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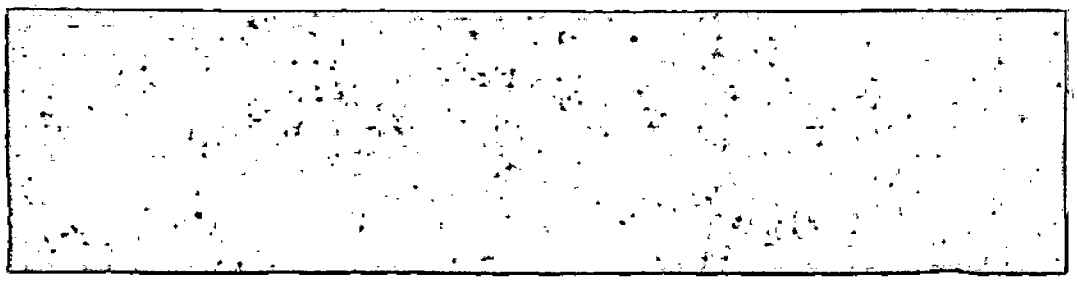

FIELD INVESTIGATION TEAM ACTIVITIES AT UNCONTROLLED HAZARDOUS SUBSTANCES FACILITIES — ZONE I

NUS CORPORATION
SUPERFUND DIVISION

02-8611-67-SR
REV. NO. 0

FINAL DRAFT
SITE INSPECTION REPORT
DAYTON MALLEABLE
BUFFALO, NEW YORK

PREPARED UNDER

TECHNICAL DIRECTIVE DOCUMENT NO. 02-8611-67
CONTRACT NO. 68-01-7346

FOR THE

ENVIRONMENTAL SERVICES DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

JULY 14, 1988

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY:

Peter C. Babich

PETER C. BABICH
SITE MANAGER

REVIEWED/APPROVED BY:

Ronald M. Naman

RONALD M. NAMAN
FIT OFFICE MANAGER

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SECTION 1

SITE INSPECTION REPORT EXECUTIVE SUMMARY

NUS CORPORATION

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
EXECUTIVE SUMMARY

02-8611-67-SR
Rev. No. 0

Dayton Malleable **Site Name**	NYD002103828 **EPA Site ID Number**
189 Tonawanda Street Buffalo, New York 14207 **Address**	02-8611-67 **TDD Number**

SITE DESCRIPTION

The Dayton Malleable Site is a 23-acre inactive landfill located in an urban area of Buffalo, Erie County, New York. The site is owned by Pratt and Letchworth, a division of Dayton Malleable. Scajaquada Creek, which discharges into the Niagara River, is located approximately 70 feet east of the site. The site is bordered to the west by railroad tracks and to the north and south by industrial complexes. Black Rock Canal is located approximately 1200 feet west of the site.

The landfill was active from 1949 to 1965. Approximately 2,200 tons of foundry sand and slag per year was dumped on site. Approximately 14,000 gallons of lubrication and hydraulic oil per year was also dumped on site. The spent foundry sand may contain a small amount of phenol as a binding material. Primary concern is for off-site migration of hazardous substances to Scajaquada Creek which ultimately enters the Niagara River.

On December 10, 1986, Region 2 FIT conducted a site inspection of the Dayton Malleable Facility. Seven soil, two surface water, and two sediment samples were collected. Aroclor 1016 and Aroclor 1260 were detected in on-site soil samples and in the sediments of Scajaquada Creek. Other hazardous substances include tetrachloroethene, trichloroethene, styrene, solvents, polyaromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs).

Prepared by: Peter C. Babich **Date:** June 15, 1988
of NUS Corporation

SECTION 2

ENVIRONMENTAL PROTECTION AGENCY FORM 2070-13

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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY 000210382S

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)
Dayton Malleable

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
189 Tonawanda Street

03 CITY
Buffalo

04 STATE: NY | 05 ZIP CODE: 14207 | 06 COUNTY: Erie | 07 COUNTY CODE: 029 | 08 CONG DIST.: 37

09 COORDINATES
LATITUDE: 42° 47' 54".N
LONGITUDE: 078° 48' 12".W

10 TYPE OF OWNERSHIP (Check one)
X A. PRIVATE _ B. FEDERAL _ C. STATE
_ D. COUNTY _ E. MUNICIPAL _ F. OTHER
_ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION: 12 / 10 / 86 (MONTH DAY YEAR)
02 SITE STATUS: ACTIVE / X INACTIVE
03 YEARS OF OPERATION: 1949 (BEGINNING YEAR) / 1965 (ENDING YEAR) _ UNKNOWN

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

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Peter C. Babich	Chemist	NUS Corporation	(201) 225-6160
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO.**
Rick Lorfing	Biologist	NUS Corporation	(201) 225-6160
Alan Cherepon	Geologist	NUS Corporation	(201) 225-6160
John Ducar	Environmental Scientist	NUS Corporation	(201) 225-6160
Dan de Bruijn	Field Technician	NUS Corporation	(201) 225-6160

