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ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PRELIMINARY SITE ASSESSMENT

NIAGARA MOHAWK FIRE TRAINING SCHOOL
OSWEGO (C)

SITE NO. 738030
OSWEGO (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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Buffalo, New York 14202

OCTOBER 1991

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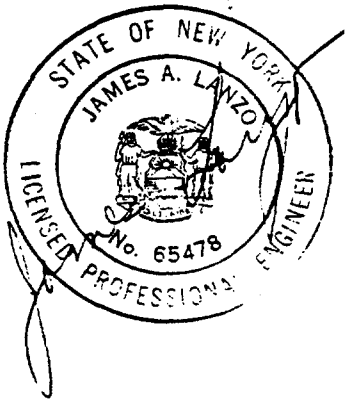
PRELIMINARY SITE ASSESSMENT
TASK 1: DATA RECORDS SEARCH AND ASSESSMENT

NIAGARA MOHAWK FIRE TRAINING SCHOOL
SITE NO. 738030
OSWEGO (C)/OSWEGO (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

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1. EXECUTIVE SUMMARY

The Niagara Mohawk Fire Training School, Site No. 738030, is an active site located on East Seneca Street in the City of Oswego, Oswego County (Figures 1 & 2). The 4-5 acre site is currently classified as 2A Site by the NYSDEC. The site is used by Niagara Mohawk to train personnel in techniques for fighting fires involving Niagara Mohawk Electrical Systems.

Part of the training done at the site involves simulating actual fire conditions. Oil from these simulations splashes, leaks, and spills onto the surrounding ground while the fires are being extinguished. Some of the oil used prior to 1977 contained levels of PCBs in excess of 50 ppm, sufficient for classification as a hazardous waste. Sampling done in 1978 detected PCBs in storage tanks, soil, groundwater, surface water, and sediments around the site. Sampling in 1985 indicated the presence of dioxins in soil at the site. Steps have been taken to alleviate the spread of contamination from the site including the installation of a gravity moat collection and treatment system around the site in 1977.

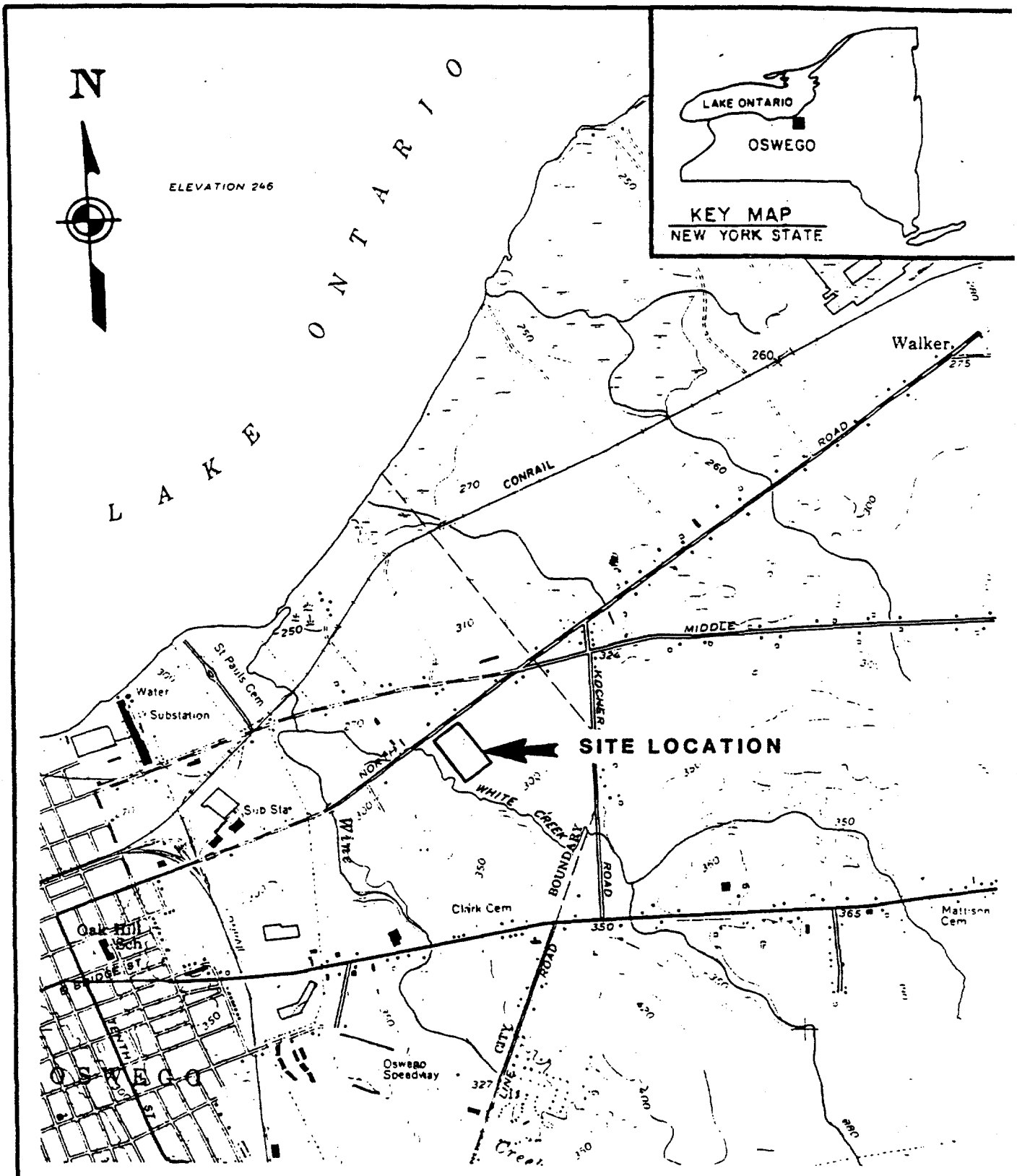
Threats to groundwater and surface water have been minimized by the installation of the collection system which has greatly reduced the potential for contaminant migration. Most previous sampling was done thirteen years ago in a PCB Characterization Program performed soon after the moat was installed but before the present water treatment system was in place. Additional sampling to determine the extent of any contaminant plume emanating from the site needs to be performed.

A site inspection was conducted on November 13, 1990 by Donald McCall and Robert Kreuzer, both of URS Consultants, Inc, along with James Morgan, Dan Kehoe, Gerald Shaw, and John Lynk, all of Niagara Mohawk. A tour of the site was made and photographs of significant features were taken as presented in Figure 3. During the site inspection, the site

appeared to be well maintained. Oil staining was observed around some of the training equipment at the rear of the site.

Based upon analytical results of soil which show contamination by PCB's in excess of 50 ppm, there is evidence of the presence of hazardous waste at this site. Additionally, samples of both surface water and groundwater at the site, taken in 1978, contravene the current water quality standards for PCBs, thus meeting the criteria for a significant threat. Therefore, URS recommends that the NYSDEC reclassify this site to a Class 2 site. A Remedial Investigation should be performed to further assess the significant threat to the public and the environment and determine the full extent of contamination.

$S_M = 17.31$ ($S_{GW} = 25.35$, $S_{SW} = 15.94$, $S_A = 0$)
$S_{FE} = 0$
$S_{DC} = 16.67$



URS CONSULTANTS, INC.	NIAGARA MOHAWK FIRE TRAINING SCHOOL SITE LOCATION MAP	FIGURE 1

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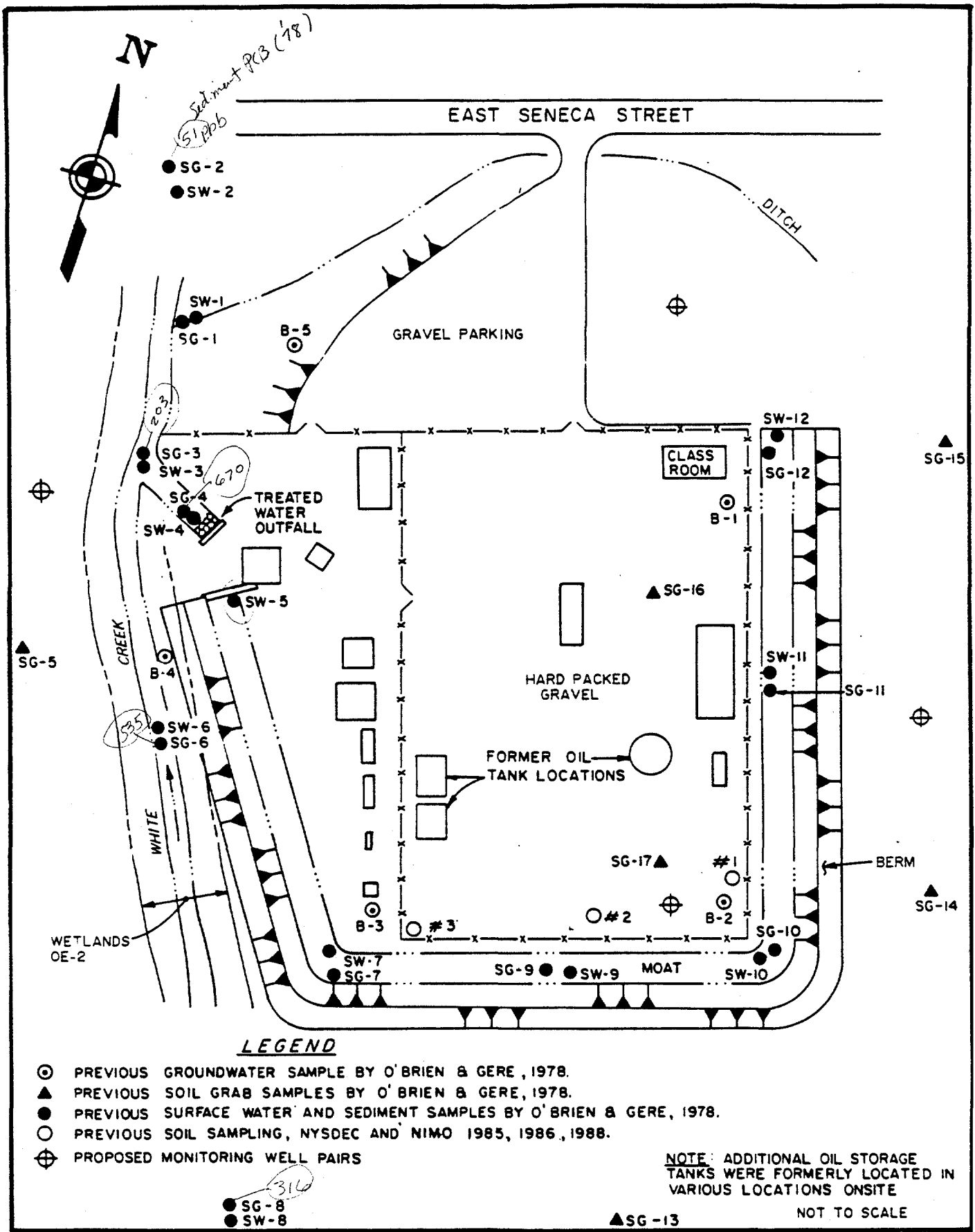

LEGEND

- ⊙ PREVIOUS GROUNDWATER SAMPLE BY O'BRIEN & GERE, 1978.
- ▲ PREVIOUS SOIL GRAB SAMPLES BY O'BRIEN & GERE, 1978.
- ● PREVIOUS SURFACE WATER AND SEDIMENT SAMPLES BY O'BRIEN & GERE, 1978.
- ○ PREVIOUS SOIL SAMPLING, NYSDEC AND NIMO 1985, 1986, 1988.
- ⊕ PROPOSED MONITORING WELL PAIRS

NOTE: ADDITIONAL OIL STORAGE TANKS WERE FORMERLY LOCATED IN VARIOUS LOCATIONS ONSITE

NOT TO SCALE

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NIAGARA MOHAWK FIRE TRAINING SCHOOL

FIGURE 2

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From the east berm of the moat, facing north along the moat and the training grounds.

Facing north in the training grounds. The gravel surrounding the transformer in the foreground shows oil contamination.

FIGURE 3-SITE PHOTOGRAPHS

Niagara Mohawk Fire Training School

Facing south into the training grounds from the parking area. The entire area is covered with hard packed gravel.

From the western wall of the berm, facing the southeast corner of the training grounds and moat. Oil contamination is visible in both the soil and the water in the moat.

FIGURE 3-SITE PHOTOGRAPHS

Niagara Mohawk Fire Training School

47-15-23 (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~~ City	4. COUNTY
Niagara Mohawk Fire Training School	738030	Oswego	Oswego

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

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

From the City of Oswego, take Route 104 East to East Fourteenth Street. Turn left and go 1/4 mile. Turn right on East Seneca Street. Take East Seneca approximately 1/2 mile. The Niagara Mohawk Fire training school is located on the right hand side of the street.

b. Quadrangle Oswego East c. Site Latitude 43° 28' 23" Longitude 76° 28' 38" d. Tax Map Number 110.84-1-1.1

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

The site is a fire training school used by Niagara Mohawk to train personnel in fighting fires involving Niagara Mohawk electrical equipment. The site is covered with hard packed gravel and is surrounded by a moat used to collect surface and subsurface runoff. White Creek flows adjacent to the site.

b. Area 4-5 acres c. EPA ID Number NYD986870996 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

Prior to 1977, PCB contaminated oil was used in fire simulations where it would spill and splash onto the surrounding ground. The total quantity of oil spilled is unknown.

11a SUMMARIZED SAMPLING DATA ATTACHED

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

b List contravened parameters and values

Both groundwater and surface water contained PCBs in excess of the limits.
Soil possibly contains PCBs and dioxin in excess of the limits.
Groundwater PCBs 528 ppb; Surface Water PCB 0.4 ppb; Soil PCB 153,000 ppb
Dioxins & Dibenzofurans 27 ppb.

12 SITE IMPACT DATA

a Nearest surface water: Distance 50 ft. Direction West Classification D

b Nearest groundwater: Depth 0.5-7 ft. Flow Direction North ☐ Sole Source ☐ Primary ☐ Principal

c Nearest water supply: Distance 3000 ft. Direction North Active ☐ Yes ☐ Unknown ☐ No

d Nearest building: Distance 500 ft Direction North Use unknown

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=17.30, Sfe=0, Sdc= 16.67

n Significant Threat ☒ Yes _____ ☐ No ☐ Unknown

13. SITE OWNER'S NAME	14. ADDRESS	15. TELEPHONE NUMBER
Niagara Mohawk Power Corp.	300 Erie Boulevard West, Syracuse	315) 474-1511

16 PREPARER

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

4-4-91
Date

Donald A McCall
Signature

17 APPROVED

Name, Title and Organization

Date

Signature

100010

2. PURPOSE

Task 1, Data Records Search and Assessment, of the Preliminary Site Assessment (PSA) was conducted at the Niagara Mohawk Fire Training Fire School, Site No. 738030, in the City of Oswego, Oswego 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 Niagara Mohawk Fire Training School 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 Niagara Mohawk Fire Training School site comprised several interrelated tasks as follows:

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 Oswego County Health Department (Evan Walsh) regarding file information, February 28, 1991 (Ref. 1). (315) 469-3557
- Phone conversation with the New York State Health Department (Ronald Heerkens) regarding file information, February 28, 1991 (Ref. 2). (315) 426-7612

Site Inspection

A site inspection and interview was conducted on November 13, 1990, between 11:00 A.M. and 12:30 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.
James Morgan	Associate Sr. Environmental Analyst	Niagara Mohawk
Dan Kehoe	Fire Protection Specialist	Niagara Mohawk
Gerald Shaw	Utility Mechanic	Niagara Mohawk
John Lynk	Director of Fire Training	Niagara Mohawk

The morning of the site inspection, Mr. Morgan from Niagara Mohawk gave URS several documents providing information on the site, including information on the operation of the treatment systems, and some results of previous sampling events. The grounds of the fire training school were then toured, including a walk around the bermed moat which borders the site on the eastern, southern, and western sides of the property.

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. The area of the site used for training is completely flat, fenced, covered with hard packed gravel, and located within the moat. Many small buildings and pieces of electrical equipment used for training purposes are located within the fenced area. Oil stains were observed on the ground around several areas at the southern portion of the site where oil is burned to simulate actual fires. The site appeared to be well maintained.

4. SITE ASSESSMENT

4.1 Site History

The Niagara Mohawk Fire Training School (#738030) is an active site located on East Seneca Street in the City of Oswego. The site has been used since 1957 for the purpose of training personnel from Niagara Mohawk and other organizations in techniques for fighting fires involving Niagara Mohawk electrical systems. Various pieces and types of utility equipment (transformers, buildings, etc.) are located on the training school grounds. During training exercises, some of this equipment is doused with oil and set on fire to simulate actual fire conditions. As the fire is being extinguished, oil from the fire spills onto the surrounding area due to splashing, leaking, and run-off (Ref. 3).

Oil from the facility began to seep into the soils surrounding the facility, and to runoff into White Creek. Runoff was especially prevalent during heavy rains. Oil discharge to the creek was documented as early as 1974 (Ref. 3,4). In 1976, two studies were done for Niagara Mohawk to determine the extent of oil saturation in the ground. The conclusion was that oil contamination was confined to the southern half of the site. In 1977, a collection system consisting of an earth-bermed moat was constructed around three sides of the site. Collected water was then pumped through an oil/water separator and discharged to White Creek. The facility first received a SPDES (State Pollution Discharge Elimination System) Permit on October 1, 1977 (Ref. 5).

Prior to 1977, oil that contained PCBs was burned in some of the simulation fires. According to Niagara Mohawk personnel, the oil contained only residual PCBs that were in the tanker trucks used to haul oil. A PCB Characterization Program to determine the extent of contamination, was done for Niagara Mohawk at the site in 1978 (Ref. 6). Since 1977, all oil burned at the fire school has been certified to be PCB

free (Ref. 10). In 1980, the SPDES permit was modified by the NYSDEC to include a limitation on PCB discharge to the creek. To meet the new effluent limitations, a two stage granular activated carbon absorption system was added to the existing oil/water separation system. A study was completed in December 1990 on upgrading the system to meet the most recent proposed change in PCB effluent limitations (Ref. 34).

The site previously contained a number of tanks used to store oil which was used in the fire training excercises. Niagara Mohawk removed all of the storage tanks and a 1,000 gallon waste oil storage tank in 1990. These were replaced with 2 - 8,000 gallon above ground steel tanks which have a secondary containment system (Ref. 36).

4.2 Site Topography

The Niagara Mohawk Fire Training School is a small site, estimated to be 4-5 acres in size. The actual training grounds of the site are flat and entirely covered with a hard-packed gravel surface. Small buildings, training stations and equipment are located on the grounds. A bermed moat, 4-5 feet deep, surrounds the training grounds on three sides. The moat is adequate, according to Niagara Mohawk, for intercepting surface water runoff from the site. Beyond the moat are woodlands and also White Creek that flows along the west side of the site.

Although the site is located within the limits of the City of Oswego, the immediate vicinity of the site is not densely populated. Two other sites on the NYS Registry of inactive hazardous waste disposal sites are located on East Seneca Street near the fire training school. These are the Pollution Abatement Services site (#738001), a class 2 site on the National Priorities List which has undergone remediation, and the East Seneca Street Dump, a class 2a site (#738027) (Ref. 7).

4.3 Site Hydrology

Surface Water Hydrology

As shown in Figure 1, White Creek, a Class D stream and tributary to Wine Creek, is located adjacent to the Fire Training School site (Figure 2). There is much confusion among the various documents associated with this site as to the name of the creek adjacent to the school. Many documents refer to Wine Creek when in fact they are referring to White Creek. The moat located around the site was intended to intercept any surface runoff from the site that might contaminate White Creek. All of the water collected in the moat is treated via carbon absorption prior to being discharged to White Creek. White Creek joins Wine Creek and eventually flows into Lake Ontario, less than 1 mile north of the site. Portions of the land around Wine and White Creeks are designated as NYSDEC Freshwater Wetlands, OE-1 and OE-2. The total area of these wetlands is estimated to be more than 100 acres in size (Ref. 8).

Groundwater Hydrology

The Niagara Mohawk Fire Training School is located in the Erie-Ontario Plain physiographic province (Ref. 33). The geology of this area is characterized by unconsolidated glacial deposits overlying bedrock. These deposits consist primarily of ablation tills, lodgement tills, lacustrine deposits, and sand/gravel deposits (Ref. 9). The underlying Upper Ordovician Oswego Sandstone at the site is at a depth of 7 to 10 feet (Ref. 3, 11, 27). The overlying soil in the vicinity of the site is classified as Scriba very stony soils. Scriba soils are somewhat poorly drained, are moderately coarse textured, and have a fragipan. The layers of this soil typically consist of layers of stony loam and very stony fine sandy loam (Ref. 11). Previous borings taken at the site (Ref. 3,6) indicate the subsurface soil to be very dense sand, silt, and gravel.

It is assumed that a portion of the groundwater in the shallow layers of the overburden at the site is intercepted by the moat that surrounds the site on three sides (Figure 2). No water level monitoring has been done to determine the effectiveness of the moat for containing groundwater. Groundwater in the bedrock is assumed to be flowing north towards Lake Ontario. The seasonal high water table in the area of the site is assumed to be 1/2 to 1 foot below ground surface (Ref. 11). Borings logs from around the site taken prior to the moat installation showed water levels 10 inches to 7 feet below ground, with most 2-3 feet below ground (Ref. 3). Regionally, the water in the upper 100 feet of the Oswego Sandstone is generally of suitable quality for drinking water (Ref. 28).

4.4 Contamination Assessment

On-Site Storage Tanks

Fourteen samples of oil from on-site storage tanks and other equipment were taken and analyzed for PCBs as the first part of the PCB characterization program by O'Brien & Gere for Niagara Mohawk in 1978. Three Aroclor mixtures were detected in these samples at total levels as high as 125 ppm. All subsequent samples in this program were only analyzed for the three aroclors detected in the storage tanks (Ref. 6).

Soil Contamination

Samples have been taken of soil from both the training grounds and the surrounding area of the Niagara Mohawk Fire Training School. Six samples of soil were taken and analyzed for PCBs as part of the PCB Characterization Program by O'Brien & Gere for Niagara Mohawk in 1978 (Ref. 6). These samples, from both onsite and offsite locations, all contained PCBs in concentrations varying from 7 to 153,000 ppb as shown in Table 1. Sample SG-17, taken from the site near a demonstration

TABLE 1

Soil Grab Samples
Summary of Analytical Data – O'Brien & Gere, July 1978
Niagara Mohawk Fire Training School

Sample Identification	Location	Aroclor 1016 (ppb)	Aroclor 1254 (ppb)	Aroclor 1260 (ppb)	Total Aroclor (ppb)
SG-5	West of White Creek	<0.8	1.5	5.5	7.0
SG-13	South of the Site	<2	11	18	29.0
SG-14	Southeast of the Site	<0.7	6.5	3.2	9.7
SG-15	Northeast of the Site	<1	4	10	14.0
SG-16	Northeast Corner Onsite	<2	19	11	30.0
SG-17	Predominant Spill Area	120,000	33,000	<12000	153,000

Based on Reference 6.

The PCB oil sampling program detected only the presence of three Aroclor mixtures in onsite tanks: 1016, 1254, and 1260. Therefore, all subsequent samples were only analyzed for these three Aroclors.

transformer, contained the highest level of PCBs at 153,000 ppb. All other soil samples, in both the on and offsite locations, contained less than 30 ppb of PCBs. The report (Ref. 6) concluded that the offsite PCBs may be due to residual background contamination from other sources. The New York State Department of Health had the following comment: "Soils offsite may be contaminated from particulates in smoke which were generated during the relatively low temperature, open-burning exercises" (Ref. 35).

