty Metals as owner of:

DEC Site: #734033
Site Name: State Fair Landfill
Site Address: Adjacent to Route 695 Solvay, New York (Onondaga Co.)

As per my January 9, 1986 phone conversation with your Mr. Charles N. Goddard, please co[redacted]ce Code #734033 is owned by New York State Department of Agriculture and Markets and was never owned by Crucible Specialty Metals Inc.

Also note that there is no documentation of any hazardous waste being placed in the site. A maximum of 25 cubic yards of caustic coated mill scale could have geen generated by Crucible during this time period, but there is no indication that it was generated or that it went to this site.

If you have any questions, please contact me.

Very truly yours,

Robert H. Wills, Jr.
Environmental & Energy Engineer

RHW:ifs

cc: R. J. Taggart
R. H. Blum
H. O. Simmons
J. T. Devaney

[illegible] JAN 2 3 1986 [illegible]

white
FILE

(14)

Region #7 Correspondence.

February 19, 1986

Mr. Robert H. Wills, Jr.
Environmental & Energy Engineer
Crucible Specialty Metals Division
Box 977
Syracuse, NY 13201

Dear Mr. Wills:

Re: State Fair Landfill - Site ID No. 734033

This letter is in response to your recent telephone call to me concerning ownership of the State Fair Landfill property in the Town of Geddes. I contacted the staff from our Region 7 office and discussed the matter with them. They in turn checked their records and determined that you are correct regarding ownership. The land is indeed owned by the State of New York Fairgrounds Commission. We have made note of this information in our Registry file,* so consequently, next year's Registry will refect this correction. For your information, I have enclosed a copy of the site report as it appears in the Registry.

If you should have any further questions or comments concerning this site, please do not hesitate to contact Mr. Robert Olazagasti at (518) 457-0747.

Sincerely,

Charles N. Goddard, P.E.
Chief
Bureau of Hazardous Site Control
Division of Solid and Hazardous Waste

Enclosure

TK/CNG:cl

bcc: R. Olazagasti
T. Koch
L. Gross, Region 7

* Change noted in the Registry file on 3/6/86

(24)

Division of Solid Waste Management
(Water Analysis Summary Report)

Solid Waste Disposal Area NYS FAIRGROUND Location (Common Name)

Exact Sampling Point S.E. NEAR Pump House County ONONDAGA Gazetteer Number 3356

Type of Sample: [X] Leachate [ ] Groundwater [ ] Surface Water [ ] Other

Parameter / Date	Cadmium	Chromium Total	Copper	Iron	Lead	Zinc	C.O.D.	Solids Total	Solids Total Volatile	Solids Total Fixed	Sulfate as SO_4	Phenols
5-24-76	0.02	0.1	0.05	3.0	0.1	0.05	55.	1140	180	960	78	0.002

(24)

(Water Analysis Summary Report)

lid Waste Disposal Area Fairgrounds Location
(Common Name)

act Sampling Point County Gazetteer Number

pe of Sample: / /Leachate / /Groundwater / /Surface Water / /Other

Parameter / Date	Cyanides as CN	Conduct @ 25 deg us/cm2	pH (Lab)	Alkalinity M Orange	Nitrogen Nitrite	Nitrogen Nitrate + Nitrite	Chloride	Phosphate Total as P	Nitrogen Ammonia	Nitrogen KJEL INC. NH_3			
5-24-76	0.2	1600.	7.4	512.	4.	0.1	240.	0.10	1.0	2.8			

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

LARRY

(24)

RESULTS OF EXAMINATION
(PAGE 1 OF 2)

LAB ACCESSION NO: 03510 YR/MO/DAY/HR SAMPLE REC'D: 76/05/24/16

REPORTING LAB: 34 SYRACUSE LAB
PROGRAM: 650 SOLID WASTES
STATION (SOURCE) NO:
DRAINAGE BASIN: 07 NY GAZETTEER NO: 3356 COUNTY: ONONDAGA
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: NYS FAIRGROUND SANITARY LANDFILL

EXACT SAMPLING POINT: SITE NEAR PMP HSE
TYPE OF SAMPLE: 24 LEACHATE
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 05/24/10
REPORT SENT TO: CO (1) RO (2) LPHE (1) LHO (0) FED (0) CHEM (0)

PARAMETER		UNIT	RESULT	NOTATION
009701	CADMIUM	MG/L	0.02	LT
009801	CHROMIUM, TOTAL	MG/L	0.1	LT
009901	COPPER	MG/L	0.05	LT
010001	IRON	MG/L	3.0	
010101	LEAD	MG/L	0.1	
010901	ZINC	MG/L	0.05	LT
006501	C.O.D.	MG/L	55.	
002501	SOLIDS,TOTAL	MG/L	1140.	
002601	SOLIDS,TOTAL,VOLATILE	MG/L	180.	
039701	SOLIDS TOTAL FIXED	MG/L	960.	
002401	SULFATE AS S04	MG/L	78.	
002701	PHENOLS	MG/L	0.002	

DATE COMPLETED: 6/17/76

N.Y.S. ENVIRONMENTAL CONSERVATION DEPT.
REGION 7, ENVIRONMENTAL QUALITY OFFICE
100 ELWOOD DAVIS ROAD
NORTH SYRACUSE, N.Y. 13212

SUBMITTED BY: SHENMN

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF LABORATORIES AND RESEARCH
ENVIRONMENTAL HEALTH CENTER

RESULTS OF EXAMINATION
(PAGE 2 OF 2)

LAB ACCESSION NO: 03510 YR/MO/DAY/HR SAMPLE REC'D: 76/05/24/16

REPORTING LAB: 34 SYRACUSE LAB
PROGRAM: 650 SOLID WASTES
STATION (SOURCE) NO:
DRAINAGE BASIN: 07 NY GAZETTEER NO: 3356 COUNTY: ONONDAGA
COORDINATES: DEG ' "N, DEG ' "W
COMMON NAME INCL SUBW'SHED: NYS FAIRGROUND SANITARY LANDFILL

EXACT SAMPLING POINT: SITE NEAR PMP HSE
TYPE OF SAMPLE: 24 LEACHATE
MO/DAY/HR OF SAMPLING: FROM 00/00 TO 05/24/10
REPORT SENT TO: CO (1) RO (2) LPHE (1) LHO (0) FED (0) CHEM (0)

PARAMETER		UNIT	RESULT	NOTATION
002901	CYANIDES AS CN	MG/L	0.2	LT
103800	CONDUCT, 25DEG.US/CM2 W		1600.	
001900	PH (LABORATORY)		7.4	
001501	ALKALINITY,M'ORANGE,	MG/L	512.	
000709	NITROGEN, NITRITE	MCG/L	4.	
000801	NITROGEN,NITRATE&NITRITE	MG/L	0.1	LT
001001	CHLORIDE	MG/L	240.	
107101	PHOSPHATE, TOTAL AS P	MG/L	0.10	
000501	NITROGEN, AMMONIA	MG/L	1.0	
006401	NITROGEN KJELD.INC.NH3	MG/L	2.8	

DATE COMPLETED: 6/17/76

N.Y.S. ENVIRONMENTAL CONSERVATION DEPT.
REGION 7, ENVIRONMENTAL QUALITY OFFICE
100 ELWOOD DAVIS ROAD
NORTH SYRACUSE, N.Y. 13212

SUBMITTED BY: SHENMN

Phyllis (25)

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

URS CONSULTANTS, INC.
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202-1207
(716) 883-5525
FAX: (716) 883-0754

ATLANTA
BOSTON
BUFFALO
CLEVELAND
COLUMBUS
DENVER
NEW YORK
PARAMUS, NJ
NEW ORLEANS
SAN FRANCISCO
TAMPA
TRENTON
WASHINGTON

December 17, 1990

Mr. John Ozard
New York State Department of
Environmental Conservation
Information Services
700 Troy Schenectady Road
Latham, New York 12110

RE: DISTANCE TO CRITICAL HABITAT OF ENDANGERED SPECIES

Dear Mr. Ozard:

URS Consultants, Inc. is currently conducting several Preliminary Site Assessments (PSA) in Central New York.

We are performing this investigation under contract to the New York State Department of Environmental Conservation (NYSDEC) pursuant to the requirements of the New York State Environmental Conservation Law, Section 27-1309.

In order to complete the HRS scoring for this investigation, the distance to a critical habitat of an endangered species is needed.

Enclosed please find copies of portions of USGS 7.5' quadrangles listed below with the sites highlighted. The maps have a scale of 1:24,000 and a one mile radius is marked.

- Majestic Weaving, #336028, Cornwall, New York Quadrangle.
- L&B Products, #411004, Hudson North, Stottville, New York Quadrangle.
- Cadosia Lumber, #413012, Hancock Quadrangle.
- Jackson Farms, #447012, Schenectady Quadrangle.
- Valenite, #734023, Syracuse East Quadrangle
- State Fair Landfill, #734033, Syracuse West Quadrangle
- Niagara Mohawk Fire Training School, #738030, Oswego East Quadrangle.
- Colonie Town Landfill, #401004, Troy North Quadrangle.
- Saratoga Springs Landfill, #546008, Saratoga Quadrangle.

In addition, we are currently conducting several Phase II investigations for the NYSDEC.

URS

AN INTERNATIONAL PROFESSIONAL ENGINEERING FIRM

In a 1986 Phase I reported for the Saratoga Springs Landfill, by Wehran Engineering, a significant habitat was identified. The Significant Habitat Report identified two areas within 1 mile of the site as being significant habitats of the Karner Blue Butterfly, an endangered species. As this report is four years old, I am requesting an update on this Significant habitat.

In addition, URS Consultants is also working on a Phase II report for the Town of Colonie Landfill. The additional sites for which information is needed are:

- Saratoga Springs Landfill, #546008, Saratoga Quadrangle.
- Colonie Town Landfill, #401004, Troy North Quadrangle.

I hope this information will be sufficient.

Sincerely,.

URS CONSULTANTS, INC.

Phyllis Rettke

Phyllis Rettke
Geologist

PR/ys

12-17-90.DEC
35231.00 (File: 5010)

(26)

New York State Department of Environmental Conservation

Information Services
Wildlife Resources Center
700 Troy-Schenectady Road
Latham, New York 12110-2400

Thomas C. Jorling
Commissioner

January 11, 1991

RECEIVED
URS CONSULTANTS
JAN 22 1991
JOB #

Phyllis Rettke
URS Consultants, Inc.
570 Delaware Avenue
Buffalo, New York 14202-1207

Dear Ms. Rettke:

We have reviewed the Significant Habitat Unit and the NY Natural Heritage Program files with respect to your request for biological information concerning several preliminary site assessments in central New York.

Enclosed you will find a computer printout covering the area you requested to be reviewed by our staff. The information contained in this report is confidential and may not be released to the public without permission from the Significant Habitat Unit.

Our files are continually growing as new habitats and occurrences of rare species and communities are discovered. In most cases, site-specific or comprehensive surveys for plant and animal occurrences have not been conducted. For these reasons, we can only provide data which have been assembled from our files. We cannot provide a definitive statement on the presence or absence of species, habitats or natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

This response applies only to known occurrences of rare animals, plants and natural communities and/or significant wildlife habitats. You should contact our regional office(s), Division of Regulatory Affairs, at the address(es) enclosed for information regarding any regulated areas or permits that may be required (e.g., regulated wetlands) under State law.

If this project is still active one year from now we recommend that you contact us again so that we may update this response.

Sincerely,

Burrell Buffington

Burrell Buffington
Significant Habitat Unit

Encs.
cc: Regions 3, 4, 5, & 7, Regional Wildlife Mgrs.

New York Heritage Program is supported in part by The Nature Conservancy

02-8611-18-SI

FINAL DRAFT
SITE INSPECTION REPORT
AND HAZARD RANKING SYSTEM MODEL
STATE FAIR LANDFILL
GEDDES, NEW YORK

PREPARED UNDER

TECHNICAL DIRECTIVE DOCUMENT NO. 02-8611-18
CONTRACT NO. 68-01-7346
(CONTINUATION OF TDD #02-8606-02 UNDER CONTRACT #68-01-6699)

FOR THE

ENVIRONMENTAL SERVICES DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

JANUARY 28, 1987

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY

E R Leonard

EDWARD L. LEONARD
PROJECT MANAGER

REVIEWED/APPROVED BY

R. M Yoman Field Op Mgr

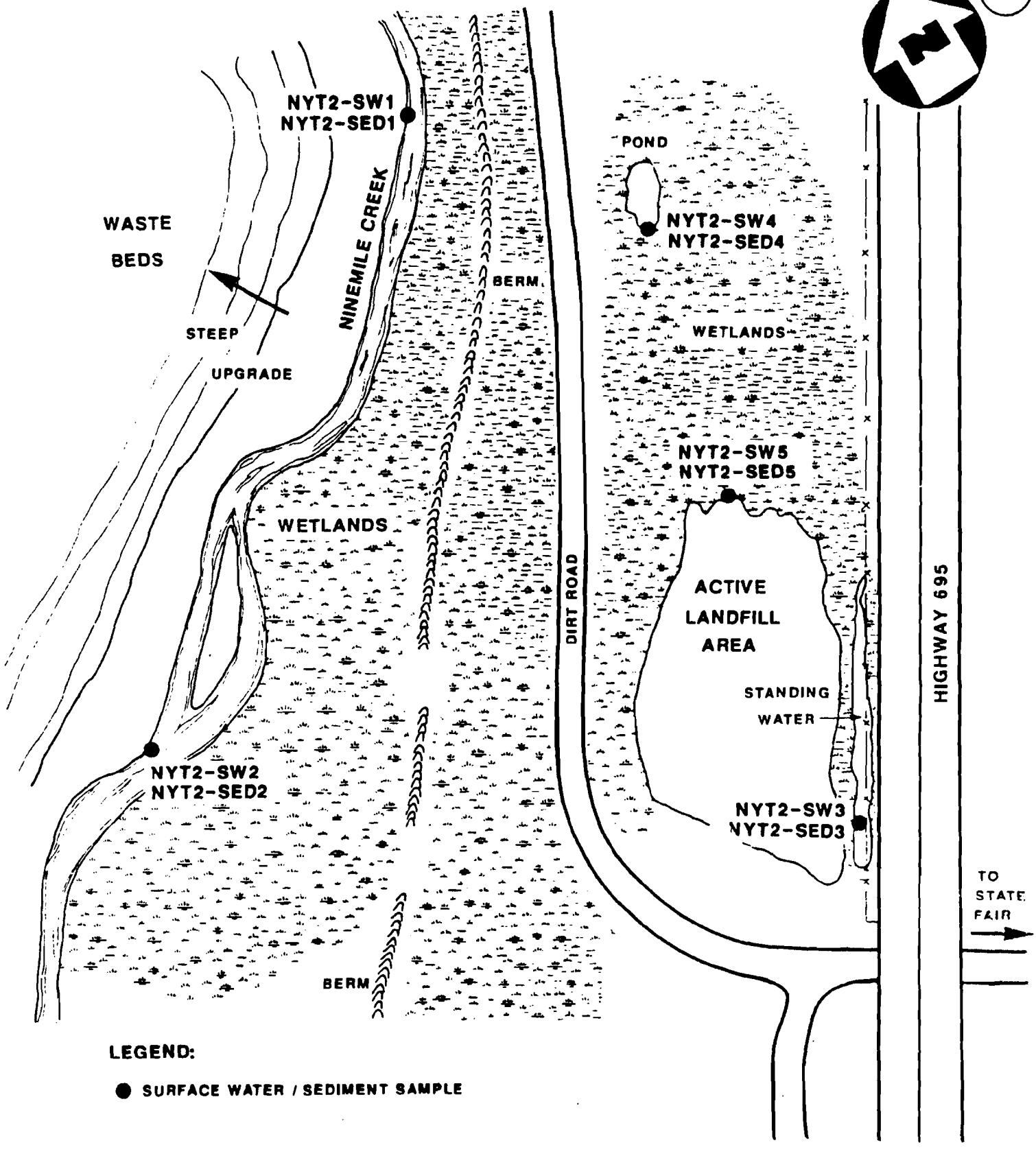
STUART FERGUSON
FIT OFFICE MANAGER

TABLE 4-2

COMPOSITION OF CRUCIBLE WASTES

mg/Kg or ppm

Wastes	Parameters											
	ALK	Al	As	Cd	CN	Cr(T)	Cu	Fe	Pb	Hg	Ni	Zn
A) Non-Hazardous Wastes												
Coolant Swarf (Krasney)	62	590	3.0	100	0.04	50,000	5520	136,000	10	0.04	NA	19
WWTP Sludge	930	2,000	5.0	48	0.04	10,800	660	92,000	280	0.2	3,340	460
Slag	400	13,400	2.0	38	0.15	6,400	89	29,000	30	0.04	2,560	40
Mill Scale	12	210	10	70	0.04	1,380	1840	58,600	2.0	0.04	16,000	18
Boiler House Ashes	48	2,000	2.0	1.2	0.04	47	33	111,000	2.0	0.04	48	17
Grinding Dust	20	290	7.5	8.1	0.004	60,800	3360	500,000	18	0.04	25,000	21
Coolant Swarf, South Wire Mill	94	120	5.0	71	0.04	26,000	47	166,000	4	0.04	11,800	50
B) Hazardous Wastes												
Air Pollution and AOD Dust	1680	4000	7.0	74	0.40	6,600	840	100,000	2600	0.6	4,200	5000
Waste Caustic Solids	6000	120	7.0	8.0	2.75	7,200	75	8,600	2	0.04	336	7.0



SAMPLE LOCATION MAP

STATE FAIR LANDFILL, GEDDES, N.Y.