In November of 1985, soil samples were taken and split between the NYSDEC and Niagara Mohawk from three onsite locations to be analyzed for dioxins and dibenzofurans. One offsite background sample was also collected. Results of these samples are shown in Table 2. One sample, taken near a training pit, was found to contain a total of 23.86 ppb of dioxin isomers, and 3.2 ppb of the dibenzofuran isomers (Ref. 12). A sample analyzed by O'Brien & Gere which was a composite of the four samples also taken in November did not show the presence of any contamination (Ref. 13).

In May of 1986, O'Brien & Gere analyzed a sample taken from the same location where the NYSDEC found the dioxin contamination. Again, neither dioxin nor dibenzofuran contamination was found in this area (Ref. 14). These results are shown in Table 2.

The most recent sampling event occurred in June of 1988 when soil samples were collected and split between the NYSDEC and Niagara Mohawk. Three samples were collected from the site by the NYSDEC and were to have been analyzed for volatiles, semivolatiles, pesticides and PCBs by Versar, Inc. (Ref. 15). The only results available were the volatile organic analyses for all three of the samples, and the pesticides/PCB analyses for samples #1 and #3 (Ref. 16). No volatile organics were detected in any of the three samples. Sample #1 was found to contain low levels of the pesticides Aldrin, Dieldrin, and Endosulfan II. Results of the available

TABLE 2

Soil Samples
Summary of Analytical Data – NYSDOH and O'Brien & Gere, 1985 and 1986
Niagara Mohawk Fire Training School

Sample Identification	Sample #1 NYSDOH '85 (ppb)	Sample #2 NYSDOH '85 (ppb)	Sample #3 NYSDOH '85 (ppb)	Sample #4 NYSDOH '85 (ppb)	Composite OBG '85* (ppb)	Resample #2 OBG '86 (ppb)
2,3,7,8–Tetrachlorodibenzodioxin	<0.02	<0.02	<0.07	<0.03	<10	<0.500
Total Tetrachlorodibenzodioxin	<0.02	<0.02	<0.07	<0.03	<10	<0.500
2,3,7,8–Tetrachlorodibenzofuran	<0.06	<0.06	<0.06	<0.06	<10	<0.500
Total Tetrachlorodibenzofurans	<0.06	1	<0.06	<0.06	<10	<0.500
Total Pentachlorodibenzofuran	<0.05	1.1	<0.05	<0.05	<10	<0.500
Total Hexachlorodibenzofuran	<0.06	0.7	<0.06	<0.06	<10	<0.500
Total Heptachlorodibenzofuran	<0.08	0.4	<0.08	<0.08	<10	<0.500
Total Octachlorodibenzofuran	<0.3	<0.3	<0.3	<0.3	<10	<0.500
Total Pentachlorodibenzodioxin	<0.04	0.16	<0.08	<0.03	<10	<0.500
Total Hexachlorodibenzodioxin	<0.07	1.4	<0.09	<0.05	<10	<0.500
Total Heptachlorodibenzodioxin	<0.2	6.3	<0.1	<0.07	<10	<0.500
Total Octachlorodibenzodioxin	<0.4	16	<0.2	<0.2	<10	<0.500

* – These results indicate the absence of chlorinated dibenzofurans and dibenzodioxins at an absolute limit of detection of ten parts per billion. In addition, they are 99% certain that these compounds are absent at a limit of detection of one part per billion.

Based on References 12, 13, and 14.

analyses are summarized in Table 3. O'Brien & Gere analyzed the split soil samples for Niagara Mohawk (Ref. 17). These results are also summarized in Table 3. PCBs were detected in both samples #1 and #2 at total concentrations of 880 ppb and 14,000 ppb respectively. The only other contaminants detected were a few semivolatile organic compounds (phthalates) which are common laboratory contaminants. Neither the NYSDEC nor the Niagara Mohawk samples were analyzed for dioxin.

Groundwater Contamination

Five groundwater wells were installed at depths of less than 10 feet and analyzed for PCBs as part of the O'Brien & Gere PCB Characterization Program (Ref. 6). Results of these analyses are presented in Table 4. Well B-2, located in the southeast corner of the training grounds, was the most contaminated of the groundwater samples. This well contained visible oil and was found to contain 528 ppb of total PCBs. B-1 in the northeast corner of the site was the only well found to be free of contamination. The remaining wells contained 10 to 26 ppb of PCBs. No conclusions regarding the migration of any contamination was made at that time with the available information. The current limitation for PCBs in groundwater is 0.1 ppb NYS Ambient Water Quality Standards (Ref. 18). All wells except B-1 exceeded this limitation.

Surface Water Contamination

Eleven samples of surface water were collected as part of the 1978 O'Brien & Gere study (Ref. 6). Results of all surface water samples are presented in Table 5. Four of these samples (SW-8, SW-6, SW-3, and SW-2) were taken from White Creek. Only the upstream sample SW-8 was found to be free of PCBs. The remaining samples contained 0.1 to 0.4 ppb of PCBs, all in excess of the current limit of 0.001 ppb for a Class D Stream (Ref. 18).

TABLE 3

Split Soil Samples
Summary of Analytical Data – Versar and O'Brien & Gere, 1988
Niagara Mohawk Fire Training School

Sample Identification Laboratory Client	Units	Sample #1 Versar (NYSDEC)	Sample #2 Versar (NYSDEC)	Sample #3 Versar (NYSDEC)	Sample #1 OBG (NiaMo)	Sample #2 OBG (NiaMo)	Sample #3 OBG (NiaMo)
Methylene Chloride	µg/kg				25		
Acetone	µg/kg				94		
Di-n-butylphthalate	µg/kg	NA	NA	NA		1,000	
bis(2-Ethylhexyl)phthalate	µg/kg	NA	NA	NA			580
Aldrin	µg/kg	28	NA				
Dieldrin	µg/kg	210 J	NA				
Endosulfan II	µg/kg	83 J	NA				
Total PCBs *	µg/kg		NA		880	14,000	
Cyanide	mg/kg	NA	NA	NA	<0.1	<0.1	<0.1
Aluminum	mg/kg	NA	NA	NA	16,000	15,000	17,000
Antimony	mg/kg	NA	NA	NA	<10	<10	<10
Arsenic	mg/kg	NA	NA	NA	13	10	6.9
Barium	mg/kg	NA	NA	NA	190	390	200
Beryllium	mg/kg	NA	NA	NA	<5	<5	<5
Cadmium	mg/kg	NA	NA	NA	<1	<1	<1
Calcium	mg/kg	NA	NA	NA	16,000	7,800	17,000
Chromium	mg/kg	NA	NA	NA	29	28	29
Cobalt	mg/kg	NA	NA	NA	<5	<5	<5
Copper	mg/kg	NA	NA	NA	24	24	20
Iron	mg/kg	NA	NA	NA	34,000	31,000	35,000
Lead	mg/kg	NA	NA	NA	31	650	22
Magnesium	mg/kg	NA	NA	NA	2900	2600	3500
Manganese	mg/kg	NA	NA	NA	300	230	490
Mercury	mg/kg	NA	NA	NA	<0.5	<0.5	<0.5
Nickel	mg/kg	NA	NA	NA	9.9	10	12
Potassium	mg/kg	NA	NA	NA	1,500	870	1,100
Selenium	mg/kg	NA	NA	NA	<0.5	<0.5	<0.5
Silver	mg/kg	NA	NA	NA	2	1	2
Sodium	mg/kg	NA	NA	NA	900	800	830
Thallium	mg/kg	NA	NA	NA	110	98	120
Vanadium	mg/kg	NA	NA	NA	23	22	25
Zinc	mg/kg	NA	NA	NA	43	130	33

* – Total PCBs are given. In all cases the predominant Aroclor was 1248.
NA – Either Not Analyzed or Not Available

Based on References 15, 16, and 17.

TABLE 4

Groundwater Well Samples
Summary of Analytical Data – O'Brien & Gere, July 1978
Niagara Mohawk Fire Training School

Sample Identification	Location	Aroclor 1016 (ppb)	Aroclor 1254 (ppb)	Aroclor 1260 (ppb)	Total Aroclor (ppb)
B-1	Northeast Corner of the Site	<0.1	<0.1	<0.1	<0.1
B-2	Southeast Corner of the Site	110	68	350	528.0
B-3	Southwest Corner of the Site	2	6	2	10.0
B-4	Southwest Between the Moat & Creek	2	<1	13	15.0
B-5	Northwest of the Entrance	5	<2	21	26.0

Based on Reference 6.

The PCB oil sampling program detected only the presence of three Aroclor mixtures in onsite tanks: 1016, 1254, and 1260. Therefore, all subsequent samples were only analyzed for these three Aroclors.

TABLE 5

Surface Water Samples
Summary of Analytical Data – O'Brien & Gere, July 1978
Niagara Mohawk Fire Training School

Sample Identification	Location	Aroclor 1016 (ppb)	Aroclor 1254 (ppb)	Aroclor 1260 (ppb)	Total Aroclor (ppb)
SW-1	Ditch	<0.1	<0.1	<0.1	<0.1
SW-2	White Creek Downstream	0.1	0.3	<0.1	0.4
SW-3	White Creek at Outfall	<0.1	0.1	<0.1	0.1
SW-4 *	Outfall				
SW-5	Oil/Water Separator Inlet	<50	500	170	670.0
SW-6	White Creek Adjacent to Site	0.3	<0.1	<0.1	0.3
SW-7	Southwest Moat	8.9	<1.0	1.2	10.1
SW-8	White Creek Upstream	<0.1	<0.1	<0.1	
SW-9	South Moat	0.1	0.1	<0.1	0.2
SW-10	Southeast Moat	15	2.1	<1.5	17.1
SW-11	East Moat	0.2	<0.1	<0.1	0.2
SW-12	Northeast Moat	0.4	<0.1	0.1	0.5

* – No sample was taken because no discharge was present in the outfall at the time of the sampling.

Based on Reference 6.

The PCB oil sampling program detected only the presence of three Aroclor mixtures in onsite tanks: 1016, 1254, and 1260. Therefore, all subsequent samples were only analyzed for these three Aroclors.

There are two surface water discharge points from the site to White Creek. These are a ditch at the north end of the site and the outfall from the water treatment system. Analysis of the sample from the ditch (SW-1) did not detect the presence of any PCBs. Because the water treatment system was not operating during the O'Brien & Gere sampling event, no sample could be taken at the outfall to the creek (SW-4). Effluent from the system is monitored by Niagara Mohawk twice a month during a period of discharge from the separator (Ref. 5).

The treatment system, referred to by Niagara Mohawk as the PCB filter system, was designed in combination with an existing oil separation facility to treat waters collected in the moat encircling the Niagara Mohawk Training Facility. An overflow pipe is designed to transport water during peak high water periods and during power outages when the oil/water separator is not functioning. The frequency of this occurance and the volume of water which bypasses the treatment system is not known (Ref. 5).

Surface water samples were also taken from the moat that surrounds the site. Except for a sample taken directly at the inlet to the oil/water separator (SW-5), the levels of PCBs in the remaining five moat samples (SW-7, SW-9, SW-10, SW-11, and SW-12) ranged from 0.2 to 17.1 ppb. Sample SW-5 contained a visible oil layer and was found to contain PCBs at a level of 670 ppb. All effluent from the moat around the site is treated prior to discharge to meet the PCB effluent limitations (2 ug/l) required by their SPDES permit. The system is being upgraded to meet the new PCB effluent limitations of 0.065 ug/l (Ref. 34).

Sediment Contamination

For each of the surface water samples collected in 1978 by O'Brien & Gere, a sediment sample was also collected and analyzed for PCBs (Ref. 6). Results of these analyses are presented in Table 6. All four of the samples taken from White Creek (SG-8, SG-6, SG-3, and SG-2) contained

TABLE 6

Sediment Grab Samples
Summary of Analytical Data - O'Brien & Gere, July 1978
Niagara Mohawk Fire Training School

Sample Identification	Location	Aroclor 1016 (ppb)	Aroclor 1254 (ppb)	Aroclor 1260 (ppb)	Total Aroclor (ppb)
SG-1	Ditch	<0.5	2	4	6
SG-2	White Creek Downstream	21	13	17	51
SG-3	White Creek at the Outfall	92	40	71	203
SG-4	Outfall	<53	530	140	670
SG-6	White Creek Adjacent to Site	400	59	76	535
SG-7	Southwest Moat	280	130	63	473
SG-8	White Creek Upstream	170	36	110	316
SG-9	South Moat	160	480	150	790
SG-10	Southeast Moat	2,700	560	610	3,870
SG-11	East Moat	18	39	26	83
SG-12	Northeast Moat	3,900	<390	740	4,640

Based on Reference 6.

The PCB oil sampling program detected only the presence of three Aroclor mixtures in onsite tanks: 1016, 1254, and 1260. Therefore, all subsequent samples were only analyzed for these three Aroclors.

PCBs. The upstream sample contained 316 ppb of PCBs while the remaining samples contained 51 to 535 ppb of PCBs.

Analysis of the sediment from the ditch (SG-1) showed only 6 ppb of PCBs while analysis of the outfall (SG-4) showed PCBs at a level of 670 ppb.

Sediment contamination in the moat samples (SG-7, SG-9, SG-10, SG-11, and SG-12) varied considerably, ranging from 83 to 4640 ppb of PCBs. SG-10 and SG-12 along the eastern edge had the highest concentrations of PCBs. NYSDEC Fish & Wildlife Sediment Cleanup Criteria need to be calculated in order to determine if the sediments exceed the aquatic toxicity based criteria of 0.001 ppb for a class D stream (Ref. 18). Both PCBs and organic carbon need to be analyzed in sediments to perform the calculations.

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. However, in the opinion of the New York State Department of Health, "Soils offsite may be contaminated from particulates in smoke which were generated during the relatively low temperature, open burning exercises. Soil sampling should take into consideration the predominant wind direction" (Ref. 35).

5. ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

5.1 Hazardous Waste Deposition

At the Niagara Mohawk Fire Training School site, PCB contaminated oil was used in fire simulations. As a result of these simulations, oil was spilled onsite and subsequently seeped into the soil of the training grounds and was found to be present at significant concentrations in the moat water and sediments (Ref. 3, 5, 6, 10). It is unknown how much of this oil might have entered the ground over time. PCB contamination of the soil, surface water, groundwater and sediments at the site have all been documented in previous sampling (Ref. 6). Some PCB concentrations in the soil and on-site storage tanks were sufficient for classification as TSCA hazardous wastes (>50 ppm). Dioxins and dibenzofurans were also detected in a soil sample taken from the site. Dioxin has been found as a trace component of combustion (Ref. 19). As PCB contaminated oil was burned on site, it is probable that the dioxin detected in the on site soil is attributable to onsite activities.

5.2 Significant Threat Determination

Previous sampling has indicated PCBs were present in the soil, groundwater, surface water and sediments around the fire school site. Samples of surface water, soil and groundwater at the site, taken in 1978, exceed the current limits for PCBs, thus meeting the criteria for a significant threat. The installation of the moat has helped to alleviate the spread of contamination from the site. The majority of the contamination at the site was confined to the southern area where the fire simulation activities take place.

The moat around three sides of the site was designed to intercept contaminants being spread to the groundwater and surface water. The surface water is not used for drinking in the vicinity of the site.

Groundwater is used by approximately 80 people living along Lake Ontario downgradient from the site. Although these threats are not assumed to be significant, no testing of the groundwater from the bedrock aquifer has been done. The current potential for the release of contaminants through fire or explosion is insignificant because contaminated oil has not been used at the site since 1977.

Because the site is fenced, contact with contaminated soil within the fenced area by unauthorized personnel is a remote possibility. Contact by personnel using the training grounds is also remote because the entire site is covered with layers of hard packed gravel. However, it is possible that soils outside of the fenced area were contaminated by PCB's before 1977. Soils offsite may also have been contaminated from particulates in the smoke which was generated during the relatively low temperature open burning exercises (Ref. 35). In addition, prior to the installation of the moat system around the site, oil slicks were noted in areas offsite after heavy rains. Some of this oil was probably the high PCB oil noted in the vicinity of SG-17 (Ref. 6).

In regards to dioxins present on site, 2,3,7,8-tetrachlorodibenzodioxin, the most toxic of the dioxin isomers (Ref. 19), was not detected in any of the samples. The one sample in which dioxins were found was located 8" below the ground surface. Dioxins and dibenzofurans have low vapor pressures, are insoluble in water, and do not migrate appreciably in soil (Ref. 19). Dioxins were not detected during any other sampling conducted at the site.

5.3 Recommendations

Based upon analytical results of surficial soil, groundwater and sediment samples which show contamination by PCB's in excess of 50 ppm, there is evidence of the presence of hazardous waste at this site. Additionally, samples of both surface water and groundwater at the site,

taken in 1978, contravene the current water quality standards for PCBs, thus meeting the criteria for a significant threat. Therefore, URS recommends that the NYSDEC reclassify this site to a Class 2 site. In addition, sampling in the form of a Remedial Investigation should be performed to further assess the significant threat to the public and the environment.

Much of the available sampling information from the Niagara Mohawk site was done in 1978. No bedrock monitoring wells were installed in order to assess the threat to those 80 people living along Lake Ontario and using private residential wells for potable water. It is recommended that much of this sampling be redone to characterize the current site conditions at the training school grounds and the surrounding area. Additional sampling would help to determine the extent of PCB migration from the site during the past decade.

Specific Recommendations for Remedial Investigation Include:

- Surface water and sediment samples should be taken from White Creek upstream, adjacent to, and downstream of the site. Samples should also be taken at the outfall from the treatment system and from the ditch. These samples should be analyzed for PCBs, dioxins, and TOC.

- A minimum of four groundwater monitoring well pairs should be installed at the site. The well pairs would consist of one well in the shallow overburden, and one well in the bedrock layers to assess the contamination in the bedrock. The well pairs should be installed upgradient of the site (south), downgradient of the site (north), in the southeast corner of the training grounds where previous contamination was detected, and across White Creek (west) in order to determine

if contaminants are discharging into, or migrating beyond White Creek.

- Overburden and bedrock soil samples should be taken from all monitoring well borings to determine the depth and extent of contamination. These samples should be analyzed for TCL parameters as previous soil samples detected the presence of volatiles, semivolatiles, pesticides, PCBs, and metals. The sample from onsite should also be analyzed for dioxins.

APPENDIX A

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PRELIMINARY COST REPORT

ON

OIL SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

FOR

OSWEGO FIRE SCHOOL

Prepared by K. Subbarao
Niagara Mohawk Power Corp.
October 1976

(3)

Table of Contents:

100038

cc: Mr. Day

For the Record
Mr. Critz

July 15, 1974

On Wednesday, July 3, 1974, the writer inspected Wine Creek for an oil discharge. I found a continuous thin film of oil at the crossing of Wine Creek and Middle Road

I first inspected Pollution Abatement Services which is immediately upstream, but there was no apparent discharge coming from the facility.

Upon further inspection upstream the discharge appeared to be coming from the Niagara Mohawk Fire Training School.

At this school oil has been used to simulate transformer and other types of electric fires over the past twelve years. As a result of this activity, the ground has become saturated with oil. In the past few years Niagara Mohawk has taken adequate measures to prevent any more saturation of this area. Due to the saturation there is a continuing discharge of oil from the premises caused by leaching. During normal flows Niagara Mohawk has taken measures to prevent the oil from reaching the stream but because of the above average rainfall the night before there was considerable leaching causing the oil discharge to the stream. There is nothing reasonable I can recommend to Niagara Mohawk to remedy this high flow problem.

If there is any property damage downstream due to oil, Niagara Mohawk will be held responsible.

cc: Mr. Harolo
Mr. Huntley
Mr. Turkki
Mr. Day, Niagara Mohawk

RECEIVED
JUL 23 1974
INSURANCE DEPT.

R. C. CLANCY

JUL 30 1974

100039

Appendix III

Soil Test Report

100040

INTERNAL CORRESPONDENCE
FORM 112-2 R 1-81

NIAGARA MOHAWK

DISTRICT Syracuse

FROM A. Fini

DATE 9/9/76 FILE CODE SC 76

TO R. Pohl

SUBJECT Soil (For oil Contamination)

Thirty-three (33) soil samples from the Oswego Fire Training Facilities were received in the System Chemical Laboratory to determine the extent of oil saturation in the surrounding ground and the location of possible storage tank leakage.

The samples were dried to eliminate ground water, finely divided and oil was extracted from a representative portion with chloroform. The extract was filtered, dried and weighed. Infrared spectra were made of the samples with sufficient concentration of oil and compared with samples from the storage tanks at the facilities as well as water-emulsion samples from a nearby ditch and No Name Creek.

Every infrared spectrum was indicative of petroleum hydrocarbons except the ditch water which was not of sufficient concentration to scan.

It would appear that the results obtained confirms the findings of Parratt-Wolff, Incorporated that the contamination is most prevelant at borings 1, 6 and 7.

Results are as follows:

TEST BORING #	% OIL	TEST BORING #	% OIL	TEST BORING #	% OIL
B1 S1A	4.36*	B3 S1	0.07	B6 S2B*	2.79
B1 S1B	5.84	B3 S2	0.02	B6 S3	0.0'
B1 S1C	2.90*			B6 S4	Nil
B1 S2A	4.26	B4 S1	0.02		
B1 S2B	2.38	B4 S2	0.04	B7 S1*	1.80
B1 S3	1.55			B7 S2*	1.55
B1 S4	0.42	B5 S1	0.05	B7 S3A*	0.74
B1 S5	0.87*	B5 S2	0.04	B7 S3B*	0.16
		B5 S3	Nil	B7 S4	0.01
B2 S1	0.07	B5 S4	0.03	B7 S5	0.03
B2 S2	0.05				
B2 S3	0.10	B6 S1	0.02	B8 S1	0.01
B2 S4	0.09	B6 S2A*	6.90	B8 S2	0.03

* Infrared spectra run on these samples

A. Fini

100041

(3)

TEST BORINGS

OSWEGO FIRE TRAINING FACILITIES

OSWEGO, NEW YORK

100042

(3)

parratt wolff inc
FISHER RD. EAST SYRACUSE, N.Y. 13057
TELEPHONE AREA CODE 315/437-1429

August 13, 1976

Niagara Mohawk
300 Erie Boulevard West
Syracuse, New York 13202

Attention: Mr. Robert Pohl

Re: 7678
Oswego Fire Training Facilities
Oswego, New York
Purchase Order #16413

Gentlemen:

Enclosed are the logs of eight test borings made for you for the above project.

Samples from these borings have been delivered to your office this date under separate cover.

The borings were made at points indicated on the enclosed plot plan and were drilled in accordance with ASTM methods for split barrel sampling in soils.

It would appear from the samples that the oil is confined to the southern portion of the site. Borings #1,5,6 and 7 indicate contamination of some degree with a greater concentration at Boring #1.

All holes were driven to refusal which probably is soild sandstone.

The oil that appears in the lower portions of these borings could not be identified in the field by visual methods. There is a slight odor from the samples.

The water table is indicated on the boring logs. This varies because of the nature of the material causing trapped water. We installed a well point at Boring #8 and a check now would give you a fair indication of the natural water table.

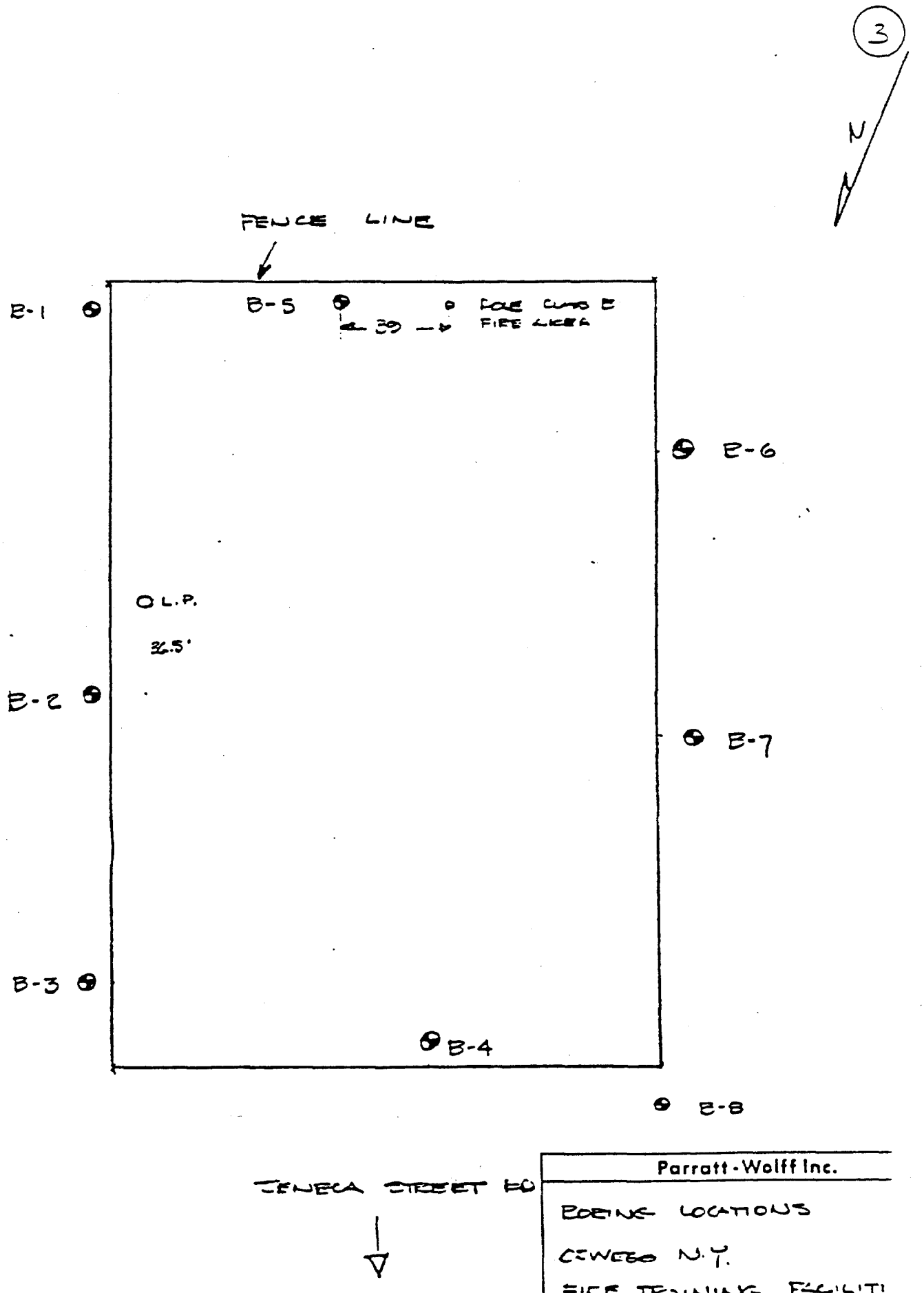
If we can be of any further help, please contact us.

Very truly yours,

PARRATT - WOLFF, INC.

Royden S. Parratt
RSP/lnc
encs:

100043



Parratt-Wolff Inc.

BORING LOCATIONS

CHEEKTOWAGA N.Y.

FIRE TRAINING FACILITY

SCALE 1" = 50'

100044

parratt wolff inc

FISHER ROAD
EAST SYRACUSE, N.Y. 130

(3)

TEST BORING LOG

PROJECT Oswego Fire Training Facilities — HOLE NO. B-1

LOCATION Oswego, New York — SURF. ELEV.

DATE STARTED 8/9/76 — COMPLETED 8/9/76 — JOB NO. 7678

GROUND WATER Depth on completion 7.0'

N= NO. OF BLOWS TO DRIVE 2" SAMPLER 6" W/140 LB. WEIGHT FALLING 30"

C= NO. OF BLOWS TO DRIVE CASING 12" W/300 LB. WEIGHT FALLING 24"

SHEET 1 OF 1

BORING MADE WITH HOLLOW STEM AUGER CASING

DEPTH	C.	N.	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION OF MATERIAL
		1/1	1	0.0'-	Brown moist very loose medium to
		1/2		2.0'	fine GRAVEL, little fine to
		2/5	2	2.0'-	coarse sand, trace silt 1.0
		5/70-		3.5'	Brown wet medium dense SILT,
5.0		.0		Boulder	little medium to fine gravel,
		75-.5	3	4.0'-	trace fine sand 2.5
▽		13/20	4	4.5'	Brown moist medium dense medium
WL		75-.2		5.0'-	to fine SAND, trace silt, struck
		28/31	5	6.2'	boulder 3.5
10.0		64-.4		7.0'-	Brown moist very dense medium to
		75-.0	6	8.4'	fine SAND and SILT, trace medium
				9.2'	to fine gravel 4.5
					Brown moist very dense fine to
					coarse GRAVEL, little silt,
					trace fine sand
					Top of Rock 9.2
					Bottom of Boring 9.5
					Note: Oily water running in hole between 6 and 8 feet.

100045

parratt wolff inc

FISHER ROAD
EAST SYRACUSE, N.Y. 13057

3

TEST BORING LOG

PROJECT: Oswego Fire Training Facilities — HOLE NO. B-2

LOCATION: Oswego, New York — SURF. ELEV.

DATE STARTED: 8/10/76 — COMPLETED: 8/10/76 — JOB NO. 7678

GROUND WATER: Struck water at 0.8' while drilling

N= NO. OF BLOWS TO DRIVE 2" SAMPLER 6" W/140 LB. WEIGHT FALLING 30"

C= NO. OF BLOWS TO DRIVE CASING 12" W/300 LB. WEIGHT FALLING 24"

SHEET 1 OF 1

BORING MADE WITH HOLLOW STEM AUGER CASING

DEPTH	C.	N.	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION OF MATERIAL
▽ WL		2/3	1	0.0'-2.0'	Brown moist loose fine to medium GRAVEL 0.5'
		3/4			
		8/12	2	2.0'-4.0'	Brown moist loose medium to fine SAND, some silt, trace fine gravel 2.0'
		17/9			
5.0		3/10	3	4.0'-6.0'	Brown moist medium dense SILT, some fine sand 4.0'
		6/4			
		10/27	4	6.0'-8.0'	Brown moist medium dense SILT, trace fine sand, trace fine gravel, trace organic matter 7.0'
		40/18			
		50-.3	5	8.0'-8.3' No recovery	Brown wet very dense coarse to fine GRAVEL, some silt, little coarse to fine sand
10.0					Top of Rock 8.8'
					Bottom of Boring 8.8'
					Note: Water running in hole at 0.9'.

100046

parratt wolff inc

FISHER ROAD
EAST SYRACUSE, N.Y. 13057

TEST BORING LOG

PROJECT Oswego Fire Training Facilities — HOLE NO. B-3

LOCATION Oswego, New York — SURF. ELEV.

DATE STARTED 8/10/76 COMPLETED 8/10/76 — JOB NO. 7678

GROUND WATER Depth on completion 2.8'

N= NO. OF BLOWS TO DRIVE 2" SAMPLER 6" W/140 LB. WEIGHT FALLING 30"

C= NO. OF BLOWS TO DRIVE CASING 12" W/300 LB. WEIGHT FALLING 24"

SHEET 1 OF 1

BORING MADE WITH HOLLOW STEM AUGER CASING

DEPTH	C.	N.	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION OF MATERIAL
		3/6	1	0.0'-	Brown moist medium dense medium
		9/7		2.0'	to fine GRAVEL, some fine to
					coarse sand 3.5'
WL					Brown wet dense coarse to fine
5.0					GRAVEL, little silt, little fine
		8/18	2	5.0'-	to coarse sand
		19		6.5'	
10.0					
		75-.0	3	10.0'	Top of Rock 10.7
				No re-	Bottom of Boring 10.7
15.0				covery	

100047

parratt wolff inc

FISHER ROAD
EAST SYRACUSE, N.Y. 13057

(3)

TEST BORING LOG

PROJECT Oswego Fire Training Facilities — HOLE NO. B-4

LOCATION Oswego, New York — SURF. ELEV.

DATE STARTED 8/10/76 COMPLETED 8/10/76 — JOB NO. 7678

GROUND WATER Depth on completion 2.5'

N= NO. OF BLOWS TO DRIVE 2" SAMPLER 6" W/140 LB. WEIGHT FALLING 30"

C= NO. OF BLOWS TO DRIVE CASING 12" W/300 LB. WEIGHT FALLING 24"

SHEET 1 OF 1

BORING MADE WITH HOLLOW STEM AUGER CASING

DEPTH	C.	N.	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION OF MATERIAL	
		8/13	1	0.0'-	Crushed STONE	0.2
▽		19/12		2.0'	Brown moist dense coarse to fine GRAVEL, some fine to coarse sand, trace silt	3.0
WL					Brown moist very dense medium	
5.0						
		15/46	2	5.0'-	to fine SAND, little fine gravel, little silt	
		52		6.5'	Top of Rock	8.0
					Bottom of Boring	8.0
10.0						

100048

parratt wolff inc

TEST BORING LOG

FISHE
EAST

PROJECT Oswego Fire Training Facilities HOLE

LOCATION Oswego, New York SURF

DATE STARTED 8/10/76 COMPLETED 8/10/76 JOB N

GROUND WATER Depth on completion 3.5'

N= NO. OF BLOWS TO DRIVE 2" SAMPLER 6" W/140 LB. WEIGHT FALLING 30"

C= NO. OF BLOWS TO DRIVE CASING 12" W/300 LB. WEIGHT FALLING 24" SHI

BORING MADE WITH HOLLOW STEM AUGER CASING

DEPTH	C.	N.	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION OF M
		3/5	1	0.0'-	Crushed STONE
		10/11		2.0'	Brown moist medium c
WL ▽		5/21	2	2.0'-	dense coarse to fine
		26/38		4.0'	some silt, little me
5.0		16/18	3	4.0'-	fine sand
		22/21		6.0'	
		22/35	4	6.0'-	
		41/38		8.0'	
		37/56	5	8.0'-	
10.0		87/75-		9.5'	Top of Rock
		.0		No re-	Bottom of Boring
				covery	

100049

parratt wolff inc

FISHER ROAD
EAST SYRACUSE, N.Y. 1305

TEST BORING LOG

PROJECT: Oswego Fire Training Facilities — HOLE NO. B-7

LOCATION: Oswego, New York — SURF. ELEV.

DATE STARTED: 8/10/76 — COMPLETED: 8/10/76 — JOB NO. 7678

GROUND WATER: Depth on completion 4.2'

N= NO. OF BLOWS TO DRIVE 2" SAMPLER 6" W/140 LB. WEIGHT FALLING 30"

C= NO. OF BLOWS TO DRIVE CASING 12" W/300 LB. WEIGHT FALLING 24"

SHEET 1 OF 1

BORING MADE WITH HOLLOW STEM AUGER CASING

DEPTH	C.	N.	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION OF MATERIAL
		7/10	1	0.0'-	Brown-black coarse to fine GRAVEL and CINDERS, little
		16/11		2.0'	
		7/4	2	2.0'-	coarse to fine sand, trace
WL ▽		4/6		4.0'	silt 4.0
5.0		11/21	3	4.0'-	Gray wet dense coarse to fine
		16/24		6.0'	GRAVEL, little silt, trace
		21/34	4	6.0'-	fine sand 6.0
		35/35		8.0'	
		28/57-	5	8.0'-	Brown-gray moist very dense
10.0		.2		8.7'	medium to fine SAND, some
					silt, little medium to fine
					gravel 8.0
					Gray wet medium coarse GRAVEL,
					some silt, trace fine sand
					Top of Rock 8.7
					Bottom of Boring 8.7

100050

parratt wolff inc

FISHER ROAD
EAST SYRACUSE, N.Y. 13057

(3)

TEST BORING LOG

PROJECT Oswego Fire Training Facilities HOLE NO. B-8

LOCATION Oswego, New York SURF. ELEV.

DATE STARTED 8/10/76 COMPLETED 8/10/76 JOB NO. 7678

GROUND WATER Depth on completion 3.2'

N= NO. OF BLOWS TO DRIVE 2" SAMPLER 6" W/140 LB. WEIGHT FALLING 30"

C= NO. OF BLOWS TO DRIVE CASING 12" W/300 LB. WEIGHT FALLING 24"

SHEET 1 OF 1

BORING MADE WITH HOLLOW STEM AUGER CASING

DEPTH	C.	N.	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION OF MATERIAL
		3/3	1	0.0'-2.0'	Brown moist loose medium to fine SAND, some silt, little coarse to fine gravel
		4/5			
WL ▽ 5.0					4.0'
		38/65-.4	2	5.0'-5.9'	Brown moist very dense fine to coarse GRAVEL, some medium to fine sand, some silt
10.0		75-.0	3	No recovery	Top of Rock 9.5'
					Bottom of Boring 9.5'

100051

(6)

OSWEGO FIRE TRAINING SCHOOL FACILITY
PCB SAMPLING PROGRAM

NIAGARA MOHAWK POWER CORPORATION

O'BRIEN & GERE ENGINEERS, INC.
1304 Buckley Road
Syracuse, NY 13221

100052

(6)

July 14, 1978

NIAGARA MOHAWK POWER CORPORATION
300 Erie Boulevard West
Syracuse, NY 13202

Attn: Mr. J. M. Toennies
Environmental Affairs Director

Re: Oswego Fire Training School

File: 1118.016

Gentlemen:

O'Brien & Gere is pleased to present the final report on the analytical program conducted at the Oswego Fire Training School to determine the polychlorinated biphenyl (PCB) levels in the immediate area of the site. The report contains information on the PCB concentrations in the oil, creek water and sediments, moat water and sediments, ground water and soil samples at the school.

It has been our pleasure to perform this study for the Niagara Mohawk Power Corporation and we hope to have the opportunity to undertake similar programs in the future.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Frank J. Drehwing, P.E.
Vice President

FJD:jld

Enclosure:

100053

TABLE OF CONTENTS

SECTION 1 INTRODUCTION

1.01 Introduction

This program was undertaken by O'Brien & Gere Engineers, Inc. in response to a request for proposal issued on March 17, 1978 by the Niagara Mohawk Power Corporation. The purpose of the program was to determine the polychlorinated biphenyl (PCB) concentration in the soil, sediment, groundwater, surface water and oil at the Oswego Fire Training School.

Seventeen sediment, fourteen oil and seventeen water samples were collected in and adjacent to the Fire Training School at Oswego, NY. The samples were analyzed for several PCBs which were quantitated as Aroclor mixtures. The analytical procedure consisted of solvent extraction, cleanup, concentration and electron capture gas chromatography.

1.02 Background

PCBs are synthetic organic compounds produced by the chlorination of biphenyls. There are 209 possible chlorobiphenyls containing from one to ten atoms of chlorine. Various mixtures are registered in the United States by the Monsanto Chemical Company under the trade name, Aroclor. Chemical characteristics of the individual compounds and Aroclor are dependent on the degree of chlorination. Identification of the PCB mixture is by numerical nomenclature, for example, Aroclor 1221, Aroclor 1254, etc., with the number indicating the structure and composition of the compound. The first two digits represent the type of molecule - 12= chlorinated biphenyl, 54 = chlorinated terphenyl. The last two digits give the average percentage, by weight, of chlorine. The exception to this nomenclature is Aroclor 1016 which contains 41% chlorine by weight, but in which the penta-, hexa-, and heptachlorobiphenyl content has been significantly reduced from Aroclor 1242. Detailed reviews discussing the chemistry of PCBs are available elsewhere. PCBs pose a serious threat to the environment because of their acute and chronic toxic effects on fish and mammals.

1.03 Summary of Results

The oil samples showed that considerable quantities of oil contaminated in the parts per million (ppm) range was stored on the site. The sediment and water samples showed PCBs in the low parts per billion (ppb) range. Soil sample SG 17 which was collected next to a demonstration prop on the site was the only sample which contained 5 or more ppm of PCBs. Several samples from outside the property showed the presence of PCBs which may be an indication of residual background contamination from sources other than Niagara Mohawk. Because PCBs are common throughout the environment, it is difficult to draw any conclusions from the limited amount of data obtained in this study. There appears to be no readily discernible point source of PCB contaminated material being discharged to Wine Creek.

SECTION 3 - RESULTS AND DISCUSSION

3.01 Results

The results for the individual samples are tabulated in Tables 3-1 to 3-5. Table 3-1 presents a summary of the initial oil sampling program. Reviewing the results, the presence of three Aroclor mixtures (1016, 1254,1260) was evident. Based on this fact, all subsequent samples were analyzed for these three Aroclor mixtures. Table 3-2 presents the results of the surface water analysis from the creek and moat surrounding the sites. The groundwater observation well results are listed in Table 3-3. Table 3-4 itemizes the results of the soil samples on and adjacent to Niagara Mohawk property, and Table 3-5 presents the results of sediment grab samples from the creek and moat.

3.02 Discussion

The Aroclor concentrations in the water fraction were generally low compared with the corresponding sediment fraction. The two exceptions are sample SW5 which was collected from the inlet side of the oil/water separator and sample B2 which was collected from ground water observation well number two. Both of these samples contained visible quantities of oil which may have led to the high Aroclor concentration.

Comparing groundwater concentrations to adjacent surface water samples, it is observed that the groundwater samples are lower, except in the case of B2 which contained visible quantities of oil. Thus, it is difficult to establish if the groundwater is contaminated from the Fire School or some other source.

When reviewing the soil samples in Table 4, it is observed that background concentrations are located outside the Fire School property. Sample SG 17, which is inside the property, indicated the soil contains PCBs. On-site observations reveal the soil in this area retains large quantities of oil. This oil presumably originated from a large transformer used during the School's operation.

The creek sediment samples (SG1, SG2, SG3, SG6 and SG8) show a large concentration variation. Therefore, it is difficult to determine a possible point source. These variations may be due to the stream relocation or sedimentation with the stream. The upstream sample SG8 reveals that there may be a source above the Fire Training School.

Reviewing the samples analyzed, it is observed that there is a possibility of background PCB contamination within the entire area. There appears to be no apparent point-source of PCB contaminated oil being discharged to Wine Creek.

Submitted by:

O'BRIEN & GERE ENGINEERS, INC.

Frank J. Drehwing, P.E.
Vice President

Prepared by:

David R. Hill
Edwin C. Tifft, Jr., Ph.D.

TABLE 3-1
OIL SAMPLES

Sample Identification	PCB Aroclor 1221 (ppm)	PCB Aroclor 1016 (ppm)	PCB Aroclor 1254 (ppm)	PCB Aroclor 1260 (ppm)
Tank #1	< 25	< 15	< 15	32
Tank #3	< 25	73	18	< 15
Tank #4	< 25	85	21	19
Tank #5	< 25	67	< 15	< 15
Tank #6	< 25	75	< 15	< 15
Tank #7	< 25	< 15	< 15	22
Tank #8	< 25	74	< 15	18
Tank #9	< 25	53	16	< 15
Tank #10	< 25	74	20	19
3000 KVA	< 25	61	20	17
Recycle Tank	< 25	49	17	27
Transfer Tank	< 25	55	< 15	20
Circuit Breaker	< 25	52	< 15	20
Oil Fraction Oil Separator	< 25	43	< 15	< 15

(6)

TABLE 3-2
SURFACE WATER SAMPLES

Map Designation	OBG Sample No.	Aroclor 1016 (ppb)	PCB Aroclor 1254 (ppb)	Aroclor 1260 (ppb)
SW 1	77925	<0.1	<0.1	<0.1
SW 2	77926	0.1	0.3	<0.1
SW 3	77927	<0.1	0.1	<0.1
SW 4		NO DISCHARGE		
SW 5	77928	<50	500	170
SW 6	77929	0.3	<0.1	<0.1
SW 7	77930	8.9	<1.	1.2
SW 8	77931	<0.1	<0.1	<0.1
SW 9	77932	0.1	0.1	<0.1
SW 10	77933	15	2.1	<1.5
SW 11	77934	0.2	<0.1	<0.1
SW 12	77935	0.4	<0.1	0.1

SW = Surface Water

TABLE 3-3

GROUNDWATER WELL SAMPLES

Map Designation	OBG Sample Number	PCB Aroclor 1016 (ppb)	Aroclor 1254 (ppb)	Aroclor 1260 (ppb
B 1	77936	<0.1	<0.1	< 0.1
B 2	77937	110	68.	350.
B 3	77938	2.	6.	2.
B 4	77939	2.	<1.	13.
B 5	77940	5.	<2.	21.
	Pre Sampling Blank	<0.1	<0.1	<0.1
	Post Sampling Blank	<0.1	<0.1	<0.1
	Well Liner	<0.1	<0.1	<0.1

B = Boring

(6)

TABLE 3-4
SOIL GRAB SAMPLES

Map Designation	OBG Sample Number	PCB Aroclor 1016 (ppb)	Aroclor 1254 (ppb)	Aroclor 1260 (ppb)
SG 5	77948	< 0.8	1.5	5.5
SG 13	77956	< 2.	11.	18.
SG 14	77957	< 0.7	6.5	3.2
SG 15	77958	< 1	4.	10.
SG 16	77959	< 2	19.	11.
SG 17	77960	120000.	33000.	<12000.

SG. - Soil Grab

100062

TABLE 3-5
SEDIMENT GRAB SAMPLES

Map Designation	OBG Sample Number	PCB Aroclor 1016 (ppb)	PCB Aroclor 1254 (ppb)	PCB Aroclor 1260 (ppb
SG 1	77944	< 0.5	2.3	3.9
SG 2	77945	21.	13.	17.
SG 3	77946	92.	40.	71.
SG 4	77947	< 53.	530.	140.
SG 6	77949	400.	59.	76.
SG 7	77950	280.	130.	63.
SG 8	77951	170	36.	110.
SG 9	77952	160	480.	150.
SG 10	77953	2700.	560.	610.
SG 11	77954	18.	39.	26.
SG 12	77955	3900.	< 390.	740.

SG= Sediment Grab

parratt wolff inc

FISHER ROAD
EAST SYRACUSE, N.Y. 13057

TEST BORING LOG

(6)

PROJECT: Fire Fighting Training Station
Niagara Mohawk Power Corporation

HOLE NO. B-1-78-[illegible]

LOCATION: Oswego, New York

SURF. ELEV.

DATE STARTED: 5/15/78 COMPLETED: 5/15/78

JOB NO. 7850

GROUND WATER: Depth on completion at 2.0'

File No. 1118.016

N= NO. OF BLOWS TO DRIVE 2" SAMPLER 6" W/140 LB. WEIGHT FALLING 30"

C= NO. OF BLOWS TO DRIVE CASING 12" W/300 LB. WEIGHT FALLING 24"

SHEET 1 OF 1

BORING MADE WITH HOLLOW STEM AUGER CASING

DEPTH	C.	N.	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION OF MATERIAL
		5/6	1	0.0'-	Brown moist medium dense fine to medium
		4/11		2.0'	SAND 1.5'
▼ WL					
		11/10	2	3.0'-	Gray moist medium dense fine SAND,
5.0		30/33		5.0'	some silt, little fine to coarse gravel 4.0'
		20/22	3	5.0'-	Gray moist very dense fine SAND, some
		18/15		7.0'	silt, some fine to coarse gravel 5.0'
		12/21	4	7.0'-	Gray wet very dense fine to medium
		27/50-		8.5'	SAND and fine to coarse GRAVEL, little
10.0		.0			silt
		50-.0	5	10.0'	Bottom of Boring 10.0'

Note: Installed ground water observation well to 10.0' on completion.