(NOT TO SCALE)

FIGURE 3

NUS CORPORATION

A Halliburton Company

STATE FAIR LANDFILL
GEDDES, NEW YORK
TDD #02-8611-18
SAMPLE CROSS REFERENCE

Sample I.D.	Organic Traffic Report #	Inorganic Traffic Report #
NYT2-SW1	BE952	MBK 077
NYT2-SW2	BE953	MBK 078
NYT2-SW3	BE954	MBF 439
NYT2-SW4	BE955	MBG 389
NYT2-SW5	BG993	MBG 400
NYT2-SED1	BE957	MBG 390
NYT2-SED2	BE958	MBG 391
NYT2-SED3	BE959	MBG 392
NYT2-SED4	BG991	MBG 393
NYT2-SED5	BG996	MBG 399
NYT2-BLK	BG992	MBG 397

ANALYTICAL DATA
NAME: STATE HALF LF
SAMPLING DATE: 8-17-86
CASE: 8170

VOLATILES

SAMPLE NUMBER	NYT2-SW1	NYT2-SW2	NYT2-SW3	NYT2-SW4	NYT2-SW5	NYT2-SED1	NYT2-SED2	NYT2-SED3	NYT2-SED4	NYT2-SED5	NYT2-BL
MATRIX	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	BLANK
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l
Chloromethane											
Bromomethane											
Vinyl Chloride											
Chloroethane											
Methylene Chloride		E	E			28					J
Acetone		80	140	42	74	1ev	1ev				
Carbon Disulfide					56	J					
1,1-Dichloroethene											
1,1-Dichloroethane											
trans-1,2-Dichloroethene											
Chloroform											
1,2-Dichloroethane											
2-Butanone					E						24
1,1,1-Trichloroethane											
Carbon Tetrachloride											
Vinyl Acetate											
Bromodichloromethane											
1,1,2,2-Tetrachloroethane											
1,2-Dichloropropane											
trans-1,3-Dichloropropene											
Trichloroethene						J					
Dibromochloromethane											
1,1,2-Trichloroethane											
Benzene						38					
cis-1,3-Dichloropropene											
2-Chloroethylvinylether											
Bromoform											
2-Hexanone											
4-Methyl-2-Pentanone											
Tetrachloroethene											
Toluene					49	J					
Chlorobenzene											
Ethylbenzene											
Styrene											
Total Xylenes											

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound found in laboratory blank as well as the sample.
Indicates possible/probable blank contamination

ANALYTICAL DATA
NAME: STATE FAIR LF
SAMPLING DATE: 8-17-86
CASE: 6100

SEMI-VOLATILES

SAMPLE NUMBER	NYTI-SW1	NYTI-SW2	NYTI-SW3	NYTI-SW4	NYTI-SW5	NYTI-SED1	NYTI-SED2	NYTI-SED3	NYTI-SED4	NYTI-SED5	NYTI-R1
MATRIX	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	BLANK
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l
N-Nitrosodimethylamine											
Phenol											
Aniline											
Bis(2-Chloroethyl)Ether											
2-Chlorophenol											
1,3-Dichlorobenzene											
1,4-Dichlorobenzene											
Benzyl Alcohol											
1,2-Dichlorobenzene											
2-Methylphenol											
Bis(2-Chloroisopropyl)Ether											
4-Methylphenol						J		J			
N-Nitroso-Di-n-Propylamine											
Hexachloroethane											
Nitrobenzene											
Isophorone											
2-Nitrophenol											
2,4-Dimethylphenol											
Benzoic Acid											
Bis(2-Chloroethoxy)Methane											
2,4-Dichlorophenol											
1,2,4-Trichlorobenzene											
Naphthalene						J		J		J	
4-Chloroaniline											
Hexachlorobutadiene											
4-Chloro-3-Methylphenol											
2-Methylnaphthalene								J		J	
Hexachlorocyclopentadiene											
2,4,6-Trichlorophenol											
2,4,5-Trichlorophenol											
2-Chloronaphthalene											
2-Nitroaniline											
Dimethyl Phthalate											
Acenaphthylene								J		J	
3-Nitroaniline											
Acenaphthene										510	
2,4-Dinitrophenol											
4-Nitrophenol											
Dibenzofuran										340	
2,4-Dinitrotoluene											
2,6-Dinitrotoluene											
Diethylphthalate											
4-Chlorophenylphenyl ether											
Fluorene										540	

ANALYTICAL DATA
NAME: STATE FAIR LF
SAMPLING DATE: 6-17-86
CASE: 6190

SEMI-VOLATILES												
SAMPLE NUMBER	NYT2-SW1	NYT2-SW2	NYT2-SW3	NYT2-SW4	NYT2-SW5	NYT2-SED1	NYT2-SED2	NYT2-SED3	NYT2-SED4	NYT2-SED5	NYT2-B1
MATRIX	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	BLANK
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l
4-Nitroaniline											
4,6-Dinitro-2-Methylphenol											
N-Nitrosodiphenylamine											
4-Bromophenylphenyl ether											
Hexachlorobenzene											
Pentachlorophenol											
Phenanthrene								790		4000	
Anthracene								J		1300	
Di-n-Butylphthalate											
Fluoranthene								1800		4500	
Benzidine											
Pyrene								1500		4700	
Butylbenzylphthalate											
3,3'-Dichlorobenzidine											
Benzo(a)Anthracene								1300		2900	
Bis(2-Ethylhexyl)Phthalate				63		J					
Chrysene								1300		2600	
Di-n-Octyl Phthalate											
Benzo(b)Fluoranthene								1700 *		3900 *	
Benzo(k)Fluoranthene											
Benzo(a)Pyrene								1300		2500	
Indeno(1,2,3-cd)Pyrene								810		1900	
Dibenzo(a,h)Anthracene								190			
Benzo(ghi)Perylene								770		1700	

NOTES:* Analysis can not differentiate between benzo(b/fluoranthene and benzo(k)fluoranthene.
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound found in laboratory blank as well as the sample,
indicates possible/probable blank contamination

[illegible] DATA
NAME: STATE FAIR LF
SAMPLING DATE: 8-17-88
[illegible]: blow

PESTICIDES/PCBs

SAMPLE NUMBER	NYT2-SW1	NYT2-SW2	NYT2-SW3	NYT2-SW4	NYT2-SW5	NYT2-SED1	NYT2-SED2	NYT2-SED3	NYT2-SED4	NYT2-SED5	NYT2-B1
MATRIX	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	BLANK
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l
Alpha-BHC											
Beta-BHC											
Delta-BHC											
Gamma-BHC (Lindane)											
Heptachlor											
Aldrin											
Heptachlor Epoxide											
Endosulfan I											
Dieldrin								24		300	
4,4 -DDE											
Endrin											
Endosulfan II											
4,4 -DDD											
Endosulfan sulfate											
Endrin Aldehyde											
4,4 -DDT											
Methoxychlor											
Endrin Ketone											
Chlordane											
Toxaphene											
Aroclor-1016											
Aroclor-1221											
Aroclor-1232											
Aroclor-1242											
Aroclor-1248											
Aroclor-1254											
Aroclor-1260											

NOTES:
blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound found in laboratory blank as well as the sample.
indicates possible/probable blank contamination

ANALYTICAL DATA
NAME: STATE FAIR LF
SAMPLING DATE: 8-17-88
CASE: 8100

INORGANICS

SAMPLE NUMBER	NYT2-SW1	NYT2-SW2	NYT2-SW3	NYT2-SW4	NYT2-SW5	NYT2-SED1	NYT2-SED2	NYT2-SED3	NYT2-SED4	NYT2-SED5	NYT2-BL
MATRIX	WATER	WATER	WATER	WATER	WATER	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	BLANK
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/l
Aluminum	J	J	J	J	J	J	J	J	J	J	J
Antimony	J	J			110	154	139	111	163	122	
Arsenic											
Barium	J	J	J	J	J		J	J	J	J	
Beryllium											
Cadmium		0.81			5.29	4.35			4.47		
Calcium	353000	457000	82200	217000	289000	J	J	J	J	J	J
Chromium						18.9	16.5	36.9	27.8	18.2	
Cobalt	J					35.8	J	38.1	47.8		
Copper	J	J		J	J	J	J	33.4	25	27.7	
Iron	J	J	J	J	J	J	J	J	J	J	J
Lead				8.31	9.76	J	J	J	J	J	
Magnesium	35900	36200	37300	72900	66700	J	J	J	J	J	
Manganese	115	175	384	387	2240	J	J	J	J	J	
Mercury								0.13		0.19	
Nickel											
Potassium	7740	10100	6770	9030	48800	4440	J	J	9310	J	
Selenium											
Silver	14.1	19		12.8	14.1	9.73		33			
Sodium	242000	302000	214000	216000	199000	J	J	J	J	J	J
Thallium	E	E	E	E	E						E
Tin	E	E	E	E	E	J	J	J	J	J	E
Vanadium								J	41.6		
Zinc		28	26.4	165	445	26	76.2	65.7	92.3	79.6	

NOTES:
Blank space - compound analyzed for but not detected
E - analysis did not pass QA/QC requirements
J - compound present below the specified detection limit
B - compound found in laboratory blank as well as the sample,
indicates possible/probable blank contamination

Sample Number
BE 952

28

Organics Analysis Data Sheet
(Page 1)

0:016

Laboratory Name: Cambridge Analytical Assoc. Case No: 6100

Lab Sample ID No: CLPVOA 854 QC Repon No: 03

Sample Matrix: Water Contract No: 68-01-7278

Data Release Authorized By: Elander Date Sample Received: 6/18/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/24/86

Date Analyzed: 6/24/86

Conc/Dil Factor: 1.0 pH 7

Percent Moisture: (Not Decanted) N/A

CAS Number		(ug/l) or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5 u
67-64-1	Acetone	10u
75-15-0	Carbon Disulfide	5 u
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		(ug/l) or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample."

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6-23-86

Date Analyzed: 7-13-86

Conc./Dil Factor: 1

Percent Moisture (Decanted): N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		(ug/l or ug/Kg) (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1,3-Dichlorobenzene	10u
106-46-7	1,4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1,2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2,4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2,4-Dichlorophenol	10u
120-82-1	1,2,4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2,4,6-Trichlorophenol	10u
95-95-4	2,4,5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l or ug/Kg) (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2,4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2,4-Dinitrotoluene	10u
606-20-2	2,6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4,6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3,3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1,2,3-cd)Pyrene	10u
53-70-3	Dibenz(a,h)Anthracene	10u
191-24-2	Benzo(g,h,i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed: 07/23/86

Conc/Dil Factor: —

Percent Moisture (decanted): NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Ye

CAS Number		(ug/l or ug/Kg (Circle One))
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500mL or W_s NA V_t 10000ul V_i 3 ul

(28)

story Name Cambridge Analytical Associates

No 6100

Sample Number: BE952

Organics Analysis Data Sheet (Page 4)

0:019

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	Unknown	BNA	6.48	9.7 J
	↓	↓	7.09	14.1 ↑
			9.10	14.2 ↓
	↓	↓	9.49	46.6 J
	NONE Detected	VOA	—	—

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBK 077

Date: 09/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRidge Analytical Associates CASE NO. CASE 6100
SDW NO.: 784
LAB SAMPLE ID. NO.: 8606144-06 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water ✓ Soil _____ Sludge _____ Other _____

ug/L

1	Aluminum	1130	P	13	Magnesium	35000	P
2	Antimony	[50.9]R	P	14	Manganese	115 *	P
3	Arsenic	10.0U	F	15	Mercury	0.18U	
4	Barium	[111]	P	16	Nickel	28.0UR	P
5	Beryllium	5.00UR	P	17	Potassium	7740	P
6	Cadmium	5.00U	P	18	Selenium	5.00U	F
7	Calcium	353000	P	19	Silver	14.1	P *
8	Chromium	10.0UR	P	20	Sodium	242000	P
9	Cobalt	[40.6]	P	~~21~~	~~Thallium~~	100 UR	F
10	Copper	[10.2]	P	~~22~~	~~Tin~~	38.9UR	P
11	Iron	1650	P	23	Vanadium	23.3U	P
12	Lead	5.00U	F	24	Zinc	19.0U	P
Cyanide					Percent solids (%)		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

BE 953

28

Organics Analysis Data Sheet
(Page 1)

0:020

Laboratory Name: Cambridge Analytical Assoc. Case No: 6100

Lab Sample ID No: CLPVOA 855 QC Report No: 03

Sample Matrix: Water Contract No: 68-01-7278

Data Release Authorized By: Clarke Date Sample Received: 6/18/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/23/86

Date Analyzed: 6/25/86

Conc/Dil Factor: 1.0 pH 7

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride RJW	~~5 u~~ 3 J
67-64-1	Acetone RJW	~~10u~~ 80
75-15-0	Carbon Disulfide	5 u
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample."