100064

parratt wolff inc

FISHER ROAD
EAST SYRACUSE, N.Y. 13057

TEST BORING LOG

(6)

PROJECT: Fire Fighting Training Station
Niagara Mohawk Power Corporation

LOCATION: Oswego, New York

HOLE NO. B-2-78--37

SURF. ELEV.

DATE STARTED 5/15/78 COMPLETED 5/15/78

JOB NO. 7850

GROUND WATER Depth on completion at 7.0'

File No. 1118.016

N= NO. OF BLOWS TO DRIVE 2" SAMPLER 6" W/140 LB. WEIGHT FALLING 30"

C= NO. OF BLOWS TO DRIVE CASING 12" W/300 LB. WEIGHT FALLING 24"

SHEET 1 OF 1

BORING MADE WITH HOLLOW STEM AUGER CASING

DEPTH	C.	N.	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION OF MATERIAL
		3/3	1	0.0'-	Brown moist loose fine SAND, some silt
		3/2		2.0'	
		2/3	2	3.0'-	
5.0		4/12		5.0'	4.5'
		12/21	3	5.0'-	Brown moist medium dense fine SAND and fine to coarse GRAVEL, trace silt
▼ WL		100-.3		6.3'	
					Refusal 8.0'
10.0					Bottom of Boring 8.0'

Note: Installed ground water observation well to 8.0' on completion.

100065

parratt wolff inc

TEST BORING LOG

FISHER ROAD
EAST SYRACUSE, N.Y. 13057

(6)

PROJECT: Fire Fighting Training Station
Niagara Mohawk Power Corporation

LOCATION: Oswego, New York

HOLE NO. B-3-78-438

SURF. ELEV.

DATE STARTED: 5/15/78 COMPLETED: 5/15/78

JOB NO. 7850

GROUND WATER: Depth on completion at 4.5'

File No. 1118.016

N= NO. OF BLOWS TO DRIVE 2" SAMPLER 6" W/140 LB. WEIGHT FALLING 30"

C= NO. OF BLOWS TO DRIVE CASING 12" W/300 LB. WEIGHT FALLING 24"

SHEET 1 OF 1

BORING MADE WITH HOLLOW STEM AUGER CASING

DEPTH	C.	N.	SAMPLE NO	SAMPLE DEPTH	DESCRIPTION OF MATERIAL
		2/3	1	0.0'-	Brown moist medium dense to dense fine
		12/21		2.0'	SAND and fine to coarse GRAVEL, trace silt
		21/26	2	3.0'-	
5.0 ▼ WL		30/55		5.0'	5.0'
		45/20	3	5.0'-	Gray moist very dense fine SAND, trace
		57		6.5'	silt, trace fine to medium gravel
					Refusal 7.0'
10.0					Bottom of Boring 7.0'

Note: Installed ground water observation well to 7.0' on completion.

100066

parratt wolff inc

TEST BORING LOG

PROJECT: Fire Fighting Training Station
Niagara Mohawk Power Corporation

LOCATION: Oswego, New York

DATE STARTED: 5/15/78 COMPLETED: 5/15/78

GROUND WATER: Depth on completion at 8.0'

N= NO. OF BLOWS TO DRIVE 2" SAMPLER 6" W/140 LB. WEIGHT FALLING

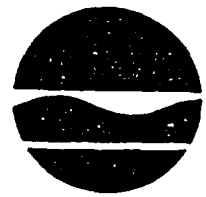
C= NO. OF BLOWS TO DRIVE CASING 12" W/300 LB. WEIGHT FALL

BORING MADE WITH HOLLOW STEM AUGER CASING

DEPTH	C.	N.	SAMPLE NO	SAMPLE DEPTH	DES
		4/9	1	0.0'-	Brown moist m
		7/6		2.0'	SAND and SILT
					gravel
		14/10	2	3.0'-	
5.0		17/50		5.0'	
WL					
		6/50-	3	8.0'-	Gray wet very
10.0		.2		8.7'	silt, some fi
					Refusal
					Bottom of Bor
					Note: Instal well t

(12

New York State Department of Environmental Conservation
7481 Henry Clay Blvd., Liverpool, New York 13088
Region 7, Environmental Quality Office
(315) 428-4514



Henry G. Williams
Commissioner

April 9, 1986

Mr. Frank Grabowski
Niagara Mohawk Power Corporation
300 Erie Blvd. West
Syracuse, New York 13202

RE: SOIL SAMPLING AT NIAGARA MOHAWK'S
TRAINING SCHOOL, OSWEGO (C)

Dear Mr. Grabowski:

Pursuant to our recent discussion, enclosed you will find copies of the analytical results of the soil samples collected at the Fire Training School on October 24, 1985. These soil samples were analyzed by the State Health Department Laboratory in Albany. The levels of detectibility are as indicated on the results sheet for sample point #4, which is our background standard, obtained at the Rice Creek Biological Field Station.

The other three sample points were located on the School grounds. Sample #1 was obtained just east of the transformer spray system at the SE corner of the grounds. Sample #2 was obtained alongside the training pit about eight inches below the surface. Sample #3 was obtained along the water level of the inside moat in the SW corner of the grounds.

As you can see, sample #2 showed some parameters, of the twelve dioxin and furon parameters analyzed, at levels greater than detectible. The information this Department has on dioxin is specific to the isomer 2, 3, 7, 8 -TCDD) (2,3,7,8,-Tetrachlorodibenzodioxin), for which an action level of 1.0ppb (nanogm/gm) is recommended. We are seeking a determination from the Health Department's Toxic Substances Assessment Group on the environmental and heath implications of the other isomers identified in our sampling. Once we have this information in hand, we will be contacting you to define the scope of study and/or remediation required at the NMFTS. In the interim, you may wish to resample at the training pit sampling location, keeping in mind that DEC's sample was obtained at a depth of about eight inches below existing grade.

Should you wish to discuss this matter further, please feel free to contact me.

Very truly yours,

Kathleen DelPrete
Sr. Sanitary Engineer

Enc..

CC: Mr. Krichbaum
Mr. Flocke
Mr. Gross
Mr. Rupert Collins, Oswego Co. Health Dept.
Dr. Darrell Banks, M.D. Room 604

KDP:J

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

(12)

PAGE 1 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 54326 SAMPLE RECEIVED: 85/11/20/ CHARGE: 90.00
PROGRAM: 6307: DIV. SOLID & HAZARDOUS WASTE -- DEC REGION 7
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE: 3760
POLITICAL SUBDIVISION: OSWEGO COUNTY: OSWEGO
LATITUDE: Sample#1 LONGITUDE: Z DIRECTION:
LOCATION: R7B0014-01 NIAGARA MOHAWK FIRE TRAINING CENTER
DESCRIPTION: SAND AND GRAVEL SURFACE
REPORTING LAB: TOX: LAB FOR ORGANIC CHEMISTRY
TEST PATTERN: DIOX: TETRACHLORODIBENZODIOXINS/FURANS IN SOIL
SAMPLE TYPE: 600: SOIL, SAND
TIME OF SAMPLING: 85/11 13 11: AM DATE PRINTED: 86/03/1

RECEIVED

PARAMETER		RESULT COMPLETE
T91000	CLEAN-UP FOR TCDD/TCDF ANALYSIS	
T55383	2,3,7,8-TETRACHLORODIBENZODIOXIN	< 0.02 NANOGM/G
T66733	TOTAL TETRACHLORODIBENZODIOXINS	< 0.02 NANOGM/G
T58833	2,3,7,8-TETRACHLORODIBENZOFURAN	< 0.06 NANOGM/G
T90033	TOTAL TETRACHLORODIBENZOFURANS	< 0.06 NANOGM/G

FOLLOWING PARAMETERS NOT PART OF TEST PATTERN

ANALYSIS: DIOX-FURAN OTHER DIOXINS AND FURANS

PARAMETER		RESULT
T11033	TOTAL PENTACHLORODIBENZOFURAN	< 0.05 NANOGM/G
T20033	TOTAL HEXACHLORODIBENZOFURAN	< 0.06 NANOGM/G
T29733	TOTAL HEPTACHLORODIBENZOFURAN	< 0.08 NANOGM/G
T12033	TOTAL OCTACHLORODIBENZOFURAN	< 0.3 NANOGM/G
T15333	TOTAL PENTACHLORODIBENZODIOXIN	< 0.04 NANOGM/G
T16233	TOTAL HEXACHLORODIBENZODIOXIN	< 0.07 NANOGM/G
T19033	TOTAL HEPTACHLORODIBENZODIOXIN	< 0.2 NANOGM/G
T25033	TOTAL OCTACHLORODIBENZODIOXIN	< 0.4 NANOGM/G

**** END OF REPORT ****

COPIES SENT TO: CO(1), RO(1), LPHE( ), FED( ), INFO-P( ), INFO-L( )

N.Y.S. DEPT. OF ENVIRONMENTAL CONSERVATION
REGION 7, ENVIRONMENTAL QUALITY OFFICE
7481 HENRY CLAY BOULEVARD
LIVERPOOL, N.Y. 13088

SUBMITTED BY: ROGERS

100070

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

(12)

PAGE 1 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 54327 SAMPLE RECEIVED: 85/11/20/ CHARGE: 90.0
PROGRAM: 6307: DIV. SOLID & HAZARDOUS WASTE - DEC REGION 7
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE: 3700
POLITICAL SUBDIVISION: OSWEGO COUNTY: OSWEGO
LATITUDE: Sample #2 LONGITUDE: Z DIRECTION:
LOCATION: R/BSOIL-02 NIAGARA MOHAWK FIRE TRAINING CENTER
DESCRIPTION: SAND AND GRAVEL SURFACE
REPORTING LAB: TOX: LAB FOR ORGANIC ANALYTICAL CHEMISTRY
TEST PATTERN: DIOX: TETRACHLORODIBENZODIOXINS AND/OR FURANS IN SOIL
SAMPLE TYPE: SOC: SOIL, SAND
TIME OF SAMPLING: 85/11/13 11: DATE PRINTED: 86/03/1

PARAMETER		RESULT COMPLETE	
T91000	CLEAN-UP FOR TCDD/TCDF ANALYSIS		
T55300	2,3,7,8-TETRACHLORODIBENZODIOXIN	< 0.02	NANOGM/G
T68730	TOTAL TETRACHLORODIBENZODIOXINS	< 0.02	NANOGM/G
T88800	2,3,7,8-TETRACHLORODIBENZOFURAN	< 0.06	NANOGM/G
T90020	TOTAL TETRACHLORODIBENZOFURANS	1.	NANOGM/G

FOLLOWING PARAMETERS NOT PART OF TEST PATTERN

ANALYSIS: DIOX-FURAN OTHER DIOXINS AND FURANS

PARAMETER		RESULT	
T11030	TOTAL PENTACHLORODIBENZOFURAN	1.1	NANOGM/G
T20030	TOTAL HEXACHLORODIBENZOFURAN	0.7	NANOGM/G
T25500	TOTAL HEPTACHLORODIBENZOFURAN	0.4	NANOGM/G
T12030	TOTAL OCTACHLORODIBENZOFURAN	< 0.3	NANOGM/G
T15330	TOTAL PENTACHLORODIBENZODIOXIN	0.16	NANOGM/G
T15230	TOTAL HEXACHLORODIBENZODIOXIN	1.4	NANOGM/G
T19030	TOTAL HEPTACHLORODIBENZODIOXIN	6.3	NANOGM/G
T25020	TOTAL OCTACHLORODIBENZODIOXIN	16.	NANOGM/G

**** END OF REPORT ****

BSOB TOTAL 25 NG/M²

ED ANNA

TIMES BEACH 300 PPB
Health Risk 1 PPB

COPIES SENT TO: CO(1), RO(1), LPHE( ), FED( ), INFO-P( ), INFO-L( )

N.Y.S. DEPT. OF ENVIRONMENTAL CONSERVATION
REGION 7, ENVIRONMENTAL QUALITY OFFICE
7481 HENRY CLAY BOULEVARD
LIVERPOOL, N.Y. 13088

SUBMITTED BY: ROGERS

100071

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

(12)

PAGE 1 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 54320 SAMPLE RECEIVED: 85/11/20/ CHARGE: 90.0
PROGRAM: 6307 DIV SOLID & HAZARDOUS WASTE - DEC REGION 7
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE: 3760
POLITICAL SUBDIVISION: OSWEGO COUNTY: OSWEGO
LATITUDE: Sample #3 LONGITUDE: Z DIRECTION:
LOCATION: R785014-03 BACKGROUND NIAGARA MOHAWK FIRE TRAINING CENTER
DESCRIPTION: SAND AND GRAVEL SURFACE
REPORTING LAB: TOX: LAB FOR ORGANIC ANALYTICAL CHEMISTRY
TEST PATTERN: [illegible]: TETRACHLORODIBENZODIOXINS AND/OR FURANS IN SOIL
SAMPLE TYPE: [illegible]: SOIL, SAND
TIME OF SAMPLING: 85/11 13 11: DATE PRINTED: 86/03/1[illegible]

PARAMETER		RESULT COMPLETE	
TP1000	CLEAN-UP FOR TCDD/TCDF ANALYSIS		
T[illegible]	2,3,7,8-TETRACHLORODIBENZODIOXIN	< 0.07	NANOGM/G
T6[illegible]	TOTAL TETRACHLORODIBENZODIOXINS	< 0.07	NANOGM/G
T[illegible]	2,3,7,8-TETRACHLORODIBENZOFURAN	< 0.06	NANOGM/G
T[illegible]	TOTAL TETRACHLORODIBENZOFURANS	< 0.06	NANOGM/G

FOLLOWING PARAMETERS NOT PART OF TEST PATTERN

ANALYSIS: DIOX-FURAN OTHER DIOXINS AND FURANS

PARAMETER		RESULT	
T11033	TOTAL PENTACHLORODIBENZOFURAN	< 0.05	NANOGM/G
T20033	TOTAL HEXACHLORODIBENZOFURAN	< 0.06	NANOGM/G
T[illegible]	TOTAL HEPTACHLORODIBENZOFURAN	< 0.08	NANOGM/G
T12033	TOTAL OCTACHLORODIBENZOFURAN	< 0.3	NANOGM/G
T15033	TOTAL PENTACHLORODIBENZODIOXIN	< 0.09	NANOGM/G
T[illegible]	TOTAL HEXACHLORODIBENZODIOXIN	< 0.09	NANOGM/G
T19033	TOTAL HEPTACHLORODIBENZODIOXIN	< 0.1	NANOGM/G
T25033	TOTAL OCTACHLORODIBENZODIOXIN	< 0.2	NANOGM/G

**** END OF REPORT ****

COPIES SENT TO: CO( ), RO(1), LPHE( ), FED( ), INFO-P( ), INFO-L( )

N.Y.S. DEPT OF ENVIRONMENTAL CONSERVATION
REGION 7, ENVIRONMENTAL QUALITY OFFICE
7481 HENRY CLAY BOULEVARD
LIVERPOOL, N.Y. 13088

SUBMITTED BY: ROGERS

100072

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER FOR LABORATORIES AND RESEARCH

(12)

PAGE 1 RESULTS OF EXAMINATION FINAL REPORT

SAMPLE ID: 54329 SAMPLE RECEIVED: 85/11/20/ CHARGE: 90.0
PROGRAM: 6307.DIV. SOLID & HAZARDOUS WASTE - DEC REGION 7
SOURCE ID: DRAINAGE BASIN: GAZETTEER CODE: 3760
POLITICAL SUBDIVISION: OSWEGO COUNTY: OSWEGO
LATITUDE: Sample #4 LONGITUDE: Z DIRECTION:
LOCATION: R785014-04 NIAGARA MOHAWK FIRE TRAINING CENTER
DESCRIPTION: SAND AND GRAVEL SURFACE
REPORTING LAB: TOX: LAB FOR ORGANIC ANALYTICAL CHEMISTRY
TEST PATTERN DIOXT: TETRACHLORODIBENZODIOXINS AND/OR FURANS IN SOIL
SAMPLE TYPE: 600: SOIL, SAND
TIME OF SAMPLING: 85/11/13 11: DATE PRINTED: 86/03/1

PARAMETER		RESULT COMPLETE
TP1000	CLEAN-UP FOR TCDD/TCDF ANALYSIS	
T35399	2,3,7,8-TETRACHLORODIBENZODIOXIN	< 0.03 NANOGM/G
T40783	TOTAL TETRACHLORODIBENZODIOXINS	< 0.03 NANOGM/G
T86837	2,3,7,8-TETRACHLORODIBENZOFURAN	< 0.06 NANOGM/G
T90033	TOTAL TETRACHLORODIBENZOFURANS	< 0.06 NANOGM/G

FOLLOWING PARAMETERS NOT PART OF TEST PATTERN

ANALYSIS: DIOX-FURAN OTHER DIOXINS AND FURANS

PARAMETER		RESULT
T11033	TOTAL PENTACHLORODIBENZOFURAN	< 0.05 NANOGM/G
T20033	TOTAL HEXACHLORODIBENZOFURAN	< 0.06 NANOGM/G
T24533	TOTAL HEPTACHLORODIBENZOFURAN	< 0.08 NANOGM/G
T12033	TOTAL OCTACHLORODIBENZOFURAN	< 0.3 NANOGM/G
T15033	TOTAL PENTACHLORODIBENZODIOXIN	< 0.03 NANOGM/G
T16233	TOTAL HEXACHLORODIBENZODIOXIN	< 0.05 NANOGM/G
T19033	TOTAL HEPTACHLORODIBENZODIOXIN	< 0.07 NANOGM/G
T25033	TOTAL OCTACHLORODIBENZODIOXIN	< 0.2 NANOGM/G

**** END OF REPORT ****

COPIES SENT TO: CO(1), RO(1), LPHE( ), FED( ), INFO-P( ), INFO-L( )

N.Y.S. DEPT. OF ENVIRONMENTAL CONSERVATION
REGION 7, ENVIRONMENTAL QUALITY OFFICE
7481 HENRY CLAY BOULEVARD SUBMITTED BY: ROGERS
LIVERPOOL, N.Y. 13088

100073

NIAGARA MOHAWK

Hdq. file "Nmi Fire Training School (G)"

(13)

NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

March 7, 1986

Ms. Kathleen DelPrete
Sr. Sanitary Engineer
New York State Department of
Environmental Conservation
7481 Henry Clay Blvd.
Liverpool, NY 13088

Re: Oswego Fire Training School
Soil Sampling and Analysis

Dear Ms. DelPrete:

In accordance with your request of March 4, 1986 Niagara Mohawk submits a copy of the analytical results of the composite soil sample collected from the Fire Training School. Four soil samples were collected last fall and taken to O'Brien & Gere for compositing and analysis.

If you have any questions on this submittal, please contact the undersigned at (315) 428-6616.

Respectfully,

Frank J Grabowski 428 6616

F. J. Grabowski
Environmental Analyst

FJG:dd

Enclosure

3/11/86 - as of this date, no analyses available from the samples DEC collected on 10/24/86. Samples are at DOH lab in Albany.

KDP

cc: T. J. Rooney/J. M. Toennies
✓F. J. Grabowski
John Corcoran
John Lynk

(13)

O'BRIEN & GERE

January 20, 1986

Mr. Frank L. Sciortino
Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York 13201

Re: Fire Training School
Results

File: 1118.047

Dear Frank:

Enclosed, please find our Laboratory Data Report for the composite sample collected from the Fire Training School at Oswego in November of 1985. These results indicate the absence of chlorinated dibenzofurans and dibenzodioxins at an absolute limit of detection of ten parts per billion. In addition, we are 99 percent certain that these compounds are absent at a limit of detection of one part per billion. Because of the presence of interfering compounds of an unknown nature at a relatively high level, lower limits of detection could not be achieved. However, a lower value should not be necessary as one part per billion has been the targeted level for the cleanup of dioxin disposal sites and transformer fire residues.

The method of analysis was by gas chromatography/mass spectrometry using selective ion detection. EPA Region V Method was used for the analysis of dioxins. No analogous method exists for dibenzofurans; however, we used a modified procedure that has previously been accepted by the New York State Department of Health. Furthermore, we believe these results would withstand the review of the State Health Department. We would be happy to meet with representatives of any appropriate State agency to review these results should it be necessary.

In summary, we are pleased to report these findings and hope we may be of future assistance to Niagara Mohawk.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Edwin C. Tifft, Jr., Ph.D.
Vice President

ECT:djb
Enclosure:

O'BRIEN & GERE

Laboratory Report

CLIENT NIAGARA MOHAWK POWER CORPORATION JOB NO. 1118.047.517

DESCRIPTION Composite Soil Sample

DATE COLLECTED _____ DATE REC'D. 10-16-85 DATE ANALYZED 1-10-86

COMPOUNDS	Sample # 32342
2,3,7,8-Tetrachlorodibenzodioxin	<10.ug/kg
2,3,7,8-Tetrachlorodibenzofuran	<10.ug/kg
Total (Tetra-Octa)chlorodibenzodioxin	<10.ug/kg
Total (Tetra-Octa)chlorodibenzofuran	<10.ug/kg

Methodology: Federal Register — 40 CFR, Part 13[redacted]Oct.26,1984 Units: mg/l (ppm) unless otherwise noted

Comments:

Authorized: BCT eff J.

Date: 1-16-86

O'Brien & Gere Engineers, Inc.
Box 4873 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 451-4700

100076

(14)

NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

July 25, 1986

Mrs. Kathleen DelPrete
Sr. Sanitary Engineer
New York State Department of
Environmental Conservation
7481 Henry Clay Blvd.
Liverpool, NY 13088

Re: Soil Sampling at Niagara Mohawk's
Fire Training School
Oswego (c), Oswego County

Dear Mrs. DelPrete:

In response to your April 9, 1986 and May 20, 1986 correspondence, Niagara Mohawk obtained an additional sample from soil sampling location number 2 at the above cited facility. Sample location number 2 is adjacent to the training pit. The sample was taken from a 2 ft. by 2 ft. area at a depth of about 0 to 8 inches.

The soil sample was analyzed by O'Brien and Gere for dioxins and dibenzofurans. The EPA Region V method was used for the analysis of dioxins. No analogous method exists for dibenzofurans; however, a modified procedure which has been accepted by the New York State Department of Health was used. A copy of the analytical results for this sample is attached. The results indicate the absence of chlorinated dibenzofurans and dibenzodioxins at the detection limits indicated.

Based on the analytical results of this latest sampling and the October 1985 sampling at the Oswego Fire Training School, it is Niagara Mohawk's opinion that dibenzofurans and dibenzodioxins are not present at levels of detectability based on accepted scientific methodology. Therefore, it is Niagara Mohawk's position that no further investigative studies and/or remediation of this site should be required.

If you have any questions on this submittal, please contact the undersigned at (315) 428-6616.

Respectfully,

Frank J Grabowski

Frank J. Grabowski
Environmental Analyst

FJG:dd

attachment

100077

(14)

ORIES, INC.