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Case No: 6100

Sample Number: BE 953

28

Organics Analysis Data Sheet
(Page 2)

00021

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6-23-86

Date Analyzed: 7-13-86

Conc./Dil Factor: 1

Percent Moisture (Decanted): N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylpheno	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxyl)Methane	10u
120-83-2	2 4-Dichlorophenol	10u
120-82-1	1 2 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2 4 6-Trichlorophenol	10u
95-95-4	2 4 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2 3-cd)Pyrene	10u
53-70-3	Dibenz(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be seperated from diphenylamine

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number BE 953 (28)

Organics Analysis Data Sheet
(Page 3)

0:022

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed: 07/23/86

Conc/Dil Factor: —

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_t = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500mL or W_s NA V_t 10,000µl V_t 3µl

tory Name Cambridge Analytical Associates

do 6100

Sample Number BE953

00023

28

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

S number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
VA	Unknown	BNA	6.49	11 J
↓	↓	↓	7.10	14 J
			9.10	12 J
			9.50	52 J
	↓	↓	10.31	9.0 J
	NONE Detected	VOA	—	—

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBK 078

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRidge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: B606144-07 QC REPORT NO. S606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water ✓ Soil _____ Sludge _____ Other _____

ug/L

1	Aluminum	2020	P	13	Magnesium	36200	P
2	Antimony	[53.9]R	P	14	Manganese	175 *	P
3	Arsenic	10.0U	F	15	Mercury	0.18U	
4	Barium	[133]	P	16	Nickel	38.0UR	P
5	Beryllium	5.00UR	P	17	Potassium	10100	P
6	Cadmium	6.81	P	18	Selenium	5.00U	F
7	Calcium	457000	P	19	Silver	19.0	P *
8	Chromium	10.0UR	P	20	Sodium	302000	P
9	Cobalt	40.0U	P	21	~~Thallium~~	~~26.5~~ R	F
10	Copper	[12.2]	P	22	~~Tin~~	~~36.9~~UR	P
11	Iron	2350	P	23	Vanadium	33.3U	P
12	Lead	5.00U	F	24	Zinc	29.0	P
Cyanide					Percent solids (%)		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number: BE 954

(28)

Organics Analysis Data Sheet
(Page 1)

0:024

Laboratory Name: Cambridge Analytical Assoc. Case No: 6100

Lab Sample ID No: CLPVOA 856 QC Report No: 03

Sample Matrix: Water Contract No: 68-01-7278

Data Release Authorized By: Flawler Date Sample Received: 6/18/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/24/86

Date Analyzed: 6/25/86

Conc/Dil Factor: 1.0 pH 7

Percent Moisture: (Not Decanted) N/A

CAS Number		(ug/l or ug/Kg (Circle One))
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride RSH	~~5 u~~ 2 J
67-64-1	Acetone RSH	~~10u~~ 140
75-15-0	Carbon Disulfide	5 u
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		(ug/l or ug/Kg (Circle One))
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value	If the result is a value greater than or equal to the detection limit, report the value.
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample."
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.
C	This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ml in the final extract should be confirmed by GC/MS.
B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

BE 9

(28)

Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/23/86

Date Analyzed: 7/13/86

Conc./Dil Factor: 1

Percent Moisture (Decanted): N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2 4-Dichlorophenol	10u
120-82-1	1 2 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2 4 6-Trichlorophenol	10u
95-95-4	2 4 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		ug/l or (Circl
83-32-9	Acenaphthene	10u
51-28-5	2 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2 3-cd)Pyrene	10u
53-70-3	Dibenz(a h)Anthracene	10u
191-24-2	Benzo(g h i)Perylene	10u

(1)-Cannot be seperated from diphenylamine

Laboratory Name [illegible]

Case No 6100

Sample number BE 954

28

0:026

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed: 07/23/86

Conc/Dil Factor: —

Percent Moisture (decanted): NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500ml or W_s NA V_t 10,000ul V_i 3 ul

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number BE 954

28

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	unknown	BNA	6.46	12 J
	↓	↓	6.64	8.0 J
			7.07	10 J
			9.10	10 J
			9.49	43 J
	↓	↓	10.29	10 J
	NONE DETECTED	VOA	—	—

(28)

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBF 439

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRidge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 860s144-11 QC REPORT NO. 860s144

Elements Identified and Measured

Concentration: Low / Medium
Matrix: Water / Soil Sludge Other

ug/L

1	Aluminum	200U J	P	13	Magnesium	37300	P
2	Antimony	47.1UR	P	14	Manganese	384 *	P
3	Arsenic	10.00 UF	F	15	Mercury	0.18U	
4	Barium	[114]	P	16	Nickel	28.3UR	P
5	Beryllium	5.00UR	P	17	Potassium	6770	P
6	Cadmium	5.00U	P	18	Selenium	5.00U	F
7	Calcium	82200	P	19	Silver	10.0U	P *
8	Chromium	10.0UR	P	20	Sodium	214000	P
9	Cobalt	40.0U	P	21	Thallium	100 UF	
10	Copper	10.0U	P	22	Tin	36.9UR	P
11	Iron	1380 J	P	23	Vanadium	23.3U	P
12	Lead	5.00U	F	24	Zinc	39.4	P
Cyanide				Percent solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

0012

Sample Number
BE 955

U1U28

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPUOA 857
QC Report No: 03
Sample Matrix: Water
Contract No: 68-01-7278
Data Release Authorized By: Flawler
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 6/25/86
Date Analyzed: 6/25/86
Conc/Dil Factor: 1.0 pH 7
Percent Moisture: (Not Decanted) N/A

CAS Number		(ug/l or ug/Kg) (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5 u
67-64-1	Acetone RJH	~~100~~ 42
75-15-0	Carbon Disulfide	5 u
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone	10u
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		(ug/l or ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample."

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Case No: 6100

Sample Number BE955

28

Organics Analysis Data Sheet
(Page 2)

0:029

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6-23-86

Date Analyzed: 7-13-86

Conc./Dil Factor: 1

Percent Moisture (Decanted): N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100 51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2. 4. 6-Trichlorophenol	10u
95 95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3 -Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u 31 63
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1. 2. 3-cd)Pyrene	10u
53-70-3	Dibenz(a h)Anthracene	10u
191-24-2	Benzo(g h. i)Perylene	10u

(1)-Cannot be separated from diphenylamine .

Laboratory Name Cambridge Analytical Associates

Case No 6120

Sample Number BE 955

28

Organics Analysis Data Sheet
(Page 3)

0:030

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed 07/23/86

Conc/Dil Factor —

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500mL or W_s NA V_t 10,000µl V_i 3µl

Sample Number
BE 955

(28)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	NA	unknown	BNA	6.47	16 J
2.	↓	↓	↓	7.06	10
3.				9.07	12
4.				9.47	43
5.	↓	↓	↓	10.28	9.0 ↓
6.					
7.					
8.		NONE Detected	VOA	—	—
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.: M56 389

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRidge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-10 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water ✓ Soil _____ Sludge _____ Other _____

ug/L

1	Aluminum	3180 J	P	13	Magnesium	72900	P
2	Antimony	47.1UR	P	14	Manganese	387 *	P
3	Arsenic	10.0U	F	15	Mercury	0.18U	
4	Barium	[162]	P	16	Nickel	28.0UR	P
5	Beryllium	5.00UR	P	17	Potassium	9030	P
6	Cadmium	5.00U	P	18	Selenium	5.00U	F
7	Calcium	217000	P	19	Silver	12.8	P *
8	Chromium	10.0UR	P	20	Sodium	216000	P
9	Cobalt	40.0U	P	21	~~Thallium~~ 100 UF		
10	Copper	[17.8]	P	22	~~Tin~~ 36.9UR		P
11	Iron	10500 J	F	23	Vanadium	23.3U	P
12	Lead	8.3 J S	F	24	Zinc	165	P
Cyanide				Percent solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BG 993

28

00054

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CL7J0A 862
QC Report No: 03
Sample Matrix: Water
Contract No: 68-01-7278
Date Release Authorized By: Elaine
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 6/25/86
Date Analyzed: 6/25/86
Conc/Dil Factor: 1.0 pH 7
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride	5 u
67-64-1	Acetone RJH	~~10~~ 74
75-15-0	Carbon Disulfide RJH	~~5~~ 56
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone RJH	~~10~~ 47
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene RJH	~~5~~ 49
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample."

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Case No: 6100

Sample Number: BG 993

(28)

Organics Analysis Data Sheet
(Page 2)

0:055

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/23/86

Date Analyzed: 7/13/86

Conc./Dil Factor: 1

Percent Moisture (Decanted): N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1,3-Dichlorobenzene	10u
106-46-7	1,4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1,2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2,4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(2-Chloroethoxy)Methane	10u
120-83-2	2,4-Dichlorophenol	10u
120-82-1	1,2,4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2,4,6-Trichlorophenol	10u
95 95-4	2,4,5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2,4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2,4-Dinitrotoluene	10u
606-20-2	2,6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4,6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3,3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1,2,3-cd)Pyrene	10u
53-70-3	Dibenzo(a,h)Anthracene	10u
191-24-2	Benzo(g,h,i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number BG 993

28

0:056

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed 07/23/86

Conc/Dil Factor —

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_t = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500mL or W_s NA V_t 10,000 ul V_t 3 ul

BG 993 (28)

...ganics Analysis Data Sheet
(Page 4)

0105

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	DICHLORODFLUOROMETHANE	VOA	89	38 J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				

story Name Cambridge Analytical Associates

No 6100

Sample Number BG 993

0058

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	Unknown	BNA	6.46	15 J
			9.08	9.0
			9.49	31
			10.76	10
			11.77	9.0
			14.34	13
	sulfur		23.27	7.0 J

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.: MB6 400

Date: 08/16/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRidge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-09 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water ✓ Soil _____ Sludge _____ Other _____

ug/L

1	Aluminum	1160	P	13	Magnesium	66700	P
2	Antimony	110 R	P	14	Manganese	2240 *	P
3	Arsenic	10.0U	F	15	Mercury	0.18U	
4	Barium	[177]	P	16	Nickel	28.0UR	P
5	Beryllium	5.00UR	P	17	Potassium	48800	P
6	Cadmium	5.29	F	18	Selenium	5.00U	F
7	Calcium	280000	P	19	Silver	14.1	P
8	Chromium	10.0UR	P	20	Sodium	199000	P
9	Cobalt	40.0U	P	21	~~Thallium 1.00 UF~~		
10	Copper	[23.5] ✓	P	22	~~Tin 36.9UR~~		P
11	Iron	7380 ✓	P	23	Vanadium	23.3U	P
12	Lead	9.76 S	F	24	Zinc	445	P
Cyanide					Percent solids (%)		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BE957

28

Organics Analysis Data Sheet
(Page 1)

00032

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPVOA 864
QC Report No: 03
Sample Matrix: Soil
Contract No: 68-01-7278
Data Release Authorized By: Clawler
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: —
Date Analyzed: 6/25/86
Conc/Dil Factor: 6.6 pH ~7
Percent Moisture: (Not Decanted) 23.9

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	50u
74-83-9	Bromomethane	50u
75-01-4	Vinyl Chloride	50u
75-00-3	Chloroethane	50u
75-09-2	Methylene Chloride RJH	~~50u~~ 28
67-64-1	Acetone RJH	~~50u~~ 160
75-15-0	Carbon Disulfide RJH	~~50u~~ 2 J
75-35-4	1, 1-Dichloroethene	25u
75-34-3	1, 1-Dichloroethane	25u
156-60-5	Trans-1, 2-Dichloroethene	25u
67-66-3	Chloroform	25u
107-06-2	1, 2-Dichloroethane	25u
78-93-3	2-Butanone	50u
71-55-6	1, 1, 1-Trichloroethane	25u
56-23-5	Carbon Tetrachloride	25u
108-05-4	Vinyl Acetate	50u
75-27-4	Bromodichloromethane	25u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	25u
10061-02-6	Trans-1, 3-Dichloropropene	25u
79-01-6	Trichloroethene RJH	~~25u~~ 6 J
124-48-1	Dibromochloromethane	25u
79-00-5	1, 1, 2-Trichloroethane	25u
71-43-2	Benzene RJH	~~25u~~ 38
10061-01-5	cis-1, 3-Dichloropropene	25u
110-75-8	2-Chloroethylvinylether	50u
75-25-2	Bromoform	25u
108-10-1	4-Methyl-2-Pentanone	50u
591-78-6	2-Hexanone	50u
127-18-4	Tetrachloroethene	25u
79-34-5	1, 1, 2, 2-Tetrachloroethane	25u
108-88-3	Toluene RJH	~~25u~~ 23 J
108-90-7	Chlorobenzene	25u
100-41-4	Ethylbenzene	25u
100-42-5	Styrene	25u
	Total Xylenes	25u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected." The number is the minimum attainable detection limit for the sample.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.
C	This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.
B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

02957

Analysis Data Sheet
(Page 2)

0003

Semivolatile Compounds

28

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/24/86

Date Analyzed: 7/21/86

Conc/Dil Factor: 1

Percent Moisture (Decanted): 24

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108 95 2	Phenol	330u
111-44-4	bis(2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol SL ~~330u~~ 100 J	
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78 59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2 4-Dichlorophenol	330u
120-82-1	1 2 4-Trichlorobenzene	330u
91-20-3	Naphthalene SL ~~330u~~ 79 J	
106-47-8	4-Chloroaniline	330u
87-68 3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88 06 2	2 4 6-Trichlorophenol	330u
95 95-4	2 4 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
38 74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208 96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600 u
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	330u
534-52-1	4 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3 3-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate SL ~~330u~~ 73 J	
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1 2 3-cd)Pyrene	330u
53-70-3	Dibenz(a h)Anthracene	330u
191-24-2	Benzo(g h i)Perylene	330u

(1)-Cannot be separated from diphenylamine

Case No 6100

BE 957 (28)

Organics Analysis Data Sheet
(Page 3)

00034

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/26/86

Date Analyzed: 08/05/86

Conc/Dil Factor: —

Percent Moisture (decanted) ~~36.1%~~ SMM 23.9%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16.0 U
72-55-9	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160.0 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160.0 U
11096-82-5	Aroclor-1260	160.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s NA or W_s 32.3 g V_t 10,000 ul V_i 3.0 ul

ratory Name Cumberidge Analytical Associates

t No 6100

Sample Number
BE 957

28

Organics Analysis Data Sheet
(Page 4)

0035

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	2',2-oxybis-propane	VOA	328	17 J
	unknown	↓	335	10 J

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number BE 957

28

Organics Analysis Data Sheet
(Page 4)

0036

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.		Unknown	BNA	7.15	500 J
2.		↓	↓	7.96	250 ↓
3.		↓	↓	8.91	470 ↓
4.		sulfur, mol.	↓	23.3	2300 ↓
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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29.					
30.					

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.: MBG 390

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: Bc06144-05 QC REPORT NO. Bc06144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water _____ Soil ✓ Sludge _____ Other _____

mg/Kg dry weight

1	Aluminum	11600	F J	13	Magnesium	52200	P J
2	Antimony	154 R	F	14	Manganese	261	F J
3	Arsenic	6.63U	F	15	Mercury	0.10U	
4	Barium	33.8U	P	16	Nickel	19.3U	P
5	Beryllium	3.45UR	P	17	Potassium	4440	P
6	Cadmium	4.35	P	18	Selenium	3.42U	F
7	Calcium	103000	P J	19	Silver	9.73	P
8	Chromium	18.9	P	20	Sodium	[1360]	P
9	Cobalt	35.8	P	21	Thallium	6.83U	F
10	Copper	[16.7]	P	22	Tin	25.5UR	P
11	Iron	12600	P J	23	Vanadium	16.1U	P
12	Lead	6.77 S	F J	24	Zinc	26.0	P
Cyanide					Percent solids (%)	72	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BE 958

28

Organics Analysis Data Sheet
(Page 1)

00037

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPVOA 877
QC Report No: 03
Sample Matrix: Soil
Contract No: 68-01-7278
Data Release Authorized By: Chawla
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 6/26/86
Date Analyzed: 6/26/86
Conc/Dil Factor: 7.4 pH 7
Percent Moisture: (Not Decanted) 32.2

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	50u
74-83-9	Bromomethane	50u
75-01-4	Vinyl Chloride	50u
75-00-3	Chloroethane	50u
75-09-2	Methylene Chloride	25u
67-64-1	Acetone RJH	~~50u~~ 160
75-15-0	Carbon Disulfide	25u
75-35-4	1, 1-Dichloroethene	25u
75-34-3	1, 1-Dichloroethane	25u
156-60-5	Trans-1, 2-Dichloroethene	25u
67-66-3	Chloroform	25u
107-06-2	1, 2-Dichloroethane	25u
78-93-3	2-Butanone	50u
71-55-6	1, 1, 1-Trichloroethane	25u
56-23-5	Carbon Tetrachloride	25u
108-05-4	Vinyl Acetate	50u
75-27-4	Bromodichloromethane	25u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	25u
10061-02-6	Trans-1, 3-Dichloropropene	25u
79-01-6	Trichloroethene	25u
124-48-1	Dibromochloromethane	25u
79-00-5	1, 1, 2-Trichloroethane	25u
71-43-2	Benzene	25u
10061-01-5	cis-1, 3-Dichloropropene	25u
110-75-8	2-Chloroethylvinylether	50u
75-25-2	Bromoform	25u
108-10-1	4-Methyl-2-Pentanone	50u
591-78-6	2-Hexanone	50u
127-18-4	Tetrachloroethene	25u
79-34-5	1, 1, 2, 2-Tetrachloroethane	25u
108-88-3	Toluene	25u
108-90-7	Chlorobenzene	25u
100-41-4	Ethylbenzene	25u
100-42-5	Styrene	25u
	Total Xylenes	25u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected." The number is the minimum attainable detection limit for the sample
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J
C	This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS
B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action
Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

LDE 958

...lysis Data Sheet
(Page 2)

0:0

28

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/26/86

Date Analyzed: 7/21/86

Conc/Dil Factor: 1

Percent Moisture (Decanted): 32

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108 95 2	Phenol	330u
111-44-4	bis(2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2 4-Dichlorophenol	330u
120-82-1	1 2 4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u
87-68 3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2 4 6-Trichlorophenol	330u
95 95 4	2 4 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88 74 4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208 96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600 u
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	330u
534-52-1	4 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3 3-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1 2 3-cd)Pyrene	330u
53-70-3	Dibenz(a h)Anthracene	330u
191-24-2	Benzo(g h i)Perylene	330u

(1)-Cannot be separated from diphenylamine

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 06/26/86

Date Analyzed 08/05/86

Conc/Dil Factor: —

Percent Moisture (decanted) ~~67.8%~~ SAM 32.2 %

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16.0 U
72-55-9	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160.0 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160.0 U
11096-82-5	Aroclor-1260	160.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s NA or W_s 16.3g V_t 10,000 ul V_i 3.0 ul

(28)

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number BE957MDK

958 0040

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	Unknown	BNA	7.15	1200 J
	↓		7.95	440
	sulfur, mol		23.2	2000
	unknown		27.2	560
			28.8	1660
	↓	↓	30.2	300 ↓
	NONE Detected	VOA	—	—

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBG 391

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRIdge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-04 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water _____ Soil ✓ Sludge _____ Other _____

mg/Kg dry weight

1	Aluminum	12100	P J	13	Magnesium	17600	P J
2	Antimony	139 R	P	14	Manganese	256	P J
3	Arsenic	7.59U	F	15	Mercury	0.10U	
4	Barium	[51.4]	P	16	Nickel	21.2U	P
5	Beryllium	3.79UR	P	17	Potassium	[3480]	P
6	Cadmium	3.79U	P	18	Selenium	3.79U	F
7	Calcium	42300	P J	19	Silver	7.59U	P
8	Chromium	16.5	P	20	Sodium	[1560]	P
9	Cobalt	[37.4]	P	21	Thallium	7.59U	F
10	Copper	[14.3]	P J	22	Tin	28.0UR	P J
11	Iron	16100	P J	23	Vanadium	17.7U	P
12	Lead	11.5 SF J		24	Zinc	76.2	P
Cyanide					Percent solids (%)	66	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BE 959

28

Organics Analysis Data Sheet
(Page 1)

01041

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLPVOA 873
QC Report No: 03
Sample Matrix: Soil
Contract No: 68-01-7278
Data Release Authorized By: Elaine
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 6/26/86
Date Analyzed: 6/26/86
Conc/Dil Factor: 7.3 pH 7
Percent Moisture: (Not Decanted) 31.3

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	50u
74-83-9	Bromomethane	50u
75-01-4	Vinyl Chloride	50u
75-00-3	Chloroethane	50u
75-09-2	Methylene Chloride	25u
67-64-1	Acetone	50u
75-15-0	Carbon Disulfide	25u
75-35-4	1, 1-Dichloroethene	25u
75-34-3	1, 1-Dichloroethane	25u
156-60-5	Trans-1, 2-Dichloroethene	25u
67-66-3	Chloroform	25u
107-06-2	1, 2-Dichloroethane	25u
78-93-3	2-Butanone	50u
71-55-6	1, 1, 1-Trichloroethane	25u
56-23-5	Carbon Tetrachloride	25u
108-05-4	Vinyl Acetate	50u
75-27-4	Bromodichloromethane	25u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	25u
10061-02-6	Trans-1, 3-Dichloropropene	25u
79-01-6	Trichloroethene	25u
124-48-1	Dibromochlorometnane	25u
79-00-5	1, 1, 2-Trichloroethane	25u
71-43-2	Benzene	25u
10061-01-5	cis-1, 3-Dichloropropene	25u
110-75-8	2-Chloroethylvinylether	50u
75-25-2	Bromoform	25u
108-10-1	4-Methyl-2-Pentanone	50u
591-78-6	2-Hexanone	50u
127-18-4	Tetrachloroethene	25u
79-34-5	1, 1, 2, 2-Tetrachloroethane	25u
108-88-3	Toluene	25u
108-90-7	Chlorobenzene	25u
100-41-4	Ethylbenzene	25u
100-42-5	Styrene	25u
	Total Xylenes	25u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample."

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC-MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

DFC

28

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/26/86

Date Analyzed: 7/21/86

Conc/Dil Factor: 1

Percent Moisture (Decanted): 31 NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108 95-2	Phenol	330u
111-44-4	bis(2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol SL	~~330u~~ 210 J
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(2-Chloroethoxy)Methane	330u
120-83-2	2 4-Dichlorophenol	330u
120-82-1	1 2 4-Trichlorobenzene	330u
91-20-3	Naphthalene SL	~~330u~~ 120 J
106-47-8	4-Chloroaniline	330u
87-68 3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene SL	~~330u~~ 86 J
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2 4 6-Trichlorophenol	330u
95 95-4	2 4 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208 96-8	Acenaphthylene SL	~~330u~~ 330 J
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600 u
132-64-9	Dibenzofuran	330u
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	330u
534-52-1	4 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene SL	~~330u~~ 790
120-12-7	Anthracene SL	~~330u~~ 240 J
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene SL	~~330u~~ 1800
129-00-0	Pyrene SL	~~330u~~ 1500
85-68-7	Butylbenzylphthalate	330u
91-94-1	3 3-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene SL	~~330u~~ 1300
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene SL	~~330u~~ 1300
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene * SL	~~330u~~ 1700
207-08-9	Benzo(k)Fluoranthene SL	~~330u~~
50-32-8	Benzo(a)Pyrene SL	~~330u~~ 1300
193-39-5	Indeno(1 2 3-cd)Pyrene SL	~~330u~~ 810
53-70-3	Dibenzo h)Anthracene SL	~~330u~~ 190
191-24-2	Benzo(g h i)Perylene SL	~~330u~~ 770

* Unresolved

(1)-Cannot be separated from diphenylamine

Case No. _____

Organics Analysis Data Sheet
(Page 3)

0043 (28)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 06/26/86

Date Analyzed 08/05/86

Conc/Dil Factor: —

Percent Moisture (decanted) ~~68.7%~~ 31.3%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	8.0 U	
319-85-7	Beta-BHC	8.0 U	
319-86-8	Delta-BHC	8.0 U	
58-89-9	Gamma-BHC (Lindane)	8.0 U	
76-44-8	Heptachlor	8.0 U	
309-00-2	Aldrin	8.0 U	
1024-57-3	Heptachlor Epoxide	8.0 U	
959-98-8	Endosulfan I	8.0 U	
60-57-1	Dieldrin	~~16.0 U~~	24
72-55-9	4,4'-DDE	16.0 U	
72 20-8	Endrin	16.0 U	
33213-65-9	Endosulfan II	16.0 U	
72-54-8	4,4'-DDD	16.0 U	
1031-07-8	Endosulfan Sulfate	16.0 U	
50-29-3	4,4'-DDT	16.0 U	
72-43-5	Methoxychlor	80.0 U	
53494-70-5	Endrin Ketone	16.0 U	
57-74-9	Chlordane	80.0 U	
8001-35-2	Toxaphene	160.0 U	
12674-11-2	Aroclor-1016	80.0 U	
11104-28-2	Aroclor-1221	80.0 U	
11141-16-5	Aroclor-1232	80.0 U	
53469-21-9	Aroclor-1242	80.0 U	
12672-29-6	Aroclor-1248	80.0 U	
11097-69-1	Aroclor-1254	160.0 U	
11096-82-5	Aroclor-1260	160.0 U	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s NA or W_s 20.1 g V_t 10,000 ml V_i 3.0 ul

Case No. 6100

Sample Number
BE 959

28

00044

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.		UNKNOWN	VOA	327	5 J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Laboratory Name Cambridge Analytical Associates

No 6100

Sample Number BE 959

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)	
	Unknown	B/A	7.05	710	J
	↓	↑	8.82	740	↑
	↓		19.36	270	
	methyl phenanthrene NOS		21.71	230	
	↓		21.90	590	
	↓		21.96	230	
	unknown		22.41	240	
	dimethyl phenanthrene NOS		23.05	350	
	sulfur cmpd.		23.18	2100	
	unknown aromatic		23.58	240	
	benzofluorene NOS		24.76	410	
	benzopyrene NOS		30.44	720	
	↓		30.23	1500	
	unknown		33.17	1800	
	↓		36.55	950	
	↓		31.88	540	
	↓		26.29	280	
	methyl benzanthracene NOS		27.92	370	
	benzopyrene NOS	↓	29.43	1600	
	↓	BNA	30.10	1600	J

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBG 392

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRidge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-03 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium
Matrix: Water Soil ✓ Sludge Other

mg/Kg dry weight

1	Aluminum	10300	P J	13	Magnesium	14900	P J
2	Antimony	111 R	P	14	Manganese	212	P
3	Arsenic	7.54U	F	15	Mercury	0.13	
4	Barium	[89.3]	P	16	Nickel	20.9U	P
5	Beryllium	3.73UR	P	17	Potassium	[2770]	P
6	Cadmium	3.73U	P	18	Selenium	3.77U	F
7	Calcium	114000	P	19	Silver	33.0	P
8	Chromium	36.9	P	20	Sodium	[438]	P
9	Cobalt	38.1	P	21	Thallium	7.54U	F
10	Copper	33.4	P	22	Tin	27.5UR	P
11	Iron	16300	P	23	Vanadium	[17.5]	P
12	Lead	32.4 ~~5.17E~~ S F J		24	Zinc	65.7	P
Cyanide					Percent solids (%)	66	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BG 991

28

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CLP VOA 867
QC Report No: 03
Sample Matrix: Soil
Contract No: 68-01-7278
Data Release Authorized By: Elaine
Date Sample Received: 6/10/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 6/25/86
Date Analyzed: 6/25/86
Conc/Dil Factor: 8.2 pH 7
Percent Moisture: (Not Decanted) 38.8

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	50u
74-83-9	Bromomethane	50u
75-01-4	Vinyl Chloride	50u
75-00-3	Chloroethane	50u
75-09-2	Methylene Chloride	25u
67-64-1	Acetone	50u
75-15-0	Carbon Disulfide	25u
75-35-4	1, 1-Dichloroethene	25u
75-34-3	1, 1-Dichloroethane	25u
156-60-5	Trans-1, 2-Dichloroethene	25u
67-66-3	Chloroform	25u
107-06-2	1, 2-Dichloroethane	25u
78-93-3	2-Butanone	50u
71-55-6	1, 1, 1-Trichloroethane	25u
56-23-5	Carbon Tetrachloride	25u
108-05-4	Vinyl Acetate	50u
75-27-4	Bromodichloromethane	25u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	25u
10061-02-6	Trans-1, 3 Dichloropropene	25u
79-01-6	Trichloroethene	25u
124-48-1	Dibromochloromethane	25u
79-00-5	1, 1, 2-Trichloroethane	25u
71-43-2	Benzene	25u
10061-01-5	cis-1, 3-Dichloropropene	25u
110-75-8	2-Chloroethylvinylether	50u
75-25-2	Bromoform	25u
108-10-1	4-Methyl-2-Pentanone	50u
591-78-6	2-Hexanone	50u
127-18-4	Tetrachloroethene	25u
79-34-5	1, 1, 2, 2-Tetrachloroethane	25u
108-88-3	Toluene	25u
108-90-7	Chlorobenzene	25u
100-41-4	Ethylbenzene	25u
100-42-5	Styrene	25u
	Total Xylenes	25u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected." The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Case No 6100

Sample Number BE991 BG

28

Organics Analysis Data Sheet
(Page 2)

0047

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/26/86

Date Analyzed 7/21/86

Conc./Dil Factor: 1

Percent Moisture (Decanted) 39 NEAS

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1, 3-Dichlorobenzene	330u
106-46-7	1, 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1, 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2, 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2, 4-Dichlorophenol	330u
120-82-1	1, 2, 4-Trichlorobenzene	330u
91-20-3	Naphthalene	330u
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene	330u
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2, 4, 6-Trichlorophenol	330u
95-95-4	2, 4, 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600 u
132-64-9	Dibenzofuran	330u
121-14-2	2, 4-Dinitrotoluene	330u
606-20-2	2, 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene	330u
100-01-6	4-Nitroaniline	330u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	330u
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	330u
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	330u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	330u
53-70-3	Dibenz(a, h)Anthracene	330u
191-24-2	Benzo(g, h, i)Perylene	330u

(1)-Cannot be separated from diphenylamine

Case No 6100

BG 991

Organics Analysis Data Sheet
(Page 3)

0:048

28

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

GPC Cleanup ☐Yes ☒No

Date Extracted/Prepared: 06/26/86

Separatory Funnel Extraction ☐Yes

Date Analyzed 08/05/86

Continuous Liquid - Liquid Extraction ☐Yes

Conc/Dil Factor: —

Percent Moisture (decanted) ~~61.2%~~ SMM 38.8 %

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16.0 U
72-55-3	4,4'-DDE	16.0 U
72-20-8	Endrin	16.0 U
33213-65-9	Endosulfan II	16.0 U
72-54-8	4,4'-DDD	16.0 U
1031-07-8	Endosulfan Sulfate	16.0 U
50-29-3	4,4'-DDT	16.0 U
72-43-5	Methoxychlor	80.0 U
53494-70-5	Endrin Ketone	16.0 U
57-74-9	Chlordane	80.0 U
8001-35-2	Toxaphene	160.0 U
12674-11-2	Aroclor-1016	80.0 U
11104-28-2	Aroclor-1221	80.0 U
11141-16-5	Aroclor-1232	80.0 U
53469-21-9	Aroclor-1242	80.0 U
12672-29-6	Aroclor-1248	80.0 U
11097-69-1	Aroclor-1254	160.0 U
11096-82-5	Aroclor-1260	160.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s NA or W_s 11.7g V_t 10,000 ul V_i 3.0 ul

Laboratory Name Compliance Analytical Associates

No 6100

Sample Number mck ~~BE~~991 BG

(28)

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	Unknown	BNA	6.04	650 J
	↓	↑	6.22	570 ↑
			7.06	1300
	↓		8.82	1200
	sulfur, mol.		23.17	2600
	unknown		29.63	410
	↓	↓	33.13	390 ↓
	↓	BNA	39.66	530 J
	NONE DETECTED	VOA	—	—

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.: MBB 393

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRidge Analytical Associates CASE NO. CASE 6103
SOW NO.: 784
LAB SAMPLE ID. NO.: B606144-02 QC REPORT NO. B606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water _____ Soil ✓ Sludge _____ Other _____

mg/Kg dry weight

1	Aluminum	31200	P	13	Magnesium	18200	P
2	Antimony	163 R	P	14	Manganese	591	P
3	Arsenic	8.13U	F	15	Mercury	0.11U	
4	Barium	[131]	P	16	Nickel	22.8U	P
5	Beryllium	4.06UR	P	17	Potassium	9310	P
6	Cadmium	4.47	P	18	Selenium	4.06U	F
7	Calcium	28500	P	19	Silver	8.13U	P
8	Chromium	27.8	P	20	Sodium	[578]	P
9	Cobalt	47.8	P	21	Thallium	8.13U	F
10	Copper	25.0	P	22	Tin	30.0UR	P
11	Iron	33200	P	23	Vanadium	41.6	P
12	Lead	14.1 J	F	24	Zinc	93.3	P
Cyanide					Percent solids (%)	61	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

Sample Number
BG 996

Organics Analysis Data Sheet
(Page 1)