Laboratory Report

ENT NIAGARA MOHAWK POWER CORPORATION JOB NO. 1118.047.517

DESCRIPTION Oswego Fire Training School

DATE COLLECTED _____ DATE REC'D. 5-13-86 DATE ANALYZED 6-27-86

	Sample # 85870* (ppt)	Sample # A0623 Matrix Spike %Recovery	Sample # A0586* Method Blank (ppt)
TOTAL			
Tetra TCDD	<500.	99.	<20.
Tetra TCDF		100.	<20.
Penta TCDD		88.	<20.
Penta TCDF		98.	<20.
Hexa TCDD		54.	<40.
Hexa TCDF		55.	<40.
Hepta TCDD		18.	<100.
Hepta TCDF		37.	<100.
Octa TCDD		-	<400.
Octa TCDF		-	<400.
2,3,7,8-TCDD		-	-
2,3,7,8-TCDF		-	-
Accuracy $^{37}Cl_4$-2,3,7,8-TCDD	98.6%	125.%	98.3%
%Recov. $^{13}C_{12}$-2,3,7,8-TCDF	118.%	113.%	107.4%

*ppt = parts per trillion

Methodology: Federal Register — 40 CFR, Part 136, October 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments:

Authorized: A. LaPoint

Date: July 9, 1986

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 457-1494

100078

Field Notes

June 1988

Niagara Mohawk Fire Training School

·[Site ID N°: 738030]·

Niagara-Mohawk Fire Training School
Site ID N°: 738030
East Seneca Street
Oswego (city)
Oswego County

NiMo Fire Training School 738030

A total of 3 soil samples are to be taken @ this site. To be analyzed for VOA's, BNA's & PCB's.

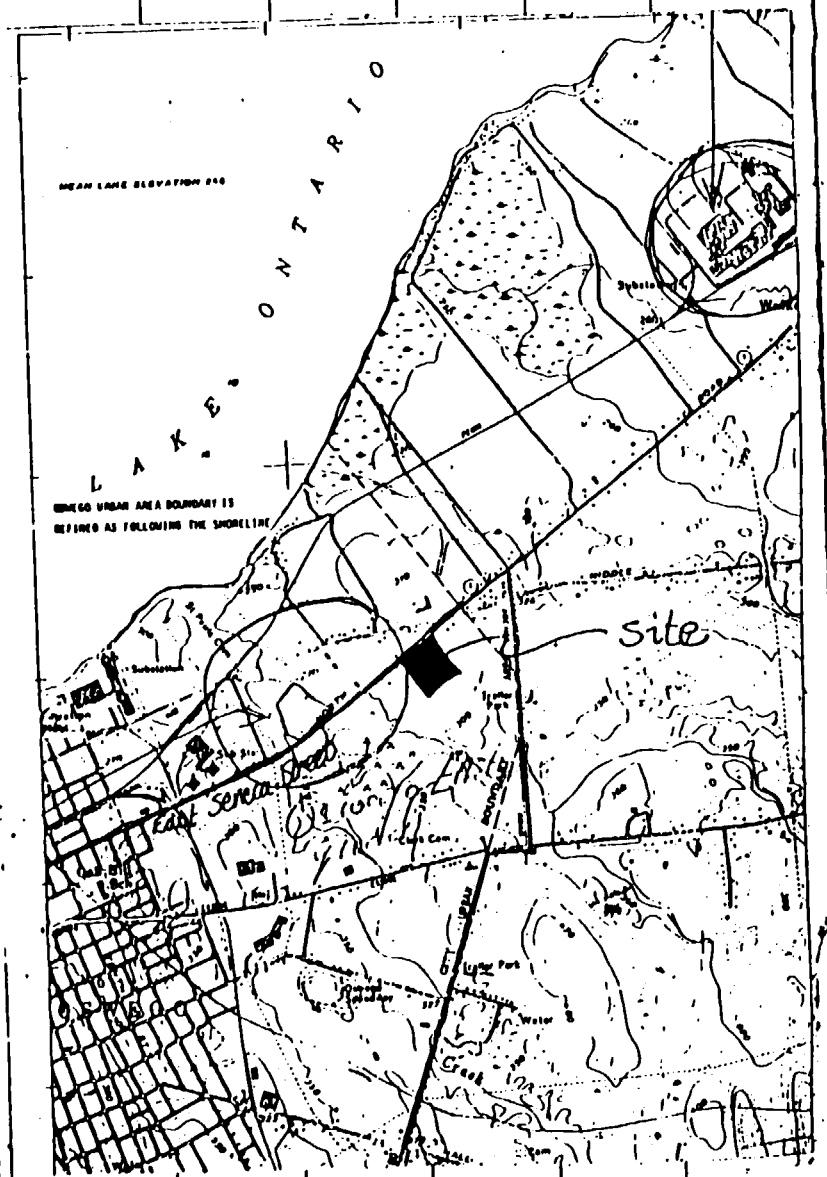
Sampling is scheduled for Wednesday, June 15, 1988.

Sampling analysis is to be done by VERSAR lab in Springfield, VA. Contacted Jay Bernardino of VERSAR on June 10th & placed an order for the bottles.

Bottles arrived on 6-14. All appeared to be in good shape.

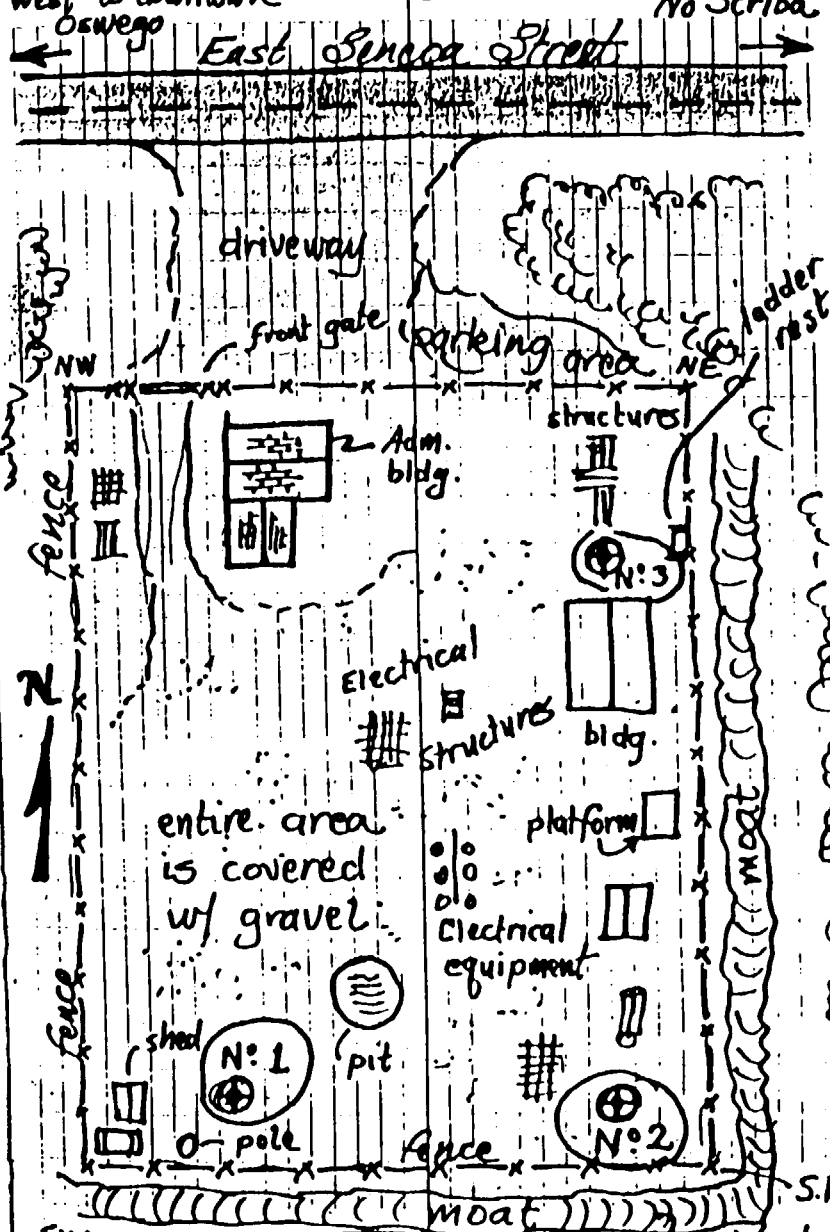
(7)

·12·



·Location map·

·13·



·Site sketch·

100080

Arrived on site on Wednesday June 15th 1988 @ 3:15 P.M.

Weather conditions @ time of sampling:

- Very hot (95°)
- Slight breeze
- Hazy

Present for sampling:

- T.M. Koch
- Brian Rogers
- Kevin Kelly

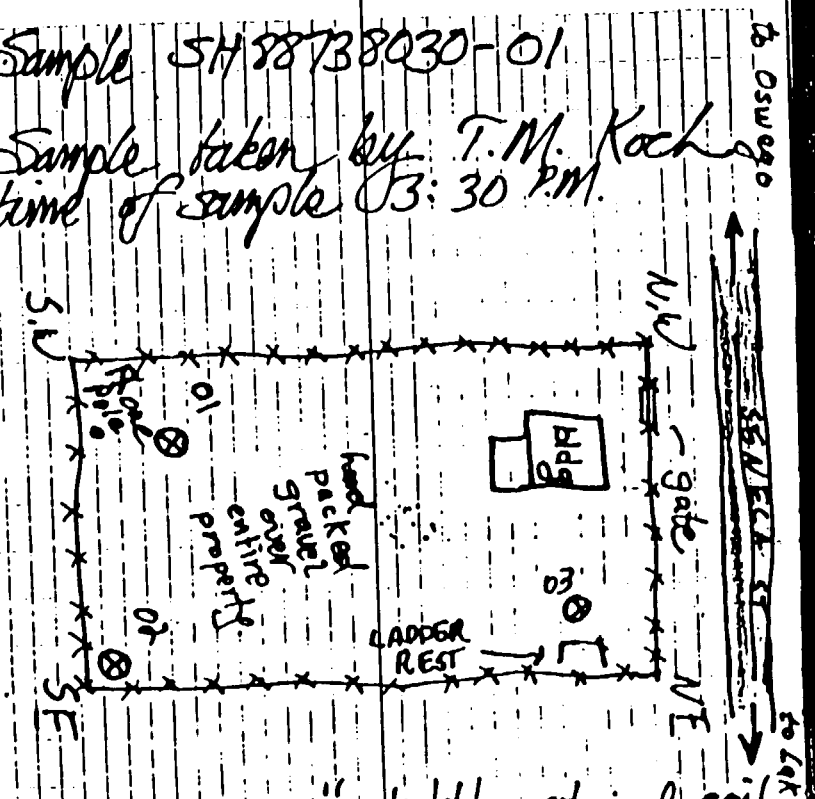
Met w/ John Lynks - Director of the Fire Training School.

Gerald Shaw - Representative from the Ni Mo Fire training school He accompanied us @ all the sampling locations.

Sample SH88138030-01

Sample taken by T.M. Koch

time of sample 3:30 P.M.



01 4-6" slightly stained soil Above background on photovac

02 4-6" stained soil photovac: hole above background. Probe in sample jar showed much lower readings

Sample time: about 3:40 P.M.

03	6	0-12"	reddish brown soil with a black stained layer at 6"
			Photovac: slightly higher than background.

3 General notes:

The whole lot (estimated @ 2½-3 acres in size) was covered w/ hard packed gravel. It was very hard to dig in. In all of the 3 locations where samples were taken there was a notable dark stained layer (looked to be oil) @ about 3½-4" below the surface.

There was a notable odor of volatiles over the entire site. It was reminiscent of old motor oil. All sampling was done @ Level C protection. All samples taken by JM Koch.

The shovel & 3 trowels used in sampling were thoroughly decon'ed prior to arrival on site. Decon'ing was done w/ a thorough spray wash w/ tap water followed by a double methanol rinse & then followed by a distilled water rinse.

The samples were put into the coolers & iced down. Evidence tape was put on the lids (~~of both~~ & locked in the back of the truck cap overnight.

There was no evidence of any tampering w/ the samples the next day 6-16.

Samples were delivered to the Fed X-Press office in Latham on 6-16 @ about 3 P.M. All required paperwork was sent w/ the samples & the lid was covered w/ evidence tape.

I contacted Jay Bernardins of Versar the following day June 17th. He informed me that the samples arrived okay.

Photos on next 4 pages.

Sample Pt. 01

NiMo F.T. Ctr.

Sample N° 1

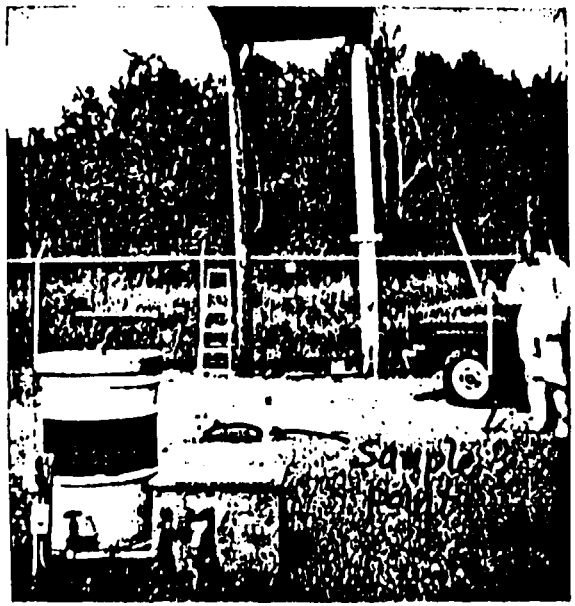
Taken near the back S.W. corner of the property

Sample Pt. N° 02

Sample N° 2

Taken near the S.E. corner of the property...

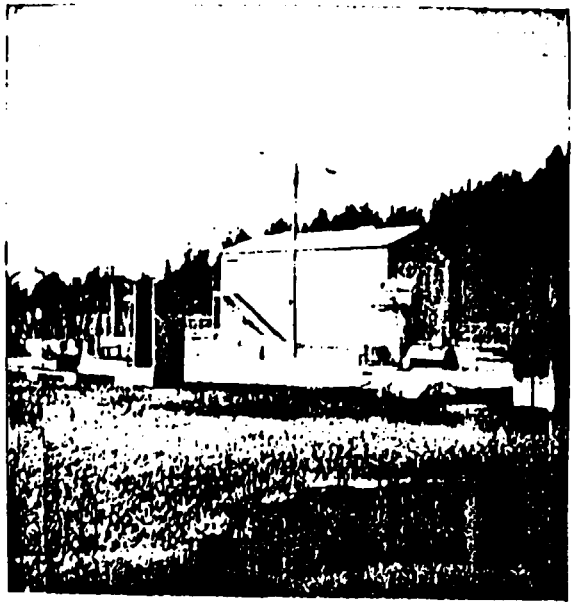
·120·



Sample Pt. 03

Sample pt. No 3 – taken about 100' south of the north-east corner of the property.

·121·



Overview of the Fire Training School...

End of Field Notes for the NiMo Fire training school.

100084

7/13/89 - xc: Mr. Donald Storrier (Stearns & Wheler)

(17)

OBG
LABORATORIES, INC.

August 25, 1988

Mr. Frank Grabowski
NIAGARA MOHAWK POWER CORPORATION
300 Erie Boulevard West
Syracuse, NY 13202

Re: Lab Data Report

File: 1118.051.517

Dear Mr. Grabowski:

Please find enclosed the results of laboratory analysis on samples received 7-1-88.

If you have any questions concerning these results, please do not hesitate to contact us.

Very truly yours,

OBG LABORATORIES, INC.

David R. Hill

David R. Hill
Vice President

DRH/bpp

Enclosure

(17)

OBG LABORATORIES, INC.

Laboratory Report

CLIENT NIAGARA MOHAWK POWER CORPORATION JOB NO. 1118.051.517

DESCRIPTION Oswego, NY - Fire Training School

UNITS: mg/kg wet weight

DATE COLLECTED 7-1-88 DATE REC'D. 7-1-88 DATE ANALYZED

Description	Site #1	Site #2	Site #3		
Sample #	H1205	H1206	H1209		
ALUMINUM	16000.	15000.	17000.		
ARSENIC	13.	10.	6.9		
BERYLLIUM	<5.	<5.	<5.		
CALCIUM	16000.	7800.	17000.		
COBALT	<5.	<5.	<5.		
IRON	34000.	31000.	35000.		
MAGNESIUM	2900.	2600.	3500.		
MERCURY	<0.5	<0.5	<0.5		
POTASSIUM	1500.	870.	1100.		
SILVER	2.	1.	2.		
SODIUM	900	800	830		

Methodology: Federal Register — 40 CFR, Part 136, October 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments:

Authorized: [signature]

Date: August 25, 1988

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 457-1494

100086

(17)

OBG LABORATORIES, INC.

Laboratory Report

CLIENT NIAGARA MOHAWK POWER CORPORATION JOB NO. 1118.051.517

DESCRIPTION Oswego, NY - Fire Training School

UNITS: mg/kg wet weight (except percent solids)

DATE COLLECTED 7-1-88 DATE REC'D. 7-1-88 DATE ANALYZED

Description	Site #1	Site #2	Site #3
Sample #	H1205	H1206	H1209
VANADIUM	23.	22.	25.
PERCENT TOTAL SOLIDS	93.	91.	91.

Methodology: Federal Register — 40 CFR, Part 136, October 26, 1984

Units: mg/l (ppm) unless otherwise noted

Comments:

Authorized: [signature]

Date: August 25, 1988

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Rd. / Syracuse, NY / 13221 / (315) 457-1494

100087

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Site 1

Lab Name: ORG Laboratories, Inc. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: 14205

Sample wt/vol: 1 (g/~~ml~~) g Lab File ID: Site 1

Level: (low/med) Low Date Received: 7-1-88

% Moisture: not dec. 6 Date Analyzed: 7-5-88

Column: (pack/cap) PACK Dilution Factor: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	50	U
74-83-9	Bromomethane	"	"
75-01-4	Vinyl Chloride	"	"
75-00-3	Chloroethane	"	"
75-09-2	Methylene Chloride	25	"
67-64-1	Acetone	94	
75-15-0	Carbon Disulfide	25	U
75-35-4	1,1-Dichloroethene	"	"
75-34-3	1,1-Dichloroethane	"	"
540-59-0	1,2-Dichloroethene (total)	"	"
67-66-3	Chloroform	"	"
107-06-2	1,2-Dichloroethane	"	"
78-93-3	2-Butanone	50	"
71-55-6	1,1,1-Trichloroethane	25	"
56-23-5	Carbon Tetrachloride	25	"
108-05-4	Vinyl Acetate	50	"
75-27-4	Bromodichloromethane	25	"
78-87-5	1,2-Dichloropropane	"	"
10061-01-5	cis-1,3-Dichloropropene	"	"
79-01-6	Trichloroethene	"	"
124-48-1	Dibromochloromethane	"	"
79-00-5	1,1,2-Trichloroethane	"	"
71-43-2	Benzene	"	"
10061-02-6	trans-1,3-Dichloropropene	"	"
75-25-2	Bromoform	"	"
108-10-1	4-Methyl-2-Pentanone	"	"
591-78-6	2-Hexanone	50	"
127-18-4	Tetrachloroethene	50	"
79-34-5	1,1,2,2-Tetrachloroethane	25	"
108-88-3	Toluene	"	"
108-90-7	Chlorobenzene	"	"
100-41-4	Ethylbenzene	"	"
100-42-5	Styrene	"	"
1330-20-7	Xylene (total)	"	"

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SITE #2

Lab Name: OBG Laboratories Inc Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: 11106

Sample wt/vol: 1 (g/mL) g Lab File ID: _____

Level: (low/med) Low Date Received: 7-1-88

% Moisture: not dec. 9 Date Analyzed: 7-8-88

Column: (pack/cap) pack Dilution Factor: 5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
74-87-3	Chloromethane	50	U
74-83-9	Bromomethane		
75-01-4	Vinyl Chloride		
75-00-3	Chloroethane		
75-09-2	Methylene Chloride	25	
67-64-1	Acetone	50	
75-15-0	Carbon Disulfide	25	
75-35-4	1,1-Dichloroethene		
75-34-3	1,1-Dichloroethane		
540-59-0	1,2-Dichloroethene (total)		
67-66-3	Chloroform		
107-06-2	1,2-Dichloroethane		
78-93-3	2-Butanone	50	
71-55-6	1,1,1-Trichloroethane	25	
56-23-5	Carbon Tetrachloride	25	
108-05-4	Vinyl Acetate	50	
75-27-4	Bromodichloromethane	25	
78-87-5	1,2-Dichloropropane		
10061-01-5	cis-1,3-Dichloropropene		
79-01-6	Trichloroethene		
124-48-1	Dibromochloromethane		
79-00-5	1,1,2-Trichloroethane		
71-43-2	Benzene		
10061-02-6	trans-1,3-Dichloropropene		
75-25-2	Bromoform		
108-10-1	4-Methyl-2-Pentanone	0	
591-78-6	2-Hexanone	50	
127-18-4	Tetrachloroethene	50	
79-34-5	1,1,2,2-Tetrachloroethane	25	
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene		
100-42-5	Styrene	1	J
1330-20-7	Xylene (total)		

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Site #3

Lab Name: OBG Laboratories Inc Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: 11209

Sample wt/vol: 1 (g/mL) g Lab File ID: _____

Level: (low/med) Low Date Received: 7-1-88

% Moisture: not dec. 9 Date Analyzed: 7-8-88

Column: (pack/cap) pack Dilution Factor: 5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	50	U
74-83-9	Bromomethane		
75-01-4	Vinyl Chloride		
75-00-3	Chloroethane	9	
75-09-2	Methylene Chloride	25	
67-64-1	Acetone	50	
75-15-0	Carbon Disulfide	25	
75-35-4	1,1-Dichloroethene		
75-34-3	1,1-Dichloroethane		
540-59-0	1,2-Dichloroethene (total)		
67-66-3	Chloroform		
107-06-2	1,2-Dichloroethane		
78-93-3	2-Butanone	50	
71-55-6	1,1,1-Trichloroethane	25	
56-23-5	Carbon Tetrachloride	25	
108-05-4	Vinyl Acetate	50	
75-27-4	Bromodichloromethane	25	
78-87-5	1,2-Dichloropropane		
10061-01-5	cis-1,3-Dichloropropene		
79-01-6	Trichloroethene		
124-48-1	Dibromochloromethane		
79-00-5	1,1,2-Trichloroethane		
71-43-2	Benzene		
10061-02-6	trans-1,3-Dichloropropene		
75-25-2	Bromoform		
108-10-1	4-Methyl-2-Pentanone	50	
591-78-6	2-Hexanone	50	
127-18-4	Tetrachloroethene	25	
79-34-5	1,1,2,2-Tetrachloroethane		
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene		
100-42-5	Styrene		
1330-20-7	Xylene (total)		

LD

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Site 1

Lab Name: ORG Laboratories Inc. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: U1205

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) low Date Received: July 1 1988

% Moisture: not dec. 7 dec. _____ Date Extracted: July 9 1988

Extraction: (SepF/Cont/Sonc) SepF Date Analyzed: July 26 1988

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: .01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	400	U
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I	"	
60-57-1	Dieldrin	1600	
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT	"	
72-43-5	Methoxychlor	8000	
53494-70-5	Endrin ketone	1600	
5103-71-9	alpha-Chlordane	800	
5103-74-2	gamma-Chlordane	"	
8001-35-2	Toxaphene	16000	"
12674-11-2	Aroclor-1016		"
11104-28-2	Aroclor-1221		"
11141-16-5	Aroclor-1232		"
53469-21-9	Aroclor-1242		"
12672-29-6	Aroclor-1248		"
11097-69-1	Aroclor-1254		"
11096-82-5	Aroclor-1260		"

*The total PCB is 880 ug/kg and the predominant aroclor is 1248.

FORM I PEST 1/87 Rev.