0:059

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CCPVOA 874
QC Report No: 03
Sample Matrix: Soil
Contract No: 68-01-7276
Data Release Authorized By: Hauler
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 6/26/86
Date Analyzed: 6/26/86
Conc/Dil Factor: 7.2 pH 7
Percent Moisture: (Not Decanted) 30.3

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	50u
74-83-9	Bromomethane	50u
75-01-4	Vinyl Chloride	50u
75-00-3	Chloroethane	50u
75-09-2	Methylene Chloride	25u
67-64-1	Acetone	50u
75-15-0	Carbon Disulfide	25u
75-35-4	1, 1-Dichloroethene	25u
75-34-3	1, 1-Dichloroethane	25u
156-60-5	Trans-1, 2-Dichloroethene	25u
67-66-3	Chloroform	25u
107-06-2	1, 2-Dichloroethane	25u
78-93-3	2-Butanone	50u
71-55-6	1, 1, 1-Trichloroethane	25u
56-23-5	Carbon Tetrachloride	25u
108-05-4	Vinyl Acetate	50u
75-27-4	Bromodichloromethane	25u

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	25u
10061-02-6	Trans-1, 3-Dichloropropene	25u
79-01-6	Trichloroethene	25u
124-48-1	Dibromochloromethane	25u
79-00-5	1, 1, 2-Trichloroethane	25u
71-43-2	Benzene	25u
10061-01-5	cis-1, 3-Dichloropropene	25u
110-75-8	2-Chloroethylvinylether	50u
75-25-2	Bromoform	25u
108-10-1	4-Methyl-2-Pentanone	50u
591-78-6	2-Hexanone	50u
127-18-4	Tetrachloroethene	25u
79-34-5	1, 1, 2, 2-Tetrachloroethane	25u
108-88-3	Toluene	25u
108-90-7	Chlorobenzene	25u
100-41-4	Ethylbenzene	25u
100-42-5	Styrene	25u
	Total Xylenes	25u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value'	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected." The number is the minimum attainable detection limit for the sample
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J
C	This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS
B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action
Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number
~~BE~~ 996
BG

(28)

0:1060

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6/26/86

Date Analyzed 7/21/86

Conc./Dil Factor: 1

Percent Moisture (Decanted) 30 ~~##SL~~

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	330u
95-57-8	2-Chlorophenol	330u
541-73-1	1 3-Dichlorobenzene	330u
106-46-7	1 4-Dichlorobenzene	330u
100-51-6	Benzyl Alcohol	330u
95-50-1	1 2-Dichlorobenzene	330u
95-48-7	2-Methylphenol	330u
39638-32-9	bis(2-chloroisopropyl)Ether	330u
106-44-5	4-Methylphenol	330u
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	330u
98-95-3	Nitrobenzene	330u
78-59-1	Isophorone	330u
88-75-5	2-Nitrophenol	330u
105-67-9	2 4-Dimethylphenol	330u
65-85-0	Benzoic Acid	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2 4-Dichlorophenol	330u
120-82-1	1 2 4-Trichlorobenzene	330u
91-20-3	Naphthalene SL	~~330u~~ 300 J
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	330u
59-50-7	4-Chloro-3-Methylphenol	330u
91-57-6	2-Methylnaphthalene SL	~~330u~~ 190 J
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2 4 6-Trichlorophenol	330u
95 95-4	2 4 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208 96-8	Acenaphthylene SL	~~330u~~ 83 J
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene SL	~~330u~~ 510
51-28-5	2 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600 u
132-64-9	Dibenzofuran SL	~~330u~~ 340
121-14-2	2 4-Dinitrotoluene	330u
606-20-2	2 6-Dinitrotoluene	330u
84-66-2	Diethylphthalate	330u
7005-72-3	4-Chlorophenyl-phenylether	330u
86-73-7	Fluorene SL	~~330u~~ 540
100-01-6	4-Nitroaniline	330u
534-52-1	4 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	330u
118-74-1	Hexachlorobenzene	330u
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene SL	~~330u~~ 4000
120-12-7	Anthracene SL	~~330u~~ 1300
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene SL	~~330u~~ 4600
129-00-0	Pyrene SL	~~330u~~ 4700
85-68-7	Butylbenzylphthalate	330u
91-94-1	3 3 -Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene SL	~~330u~~ 2900
117-81-7	bis(2-Ethylhexyl)Phthalate	330u
218-01-9	Chrysene SL	~~330u~~ 2600
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene * SL	~~330u~~ 3900
207-08-9	Benzo(k)Fluoranthene SL	~~330u~~
50-32-8	Benzo(a)Pyrene SL	~~330u~~ 2500
193-39-5	Indeno(1 2 3-cd)Pyrene SL	~~330u~~ 1900
53-70-3	Dibenz(a h)Anthracene	330u
191-24-2	Benzo(g h i)Perylene SL	~~330u~~ 1700

* Unresolved

(1)-Cannot be separated from diphenylamine

Case No 6100

Sample Number BG 996 (28)

Organics Analysis Data Sheet
(Page 3)

00061

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 06/26/86

Date Analyzed 08/05/86

Conc/Dil Factor: —

Percent Moisture (decanted) ~~69.7%~~ 30.3%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	8.0 U	
319-85-7	Beta-BHC	8.0 U	
319-86-8	Delta-BHC	8.0 U	
58-89-9	Gamma-BHC (Lindane)	8.0 U	
76-44-8	Heptachlor	8.0 U	
309-00-2	Aldrin	8.0 U	
1024-57-3	Heptachlor Epoxide	8.0 U	
959-98-8	Endosulfan I	8.0 U	
60-57-1	Dieldrin	~~16.0 U~~	300
72-55-9	4,4'-DDE	16.0 U	
72-20-8	Endrin	16.0 U	
33213-65-9	Endosulfan II	16.0 U	
72-54-8	4,4'-DDD	16.0 U	
1031-07-8	Endosulfan Sulfate	16.0 U	
50-29-3	4,4'-DDT	16.0 U	
72-43-5	Methoxychlor	80.0 U	
53494-70-5	Endrin Ketone	16.0 U	
57-74-9	Chlordane	80.0 U	
8001-35-2	Toxaphene	160.0 U	
12674-11-2	Aroclor-1016	80.0 U	
11104-28-2	Aroclor-1221	80.0 U	
11141-16-5	Aroclor-1232	80.0 U	
53469-21-9	Aroclor-1242	80.0 U	
12672-29-6	Aroclor-1248	80.0 U	
11097-69-1	Aroclor-1254	160.0 U	
11096-82-5	Aroclor-1260	160.0 U	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s NA or W_s 26.7g V_t 10,000ul V_i 3.0ul

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number 3G-996

0062

28

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	2,2'-oxybis-propane	VOA	328	21 J

Laboratory Name Cambridge Analytical Associates

Job 6100

Sample Number BE 996 MK BG

0063

28

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
	Unknown	BNA	7.08	610 J
	↑	↑	8.80	390
			20.11	330
			21.90	560
			23.18	1400
	↓		24.24	1200
	benzo fluorene N.O.S.		24.50	1200
	↕		24.77	2500
	unknown		24.94	380
	methyl pyrene N.O.S.		25.01	850
	benzo fluoranthene N.O.S.		26.39	1300
	Unknown		27.43	1400
	↑		27.16	760
	↓		29.62	380
	methyl benz anthracene N.O.S		27.92	1100
	benzo pyrene N.O.S		30.09	1700
	Unknown		32.23	660
	↑		33.13	910
	↓	↓	34.33	370 ↓
		BNA	35.36	380 J

(28)

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MBG 399

Date: 02/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRidge Analytical Associates CASE NO. CASE 6130
SOW NO.: 764
LAB SAMPLE ID. NO.: 8606144-01 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water _____ Soil ✓ Sludge _____ Other _____

mg/Kg dry weight

1	Aluminum	10800	P	13	Magnesium	11300	P
2	Antimony	122 R	P	14	Manganese	294	P
3	Arsenic	7.84U	F	15	Mercury	0.19	
4	Barium	[69.4]	P	16	Nickel	22.2U	P
5	Beryllium	3.96UR	P	17	Potassium	[2400]	P
6	Cadmium	3.96U	P	18	Selenium	3.92U	F
7	Calcium	46600	P	19	Silver	7.92U	P
8	Chromium	18.2	P	20	Sodium	[382]	P
9	Cobalt	31.7U	P	21	Thallium	7.84U	F
10	Copper	27.7	P	22	Tin	29.2UR	P
11	Iron	17300	P	23	Vanadium	18.5U	P
12	Lead	54.9 ~~0.22~~ J	F	24	Zinc	79.6	P
Cyanide					Percent solids (%)	63	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

0002

Sample Number
BG 992

28

0:050

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc.
Case No: 6100
Lab Sample ID No: CCPV049859
QC Report No: 03
Sample Matrix: Water
Contract No: 68-01-7278
Data Release Authorized By: [signature]
Date Sample Received: 6/18/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 6/25/86
Date Analyzed: 6/25/86
Conc/Dil Factor: 1.0 pH 7
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10u
74-83-9	Bromomethane	10u
75-01-4	Vinyl Chloride	10u
75-00-3	Chloroethane	10u
75-09-2	Methylene Chloride RJH	~~5~~ 3 J
67-64-1	Acetone	10u
75-15-0	Carbon Disulfide	5 u
75-35-4	1, 1-Dichloroethene	5 u
75-34-3	1, 1-Dichloroethane	5 u
156-60-5	Trans-1, 2-Dichloroethene	5 u
67-66-3	Chloroform	5 u
107-06-2	1, 2-Dichloroethane	5 u
78-93-3	2-Butanone RJH	~~10~~ 24
71-55-6	1, 1, 1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10u
75-27-4	Bromodichloromethane	5 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5 u
10061-02-6	Trans-1, 3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1, 1, 2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1, 3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10u
591-78-6	2-Hexanone	10u
127-18-4	Tetrachloroethene	5 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample."

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 6-23-86

Date Analyzed 7-3-86

Conc./Dil Factor: 1

Percent Moisture (Decanted) N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l or ug/Kg (Circle One))
108-95-2	Phenol	10u
111-44-4	bis(2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1,3-Dichlorobenzene	10u
106-46-7	1,4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1,2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2,4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(2-Chloroethoxy)Methane	10u
120-83-2	2,4-Dichlorophenol	10u
120-82-1	1,2,4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2,4,6-Trichlorophenol	10u
95-95-4	2,4,5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l or ug/Kg (Circle One))
83-32-9	Acenaphthene	10u
51-28-5	2,4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2,4-Dinitrotoluene	10u
606-20-2	2,6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4,6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3,3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1,2,3-cd)Pyrene	10u
53-70-3	Dibenz(a,h)Anthracene	10u
191-24-2	Benzo(g,h,i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name Cambridge Analytical Associates

Case No 6100

Sample Number
BG 992

28

Organics Analysis Data Sheet
(Page 3)

0:052

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 06/22/86

Date Analyzed 07/23/86

Conc/Dil Factor: —

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.5 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 500mL or W_s NA V_t 10,000ul V_i 3 µl

ratory Name Cambridge Analytical Associates

No. 6100

Sample Number
BG 992

01053

28

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
NA	unknown	BNA	7.10	8.0 J
↓	↓	↓	9.10	10 J
↓	↓	↓	9.50	38 J
	NONE Detected	VOA	—	—

(28)

Form I

U. S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MSG 397

Date: 08/18/86

INORGANIC ANALYSIS DATA SHEET

LAB NAME: CAMBRidge Analytical Associates CASE NO. CASE 6100
SOW NO.: 784
LAB SAMPLE ID. NO.: 8606144-08 QC REPORT NO. 8606144

Elements Identified and Measured

Concentration: Low ✓ Medium _____
Matrix: Water ✓ Soil _____ Sludge _____ Other _____

ug/L

1	Aluminum	200U	P	13	Magnesium	157U	P
2	Antimony	47.1UR	P	14	Manganese	4.80U*	P
3	Arsenic	10.0U	F	15	Mercury	0.18U	
4	Barium	49.0U	P	16	Nickel	28.0UR	P
5	Beryllium	5.00UR	P	17	Potassium	359U	P
6	Cadmium	5.00U	P	18	Selenium	5.00U	F
7	Calcium	[259]	P	19	Silver	10.0U	P
8	Chromium	10.0UR	P	20	Sodium	[240]	P
9	Cobalt	40.0U	P	~~21~~	~~Thallium~~	~~100UR~~	F
10	Copper	10.0U	P	22	Tin	36.9UR	P
11	Iron	25.0U	P	23	Vanadium	23.3U	P
12	Lead	5.00U	F	24	Zinc	19.0U	P
Cyanide					Percent solids (%)		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager Linda P. Leonard

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Corning Tower The Governor Nelson A. Rockefeller Empire State Plaza Albany, New York 12237

David Axelrod, M.D.
Commissioner

OFFICE OF PUBLIC HEALTH

Linda A. Randolph, M.D., M.P.H.
Director

Sue Kelly
Executive Deputy Director

April 16, 1991

Mr. Martin Brand
NYS Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233

RE: State Fair Landfill, ID #734033, Geddes, Onondaga County
Review and Comments of Preliminary Site Assessment

Dear Mr. Brand:

As we discussed previously, I have reviewed the Task 1 Data Records Search and Assessment of the Preliminary Site Assessment (PSA) for the State Fair Landfill site in Geddes, Onondaga County and offer the following comments.

Investigation findings to date indicate that between 1972 and 1986 the site was used for disposal of construction and demolition (C&D) debris. C&D wastes undergoing decomposition may result in the generation of hydrogen sulfide (H_2S) gas. H_2S is a colorless gas with a notable odor at 0.02 parts per million (ppm). At concentrations below 30 ppm, the odor of this gas is similar to rotten eggs and at concentrations ranging from 30 ppm - 100 ppm, H_2S smells sickenly sweet. H_2S is a strong respiratory irritant and will cause symptoms even at low levels. This report did not present information to suggest that an odor problem currently exists at the site. However, future air monitoring for H_2S gas may be warranted should notable H_2S odors persist at or in areas near the site where persons may be exposed.

As documented in Section 5.3 ("Recommendations") and indicated on Figure 2, one of the four proposed monitoring well pairs (shallow and deep) is to be located outside the fence line and east of the Route 695/Route 5 bypass. It is assumed that this proposed monitor well location is intended to serve as one of the "background" locations. However, it is felt that this well cluster location may better serve as an additional downgradient monitoring point, and should be moved on-site to the area near the pump station and ponded water areas. Relocation of these monitoring wells to this area may provide some insight as to the effects of regional groundwater flow (assumed to be toward the lake) and contaminant migration. The other proposed background monitor well location should, at this time, suffice to provide upgradient groundwater quality data.

Should you have any questions or concerns regarding these comments, please call me at 458-6306.