100091

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Site 2

Lab Name: ORG Laboratories Inc. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: 41206

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) low Date Received: July 1 1999

% Moisture: not dec. 9 dec. _____ Date Extracted: July 9 1999

Extraction: (Sepf/Cont/Sonc) SonE Date Analyzed: July 26 1999

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: .001

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC	9000	U
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin	16000	
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	40000	
53494-70-5	Endrin ketone	16000	
5103-71-9	alpha-Chlordane	40000	
5103-74-2	gamma-Chlordane	30000	
8001-35-2	Toxaphene	160000	
12674-11-2	Aroclor-1016		<
11104-28-2	Aroclor-1221		<
11141-16-5	Aroclor-1232		<
53469-21-9	Aroclor-1242		<
12672-29-6	Aroclor-1248		<
11097-69-1	Aroclor-1254		<
11096-82-5	Aroclor-1260		<

* The total PCB is 14,000 ug/kg and the predominant aroclor is 1248

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Site 3

Lab Name: OBG Laboratories Inc Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: 41200

Sample wt/vol: 30.0 (g/mL) g Lab File ID: _____

Level: (low/med) low Date Received: July 1 1998

% Moisture: not dec. 9 dec. _____ Date Extracted: July 8 1998

Extraction: (SepF/Cont/Sonc) SonF Date Analyzed: July 26 1998

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
319-84-6	alpha-BHC	8.0	U
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I	↓	
60-57-1	Dieldrin	16.0	
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT	↓	
72-43-5	Methoxychlor	80.0	
53494-70-5	Endrin ketone	16.0	
5103-71-9	alpha-Chlordane	40.0	
5103-74-2	gamma-Chlordane	↓	
8001-35-2	Toxaphene	160.0	
12674-11-2	Aroclor-1016	40.0	
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-21-9	Aroclor-1242		
12672-29-6	Aroclor-1248	↓	
11097-69-1	Aroclor-1254	160.0	
11096-82-5	Aroclor-1260	↓	↓

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Site #1

Lab Name: OBG LABORATORIES, INC. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: 41251

Sample wt/vol: 30 (g/mL) g Lab File ID: _____

Level: (low/med) Low Date Received: 7-1-88

% Moisture: not dec. _____ dec. 7 Date Extracted: 7-7-88

Extraction: (SepF/Cont/Sonc) SepF Date Analyzed: 8-4-88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 13

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
108-95-2	Phenol	330	
111-44-4	bis(2-Chloroethyl)ether		
95-57-8	2-Chlorophenol		
541-73-1	1,3-Dichlorobenzene		
106-46-7	1,4-Dichlorobenzene		
100-51-6	Benzyl alcohol		
95-50-1	1,2-Dichlorobenzene		
95-48-7	2-Methylphenol		
108-60-1	bis(2-Chloroisopropyl)ether		
106-44-5	4-Methylphenol		
621-64-7	N-Nitroso-di-n-propylamine		
67-72-1	Hexachloroethane		
98-95-3	Nitrobenzene		
78-59-1	Isophorone		
88-75-5	2-Nitrophenol		
105-67-9	2,4-Dimethylphenol	U	
65-85-0	Benzoic acid	1600	
111-91-1	bis(2-Chloroethoxy)methane	330	
120-83-2	2,4-Dichlorophenol		
120-82-1	1,2,4-Trichlorobenzene		
91-20-3	Naphthalene		
106-47-8	4-Chloroaniline		
87-68-3	Hexachlorobutadiene		
59-50-7	4-Chloro-3-methylphenol		
91-57-6	2-Methylnaphthalene		
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2,4,6-Trichlorophenol	U	
95-95-4	2,4,5-Trichlorophenol	1600	
91-58-7	2-Chloronaphthalene	330	
88-74-4	2-Nitroaniline	1600	
131-11-3	Dimethylphthalate	330	
208-96-8	Acenaphthylene		
606-20-2	2,6-Dinitrotoluene	U	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. (17)

Site #1

Lab Name: OBG LABORATORIES, INC. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: A1203

Sample wt/vol: 30 (g/mL) g Lab File ID: _____

Level: (low/med) low Date Received: 7-1-88

% Moisture: not dec. _____ dec. 7 Date Extracted: 7-7-88

Extraction: (SepF/Cont/Sonc) Sepf Date Analyzed: 8-4-88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 38

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) _____	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	330	
51-28-5	2,4-Dinitrophenol	1900	
100-02-7	4-Nitrophenol	U	
132-64-9	Dibenzofuran	330	
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenyl-phenylether		
86-73-7	Fluorene		
100-01-6	4-Nitroaniline	1900	
534-52-1	4,6-Dinitro-2-methylphenol	U	
86-30-6	N-Nitrosodiphenylamine (1)	330	
101-55-3	4-Bromophenyl-phenylether		
118-74-1	Hexachlorobenzene	U	
87-86-5	Pentachlorophenol	1900	
85-01-8	Phenanthrene	330	
120-12-7	Anthracene		
84-74-2	Di-n-butylphthalate		
206-44-0	Fluoranthene		
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	U	
91-94-1	3,3'-Dichlorobenzidine	660	
56-55-3	Benzo(a)anthracene	330	
218-01-9	Chrysene		
117-81-7	bis(2-Ethylhexyl)phthalate		
117-84-0	Di-n-octylphthalate		
205-99-2	Benzo(b)fluoranthene		
207-08-9	Benzo(k)fluoranthene		
50-32-8	Benzo(a)pyrene		
193-39-5	Indeno(1,2,3-cd)pyrene		
53-70-3	Dibenz(a,h)anthracene	U	J
191-24-2	Benzo(g,h,i)perylene		

(1) - Cannot be separated from Diphenylamine

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. (17)

Site #2

Lab Name: OBG LABORATORIES, INC. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: N1206

Sample wt/vol: 30 (g/mL) g Lab File ID: _____

Level: (low/med) low Date Received: 7-1-88

% Moisture: not dec. _____ dec. 9 Date Extracted: 7-7-88

Extraction: (SepF/Cont/Sonc) Sepf Date Analyzed: 8-4-88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 33

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	
51-28-5	2,4-Dinitrophenol	1600	
100-02-7	4-Nitrophenol	1600	
132-64-9	Dibenzofuran	330	
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenyl-phenylether		
86-73-7	Fluorene		
100-01-6	4-Nitroaniline	1600	
534-52-1	4,6-Dinitro-2-methylphenol	U	
86-30-6	N-Nitrosodiphenylamine (1)	330	
101-55-3	4-Bromophenyl-phenylether		
118-74-1	Hexachlorobenzene	U	
87-86-5	Pentachlorophenol	1600	
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	
84-74-2	Di-n-butylphthalate	1000	X
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	U	
91-94-1	3,3'-Dichlorobenzidine	660	
56-55-3	Benzo(a)anthracene	330	
218-01-9	Chrysene		
117-81-7	bis(2-Ethylhexyl)phthalate		
117-84-0	Di-n-octylphthalate		
205-99-2	Benzo(b)fluoranthene		
207-08-9	Benzo(k)fluoranthene		
50-32-8	Benzo(a)pyrene		
193-39-5	Indeno(1,2,3-cd)pyrene		
53-70-3	Dibenz(a,h)anthracene	U	U
191-24-2	Benzo(g,h,i)perylene		

(1) - Cannot be separated from Diphenylamine

100096

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Site #2

Lab Name: OBG LABORATORIES, INC. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: 11206

Sample wt/vol: 30 (g/mL) g Lab File ID: _____

Level: (low/med) Low Date Received: 7-1-88

% Moisture: not dec. _____ dec. 9 Date Extracted: 7-7-88

Extraction: (SepF/Cont/Sonc) Sepf Date Analyzed: 8-4-88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 33

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)ether		
95-57-8	2-Chlorophenol		
541-73-1	1,3-Dichlorobenzene		
106-46-7	1,4-Dichlorobenzene		
100-51-6	Benzyl alcohol		
95-50-1	1,2-Dichlorobenzene		
95-48-7	2-Methylphenol		
108-60-1	bis(2-Chloroisopropyl)ether		
106-44-5	4-Methylphenol		
621-64-7	N-Nitroso-di-n-propylamine		
67-72-1	Hexachloroethane		
98-95-3	Nitrobenzene		
78-59-1	Isophorone		
88-75-5	2-Nitrophenol		
105-67-9	2,4-Dimethylphenol	✓	
65-85-0	Benzoic acid	1600	
111-91-1	bis(2-Chloroethoxy)methane	330	
120-83-2	2,4-Dichlorophenol		
120-82-1	1,2,4-Trichlorobenzene		
91-20-3	Naphthalene		
106-47-8	4-Chloroaniline		
87-68-3	Hexachlorobutadiene		
59-50-7	4-Chloro-3-methylphenol		
91-57-6	2-Methylnaphthalene		
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2,4,6-Trichlorophenol	✓	
95-95-4	2,4,5-Trichlorophenol	1600	
91-58-7	2-Chloronaphthalene	330	
88-74-4	2-Nitroaniline	1600	
131-11-3	Dimethylphthalate	330	
208-96-8	Acenaphthylene	330	
606-20-2	2,6-Dinitrotoluene	330	✓

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Site #3

Lab Name: OBG LABORATORIES, INC. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: H1209

Sample wt/vol: 30 (g/mL) g Lab File ID: _____

Level: (low/med) Low Date Received: 7-1-88

% Moisture: not dec. _____ dec. 9 Date Extracted: 7-7-88

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 8-4-88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 33

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)ether		
95-57-8	2-Chlorophenol		
541-73-1	1,3-Dichlorobenzene		
106-46-7	1,4-Dichlorobenzene		
100-51-6	Benzyl alcohol		
95-50-1	1,2-Dichlorobenzene		
95-48-7	2-Methylphenol		
108-60-1	bis(2-Chloroisopropyl)ether		
106-44-5	4-Methylphenol		
621-64-7	N-Nitroso-di-n-propylamine		
67-72-1	Hexachloroethane		
98-95-3	Nitrobenzene		
78-59-1	Isophorone		
88-75-5	2-Nitrophenol		
105-67-9	2,4-Dimethylphenol		
65-85-0	Benzoic acid	1600	
111-91-1	bis(2-Chloroethoxy)methane	330	
120-83-2	2,4-Dichlorophenol		
120-82-1	1,2,4-Trichlorobenzene		
91-20-3	Naphthalene		
106-47-8	4-Chloroaniline		
87-68-3	Hexachlorobutadiene		
59-50-7	4-Chloro-3-methylphenol		
91-57-6	2-Methylnaphthalene		
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2,4,6-Trichlorophenol		
95-95-4	2,4,5-Trichlorophenol	1600	
91-58-7	2-Chloronaphthalene	330	
88-74-4	2-Nitroaniline	1600	
131-11-3	Dimethylphthalate	330	
208-96-8	Acenaphthylene		
606-20-2	2,6-Dinitrotoluene		

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Site #3

Lab Name: OBG LABORATORIES, INC. Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: 11169

Sample wt/vol: 30 (g/mL) g Lab File ID: _____

Level: (low/med) Low Date Received: 7-1-88

% Moisture: not dec. _____ dec. 9 Date Extracted: 7-7-88

Extraction: (SepF/Cont/Sonc) Sepf Date Analyzed: 8-4-88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 33

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	
51-28-5	2,4-Dinitrophenol	1600	
100-02-7	4-Nitrophenol	6	
132-64-9	Dibenzofuran	330	
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenyl-phenylether		
86-73-7	Fluorene		
100-01-6	4-Nitroaniline	1600	
534-52-1	4,6-Dinitro-2-methylphenol	6	
86-30-6	N-Nitrosodiphenylamine (1)	330	
101-55-3	4-Bromophenyl-phenylether		
118-74-1	Hexachlorobenzene	6	
87-86-5	Pentachlorophenol	1600	
85-01-8	Phenanthrene	330	
120-12-7	Anthracene		
84-74-2	Di-n-butylphthalate		
206-44-0	Fluoranthene		
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	V	
91-94-1	3,3'-Dichlorobenzidine	660	
56-55-3	Benzo(a)anthracene	330	
218-01-9	Chrysene	6	J
117-81-7	bis(2-Ethylhexyl)phthalate	580	
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene		
207-08-9	Benzo(k)fluoranthene		
50-32-8	Benzo(a)pyrene		
193-39-5	Indeno(1,2,3-cd)pyrene		
53-70-3	Dibenz(a,h)anthracene		
191-24-2	Benzo(g,h,i)perylene	J	U

(1) - Cannot be separated from Diphenylamine

OBG

LABORATORIES, INC.

1118.051.517
~~[illegible]~~ vcup
BCup
PPPP
CN
[illegible]
TCDD

CHAIN OF CUSTODY RECORD

SURVEY	SAMPLERS: (Signature)
Niagara Mohawk Fire School	Frank O [illegible]

STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE: Water Comp.	SAMPLE TYPE: Water Grab	SAMPLE TYPE: Air	SEQ. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
1	Fire School site No. 1	7/11/88	on bottle						Hazardous Substance List + Dioxin
2	Site No. 2	7/11/88	on bottle						"
3	Site No. 3	7/11/88	on bottle						"

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Frank O [illegible]		
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by Mobile Laboratory for field analysis: (Signature)	Date/Time

Dispatched by: (Signature)	Date/Time	Received for Laboratory by:	Date/Time
		K [illegible]	7/11/88 13:35
Method of Shipment:			

* inverted Septum.

OBG Laboratories, Inc.
Box 4942 / 1304 Buckley Road / Syracuse, New York 13221 / (315) 457-1494
Oakdale Medical Building / 700 Harry L. Drive / Johnson City, New York 13790

URS

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

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

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)

(21)

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

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

100103

CLIMATOGRAPHY OF THE UNITED STATES NO. 20

OSWEGO EAST, NY

PERIOD: 1951-80
ELEVATION: 350 FT

CLIMATOLOGICAL SUMMARY

TEMPERATURE (F)

	NORMALS • DAILY MAXIMUM	NORMALS • DAILY MINIMUM	NORMALS • MONTHLY	EXTREMES RECORD HIGHEST	EXTREMES YEAR	EXTREMES DAY	EXTREMES RECORD LOWEST	EXTREMES YEAR	EXTREMES DAY	MEAN NUMBER OF DAYS MAX 90 AND ABOVE	MAX 32 AND BELOW	MIN 32 AND BELOW	MIN 0 AND BELOW
JAN	30.1	16.9	23.5	66•	67	25	-21•	57	15	0	18	29	3
FEB	31.1	17.8	24.5	63•	54	28	-20	79	10	0	15	26	2
MAR	39.4	26.5	33.0	80•	77	30	-7•	80	2	0	7	24	0
APR	51.8	36.4	44.1	87•	70	30	14•	72	8	0	0	8	0
MAY	63.5	45.8	54.7	88•	70	1	28•	78	4	0	0	1	0
JUN	73.3	55.4	64.4	96•	53	21	36•	71	1	1	0	0	0
JUL	78.4	61.9	70.2	95•	64	28	44	69	08	1	0	0	0
AUG	77.1	60.9	69.0	94•	65	7	42•	69	27	1	0	0	0
SEP	70.4	54.2	62.3	96•	53	5	30•	63	24	1	0	0	0
OCT	59.5	44.4	52.0	85•	53	1	21•	72	20	0	0	2	0
NOV	46.9	35.2	41.0	77	56	1	11•	76	30	0	1	11	0
DEC	34.8	23.1	29.0	63•	66	8	-16•	80	25	0	13	25	1
YEAR	54.7	39.9	47.3	96	SEP 53	5	-21	JAN 57	15	4	54	126	6

DEGREE DAYS

	HEATING BASE 65	COOLING BASE 65
JAN	1287	0
FEB	1134	0
MAR	992	0
APR	627	0
MAY	327	8
JUN	80	62
JUL	9	171
AUG	19	143
SEP	127	46
OCT	403	0
NOV	720	0
DEC	1116	0
YEAR	6841	430

PRECIPITATION TOTALS (INCHES)

	• MEAN	• GREATEST MONTHLY	YEAR	GREATEST DAILY	YEAR	DAY	SNOW MEAN	SNOW MAXIMUM MONTHLY	SNOW YEAR	MEAN NUMBER OF DAYS 10 OR MORE	50 OR MORE	1.00 OR MORE
JAN	3.24	8.43	78	1.19	78	18	41.1	120.3	78	9	2	0
FEB	3.02	5.82	65	2.15	61	26	32.2	94.1	72	7	1	0
MAR	2.91	5.75	55	2.69	71	04	15.6	53.6	71	7	1	0
APR	3.28	5.74	73	1.45	69	19	2.3	11.4	79	8	2	0
MAY	3.07	5.19	64	1.60	59	20	0	.5	67	7	2	0
JUN	3.19	6.78	76	2.07	70	18	.0	.0		6	2	1
JUL	2.65	6.75	74	3.80	74	03	0	.0		5	2	0
AUG	3.09	5.55	79	2.14	58	07	0	.0		6	2	1
SEP	3.51	7.55	75	3.32	75	26	.0	.0		7	2	1
OCT	3.51	10.10	55	2.70	55	31	.3	3.8	72	7	2	1
NOV	4.02	9.03	63	3.25	63	30	8.3	36.9	76	9	2	1
DEC	3.81	6.88	58	2.50	58	08	28.3	85.8	58	9	2	0
YEAR	39.30	10.10	OCT 55	3.80	JUL 74	03	120.1	120.3	JAN 78	87	22	5

•FROM 1951-80 NORMALS

ESTIMATED VALUE BASED ON DATA FROM SURROUNDING STATIONS

• ALSO ON EARLIER DATES

DEGREE DAYS TO SELECTED BASE TEMPERATURES (F)

BASE BELOW	HEATING DEGREE DAYS JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
65	1287	1134	992	627	327	80	9	19	127	403	720	1116	6841
60	1132	994	837	477	195	20	0	0	51	262	570	961	5499
57	1039	910	744	387	134	7	0	0	22	187	480	868	4778
55	977	854	682	332	101	0	0	0	12	145	420	806	4329
50	822	714	527	197	36	0	0	0	0	65	280	651	3292

BASE ABOVE	COOLING DEGREE DAYS JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
55	0	0	0	0	91	285	471	434	231	52	0	0	1564
57	0	0	0	0	63	229	409	372	181	32	0	0	1286
60	0	0	0	0	31	152	316	279	120	14	0	0	912
65	0	0	0	0	8	62	171	143	46	0	0	0	430
70	0	0	0	0	0	13	65	51	11	0	0	0	140

DERIVED FROM THE 1951-80 MONTHLY NORMALS

PROBABILITY THAT THE MONTHLY PRECIPITATION WILL BE EQUAL TO OR LESS THAN THE INDICATED PRECIPITATION AMOUNT

MONTHLY PRECIPITATION (INCHES)

PROBABILITY LEVELS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
05	1.24	1.27	1.21	1.47	1.36	.65	.70	1.39	1.25	.69	1.69	1.94
10	1.54	1.55	1.47	1.76	1.64	.94	.95	1.67	1.58	1.01	2.06	2.26
20	1.97	1.93	1.85	2.17	2.02	1.41	1.34	2.04	2.05	1.52	2.57	2.69
30	2.33	2.25	2.15	2.49	2.32	1.83	1.67	2.35	2.46	1.99	2.99	3.03
40	2.67	2.55	2.44	2.80	2.61	2.27	2.00	2.64	2.84	2.47	3.39	3.35
50	3.01	2.85	2.73	3.11	2.90	2.73	2.35	2.93	3.23	2.99	3.78	3.66
60	3.39	3.17	3.05	3.44	3.21	3.25	2.74	3.24	3.66	3.57	4.21	4.00
70	3.82	3.54	3.41	3.82	3.57	3.88	3.20	3.59	4.16	4.27	4.71	4.38
80	4.38	4.01	3.87	4.30	4.02	4.71	3.79	4.04	4.80	5.19	5.34	4.85
90	5.23	4.73	4.56	5.02	4.70	6.04	4.73	4.71	5.79	6.68	6.29	5.56
95	6.01	5.38	5.20	5.67	5.32	7.30	5.61	5.32	6.69	8.09	7.15	6.19

THESE VALUES WERE DETERMINED FROM THE INCOMPLETE GAMMA DISTRIBUTION

100104

306314 OSWEGO EAST, NY

LAT: 43 28N LONG: 76 30W

PERIOD: 1951-80

FREEZE DATA

PROBABILITY OF LATER DATE IN SPRING (THRU JULY 31) THAN INDICATED(*)

SPRING FREEZE DATES (MO/DAY)

TEMP (F)	90	80	70	60	50	40	30	20	10
36	4/23	4/29	5/03	5/07	5/11	5/14	5/18	5/22	5/28
32	4/10	4/15	4/19	4/22	4/26	4/29	5/02	5/06	5/11
28	3/29	4/03	4/07	4/09	4/12	4/15	4/18	4/21	4/26
24	3/17	3/21	3/24	3/27	3/30	4/01	4/04	4/07	4/12
20	3/11	3/16	3/19	3/22	3/25	3/27	3/30	4/02	4/07
16	3/02	3/07	3/11	3/15	3/18	3/21	3/25	3/29	4/03

PROBABILITY OF EARLIER DATE IN FALL (BEGINNING AUG 1) THAN INDICATED(*)

FALL FREEZE DATES (MO/DAY)

TEMP (F)	10	20	30	40	50	60	70	80	90
36	9/23	9/29	10/03	10/06	10/09	10/12	10/16	10/20	10/25
32	10/05	10/10	10/14	10/17	10/20	10/24	10/27	10/31	11/05
28	10/25	10/30	11/02	11/05	11/08	11/11	11/14	11/18	11/23
24	11/04	11/09	11/13	11/16	11/19	11/22	11/25	11/29	12/04
20	11/17	11/21	11/24	11/27	11/29	12/01	12/04	12/07	12/11
16	11/24	11/28	11/30	12/03	12/05	12/07	12/09	12/12	12/15

PROBABILITY OF LONGER THAN INDICATED FREEZE FREE PERIOD (DAYS)

FREEZE FREE PERIOD

TEMP (F)	10	20	30	40	50	60	70	80	90
36	176	167	161	156	151	146	141	135	126
32	201	193	187	182	177	172	167	161	153
28	232	224	219	214	209	205	200	194	186
24	256	248	243	238	234	230	225	220	212
20	268	261	257	252	249	245	241	236	229
16	280	274	269	265	261	257	253	248	241

(*)PROBABILITY OF OBSERVING A TEMPERATURE AS COLD, OR COLDER, LATER IN THE SPRING OR EARLIER IN THE FALL THAN THE INDICATED DATE.
0/00 INDICATES THAT THE PROBABILITY OF OCCURRENCE OF THRESHOLD TEMPERATURE IS LESS THAN INDICATED PROBABILITY

GROWING DEGREE UNITS TO SELECTED BASE TEMPERATURES (F)

GROWING DEGREE UNITS

BASE		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
40	M	5	5	37	174	463	738	942	907	675	380	119	19	4464
	S	5	10	47	221	684	1422	2364	3271	3946	4326	4445	4464	
45	M	1	1	17	94	319	588	787	752	526	243	56	6	3390
	S	1	2	19	113	432	1020	1807	2559	3085	3328	3384	3390	
50	M	0	0	6	46	198	438	632	597	378	136	21	1	2453
	S	0	0	6	52	250	688	1320	1917	2295	2431	2452	2453	
55	M	0	0	1	20	107	296	477	442	243	64	6	0	1656
	S	0	0	1	21	128	424	901	1343	1586	1650	1656	1656	
60	M	0	0	0	7	51	173	323	289	133	24	2	0	1002
	S	0	0	0	7	58	231	554	843	976	1000	1002	1002	

M = MONTHLY DATA S = SUM OF MONTHLY DATA

GROWING DEGREE UNITS FOR CORN

CORN		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
	M	3	2	20	88	246	449	628	595	397	182	43	7	2660
	S	3	5	25	113	359	808	1436	2031	2428	2610	2653	2660	

NOTE: FOR CORN THE BASE IS 50, AND THE DEGREE UNITS ARE ADJUSTED FOR TEMPERATURES BELOW 50 AND ABOVE 86

OTHER CLIMATOLOGICAL DATA ARE AVAILABLE IN A VARIETY OF SUMMARIES AND FORMATS, SUCH AS THE CLIMATOGRAPHY OF THE UNITED STATES: NO. 60 - CLIMATE OF STATES: NO. 81 - MONTHLY NORMALS (AND SUPPLEMENTS: ANNUAL DEGREE DAYS TO SELECTED BASES DERIVED FROM THE 1951-80 NORMALS; AND MONTHLY PRECIPITATION PROBABILITIES, SELECTED PROBABILITY LEVELS DERIVED FROM THE 1951-80 NORMALS); NO. 84 - DAILY NORMALS; NO. 85 - DIVISIONAL NORMALS. A VARIETY OF DATA IS AVAILABLE EITHER ON MAGNETIC TAPE, MICROFICHE, OR PAPER COPY.