Sincerely,

Claudine F. Jones

Claudine F. Jones
Program Research Specialist II
Bureau of Environmental Exposure
Investigation

APPENDIX B

Site Inspection Report
USEPA Form 2070-13

Site Inspection Report

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

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D981561970

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
State Fair Landfill	State Fair Boulevard				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Syracuse	NY	13209	Onondaga		

09 COORDINATES LATITUDE 43° 04' 34" | LONGITUDE 76° 13' 54"

10 TYPE OF OWNERSHIP (Check one)
☐ 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
11 / 13 / 91 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1940 (BEGINNING YEAR) 1986 (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 ☒ F. STATE CONTRACTOR URS Consultants (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Donald McCall	Chemical Engineer	URS Consultants	(716) 883-5525
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO.**
Robert Kreuzer	Geologist	URS Consultants	(716) 883-5525
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Bill Fredericks	Property Manager	State Fair Boulevard	(315) 487-7711
Harry Wheeler		State Fair Boulevard	(315) 487-7711
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	3:00-4:30	Trace of Snow, 28-30°F, cloudy

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Donald McCall	URS Consultants, Inc.	(716) 856-5636

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Donald McCall	URS Consultants		(716) 883-5525	1 / 30 / 91 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D981561970

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] A. SOLID
- [ ] 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: 50,000
NO. OF DRUMS:

03 WASTE CHARACTERISTICS (Check all that apply)

- [X] A. TOXIC
- [X] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [X] D. PERSISTENT
- [ ] E. SOLUBLE
- [ ] F. INFECTIOUS
- [ ] G. FLAMMABLE
- [ ] H. IGNITABLE
- [ ] 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			
PSD	PESTICIDES	unknown		these contaminants were
OCC	OTHER ORGANIC CHEMICALS	unknown		detected at the site but their
IOC	INORGANIC CHEMICALS			source is unknown
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

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
OCC	Carbon Disulfide	75-15-0	unknown	2 J	ppb
OCC	Trichloroethene	79-01-6	"	6 J	ppb
OCC	Benzene	71-43-2	"	38	ppb
OCC	Toluene	108-88-3	"	23 J	ppb
OCC	4-Methylphenol	106-44-5	"	210 J	ppb
OCC	Naphthalene	91-20-3	"	300 J	ppb
OCC	2-Methylnaphthalene	91-57-6	"	190 J	ppb
OCC	Acenaphthylene	208-96-8	"	330 J	ppb
OCC	Acenaphthene	83-32-9	"	510	ppb
OCC	Dibenzofuran		"	340	ppb
OCC	Fluorene	86-73-7	"	540	ppb
OCC	Phenanthrene	85-01-8	"	4000	ppb
OCC	Anthracene	120-12-7	"	1300	ppb
OCC	Fluoranthene	206-44-0	"	4600	ppb
OCC	Pyrene	129-00--0	"	4700	ppb
OCC	Benzo(a)anthracene	56-55-3	"	2900	ppb

V. FEEDSTOCKS (See Appendix for CAS Numbers) continued

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)

Site inspection of 11/13/90 by URS Consultants, Inc.
NYSDEC Albany File Search 6/14/90.
NUS Report of 1/28/87

Part 2 - Waste Information (cont'd)

IV. Hazardous Substances

OCC	Bis(2-ethylhexyl)phthalate	117-81-7	unknown	73 J	ppb
OCC	Chrysene	218-01-9	"	2600	ppb
OCC	Benzo(b)fluoranthene	205-99-2	"	3900	ppb
OCC	Benzo(a)pyrene	50-32-8	"	2500	ppb
OCC	Indeno(1,2,3-cd)pyrene	193-39-5	"	1900	ppb
OCC	Dibenzo(a,h)anthracene	53-70-3	"	190	ppb
OCC	Benzo(ghi)perylene	191-24-2	"	1700	ppb
PSD	Dieldrin	60-57-1	"	300	ppb

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D981561970

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 95
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Estimated number of people using groundwater within a 3-mile radius. All of these people are upgradient of the site, however.

01 ☒ B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 0
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Ninemile Creek is not used for drinking water or irrigation downstream from the site. The creek is located adjacent to the site.

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

None reported

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

None reported

01 ☒ E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: 1640
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Estimate of the population located within a 1-mile radius of the site.

01 ☒ F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 20-30 (Acres)
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Waste was buried in the ground in unlined trenches, making soil contamination a possibility

01 ☒ G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 95
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Estimated number of people using groundwater within a 3-mile radius. All of the people are upgradient of the site, however.

01 ☐ H. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: _____
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported

01 ☒ I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: 33,700
02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Estimate of the population within a 3-mile radius of the site.

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: D981561970

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

None reported

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

None reported

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

None reported

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills, Runoff, Standing liquids, Leaking drums) — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 1640 — 04 NARRATIVE DESCRIPTION

Estimate of the population within a 1-mile radius of the site.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported

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

None reported

III. TOTAL POPULATION POTENTIALLY AFFECTED: 33,700 (estimate of population in a 3-mile radius)

IV. COMMENTS

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

NYSDEC Albany File Search, 6/14/90
URS Site Visit 11/13/90
Ref. 15,20,21

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D981561970

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)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☒ F. LANDFILL	50,000	CY
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☒ H. OTHER (Specify) none

05 OTHER

- ☒ A. BUILDINGS ON SITE
  Pump house

06 AREA OF SITE

20-30 (Acres)

07 COMMENTS

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☒ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

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

Waste was disposed of in trenches along the access road. The area is a freshwater wetlands.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE ☐ YES ☒ NO

02 COMMENTS

The site is at least partially fenced, but access could be gained.

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

URS site visit, 11/13/90

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D981561970

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

	SURFACE	WELL
COMMUNITY	A. ☐	B. ☐
NON-COMMUNITY	C. ☐	D. ☒

02 STATUS

ENDANGERED	AFFECTED	MONITORED
A. ☐	B. ☐	C. ☐
D. ☒	E. ☐	F. ☐

03 DISTANCE TO SITE

A. _____ (mi)

B. 2.5 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING ☒ B. DRINKING (Other sources available) ☒ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)

02 POPULATION SERVED BY GROUND WATER 95 Estimated

03 DISTANCE TO NEAREST DRINKING WATER WELL unknown (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
0.5-1 (ft)	presumed North	0.5-1 (ft)	unknown (gpd)	☐ YES ☒ NO

09 DESCRIPTION OF WELLS (Including useage, depth, and location relative to population and buildings)

Unknown, no well construction details or well logs were found during the file search.

10 RECHARGE AREA		11 DISCHARGE AREA	
☐ YES ☐ NO	COMMENTS: unknown	☐ YES ☐ NO	COMMENTS: unknown

IV. SURFACE WATER

01 SURFACE WATER USE (Check one) Onondaga Lake is used for recreation

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Ninemile Creek	Potentially ☐	0 (mi)
	☐	(mi)
Onondaga Lake	Potentially ☐	1 (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. 1640 NO OF PERSONS	B. 7700 NO OF PERSONS	C. 33,700 NO OF PERSONS

02 DISTANCE TO NEAREST POPULATION 0.4 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE 2200

04 DISTANCE TO NEAREST OFF-SITE BUILDING 0.4 (mi)

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

The area is a suburb of the City of Syracuse. It is mostly residential and commercial with some small industry

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D981561970

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ 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) ☒ 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	
100 (ft)	unknown (ft)	6.1-7.3	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
12 (in)	2.5 (in)	0-3 %	West	0-3 %

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)

ESTUARINE	OTHER
A. NA (mi)	B. 0 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

NA (mi)

ENDANGERED SPECIES: none reported

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS, NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AG LAND
A. 0.5 (mi)	B. 0.5 (mi)	C. 0.75 (mi)	D. 0.75 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site is relatively flat, even, and eventually slopes down to Ninemile Creek. Routes 690 and 695 are very close to the site.

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

URS Site Visit 11/13/90
Ref. 15, 16, 17, 18, 22
NUS Report of 1/28/87

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D981561970

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER	1 5	NYSDOH Environmental Health Center Cambridge Analytical	1976 1986
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER Sediment	5	Cambridge Analytical	1986

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNu	No readings above background levels, 11/13/90
Radiation Meter	No readings above background levels, 11/13/90

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF URS Consultants, Inc. (Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS: URS Consultants, Inc., 570 Delaware Avenue, Buffalo, New York

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Photographs of significant features were taken and a site location map was developed.

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

NYSDEC Albany File Search, 6/14/90
URS Site Visit, 11/13/90.
Ref. 6

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D981561970

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
NYS Department of Agriculture & Markets	

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

05 CITY	06 STATE	07 ZIP CODE
Albany	NY	

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER
unknown	

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

05 CITY	06 STATE	07 ZIP CODE

IV. REALTY OWNER(S) (If applicable, list most recent first)

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. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

IV. REALTY OWNER(S) (If applicable, list most recent first)

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. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

IV. REALTY OWNER(S) (If applicable, list most recent first)

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

NYSDEC Albany File Search 6/14/90

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D981561970

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
New York State Fair	

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

05 CITY	06 STATE	07 ZIP CODE
Syracuse	NY	13209

08 YEARS OF OPERATION	09 NAME OF OWNER
1940 - 1986	NYS Dept. of Agriculture & Markets

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

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 DURING THIS PERIOD

PREVIOUS OPERATORS' 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 DURING THIS PERIOD

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 DURING THIS PERIOD

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)

NYSDEC Albany File Search 6/14/90

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D981561970

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
New York State Fair	

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

05 CITY	06 STATE	07 ZIP CODE
Syracuse	NY	13209

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Crucible Specialty Metals			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**03 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**04 SIC CODE**
P.O. Box 977			
05 CITY	**06 STATE** / **07 ZIP CODE**	**05 CITY**	**06 STATE** / **07 ZIP CODE**
Syracuse	NY 13201		
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**

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

NYSDEC Albany file search 6/14/90

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D981561970

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D981561970

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
None reported

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None reported

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

NYSDEC Albany file search 6/14/90

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D981561970

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

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

The State Fair Landfill was found many times to be in violation of Part 360 of the Environmental Conservation Law. See References 4 - 11.

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

EPA FORM 2070-13 (7-81)

APPENDIX C

Interview Documentation Forms

(1)

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35231.00.11400 JOB NAME NYSDEC Standby - State Fair Landfill

MEMO OF TELECON

DATE 1-14-91 TELEPHONE (315) 469-6955

PERSON CALLING D. McCall PERSON CALLED BOB BURDICK

REPRESENTING URS - Buffalo REPRESENTING ONONDAGA COUNTY HEALTH DEPT.

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED: TO FIND OUT WHAT INFORMATION THEY HAVE ON THE STATE FAIR LANDFILL SITE.

TEXT OF TELECON

ACCORDING TO BOB, MOST OF WHAT THEY HAVE ARE THE SITE INSPECTION REPORTS. THEY HAVE NO SAMPLING OR ANALYTICAL DATA FROM THE SITE.

CC:

(2)

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35231.00.11400 JOB NAME NYSDEC Standby - State Fair Landfill

MEMO OF TELECON

DATE 1-10-91 TELEPHONE (315) 426-7612

PERSON CALLING D. McCall PERSON CALLED HENRI HAMEL

REPRESENTING URS - Buffalo REPRESENTING NYS HEALTH DEPARTMENT

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED: TO FIND OUT WHAT INFORMATION THE HEALTH DEPARTMENT HAS ON THE STATE FAIR LANDFILL SITE.

TEXT OF TELECON

THE HEALTH DEPARTMENT HAD VERY LITTLE INFORMATION, AND NOTHING THAT WAS NOT AVAILABLE IN THE NYSDEC FILES.

cc:

(3)

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZA

URS CONSULTANTS, INC.
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202-1207
(716) 883-5525
FAX: (716) 883-0754

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VIRGINIA BEACH
WASHINGTON

RECEIVED
URS CONSULTANTS
JAN 28 1991
JOB #

January 9, 1991

Mr. Bill Fredericks
Property Manager
New York State Fair
State Fair Boulevard
Syracuse, New York 13209

RE: STATE FAIR LANDFILL, #734033

Dear Mr. Fredericks:

As mentioned during our visit to your office on November 13, 1990, URS Consultants, Inc. is currently conducting a Preliminary Site Assessment of the State Fair Landfill site in the Town of Geddes, Onondaga County, New York.

We are performing this investigation under contract to the New York State Department of Environmental Conservation (NYSDEC) pursuant to the requirements of the New York State Environmental Conservation Law, Section 27-1309.

This is to confirm our conversation wherein you and Mr. ~~Harry~~ HAROLD Wheeler provided the following information:

- There is confusion between the State Fair Landfill site and the site located across Rte. 690 directly on Lake Onondaga. The site along the lake is the property of Onondaga County. It was there that the dumping by Crucible Steel occurred. The State Fair Landfill was only for State Fair use.

- Disposal at the State Fair site stopped approximately 15 years ago.

- The area along the access road was only used for sanitary waste generated, for the most part, during the week of the fair. The waste was disposed of by trenching and filling. The rest of the area was used for the disposal of C&D debris generated by the fairgrounds.

- Conrail is planning a rail line through the area of the fill. Conrail has expressed to Bill Fredericks that they may pay for any necessary sampling if it would expedite the process of putting in the new line.

Please also provide, if possible, the years when the landfill was in use, and a rough estimate of how much waste might have been buried at this site.

We would appreciate it if you would review this information, note any necessary corrections, and return a signed and dated copy to indicate your concurrence.

(3)

Your prompt attention to this would be greatly appreciated, as the information is necessary to complete our evaluation of the site. Please use enclosed envelope.

Sincerely,

URS CONSULTANTS, INC.

Donald A. McCall

Donald A. McCall
Project Engineer

DAM/ys

1-9-91L.DMC
35231.00 (File: 5015 - 114)

I agree with the information as it is presented.

Bill Fredericks 1/29/91

Bill Fredericks Date

1. Landfill began circa 1940.
2. 50,000 c.y. of fill may have been placed in the fill area.

(16)

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATI

URS CONSULTANTS, INC.
570 DELAWARE AVENUE
BUFFALO, NEW YORK 14202-1207
(716) 883-5525
FAX: (716) 883-0754

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SAN MATEO
SEATTLE
VIRGINIA BEACH
WASHINGTON, D.C.

December 17, 1990

Mr. Coburn
New York State Department of
Environmental Conservation - Wetlands
615 Erie Boulevard - West
Syracuse, New York 13204

RE: PRELIMINARY SITE ASSESSMENTS, REGION 7

Dear Mr. Coburn:

URS Consultants, Inc. is currently conducting Preliminary Site Assessments of three (3) sites in Region 7.

We are performing these investigations under contract to the New York State Department of Environmental Conservation pursuant to the requirements of the New York State Environmental Conservation Law, Section 27-1309.

As part of the assessment, we need to determine whether or not there are any wetlands within a 1-mile vicinity of the site. The sites for which we are doing assessments are listed below:

Valenite -	#734023
State Fair Landfill -	#734033
Niagara Mohawk Fire Training School -	#738030

Copies of the USGS topo maps showing the locations of the sites have been included.

We would appreciate it if you would send us copies of the wetlands maps for the locations of these three sites. Your prompt attention to our request would be appreciated, as this information is necessary to complete our evaluation of the site. If you have any questions, please feel free to call.

Sincerely,

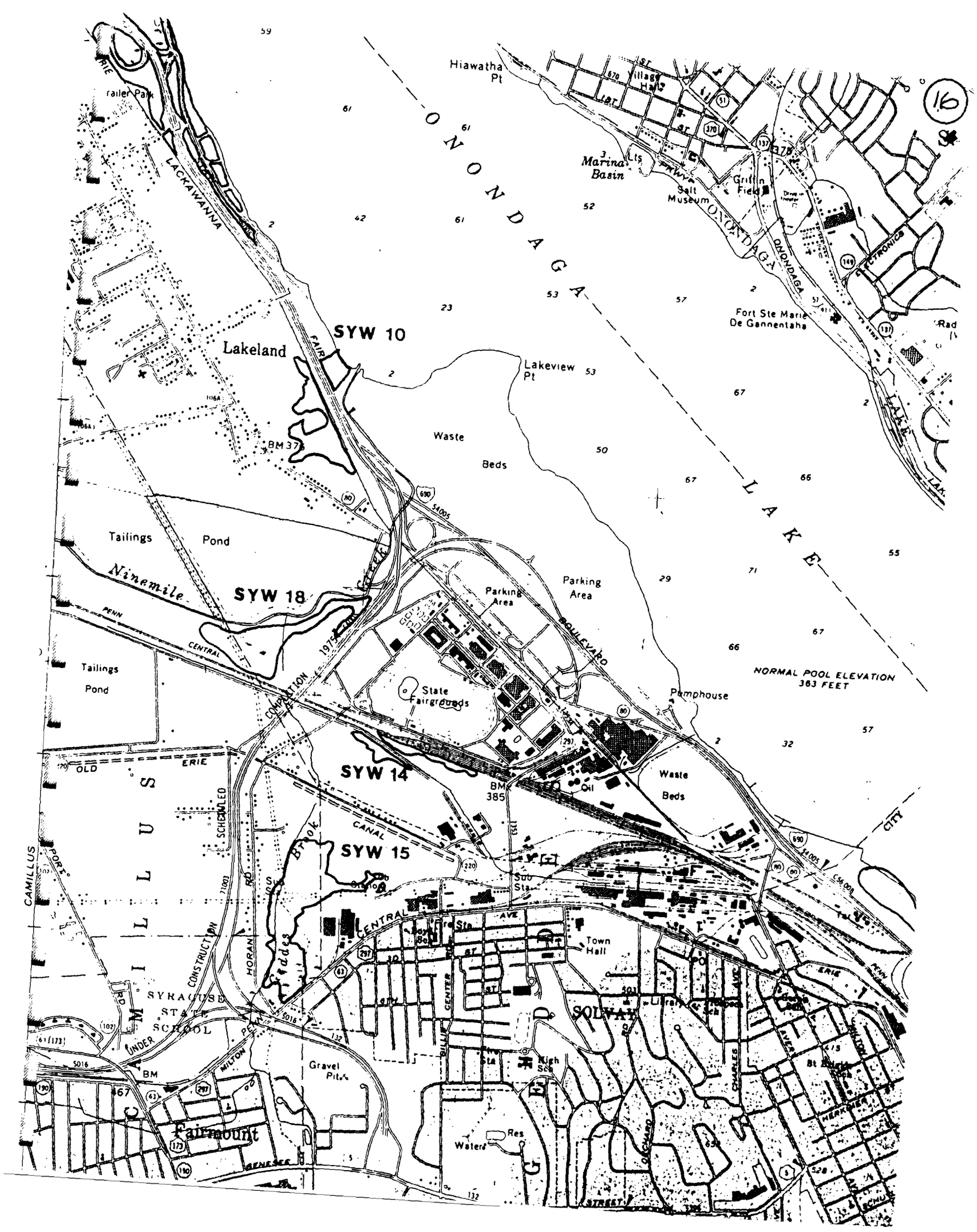
URS CONSULTANTS, INC.

Donald A. McCall

Donald A. McCall
Project Engineer

DAM/ys
Enc.

12-17-90.MC
35231.00 (5010)


ONONDAGA LAKE
SYW 10
SYW 18
SYW 14
SYW 15
Lakeland
Tailings Pond
Ninemile Creek
Waste Beds
Parking Area
State Fairgrounds
Pumphouse
NORMAL POOL ELEVATION 363 FEET
Marina Basin
Hiawatha Pt
Lakeview Pt
Fort Ste Marie De Gannentaha
Griffin Field
Salt Museum
Village Hall
Town Hall
Gravel Pits
Fairmount
SYRACUSE STATE SCHOOL
SOLVAY
CAMILLUS
Onondaga Lake Parkway
Penn Central
Old Erie
Erie Canal
Lackawanna
Milton
Genesee
Oil
Res
Water
BM 385
BM 377
BM
Trailer Park
Ultrafabrics
Electronics
Boulevard
Construction
Horan Rd
Schneider Rd
Center St
Charles Ave
Orchard St
Herkimer St
Milton St
Erie St
Penn St
Main St
Ave
St
Rd
Blvd
Pkwy
Creek
Brook
Canal
Sch
Ls
Sta
Pt
Oil
Gas
Res
Water
BM
Trailer Park
Tailings Pond
Waste Beds
Parking Area
Pumphouse
Town Hall
Gravel Pits
Fairmount
SYRACUSE STATE SCHOOL
SOLVAY
CAMILLUS
Onondaga Lake Parkway
Penn Central
Old Erie
Erie Canal
Lackawanna
Milton
Genesee
Oil
Res
Water
BM 385
BM 377
BM
Trailer Park
Ultrafabrics
Electronics
Boulevard
Construction
Horan Rd
Schneider Rd
Center St
Charles Ave
Orchard St
Herkimer St
Milton St
Erie St
Penn St
Main St
Ave
St
Rd
Blvd
Pkwy
Creek
Brook
Canal
Sch
Ls
Sta
Pt
Oil
Gas
Res
Water
BM

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35231.00.114 JOB NAME NYSDEC STANDBY - STATE FAIR LANDFILL

MEMO OF TELECON

DATE 7-31-91 TELEPHONE (518) 458-6306

PERSON CALLING PHYLLIS REITKE PERSON CALLED CLAUDINE F. JONES

REPRESENTING URS - BFLC REPRESENTING NYSDOH

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED:

INFO. ON THE PUMP STATION AT THE NYSDOH

TEXT OF TELECON

THIS OFFICE HAD NO INFORMATION ON THE USE OR STATUS OF THE PUMP STATION LOCATED AT THE LANDFILL.

cc:

APPENDIX D

Hazard Ranking System

FACILITY NAME: State Fair Landfill

LOCATION: State Fair Boulevard, Geddes, Onondaga County, NY

EPA REGION: EPA Region II; NYSDEC Region 7

PERSON(S) IN CHARGE OF THE FACILITY: NYS Dept. of Agriculture and Markets

Executive Offices, 1 Winners Circle

Albany, NY 12235

NAME OF REVIEWER: URS Consultants, Inc. DATE: 11/30/90

GENERAL DESCRIPTION OF THE FACILTY:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action;etc.)

The State Fair Landfill was owned and operated by the New York State Fair for the disposal of sanitary waste and C&D debris generated by the Fair. The waste was disposed of in trenches that were dug along an access road. Most of the waste disposal area is located within a portion of NYSDEC Wetlands SYW-18. Additionally, Ninemile Creek runs adjacent to the site. Onondaga Lake is located approximately 1 mile from the site. The NYSDEC registry indicated that the Crucible Specialty Materials Corp. had used the site for the dumping of caustic coated mill scale. Previous sampling has indicated the presence of numerous Polynuclear Aromatic Hydrocarbons (PAHs) on the site.

SCORES: Sm= 9.28 (Sgw = 11.51 Ssw = 11.19 Sa = 0)

Sfe = 0

Sdc = 37.50

HRS COVER SHEET

GROUND WATER ROUTE WORK SHEET

RATING FACTOR	ASSIGNED VALUE (CIRCLE ONE)	MULTI-PLIER	SCORE	MAX. SCORE	REF. (SECTION)
1 OBSERVED RELEASE	0 45 [0]	1	0	45	3.1
IF OBSERVED RELEASE IS GIVEN A SCORE OF 45, PROCEED TO LINE 4 IF OBSERVED RELEASE IS GIVEN A SCORE OF 0, PROCEED TO LINE 2					
2 ROUTE CHARACTERISTICS					3.2
DEPTH TO AQUIFER OF CONCERN	0 1 2 3 [3]	2	6	6	
NET PRECIPITATION	0 1 2 3 [2]	1	2	3	
PERMEABILITY OF THE UNSATURATED ZONE	0 1 2 3 [2]	1	2	3	
PHYSICAL STATE	0 1 2 3 [1]	1	1	3	
TOTAL ROUTE CHARACTERISTICS SCORE			11	15	
3 CONTAINMENT	0 1 2 3 [3]	1	3	3	3.3
4 WASTE CHARACTERISTICS					
TOXICITY/PERSISTANCE	0 3 6 9 [18]	1	18	18	3.4
HAZARDOUS WASTE QUANTITY	12 15 18 0 1 2 3 [2] 4 5 6 7 8	1	2	8	
TOTAL WASTE CHARACTERISTICS SCORE			20	26	
5 TARGETS					
GROUND WATER USE	0 1 2 3 [2]	3	6	9	
DISTANCE TO NEAREST WELL /POPULATION SERVED	0 4 6 8 10 12 16 18 20 [4] 24 30 32 35 40	1	4	40	
TOTAL TARGETS SCORE			10	49	
6 IF LINE 1 IS 45, MULTIPLY 1 X 4 X 5 IF LINE 1 IS 0, MULTIPLY 2 X 3 X 4 X 5			0 6600	57,330	
7 DIVIDE LINE 6 BY 57,330 AND MULTIPLY BY 100					
Sgw =			11.51		

GROUND WATER ROUTE WORK SHEET

SURFACE WATER ROUTE WORK SHEET

RATING FACTOR	ASSIGNED VALUE (CIRCLE ONE)	MULTI-PLIER	SCORE	MAX. SCORE	REF. (SECTION)
1 OBSERVED RELEASE	0 45 [0]	1	0	45	4.1
IF OBSERVED RELEASE IS GIVEN A SCORE OF 45, PROCEED TO LINE 4 IF OBSERVED RELEASE IS GIVEN A SCORE OF 0, PROCEED TO LINE 2					
2 ROUTE CHARACTERISTICS					4.2
FACILITIES SLOPE AND INTERVENING TERRAIN	0 1 2 3 [1]	1	1	3	
1-yr 24 HOUR RAINFALL	0 1 2 3 [2]	1	2	3	
DISTANCE TO NEAREST SURFACE WATER	0 1 2 3 [3]	2	6	6	
PHYSICAL STATE	0 1 2 3 [1]	1	1	3	
TOTAL ROUTE CHARACTERISTICS SCORE			10	15	
3 CONTAINMENT	0 1 2 3 [3]	1	3	3	4.3
4 WASTE CHARACTERISTICS					
TOXICITY/PERSISTANCE	0 3 6 9 12 15 [18]	1	18	18	4.4
HAZARDOUS WASTE QUANTITY	1 2 3 4 5 6 7 8 [2]	1	2	8	
TOTAL WASTE CHARACTERISTICS SCORE			20	26	
5 TARGETS					4.5
SURFACE WATER USE	0 1 2 3 [2]	3	6	9	
DISTANCE TO A SENSITIVE ENVIRONMENT	0 1 2 3 [3]	2	6	6	
POPULATION SERVED/DIST TO WATER INTAKE DOWNSTREAM	0 4 6 8 10 12 16 18 20 24 30 32 35 40 [0]	1	0		
TOTAL TARGETS SCORE			12	55	
6 IF LINE 1 IS 45, MULTIPLY 1 X 4 X 5 IF LINE 1 IS 0, MULTIPLY 2 X 3 X 4 X 5			0 7200	64,350	
7 DIVIDE LINE 6 BY 64,350 AND MULTIPLY BY 100		Ssw =	11.19		

SURFACE WATER ROUTE WORK SHEET

AIR ROUTE WORK SHEET

RATING FACTOR	ASSIGNED VALUE (CIRCLE ONE)	MULTI-PLIER	SCORE	MAX. SCORE	REF. (SECTION)
1 OBSERVED RELEAS	0 45 [0]	1	0	45	5.1
DATE AND LOCATION:					
SAMPLING PROTOCOL:					
IF LINE 1 IS 0, THE Sa =0. ENTER ON LINE 5 IF LINE 1 IS 45, THEN PROCEED TO; LINE 2.					
2 WASTE CHARACTERISTICS					5.2
REACTIVITY AND INCOMPATIBILITY	0 1 2 3 [ ]	1		3	
TOXICITY	0 1 2 3 [ ]	3	0	9	
HAZARDOUS WASTE QUANTITY	3 4 5 6 7 8 [ ]	1	0	8	
TOTAL WASTE CHARACTERISTICS SCORE			0	20	
3 TARGETS					5.3
POPULATION WITHIN 4 MILE RADIUS	0 9 12 21 24 27 [ ]	1	0	30	
DISTANCE TO SENSITIVE ENVIRONMENT	0 1 2 3 [ ]	2	0	6	
LAND USE	0 1 2 3 [ ]	1		3	
TOTAL TARGETS SCORE			0	39	
4 MULTIPLY 1 X 2 X 3			0	35,100	
5 DIVIDE LINE 4 BY 35,100 AND MULTIPLY BY 100					
		Sa=	0.00		

	S	S^2
GROUNDWATER ROUTE SCORE (Sgw)	11.51	132.53
SURFACE WATER ROUTE SCORE (Ssw)	11.19	125.19
AIR ROUTE SCORE (Sa)	0.00	0.00
$S^2gw + S^2sw + S^2a$		257.72
square root of($S^2gw + S^2sw + S^2a$)		16.05
square root of ($S^2gw + S^2sw + S^2a$)/1.73 = Sm		9.28

WORKSHEET FOR COMPUTING Sm

FIRE AND EXPLOSION WORK SHEET

Not Applicable for this site.

RATING FACTOR	ASSIGNED VALUE (CIRCLE ONE)	MULTI-PLIER	SCORE	MAX. SCORE	REF. (SECTION)
1 CONTAINMENT	1 3	1	0	3	7.1
2 WASTE CHARACTERISTICS					
DIRECT EVIDENCE	0 3	1		3	7.2
IGNITABILITY	0 1 2 3	1	0	3	
REACTIVITY	0 1 2 3	1	0	3	
INCOMPATIBILITY	0 1 2 3	1	0	3	
HAZARDOUS WASTE QUANTITY	1 2 3 4 5 6 7 8	1	0	3 8	
TOTAL WASTE CHARACTERISTICS SCORE			0	20	
3 TARGETS					7.3
DISTANCE TO NEAREST POPULATION	0 1 2 3 4 5	1			
DISTANCE TO NEAREST BUILDING	0 1 2 3	1			
DISTANCE TO A SENSITIVE ENVIRONMENT	0 1 2 3	1		6	
LAND USE	0 1 2 3	1			
POPULATION WITHIN 2 MILE RADIUS	0 1 2 3 4 5	1			
BUILDINGS WITHIN 2 MILE RADIUS	0 1 2 3 4 5	1			
TOTAL TARGETS SCORE			0	24	
4 MULTIPLY 1 X 2 3			0	1,440	
5 DIVIDE LINE 4 BY 1,440 AND MULTIPLY BY 100					
		Sfe =	0.00		

FIRE AND EXPLOSION WORK SHEET

DIRECT CONTACT WORK SHEET					
RATING FACTOR	ASSIGNED VALUE (CIRCLE ONE)	MULTI-PLIER	SCORE	MAX. SCORE	REF. (SECTION)
1 OBSERVED RELEASE	0 45 [0]	1	0	45	8.1
IF LINE 1 IS 45, PROCEED TO LINE 2 IF LINE 1 IS 0, PROCEED TO LINE 2					
2 ACCESSIBILITY	0 1 2 3 [3]	1	3	3	8.2
3 CONTAINMENT	0 15 [15]	1	15	15	8.3
4 WASTE CHARACTERISTICS TOXICITY	0 1 2 3 [3]	5	15	15	8.4
5 TARGETS					8.5
POPULATION WITHIN 1 MILE RADIUS	0 1 2 3 4 5 [3]	4	12	20	
DISTANCE TO A CRITICAL HABITAT	0 1 2 3 [0]	4	0	12	
TOTAL TARGETS SCORE			12	32	
6 IF LINE 1 IS 45, MULTIPLY 1 X 4 X 5 IF LINE 1 IS 0, MULTIPLY 2 X 3 X 4 X 5			0 8100	21,600	
7 DIVIDE LINE 6 BY 21,600 AND MULTIPLY BY 100			Sdc =	37.50	

DIRECT CONTACT WORK SHEET

GROUNDWATER ROUTE

1 OBSERVED RELEASE

o CONTAMINANTS DETECTED (5 MAXIMUM):

NA, NO SAMPLING OF GROUNDWATER HAS BEEN DONE

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE FACILITY:

NA

SCORE 0

***

2. ROUTE CHARACTERISTICS

DEPTH TO AQUIFER OF CONCERN

o NAME/DESCRIPTION OF AQUIFER(S) OF CONCERN:

OVERBURDEN OF SILTY CLAY LOAM, SILTY CLAY, AND CLAY

SYRACUSE FORMATION BEDROCK CONSISTING OF LAYERS OF SHALE, SALT, AND GYPSUM (Ref. 17)

o DEPTH(S) FROM THE GROUND SURFACE TO THE HIGHEST SEASONAL LEVEL OF THE SATURATED ZONE [WATER TABLE(S)] OF THE AQUIFER OF CONCERN:

ESTIMATED TO BE 1/2 TO 1 FOOT (Ref. 17)

o DEPTH FROM THE GROUND SURFACE TO THE LOWEST POINT OF WASTE DISPOSAL/STORAGE:

UNKNOWN. IT IS ASSUMED THAT THE WASTE IS PROBABLY IN CONTACT WITH THE GROUNDWATER

SCORE 3

***

NET PRECIPITATION

- o MEAN ANNUAL OR SEASONAL PRECIPITATION(LIST MONTHS FOR SEASONAL):

  39 INCHES ANNUALLY (Ref. 22)

- o MEAN ANNUAL OR SEASONAL EVAPORATION (LIST MONTHS FOR SEASONAL):

  27 INCHES MEAN ANNUAL EVAPORATION (Ref. 23)

- o NET PRECIPITATION (SUBTRACT THE ABOVE FIGURES):

  12 INCHES ANNUALLY

SCORE 2

PERMEABILITY OF UNSATURATED ZONE

- o SOIL TYPE IN UNSATURATED ZONE:

  ODESSA AND LAKEMONT - SILTY CLAY LOAM, SILTY CLAY, AND CLAY (Ref. 17)

- o PERMEABILITY ASSOCIATED WITH SOIL TYPE:

  10^{-3} to 10^{-5} cm/s (Ref. 17)

SCORE 2

PHYSICAL STATE

- o PHYSICAL STATE OF SUBSTANCES AT TIME OF DISPOSAL (OR AT PRESENT TIME FOR GENERATED GASES):

  ASSUMED SOLID, UNCONSOLIDATED, OR UNSTABILIZED

SCORE 1

***

3. CONTAINMENT

CONTAINMENT

o METHOD(S) OF WASTE OF LEACHATE CONTAINMENT EVALUATED:

LANDFILL

o METHOD WITH THE HIGHEST SCORE:

LANDFILL, NO LINER

SCORE 3

***

4. WASTE CHARACTERISTICS

TOXICITY AND PERSISTENCE

o COMPOUND(S) EVALUATED:

COMPOUNDS	TOXICITY	PERSISTENCE	SCORE
Benzo(a)Pyrene	3	3	18
Dieldrin	3	3	18
Benzo(a)Anthracene	3	3	18
Benzo(b)Fluoranthene	3	3	18
Indeno(1,2,3-cd)Pyrene	3	3	18

o COMPOUND WITH THE HIGHEST SCORE:
All compounds scored 18.