TO OBTAIN INFORMATION ABOUT CLIMATOLOGICAL DATA AND RELATED PUBLICATIONS, CONTACT:

DIRECTOR
NATIONAL CLIMATIC DATA CENTER
FEDERAL BUILDING
ASHEVILLE, NC 28801-2696
(OR TELEPHONE: (704) 259-0682)

DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
NATIONAL CLIMATIC DATA CENTER
ASHEVILLE, NC

USCOMM-NOAA-ASHEVILLE, NC 7/84/200

100105

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

AUG 0 6 1991

Mr. Charles W. Hurley
URS Consultants, Inc.
282 Delaware Avenue
Buffalo, NY 14202

RECEIVED
URS CONSULTANTS
AUG 9 1991

JOB # 35231

5015-115

Dear Mr. Hurley:

Re: W.A. D002340-3
PSA Report Review

The draft Preliminary Site Assessment (PSA) Task 1 report for the Niagara Mohawk Fire Training School (#738030) is returned to you for revision.

Specific comments are included in the body of the report and are indicated by colored tabs. Additional comments are offered below.

1.0 Executive Summary - Please revise the section to be consistent with other PSAs. The summary should include as a minimum: site size, classification, hazardous waste disposal statement, significant threat statement, reclassification recommendation. The statement on Page 2, "...additional sampling be performed to determine the extent of any contaminant migration..." is not consistent with the purpose of a PSA (as noted in 2. Purpose).

4.1 Site History - This section should discuss the on-site tanks noted on Tables 1, 4, 5 and 6 and in Reference 6. What were they used for? Are they still on-site (see comment noted on Table 1)? The last paragraph in the section (Page 8) discusses dioxin/dibenzofuran analyses from 1985 and 1988. Why was this analysis singled out for discussion here? If site contamination is covered here, it would seem appropriate to discuss the full realm of sampling, particularly PCB analysis.

Distribution		
CH		
PR		
JL		
BM		
CH		
FILE		

4.4 Contamination Assessment, Air Contamination - The New York State Department of Health had the following comment: "Soils offsite may be contaminated from particulates in smoke which were generated during the relatively low temperature, open-burning exercises. Soil sampling offsite should take into consideration the predominant wind direction in the area." The potential for offsite contamination by particulates should be discussed in this section. Sampling to evaluate this, however, is probably beyond the scope of a PSA.

5.1 Hazardous Waste Deposition - The report seems to clearly document the disposal of listed hazardous waste, i.e. PCBs at concentrations in excess of 50 ppm. This is shown in the

100106

sampling data from 1978 to date, Reference 6 which documents the storage of hazardous waste, and given the known operations at the site (dumping PCB oil on the ground).

5.2 Significant Threat Determination - The determination of significant threat should be made based on guidance given previously to URS, including the proposed Part 375 regulations. The analysis seems to indicate impact to the environment.

This section notes that the contamination may be due to background conditions. Does URS really believe this? The section discusses PCB contamination at E. Seneca Street and PAS; given that PAS is downgradient of the site and E. Seneca is sidegradient (and no background samples are available), what real affect would these sites have on the Niagara-Mohawk site? It would seem appropriate to concentrate on what we do know and can support. If you are really concerned about background contamination, you must support your premise.

5.3 Recommendations - Given the documented hazardous waste disposal and the impact on the environment (i.e., significant threat), a reclassification would seem in order.

Please make the required revisions and return one draft final to me for review.

Sincerely,

Martin D. Brand
Project Manager
Bureau of Hazardous Site Control
Division of Hazardous Waste
Remediation

Enclosure

APPENDIX B

Site Inspection Report
USEPA Form 2070-13

Site Inspection Report

100109

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

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D986870996

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Niagara Mohawk Fire Training School	East Seneca Street				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Oswego	NY	13126	Oswego		

09 COORDINATES LATITUDE 43° 28' 23.3" | LONGITUDE 76° 28' 38.1"

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 / 90 (MONTH DAY YEAR)	☒ ACTIVE ☐ INACTIVE	1957 (BEGINNING YEAR) / Present (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
Robert Kreuzer	Geologist	URS Consultants	(716) 856-5636
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO.**
Donald McCall	Chemical Engineer	URS Consultants	(716) 856-5636
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
James Morgan	Sr. Environmental Analyst	Niagara Mohawk	(315) 428-3101
John Lynk	Director of Fire Training	Niagara Mohawk	(315) 428-3101
Dan Kehoe	Fire Protection Specialist	Niagara Mohawk	(315) 428-3101
Gerald Shaw	Utility Mechanic	Niagara Mohawk	(315) 428-3101
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	11:00-12:30	Sunny, Windy, 28-30°F

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) 856-5636	2 / 28 / 91 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

100110

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D986870996

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ 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: unknown
- NO. OF DRUMS: _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☒ A. TOXIC
- ☐ B. CORROSIVE
- ☐ C. RADIOACTIVE
- ☒ 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		
OCC	OTHER ORGANIC CHEMICALS	unknown		PCBs and Dioxin of unknown
IOC	INORGANIC CHEMICALS			quantities are present at the
ACD	ACIDS			site
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	PCBs	1336-36-3	steel tanks/burning	85	ppm
OCC	Dioxins		unknown	23.86	ppb
OCC	Dibenzofurans		unknown	3.2	ppb
PSD	Aldrin	309-00-2	unknown	28	ppb
PSD	Dieldrin	60-57-1	unknown	210	ppb
PSD	Endosulfan II		unknown	283	ppb

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sampling results)

Site inspection of 11/13/90 by URS Consultants, Inc.
REF. 6,12,13,14,16,17

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D986870996

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 80
02 ☒ OBSERVED (DATE: 1978) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

It is estimated that as many as 80 residents are using groundwater from the aquifer of concern. Most of these residents are located on the beachfront of Lake Ontario, north-northeast from the site.

01 ☒ B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 0
02 ☒ OBSERVED (DATE: 1978) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Contamination has been detected in both Wine and White Creeks, however, neither are used as a source of drinking water.

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

During onsite burning of PCB contaminated oil, particulate matter containing PCB's and dioxins may have bee deposited on the area surrounding the site.

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: 460
02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Estimate of the population in a 1-mile radius of the site, The site is fenced and access is controlled, but much of the contamination has migrated offsite.

01 ☒ F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: (Acres)
02 ☒ OBSERVED (DATE: 11/85) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Analysis of a soil sample by the NYSDEC in November 1985 detected the presence of dioxins & dibenzofurans. PCBs are also present in the soil.

01 ☒ G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 80
02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

It is estimated that as many as 80 residents are using groudwater from the aquifer of concern. Most of these residents are located on the beachfront.

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

None reported although there is a slight potential of workers coming into contact with contaminated soils.

01 ☒ I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: 21,500
02 ☐ OBSERVED (DATE:) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Estimate of the population within a 3-mile radius.

100112

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: D986870996

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 names(s) of species)

None reported

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

PCBs were found in the stream beside the site. PCBs have the potential to bioaccumulate and contaminate the food chain.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids/Leaking drums) — 02 ☒ OBSERVED (DATE: 1974) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: unknown
04 NARRATIVE DESCRIPTION

In 1974 an oil slick potentially containg PCB's was observed in White Creek downgradient from the site.

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

PCB contamination has been detected offsite and is believed to be attributable to the site.

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: ~~1958~~ ~~1977~~) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

PCB contaminated oil was dumped on the ground and burned.

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

None reported

III. TOTAL POPULATION POTENTIALLY AFFECTED: 21,500 (Estimate of population in a 3 mile radius)

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sampling results)

NYSDEC Albany File Search, 6/19/90
URS Site Visit 11/13/90

EPA FORM 2070-13 (7-81)

100113

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D986870996

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) SPDES	NY0103152	10/1/77	unknown	
☐ 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		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☒ I. OTHER (Specify) all waste was discharged or dumped on the ground		

04 TREATMENT (Check all that apply)

- ☐ A. INCINERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☒ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify) _____

05 OTHER

☒ A. BUILDINGS ON SITE
Training buildings & classroom

06 AREA OF SITE

4-5 (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.

A moat collection system was installed around three sides of the site to recover oil and to stop the spread of contamination into the groundwater and surface water. All water is treated prior to discharge to White Creek.
Before the installation of the moat collection system, PCB contaminated oil was dumped on the ground and burned. A portion of that has saturated the ground.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE ☐ YES ☒ NO

02 COMMENTS

The site is entirely fenced and access to the site is controlled. Direct contact is restricted by layers of hard paced gravel that cover the entire site.

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

URS Site Visit 11/13/90
Ref. 5

EPA FORM 2070-13 (7-81)

100114

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D986870996

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as appropriate)

	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. 3 + (mi)

B. 0.6 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER 80 estimated

03 DISTANCE TO NEAREST DRINKING WATER WELL 0.6 (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)	Assumed N, NW	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

☐ YES ☐ NO

COMMENTS: unknown

11 DISCHARGE AREA

☒ YES ☐ NO

COMMENTS: Site discharges to White Creek and then Lake Ontario

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ 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
White Creek	☒	0.01 (mi)
Wine Creek	☐	0.01 (mi)
Lake Ontario	☐	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. 460 NO OF PERSONS	B. 10,800 NO OF PERSONS	C. 21,500 NO OF PERSONS

02 DISTANCE TO NEAREST POPULATION

0.6 (mi)

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

2850

04 DISTANCE TO NEAREST OFF-SITE BUILDING

0.01 (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 site is in the City of Oswego near the city boundary. The vicinity is a combination of commercial, light industrial, and rural areas.

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100115

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: D986870996

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	
<10 (ft)	<10 (ft)	4.5-7.3	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
12.3 (in)	2.5 (in)	0-1 %	NA	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. 0.01 (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 (mi)	B. 0.6 (mi)	C. 2 (mi)	D. 1 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The area of the site used for training is relatively flat. White Creek flows west of the site and much of the surrounding land is wooded.

VII. 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. 4,20,21,22,23,24,25,26

EPA FORM 2070-13 (7-81)

100116

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D98687099

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED RESULTS AV
GROUNDWATER	5	O'Brien & Gere	July 19
SURFACE WATER	12	O'Brien & Gere	July 19
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL		-see next page-	
VEGETATION			
OTHER Sediment	11	O'Brien & Gere	July 19

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNu	No readings above background level, 11/13/90
Radiation Meter	No readings above background level, 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., 282 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, sampling results)

NYSDEC Albany File Search, 6/14/90
URS Site Visit, 11/13/90
Ref. 6,12,13,14,16,17

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SAMPLE TYPE	NO.	SAMPLES SENT TO	DATE
Soil	6	O'Brien & Gere	1978
Soil	4	NYSDOH	1985
Soil	1	O'Brien & Gere	1985
Soil	1	O'Brien & Gere	198 6
Soil	3	Versar, Inc.	1988
Soil	3	O'Brien & Gere	1988

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D986870996

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
Niagara Mohawk Power Co.		300 Erie Boulevard West		Syracuse	NY	13202

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	03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
unknown						

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 FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	D986870996

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
Niagara Mohawk Power Corp.	

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

05 CITY	06 STATE	07 ZIP CODE
Syracuse	NY	13202

08 YEARS OF OPERATION	09 NAME OF OWNER
33	

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

Ref. 10

100120

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D986870996

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
Niagara Mohawk Power Corp.	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**
300 Erie Boulevard West	
05 CITY	**06 STATE** / **07 ZIP CODE**
Syracuse	NY / 13202

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
None known			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

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

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

NYSDEC Albany File Search 11/14/90

EPA FORM 2070-13 (7-81)

100121

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D986870996

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D986870996

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 1977 — 03 AGENCY _____
04 DESCRIPTION

A moat collection and carbon adsorption treatment system was installed to collect and treat surface water runoff from the site. Treated water is discharged to White Creek.

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

NYSDEC Albany File Search 11/14/90

URS Site Visit 11/13/90

EPA FORM 2070-13 (7-81)

100123

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	D986870996

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

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

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

NYSDEC Albany File Search 11/14/90

EPA FORM 2070-13 (7-81)

100124

APPENDIX C

Interview Documentation Forms

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZAT

JOB NO. 35231.00.11500 JOB NAME NYSDEC - Niagara Mohawk Fire Training School

MEMO OF TELECON

DATE 2-28-91 TELEPHONE (315) 349-3557

PERSON CALLING D. McCall PERSON CALLED EVAN WALSH

REPRESENTING URS Consultants, Buffalo REPRESENTING OSWEGO COUNTY HEALTH DEPT

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED:

/INFORMATION ON THE NIAMOFTS

TEXT OF TELECON

THE ONLY INFORMATION THAT THEY HAVE ON THE SITE IS WHAT HAS BEEN SENT TO THEM BY THE NYSDEC. THEY HAVEN'T DONE ANYTHING ON THE SITE THEMSELVES.

cc:

100126

(2)

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZA

JOB NO. 35231.00.11500 JOB NAME NYSDEC - Niagara Mohawk Fire Training School

MEMO OF TELECON

DATE 2-28-91 TELEPHONE (315) 426-7612

PERSON CALLING D. McCall PERSON CALLED RON HEERKENS

REPRESENTING URS Consultants, Buffalo REPRESENTING REGIONAL TRANS COORD. NYSDOH

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED:

INFORMATION ON THE NIAMC FTS SITE.

TEXT OF TELECON

- AS FAR AS HE KNOWS, THE SITE WAS ALWAYS OWNED AND OPERATED BY NIAGARA MOHAWK.

- THE ONLY PROBLEMS HE KNOWS OF AT THE SITE WERE THE BURNING OF PCB OIL, AND THE RESIDUAL DIOXINS & FURANS THAT WERE FOUND IN THE SOIL SAMPLES.

- THEIR FILE CONSISTED ONLY OF THE 1985 AND THE 1986 DATA. THEY HAD NO INFORMATION ON ANY WORK THAT WAS DONE IN 1988.

- THERE ARE SOME PEOPLE TO THE EAST OF THE SITE THAT USE THE GROUNDWATER

- PAS AND EAST SENECA STREET DUMP ARE RIGHT IN THE SAME AREA.

cc:

100127

JOB #

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
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,

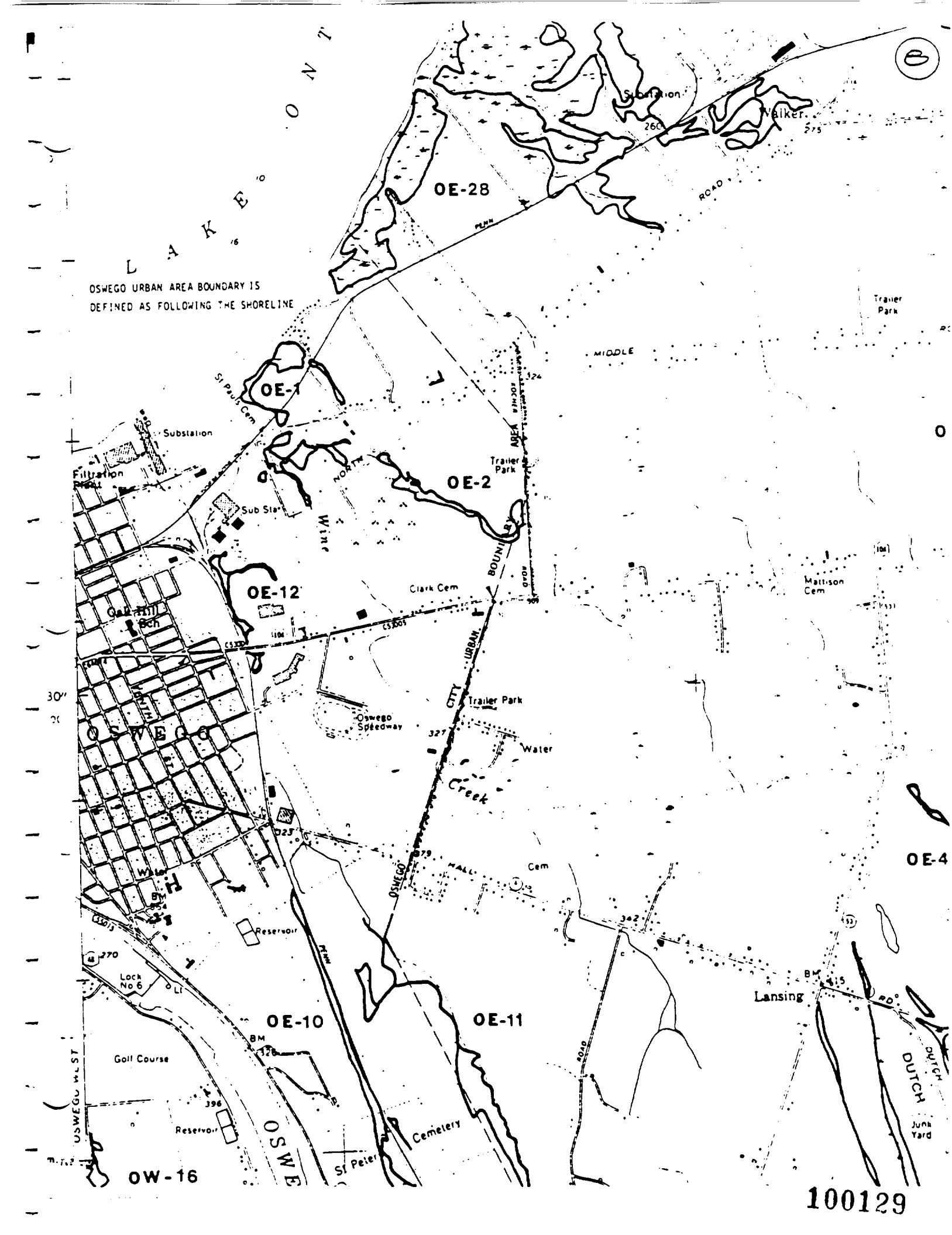
URS CONSULTANTS, INC.

Donald A. McCall

Donald A. McCall
Project Engineer

DAM/ys
Enc.

12-17-90.MC
35231.00 (5010)


OSWEGO URBAN AREA BOUNDARY IS
DEFINED AS FOLLOWING THE SHORELINE
OE-28
OE-1
OE-2
OE-12
OE-10
OE-11
OE-4
OW-16
Substation
Walker
ROAD
Trailer Park
MIDDLE
St Pauls Cem
Substation
Filtration Plant
Sub Sta
NORTH
Trailer Park
AREA
BOUNDARY
Clark Cem
Mattison Cem
Oak Hill Sch
SOUTH
OSWEGO
CITY
URBAN
Trailer Park
Oswego Speedway
Water
Creek
OSWEGO
Cem
Water
Reservoir
Lock No 6
Golf Course
Reservoir
Cemetery
St Peter
Lansing
DUTCH
Junk Yard
100129

(10)

URS

AN INTERNATIONAL PROFESSIONAL SERVICES FIRM

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

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SAN FRANCISCO
SAN MATEO
SEATTLE
VIRGINIA BEACH
WASHINGTON, D.C.

RECEIVED
FEB 28 1991
35231.00
(5015-115)

February 19, 1991

Mr. James F. Morgan
Assoc. Sr. Environmental Analyst
Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York 13202

RE: NIAGARA MOHAWK FIRE TRAINING SCHOOL, #738030

Dear Mr. Morgan:

As mentioned during our visit to your site on November 13, 1990, URS Consultants, Inc. is currently conducting a Preliminary Site Assessment of the Niagara Mohawk Fire Training School site in the City of Oswego, Oswego 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, Dan Kehoe, Gerald Shaw, and Mr. John Lynk provided the following information:

- The site has been in use for 33 years.
- The oil that was previously burned only contained residual PCBs from the tanker trucks that were hauling the oil. All oil burned at the Fire School has been certified to be PCB free since 1977.
- The moat around the site was designed to collect surface runoff, groundwater from the overburden, and the bedrock runoff. This water goes through a carbon treatment system and is then discharged to Wine Creek.
- The oil/water separator was designed for 99% removal of oil before water goes through the carbon system. It can not be determined if the oil/water separator achieves the 99% removal.
- No soil has been removed from the site.
- Two monitoring wells that were located in the back corner of the site have had their risers removed because they presented a safety hazard.
- The depth to bedrock is approximately 4 feet.
- The nearest residence to the site is approximately 0.6 mile.
- The nearest groundwater well is 1.5 - 2.0 miles from the site.

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANI...

We have incorporated your corrections as outlined in your letter of February 11, 1991. 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. 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

2-19-91L.DMC
35231.00 (File: 5015 - 115)

I agree with the information as it is presented.