SCORE 18

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS SUBSTANCES AT THE FACILITY, EXCLUDING THOSE WITH A CONTAINMENT SCORE OF 0(GIVE A REASONABLE ESTIMATE EVEN IF QUANTITY IS ABOVE MAXIMUM):

Estimated 25 cubic yards

SCORE 2

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

This is the quantity mentioned in Ref. 13.

***

5. TARGETS

GROUNDWATER USE

- USE(S) OF AQUIFER(S) OF CONCERN WITHIN A 3-MILE RADIUS OF THE FACILITY:

  ALMOST ALL RESIDENTS IN THE VICINITY OF THE SITE OBTAIN THEIR WATER FROM A MUNICIPAL SUPPLY. THERE ARE A FEW RESIDENTS THAT OBTAIN THEIR WATER FROM GROUNDWATER BUT THEY WOULD BE UPGRADIENT OF THE SITE

SCORE 2

DISTANCE OF NEAREST WELL

- LOCATION OF NEAREST WELL DRAWING FROM AQUIFER OF CONCERN OR OCCUPIED BUILDING NOT SERVED BY A PUBLIC WATER SUPPLY:

  TOMPSON ROAD, SOUTHWEST OF JUNCTION WITH WARNERS ROAD AT AMBOY (Ref. 20)

- DISTANCE TO ABOVE WELL OR BUILDING:

  APPROXIMATELY 2.5 MI. (Ref. 20)

POPULATION SERVED BY GROUNDWATER WELL WITHIN A 3-MILE RADIUS

- IDENTIFIED WATER-SUPPLY WELL(S) DRAWING FROM AQUIFER(S) OF CONCERN WITHIN A 3-MILE RADIUS AND POPULATIONS SERVED BY EACH:

  APPROXIMATELY 25 PRIVATE WELLS ALONG TOMPSON ROAD SOUTHWEST OF THE JUNCTION WITH WARNERS ROAD. THESE WELLS WOULD ALL BE CONSIDERED UPGRADIENT OF THE SITE (Ref. 20)

- COMPUTATION OF LAND AREA IRRIGATED BY SUPPLY WELL(S) DRAWING FROM AQUIFER(S) OF CONCERN WITHIN A 3-MILE RADIUS, AND CONVERSION TO POPULATION(1.5 PEOPLE PER ACRE):

  NONE KNOWN

- TOTAL POPULATION SERVED BY GROUNDWATER WITHIN A 3-MILE RADIUS:

  25 HOUSES X 3.8 PEOPLE/HOURS = 95 PEOPLE

SCORE 4

***

SURFACE WATER ROUTE

1. OBSERVED RELEASE

o CONTAMINANTS DETECTED IN SURFACE WATER AT THE FACILITY OR DOWNHILL FROM IT (5 MAXIMUM):

Sampling by NUS (Ref. 28) did not indicate any contaminants that would be attributable to the facility.

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE FACILITY:

NA

SCORE 0

***

2. ROUTE CHARACTERISTICS

FACILITY SLOPE AND INTERVENING TERRAIN

o AVERAGE SLOPE OF THE FACILITY IN PERCENT:

0-3% (Ref. 15)

o NAME/DESCRIPTION OF THE NEAREST DOWNSLOPE SURFACE WATER:

NINEMILE CREEK (Ref. 15)

o AVERAGE SLOPE OF TERRAIN BETWEEN FACILITY AND ABOVE-CITED SURFACE WATER IN PERCENT:

3-5% (Ref. 15)

o IS THE FACILITY LOCATED EITHER TOTALLY OR PARTIALLY IN SURFACE WATER?:

NO

SCORE 1

o IS THE FACILITY COMPLETELY SURROUNDED BY AREAS OF HIGHER ELEVATION?

NO

1-YEAR 24 HOUR RAINFALL IN INCHES

2.5" (Ref. 23)

SCORE 2

DISTANCE TO NEAREST DOWNSLOPE SURFACE WATER

50-100 FEET (Ref. 15)

SCORE 3

PHYSICAL STATE OF WASTE

ASSUMED TO BE SOLID, UNCONSOLIDATED, OR UNSTABILIZED

SCORE 1

***

3. CONTAINMENT

CONTAINMENT

o METHOD(S) OF WASTE OR LEACHATE CONTAINMENT EVALUATED:

LANDFILL

o METHOD WITH THE HIGHEST SCORE:

LANDFILL, NO LINER

SCORE 3

***

4. WASTE CHARACTERISTICS

TOXICITY AND PERSISTENCE

o COMPOUND(S) EVALUATED

COMPOUNDS	TOXICITY	PERSISTENCE	SCORE
Benzo(a)Pyrene	3	3	18
Dieldrin	3	3	18
Benzo(a)Anthracene	3	3	18
Benzo(b)Fluoranthene	3	3	18
Indeno(1,2,3-cd)Pyrene	3	3	18

o COMPOUND WITH THE HIGHEST SCORE:

All compounds scored 18.

SCORE 18

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS SUBSTANCES AT THE FACILITY EXCLUDING THOSE WITH A CONTAINMENT SCORE OF 0 (GIVE A REASONABLE ESTIMATE EVEN IF QUANTITY IS ABOVE MAXIMUM):

Estimated 25 cubic yards

SCORE 2

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

This is the quantity mentioned in Ref. 13

***

5. TARGETS

SURFACE WATER USE

o USE(S) OF SURFACE WATER WITHIN 3 MILES DOWNSTREAM OF THE HAZARDOUS SUBSTANCE:

NINEMILE CREEK FLOWS TO ONONDAGA LAKE WHICH IS USED FOR RECREATIONAL PURPOSES

Score 2

- IS THERE TIDAL INFLUENCE?

  THERE IS NO TIDAL INFLUENCE ON THE SITE

DISTANCE TO A SENSITIVE ENVIRONMENT

- DISTANCE TO A 5-ACRE(MINIMUM) COASTAL WETLAND, IF 2 MILES OR LESS:

  NA

- DISTANCE TO A 5 ACRE (MINIMUM) FRESH-WATER WETLAND, IF 1 MILE OR LESS:

  THE SITE IS LOCATED WITHIN A PORTION OF WETLAND SYW-18 (Ref. 16)

- DISTANCE TO CRITICAL HABITAT OF AN ENDANGERED SPECIES OR NATIONAL WILDLIFE REFUGE, IF 1 MILE OR LESS:

  NONE KNOWN (Ref. 25, 26)

SCORE 3

POPULATION SERVED BY SURFACE WATER

- LOCATION(S) OF WATER-SUPPLY INTAKE(S) WITHIN 3 MILES(FREE-FLOWING BODIES) OR 1 MILE (STATIC WATER BODIES) DOWNSTREAM OF THE HAZARDOUS SUBSTANCE AND POPULATION SERVED BY EACH INTAKE:

  NO WATER INTAKES ARE KNOWN TO BE LOCATED DOWN STREAM OF NINEMILE CREEK, OR WITHIN ONONDAGA LAKE

- COMPUTATION OF LAND AREA IRRIGATED BY ABOVE-CITED INTAKE(S) AND CONVERSION TO POPULATION (1.5 PEOPLE PER ACRE):

  NONE REPORTED

- TOTAL POPULATION SERVED

  0

- NAME/DESCRIPTION OF NEAREST ABOVE-CITED WATER BODIES:

  NINEMILE CREEK

- DISTANCE TO ABOVE-CITED INTAKES, MEASURED IN STREAM MILES:

  NA

SCORE 0

***

AIR ROUTE

1. OBSERVED RELEASE

o CONTAMINANTS DETECTED:

NA, NO OBSERVED RELEASE

o DATE AND LOCATION OF DETECTION OF CONTAMINANTS:

NA

o METHODS USED TO DETECT THE CONTAMINANTS:

NA

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE SITE:

NA

SCORE 0

***

2. WASTE CHARACTERISTICS

REACTIVITY AND INCOMPATIBILITY

o MOST REACTIVE COMPOUND

NA

o MOST INCOMPATIBLE PAIR OF COMPOUNDS

NA

SCORE 0

TOXICITY

o MOST TOXIC COMPOUND

NA

SCORE 0

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS WASTE:

NA

SCORE 0

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

NA

***

3 TARGETS

POPULATION WITHIN 4-MILE RADIUS

o UNDERLINE RADIUS USED, GIVE POPULATION AND INDICATE HOW DETERMINED:

0 TO 4 MI 0 TO 1 MI 0 TO 0.5 MI 0 TO 0.25 MI

NA

SCORE 0

DISTANCE TO A SENSITIVE ENVIRONMENT

o DISTANCE TO 5 ACRE (MINIMUM) COASTAL WETLAND, IF 2 MILES OR LESS:

NA

- DISTANCE TO 5 ACRE (MINIMUM) FRESH WATER WETLAND, IF 1 MILE OR LESS:

  NA

- DISTANCE TO CRITICAL HABITAT OF AN ENDANGERED SPECIES, IF 1 MILE OR LESS:

  NA

SCORE 0

LAND USE

- DISTANCE TO COMMERCIAL/INDUSTRIAL AREA , IF 1 MILE OR LESS:

  NA

- DISTANCE TO NATIONAL OR STATE PARK, FOREST, OR WILDLIFE RESERVE, IF 2 MILES OR LESS:

  NA

- DISTANCE TO RESIDENTIAL AREA, IF 2 MILES OR LESS:

  NA

- DISTANCE TO AGRICULTURAL LAND IN PRODUCTION WITHIN THE LAST 5 YEARS, IF 1 MILE OR LESS:

  NA

- DISTANCE TO PRIME AGRICULTURAL LAND IN PRODUCTION WITHIN PAST YEARS, IF 2 MILES OR LESS:

  NA

- IS A HISTORICAL OR LANDMARK SITE(NATIONAL REGISTER OR HISTORIC PLACES AND NATIONAL NATURAL LANDMARKS) WITHIN VIEW OF THE SITE?

  NA

SCORE 0

***

FIRE AND EXPLOSION

1. CONTAINMENT

o HAZARDOUS SUBSTANCES PRESENT:

IT IS ASSUMED THAT THERE IS NO THREAT FROM FIRE OR EXPLOSION

o TYPE OF CONTAINMENT, IF APPLICABLE:

NA

SCORE 0

***

2. WASTE CHARACTERISTICS

DIRECT EVIDENCE

o TYPE OF INSTRUMENT AND MEASUREMENTS:

NA

SCORE 0

IGNITABILITY

o COMPOUND USED

NA

SCORE 0

REACTIVITY

o MOST REACTIVE COMPOUND:

NA

SCORE 0

INCOMPATIBILITY

o MOST INCOMPATIBLE PAIR OF COMPOUNDS:

NA

SCORE 0

HAZARDOUS WASTE QUANTITY

o TOTAL QUANTITY OF HAZARDOUS SUBSTANCES AT THE FACILITY:

NA

SCORE 0

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

NA

3 TARGETS

DISTANCE TO NEAREST POPULATION

NA

SCORE 0

DISTANCE TO NEAREST BUILDING

NA

SCORE 0

DISTANCE TO SENSITIVE ENVIRONMENT

o DISTANCE TO WETLANDS

NA

o DISTANCE TO CRITICAL HABITAT:

NA

SCORE 0

LAND USE

- DISTANCE TO COMMERCIAL/INDUSTRIAL AREA

  NA

- DISTANCE TO NATIONAL OR STATE PARK, FOREST OF WILDLIFE RESERVE, IF 2 MILES OR LESS:

  NA

- DISTANCE TO RESIDENTIAL AREA, IF 2 MILES OR LESS:

  NA

- DISTANCE TO AGRICULTURAL LAND IN PRODUCTION WITHIN PAST 5 YEARS, IF 1 MILE OR LESS:

  NA

- DISTANCE TO PRIME AGRICULTURAL LAND IN PRODUCTION WITHIN PAST 5 YEARS, IF 2 MILES OR LESS:

  NA

- IF A HISTORIC OR LANDMARK SITE (NATIONAL REGISTER OF HISTORIC PLACES AND NATIONAL NATURAL LANDMARKS) WITHIN VIEW OF THE SITE?

  NA

SCORE 0

POPULATION WITHIN 2 MILE RADIUS

NA

SCORE 0

BUILDINGS WITHIN A 2 MILE RADIUS

NA

SCORE 0

***

DIRECT CONTACT

1. OBSERVED INCIDENT

o DATE, LOCATION AND PERTINENT DETAILS OF INCIDENT:

NA, NO CONFIRMED INSTANCES OF INJURY, ILLNESS, OR DEATH

SCORE 0

***

2. ACCESSIBILITY

o DESCRIBE TYPE OF BARRIER(S):

MOST OF THE SITE IS FENCED, HOWEVER, ACCESS TO THE SITE IS STILL RELATIVELY EASY. (Ref. Site Visit)

SCORE 3

***

3. CONTAINMENT

o TYPE OF CONTAINMENT, IF APPLICABLE:

IT IS ASSUMED THAT THE COVER DEPTH AT THE SITE WOULD BE RELATIVELY SHALLOW (<2 FEET)

SCORE 15

***

4. WASTE CHARACTERISTICS

TOXICITY

o COMPOUNDS EVALUATED

Compounds	Toxicity
Benzo(a)pyrene	3
Dieldrin	3
Benzo(a)Anthracene	3
Benzo(b)Fluoranthene	3
Ideno(1,2,3-cd)Pyrene	3

o COMPOUND WITH HIGHEST SCORE:

All compounds scored 3

SCORE 3

***

5 TARGETS

POPULATION WITHIN 1 MILE RADIUS

ESTIMATED TO BE APPROXIMATELY 1640 (Ref. 15, 21)

SCORE 3

DISTANCE TO CRITICAL HABITAT (OF ENDANGERED SPECIES)

NO CRITICAL HABITAT REPORTED WITHIN A 1 MILE RADIUS (Ref. 25, 26)

SCORE 0

***