James F. Morgan 2/26/91

James F. Morgan Date

100131

(16)

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35231.00.11500 JOB NAME NYSDEC - Niagara Mohawk Fire Training School

MEMO OF TELECON

DATE 3-1-90 TELEPHONE (315) 426-7531

PERSON CALLING D. McCall PERSON CALLED CHARLIE BRANAGH

REPRESENTING URS Consultants, Buffalo REPRESENTING NYSDEC REGION 7

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED:

TRYING TO GET JUNE 1988 SAMPLING DATA

TEXT OF TELECON

CHARLIE SAID THAT THEY DO HAVE THE DATA AT THE REGION 7 OFFICE HOWEVER IT WAS TOO MUCH TO COPY AND SEND TO US. I ASKED HIM IF HE COULD JUST SEND US THE FORMS FROM THE ~~DATA~~ DATA PACKS. CHARLIE SAID THAT HE WOULD SEND US WHAT HE COULD FIND

ATTACHED IS A SUMMATION OF THE FINDINGS

cc:

100132

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH88738030-01

Lab Name: VERSAR, INC. Contract: C001298

Lab Code: VERSAR Case No.: 6016 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 50827

Sample wt/vol: 30 (g/ml) G Lab File ID: __

Level: (low/med) LOW Date Received: 06/17/88

% Moisture: not dec. 9 dec. _____ Date Extracted: 06/22/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/06/88

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KgUG/KG	Q
319-84-6	alpha-BHC	3.7	U
319-85-7	beta-BHC	3.7	U
319-86-8	delta-BHC	3.7	U
58-89-9	gamma-BHC (Lindane)	3.7	U
76-44-8	Heptachlor	3.7	U
309-00-2	Aldrin	28	
1024-57-3	Heptachlor Epoxide	3.7	U
959-98-8	Endosulfan I	3.7	U
60-57-1	Dieldrin	210	J
72-55-9	4,4'-DDE	7.3	U
72-20-8	Endrin	7.3	U
33213-65-9	Endosulfan II	83	J
72-54-8	4,4'-DDD	7.3	U
1031-07-8	Endosulfan Sulfate	7.3	U
50-29-3	4,4'-DDT	7.3	U
72-43-5	Methoxychlor	7.3	U
53494-70-5	Endrin Ketone	7.3	U
5103-71-9	alpha-Chlordane	7.3	U
5103-74-2	gamma-Chlordane	7.3	U
8001-35-2	Toxaphene	73	U
12674-11-2	Aroclor-1016	37	U
11104-28-2	Aroclor-1221	37	U
11141-16-5	Aroclor-1232	37	U
53469-21-9	Aroclor-1242	37	U
12672-29-6	Aroclor-1248	37	U
11097-69-1	Aroclor-1254	73	U
11096-82-5	Aroclor-1260	73	U

07/

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SH88738030-03D

Lab Name: VERSAR, INC. Contract: C001298

Lab Code: VERSAR Case No.: 6016 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 50829

Sample wt/vol: 30 (g/ml) G Lab File ID: __

Level: (low/med) LOW Date Received: 06/17/88

% Moisture: not dec. 7 dec. _____ Date Extracted: 06/22/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 07/05/88

GPC Cleanup: (Y/N) N pH: 6.6 Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	36	U
319-85-7	beta-BHC	36	U
319-86-8	delta-BHC	36	U
58-89-9	gamma-BHC (Lindane)	36	U
76-44-8	Heptachlor	36	U
309-00-2	Aldrin	36	U
1024-57-3	Heptachlor Epoxide	36	U
959-98-8	Endosulfan I	36	U
60-57-1	Dieldrin	72	U
72-55-9	4,4'-DDE	72	U
72-20-8	Endrin	72	U
33213-65-9	Endosulfan II	72	U
72-54-8	4,4'-DDD	72	U
1031-07-8	Endosulfan Sulfate	72	U
50-29-3	4,4'-DDT	72	U
72-43-5	Methoxychlor	72	U
53494-70-5	Endrin Ketone	72	U
5103-71-9	alpha-Chlordane	72	U
5103-74-2	gamma-Chlordane	72	U
8001-35-2	Toxaphene	720	U
12674-11-2	Aroclor-1016	360	U
11104-28-2	Aroclor-1221	360	U
11141-16-5	Aroclor-1232	360	U
53469-21-9	Aroclor-1242	360	U
12672-29-6	Aroclor-1248	360	U
11097-69-1	Aroclor-1254	720	U
11096-82-5	Aroclor-1260	720	U

P Chinoy

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample Number
SH8873803001

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 50835
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 6016 B#232
QC Report No: 6016 B#232
Contract No: C001298
Date Sample Received: 06/17/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 06/22/88
Date Analyzed: 06/22/88
Conc/Dil Factor: 1 pH NA
Percent Moisture: 9.09

CAS Number		ug/Kg
74-87-3	Chloromethane	11 u
74-83-9	Bromomethane	11 u
75-01-4	Vinyl Chloride	11 u
75-00-3	Chloroethane	11 u
75-09-2	Methylene Chloride	5 u
67-64-1	Acetone	11 u
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	11 u
71-55-6	1,1,1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	11 u
75-27-4	Bromodichloromethane	5 u

CAS Number		ug/Kg
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	11 u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	11 u
591-78-6	2-Hexanone	11 u
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

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

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor 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)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

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

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR Not Required.

MA Compound present in both matrix spike standard and unspiked sample.

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample Number
SHA873803002

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 50836
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 6016 BW232
QC Report No: 6016 BW232
Contract No: C001298
Date Sample Received: 06/17/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 06/22/88
Date Analyzed: 06/22/88
Conc/Dil Factor: 1 pH NA
Percent Moisture: 27.08

CAS Number		ug/Kg	CAS Number		ug/Kg
74-87-3	Chloroethane	14 u	78-87-5	1,2-Dichloropropane	7 u
74-83-9	Bromoethane	14 u	10061-02-6	Trans-1,3-Dichloropropene	7 u
75-01-4	Vinyl Chloride	14 u	79-01-6	Trichloroethene	7 u
75-00-3	Chloroethane	14 u	124-48-1	Dibromochloromethane	7 u
75-09-2	Methylene Chloride	7 u	79-00-5	1,1,2-Trichloroethane	7 u
67-64-1	Acetone	14 u	71-43-2	Benzene	7 u
75-15-0	Carbon Disulfide	7 u	10061-01-5	cis-1,3-Dichloropropene	7 u
75-35-4	1,1-Dichloroethene	7 u	110-75-8	2-chloroethylvinylether	14 u
75-34-3	1,1-Dichloroethane	7 u	75-25-2	Bromoform	7 u
156-60-5	Trans-1,2-Dichloroethene	7 u	108-10-1	4-Methyl-2-Pentanone	14 u
67-66-3	Chloroform	7 u	591-78-6	2-Hexanone	14 u
107-06-2	1,2-Dichloroethane	7 u	127-18-4	Tetrachloroethene	7 u
78-93-3	2-butanone	14 u	79-34-5	1,1,2,2-Tetrachloroethane	7 u
71-55-6	1,1,1-Trichloroethane	7 u	108-88-3	Toluene	7 u
56-23-5	Carbon Tetrachloride	7 u	108-90-7	Chlorobenzene	7 u
108-05-4	Vinyl Acetate	14 u	100-41-4	Ethylbenzene	7 u
75-27-4	Bromodichloromethane	7 u	100-42-5	Styrene	7 u
				Total Xylenes	7 u

Data Reporting Qualifiers

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

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor 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)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

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

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR Not Required.

NA Compound present in both matrix spike standard and unspiked sample.

Versar, Inc. Laboratory Operations
6850 Versar Center, Springfield VA 22151 (703) 750-3000

Sample Number
SH8873803003

ORGANICS ANALYSIS DATA SHEET (Page 1)

Laboratory Name: VERSAR
Lab Sample ID No: 50837
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 6016 B#232
QC Report No: 6016 B#232
Contract No: C001298
Date Sample Received: 06/17/88

VOLATILE COMPOUNDS

Concentration: LOW
Date Extracted/Prepared: 06/22/88
Date Analyzed: 06/22/88
Conc/Dil Factor: 1 pH NA
Percent Moisture: 7.31

CAS Number		ug/Kg	CAS Number		ug/Kg
74-87-3	Chloromethane	11 u	78-87-5	1,2-Dichloropropane	5 u
74-83-9	Bromomethane	11 u	10061-02-6	Trans-1,3-Dichloropropene	5 u
75-01-4	Vinyl Chloride	11 u	79-01-6	Trichloroethene	5 u
75-00-3	Chloroethane	11 u	124-48-1	Dibromochloromethane	5 u
75-09-2	Methylene Chloride	5 u	79-00-5	1,1,2-Trichloroethane	5 u
67-64-1	Acetone	11 u	71-43-2	Benzene	5 u
75-15-0	Carbon Disulfide	5 u	10061-01-5	cis-1,3-Dichloropropene	5 u
75-35-4	1,1-Dichloroethene	5 u	110-75-8	2-chloroethylvinylether	11 u
75-34-3	1,1-Dichloroethane	5 u	75-25-2	Bromoform	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u	108-10-1	4-Methyl-2-Pentanone	11 u
67-66-3	Chloroform	5 u	591-78-6	2-Hexanone	11 u
107-06-2	1,2-Dichloroethane	5 u	127-18-4	Tetrachloroethene	5 u
78-93-3	2-butanone	11 u	79-34-5	1,1,2,2-Tetrachloroethane	5 u
71-55-6	1,1,1-Trichloroethane	5 u	108-88-3	Toluene	5 u
56-23-5	Carbon Tetrachloride	5 u	108-90-7	Chlorobenzene	5 u
108-05-4	Vinyl Acetate	11 u	100-41-4	Ethylbenzene	5 u
75-27-4	Bromodichloromethane	5 u	100-42-5	Styrene	5 u
				Total Xylenes	5 u

Data Reporting Qualifiers

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

u Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response factor 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)

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.

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

T Spectrum does not meet criteria for confirmation but does indicate compound presence.

NR Not Required.

NA Compound present in both matrix spike standard and unspiked sample.

(22)

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35231.00.11500 JOB NAME NYSDEC - Niagara Mohawk Fire Training School

MEMO OF TELECON

DATE 2-28-91 TELEPHONE (315) 343-3375

PERSON CALLING D. McCall PERSON CALLED TOWN CLERK'S OFFICE

REPRESENTING URS Consultants, Buffalo REPRESENTING TOWN OF SCRIBA

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED: POPULATION DATA

TEXT OF TELECON

SHE HADN'T RECEIVED ANY OFFICIAL NOTIFICATION BUT SHE BELIEVES THE 1990 CENSUS DATA WAS APPROXIMATELY 6300.

cc:

100138

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35231.00.11500 JOB NAME NYSDEC - Niagara Mohawk Fire Training School

MEMO OF TELECON

DATE 2-28-91 TELEPHONE (315) 343-2586

PERSON CALLING D. McCall PERSON CALLED TOWN CLERK'S OFFICE

REPRESENTING URS Consultants, Buffalo REPRESENTING TOWN OF OSWEGO

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED: POPULATION DATA

TEXT OF TELECON

THE 1990 CENSUS DATA FOR THE TOWN OF OSWEGO WAS 8027.

cc:

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35231.00.11500 JOB NAME NYSDEC - Niagara Mohawk Fire Training School

MEMO OF TELECON

DATE 2-28-91 TELEPHONE (315) 342-8116

PERSON CALLING D. McCall PERSON CALLED CITY CLERK'S OFFICE

REPRESENTING URS Consultants, Buffalo REPRESENTING CITY OF OSWEGO

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED:

TO GET POPULATION DATA

TEXT OF TELECON

THE 1990 POPULATION FOR THE CITY OF OSWEGO WAS 19,195

cc:

100140

(30)

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35231.00.11500 JOB NAME NYSDEC - Niagara Mohawk Fire Training School

MEMO OF TELECON

DATE 3-12-91 TELEPHONE (315) 342-3723

PERSON CALLING D. McCall PERSON CALLED GREG JONES

REPRESENTING URS Consultants, Buffalo REPRESENTING WATER SUPT. - SCRIBA

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED:

INFO. ON THE SCRIBA WATER SYSTEM

TEXT OF TELECON

EVERYBODY IN NORTHWEST SCRIBA HAS MUNICIPAL WATER EXCEPT FOR A FEW RESIDENCES IN THE BEACH AREA. SMITH'S BEACH IS ONE OF THE AREAS THAT IS PROBABLY USING GROUNDWATER FOR DRINKING WATER. AS FAR AS HE KNOWS, THEY HAVE NOT YET RECEIVED MUNICIPAL WATER.

cc:

100141

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZAT C

JOB NO. 35231.00.11500 JOB NAME NYSDEC - Niagara Mohawk Fire Training School

MEMO OF TELECON

DATE 2-27-91 TELEPHONE (315) 343-4681

PERSON CALLING D. McCall PERSON CALLED JOHN GLEASUM

REPRESENTING URS Consultants, Buffalo REPRESENTING WATER SUPT. - TOWN OF OSWEGO

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED:

INFORMATION ON THE WATER SYSTEM

TEXT OF TELECON

THE SYSTEM FOR THE TOWN SERVICES ONLY THE TOWN OF OSWEGO, NOT THE CITY. THEIR SOURCE OF WATER IS THE CITY OF OSWEGO. SCRIBA TO THE EAST OF THE CITY ALSO GETS THEIR WATER FROM OSWEGO CITY.

RECOMMENDED CALLING MR. JIM SULLIVAN @ 343-0111 FOR MORE INFORMATION ON THE CITY SYSTEM.

cc:

100142

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35231.00.11500 JOB NAME NYSDEC - Niagara Mohawk Fire Training School

MEMO OF TELECON

DATE 2-28-91 TELEPHONE (315) 343-0111

PERSON CALLING D. McCall PERSON CALLED Jim Sullivan

REPRESENTING URS Consultants, Buffalo REPRESENTING City of Oswego Water Dept.

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED:

Information on the water system

TEXT OF TELECON

Source of water is Lake Ontario
The intake is located 1.25 miles into the lake from the pump station, which is located on Sheldon Avenue. This is also the same intake used to provide water to the City of Syracuse. The Towns of Oswego, Minetto, and Scriba get their water from the City of Oswego also.

Everybody in the city has city water but he thinks there may be as many as 1,000 private wells in the surrounding three towns. The only other drinking water intakes that he knows of would be in the towns of Scous Point and Watertown..

The power companies and others have intakes into the lake but these are used only for process and cooling water not for drinking.

cc:

100143

(36)

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANI

JOB NO. 35233.00 JOB NAME NIMO

MEMO OF TELECON

DATE 8/13/91 TELEPHONE 315- 428 - 3101

PERSON CALLING Phyllis Rettke PERSON CALLED James Morgan

REPRESENTING URS REPRESENTING Environmental Analyst - NIMO

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED:

TEXT OF TELECON

All of these storage tanks removed in 1990 -
Tank # 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12 + 500 gallon waste oil tank.

Replaced with 2 above ground steel 8000 gallon tanks for transformer oil.

Asked when report would be complete - NIMO wants to petition to have the site delisted.

cc:

100144

APPENDIX D

Hazard Ranking System

FACILITY NAME: Niagara Mohawk Fire Training School

LOCATION: East Seneca Street, Oswego, Oswego County, NY

EPA REGION: EPA Region II; NYSDEC Region 7

PERSON(S) IN CHARGE OF THE FACILITY: Niagara Mohawk Power Corporation

300 Erie Boulevard West

Syracuse, NY 13202

NAME OF REVIEWER: URS Consultants, Inc. DATE: 3/31/91

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 Niagara Mohawk Fire Training School is an active site used to train personnel in techniques for fighting fires involving Niagara Mohawk electrical systems. Prior to 1977, some of the oil used in fire simulations was contaminated with PCBs. PCBs have been detected in the soil, groundwater, surface water and sediments around the site. One soil sample was found to contain total dioxins of 24 ppb. Several NYSDEC Wetlands are located in the immediate vicinity of the site. White Creek flows adjacent to the site on the west side and Lake Ontario is approximately 1/2 mile north of the site. The high values for groundwater and surface water migration are due to releases that were observed in 1978 and that probably do not reflect the current site conditions. Much of the contamination detected in 1978 would have been released prior to the construction of a moat around three sides of the site in 1977. The moat should be adequate for surface water and possibly groundwater containment at the site.

SCORES: Sm= 17.31 (Sgw = 25.35 Ssw = 15.94 Sa = 0)

Sfe = 0

Sdc = 16.67

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**	1	45	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	2	0	6	
NET PRECIPITATION	0 1 2 3	1	0	3	
PERMEABILITY OF THE UNSATURATED ZONE	0 1 2 3	1	0	3	
PHYSICAL STATE	0 1 2 3	1	0	3	
TOTAL ROUTE CHARACTERISTICS SCORE			0	15	
3 CONTAINMENT	0 1 2 3	1	0	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 4 5 6 7 8	1	1	8	
TOTAL WASTE CHARACTERISTICS SCORE			19	26	
5 TARGETS					
GROUND WATER USE	0 1 2 3 **3**	3	9	9	
DISTANCE TO NEAREST WELL /POPULATION SERVED	0 4 6 8 10 12 16 18 20 **8** 24 30 32 35 40	1	8	40	
TOTAL TARGETS SCORE			17	49	
6 IF LINE 1 IS 45, MULTIPLY 1 X 4 X 5			14535	57,330	
IF LINE 1 IS 0, MULTIPLY 2 X 3 X 4 X 5			0		
7 DIVIDE LINE 6 BY 57,330 AND MULTIPLY BY 100					
		Sgw =	25.35		

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 [45]	1	45	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	0	3	
1-yr 24 HOUR RAINFALL	0 1 2 3 [ ]	1	0	3	
DISTANCE TO NEAREST SURFACE WATER	0 1 2 3 [ ]	2	0	6	
PHYSICAL STATE	0 1 2 3 [ ]	1	0	3	
TOTAL ROUTE CHARACTERISTICS SCORE			0	15	
3 CONTAINMENT	0 1 2 3 [ ]	1	0	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 [1]	1	1	8	
TOTAL WASTE CHARACTERISTICS SCORE			19	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			10260		
IF LINE 1 IS 0, MULTIPLY 2 X 3 X 4 X 5			0	64,350	
7 DIVIDE LINE 6 BY 64,350 AND MULTIPLY BY 100					
Ssw =			15.94		

SURFACE WATER ROUTE WORK SHEET

AIR ROUTE WORK SHEET

RATING FACTOR	ASSIGNED VALUE (CIRCLE ONE)	MULTI-PLIER	SCORE	MAX. SCORE	REP. (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)	25.35	642.79
SURFACE WATER ROUTE SCORE (Ssw)	15.94	254.21
AIR ROUTE SCORE (Sa)	0.00	0.00
$S^2gw + S^2sw + S^2a$		897.00
square root of($S^2gw + S^2sw + S^2a$)		29.95
square root of ($S^2gw + S^2sw + S^2a$)/1.73 = Sm		17.31

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 [2]	1	2	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 [2]	4	8	20	
DISTANCE TO A CRITICAL HABITAT	0 1 2 3 [0]	4	0	12	
TOTAL TARGETS SCORE			8	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 3600	21,600	
7 DIVIDE LINE 6 BY 21,600 AND MULTIPLY BY 100			Sdc =	16.67	

DIRECT CONTACT WORK SHEET

GROUNDWATER ROUTE

1 OBSERVED RELEASE

o CONTAMINANTS DETECTED (5 MAXIMUM):

PCBs were detected in the groundwater downgradient from the site in 1978 (Ref. 6).

o RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE FACILITY:

PCB contaminated oil was used at the site for fire simulations and migrated into soil groundwater and surface water. Steps have since been taken to limit migration.

SCORE 45

***

2. ROUTE CHARACTERISTICS

DEPTH TO AQUIFER OF CONCERN

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

NA

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

NA

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

NA

SCORE 0

***

NET PRECIPITATION

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

  NA

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

  NA

- NET PRECIPITATION (SUBTRACT THE ABOVE FIGURES):

  NA

SCORE 0

PERMEABILITY OF UNSATURATED ZONE

- SOIL TYPE IN UNSATURATED ZONE:

  NA

- PERMEABILITY ASSOCIATED WITH SOIL TYPE:

  NA

SCORE 0

PHYSICAL STATE

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

  NA

SCORE 0

***

3. CONTAINMENT

CONTAINMENT

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

NA

o METHOD WITH THE HIGHEST SCORE:

NA

SCORE 0

***

4. WASTE CHARACTERISTICS

TOXICITY AND PERSISTENCE

o COMPOUND(S) EVALUATED:

COMPOUND EVALUATED	TOXICITY	PERSISTENCE	SCORE
PCBs	3	3	18
Dioxin	3	3	18
Aldrin	3	3	18
Dieldrin	3	3	18
Endosulfan II	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):

Unknown

SCORE 1

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

The total amount of contaminated oil released is unknown. Much of the oil is being recovered. The minimum quantity of waste scored is 1.

***

SURFACE WATER ROUTE

1. OBSERVED RELEASE

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

  PCBs were detected in White Creek in 1978 (Ref. 6).

- RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE FACILITY:

  PCB contaminated oil was used at the site for fire simulations. Higher concentrations were detected in the downstream than in the upstream samples.

SCORE 45

***

2. ROUTE CHARACTERISTICS

FACILITY SLOPE AND INTERVENING TERRAIN

- AVERAGE SLOPE OF THE FACILITY IN PERCENT:

  NA

- NAME/DESCRIPTION OF THE NEAREST DOWNSLOPE SURFACE WATER:

  NA

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

  NA

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

  NA

SCORE 0

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

NA

1-YEAR 24 HOUR RAINFALL IN INCHES

NA

SCORE 0

DISTANCE TO NEAREST DOWNSLOPE SURFACE WATER

NA

SCORE 0

PHYSICAL STATE OF WASTE

NA

SCORE 0

***

3. CONTAINMENT

CONTAINMENT

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

NA

o METHOD WITH THE HIGHEST SCORE:

NA

SCORE 0

***

5. TARGETS

GROUNDWATER USE

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

Most residents in the vicinity of the site obtain their water from municipal supply. However, some of the beachfront residences are using groundwater. No municipal water is yet available to the Smith's Beach area of the Town of Scriba (Ref. 30, 31, 32).

SCORE 3

DISTANCE OF NEAREST WELL

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

Assumed to be north in the Smith's Beach area (Ref. 30)

o DISTANCE TO ABOVE WELL OR BUILDING:

0.6 mile (3000 feet) (Ref. 4, 10)

POPULATION SERVED BY GROUNDWATER WELL WITHIN A 3-MILE RADIUS

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

Estimated to be approximately 80 people that would be affected by the aquifer of concern.

o 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

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

80

SCORE 8

4. WASTE CHARACTERISTICS

TOXICITY AND PERSISTENCE

o COMPOUND(S) EVALUATED

COMPOUND EVALUATED	TOXICITY	PERSISTENCE	SCORE
PCBs	3	3	18
Dioxin	3	3	18
Aldrin	3	3	18
Dieldrin	3	3	18
Endosulfan II	3	3	18

o COMPOUND WITH THE HIGHEST SCORE:

All compounds scored 18

SCORE

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):

Unknown

SCORE 1

o BASIS OF ESTIMATING AND/OR COMPUTING WASTE QUANTITY:

The total amount of contaminated oil released is unknown. The minimum quantity of waste scored is 1.

***

5. TARGETS

SURFACE WATER USE

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

White Creek flows into Lake Ontario which is used for recreational purposes such as fishing and boating.

Score 2

- IS THERE TIDAL INFLUENCE?

  NO

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:

  < 50 feet to Wetlands OE-2 (Ref. 20, 21)

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

  NA (Ref. 20, 21)

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:

  The nearest water supply intakes are those of the City of Oswego, However these intakes are more than 3 miles from the site.

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

  NA

- TOTAL POPULATION SERVED

  NA

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

  White Creek, a tributary to Wine Creek, flows adjacent to the site.

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

  NA

SCORE 0

***

AIR ROUTE

1. OBSERVED RELEASE

- CONTAMINANTS DETECTED:

  NA

- DATE AND LOCATION OF DETECTION OF CONTAMINANTS:

  NA

- METHODS USED TO DETECT THE CONTAMINANTS:

  NA

- RATIONALE FOR ATTRIBUTING THE CONTAMINANTS TO THE SITE:

  NA

SCORE 0

***

2. WASTE CHARACTERISTICS

REACTIVITY AND INCOMPATIBILITY

- MOST REACTIVE COMPOUND

  NA

- 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:

All hazardous wastes present at the site have seeped into the soil and surrounding area. All fires at the site are controlled and are not considered to be a significant threat. Furthermore, PCBs are not flammable.

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 or injury, illness, or death

SCORE 0

***

2. ACCESSIBILITY

o DESCRIBE TYPE OF BARRIER(S):

The site is completely surrounded by a fence and a locked gate. The site is still used for fire training activities.

SCORE 2

***

3. CONTAINMENT

o TYPE OF CONTAINMENT, IF APPLICABLE:

The hazardous substance is in the ground and probably has less than 2 feet of cover.

SCORE 15

***

4. WASTE CHARACTERISTICS

TOXICITY

o COMPOUNDS EVALUATED

COMPOUND EVALUATED	TOXICITY
PCBs	3
Dioxin	3
Aldrin	3
Dieldrin	3
Endosulfan II	3

o COMPOUND WITH HIGHEST SCORE:

All compounds scored 3.

SCORE 3

***

5 TARGETS

POPULATION WITHIN 1 MILE RADIUS

An estimated 460 people live within a 1-mile radius of the site (Ref. 22).

SCORE 2

DISTANCE TO CRITICAL HABITAT (OF ENDANGERED SPECIES)

NA, No critical habitat reported with a 1-mile radius (Ref. 20, 21)

SCORE 0

***