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
Mr. Lee Baron	Caretaker	189 Tonawanda St., Buffalo, NY	(716) 873-0300

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
X PERMISSION _ WARRANT	0830	Cold, Cloudy, Winds at 15-20 mph, 25°F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Amy Brochu	U.S. Environmental Protection Agency	(201) 906-6802

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Peter C. Babich	U.S. EPA	NUS Corp.	(201) 225-6160	06 / 15 / 86 (MONTH DAY YEAR)

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS Approx. 2,200/yr
CUBIC YARDS
NO. OF DRUMS Approx. 250/yr

03 WASTE CHARACTERISTICS (Check all that apply)

- X A. TOXIC
- _ B. CORROSIVE
- _ C. RADIOACTIVE
- X D. PERSISTENT
- _ E. SOLUBLE
- _ F. INFECTIOUS
- X G. FLAMMABLE
- X 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			Converted from 14,000 gallons
OLW	OILY WASTE	14,000	Gal/Yr.	liquid-lubrication and
SOL	SOLVENTS			hydraulic oil.
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			In addition, 2,200 tons/yr of
				slag and foundry
IOC	INORGANIC CHEMICALS			sand was landfilled.
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

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

CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
PSD	Aroclor 1248	12672-29-6	Landfilled	1200	ug/kg
PSD	4,4'DDE	72-55-9	Landfilled	280	ug/kg
PSD	4,4'DDT	50-29-3	Landfilled	750	ug/kg
PSD	4,4'DDD	72-54-8	Landfilled	58	ug/kg
PSD	1,1,1-Trichloroethane	71-55-6	Landfilled	56	ug/kg
PSD	Aroclor 1260	11096-82-5	Landfilled	1200	ug/kg
PSD	Phenanthrene	85-01-8	Landfilled	290	ug/kg
PSD	2-Methylnaphthalene	91-57-6	Landfilled	27	ug/kg
PSD	Aroclor 1016	12674-11-2	Landfilled	400	ug/kg
OCC	Dibenzofuran	132-64-9	Landfilled	26	ug/kg
OCC	Tetrachloroethene	127-18-4	Landfilled	241	ug/kg
OCC	Styrene	100-42-5	Landfilled	14	ug/kg
OCC	Trichloroethene	79-01-6	Landfilled	17	ug/kg
OCC	2-Butanone	78-93-3	Landfilled	30	ug/kg
PSD	Endosulfan	33213-65-9	Landfilled	23	ug/kg
OCC	Fluoranthene	206-44-0	Landfilled	44	ug/kg
OCC	Pyrene	129-00-0	Landfilled	26000	ug/kg
OCC	Anthracene	120-12-7	Landfilled	37	ug/kg
OCC	Benzo(a)anthracene	56-55-3	Landfilled	210	ug/kg
OCC	Chrysene	218-01-9	Landfilled	260	ug/kg
OCC	Benzo(a)pyrene	50-32-8	Landfilled	220	ug/kg
OCC	Benzo(g,h,i)perylene	191-24-2	Landfilled	210	ug/kg
OCC	Naphthalene	91-20-3	Landfilled	2200	ug/kg
OCC	Acenaphthene	83-32-9	Landfilled	2700	ug/kg
OCC	bis(2-ethylhexyl) Phthalate	117-81-7	Landfilled	2	ug/kg
OCC	Trichloroethene	79-01-6	Landfilled	17	ug/kg
OCC	Di-n-octyl phthalate	117-84-0	Landfilled	73	ug/kg
OCC	4-Methyl phenol	106-44-5	Landfilled	19	ug/kg
OCC	2,4-Dimethylphenol	105-67-9	Landfilled	26	ug/kg
OCC	Fluorene	86-73-7	Landfilled	32	ug/kg
OCC	4-Methyl-2-pentanone	108-10-1	Landfilled	4	ug/kg
OCC	Benzoic Acid	65-85-0	Landfilled	220	ug/kg
OCC	Ethylbenzene	100-41-4	Landfilled	10	ug/kg
OCC	Chloroform	67-66-3	Landfilled	4	ug/kg
IOC	Magnesium	7439-96-5	Landfilled	17075	mg/kg

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

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

Field Notebook No. 1648, Dayton Malleable, TDD No. 02-8611-67, Site Inspection, NUS Corp. Region 2 FIT, Edison, New Jersey, December 10, 1986.
U.S. EPA Contract Laboratory Program, York Laboratories and JTC Environmental Consultants, Inc., Case No. 6661, Laboratory Analysis from NUS Region 2 FIT Site Inspection conducted on December 10, 1986.

II. HAZARDOUS CONDITIONS AND INCIDENTS

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

Potential exists since hazardous substances, especially phenol which is soluble in water, may percolate to groundwater. Direction of groundwater flow is toward Lake Erie via the Niagara River, which is the source of drinking water for the area.

01 X B. SURFACE WATER CONTAMINATION — 02 X OBSERVED (DATE: 12/10/86) — POTENTIAL — ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Unknown — 04 NARRATIVE DESCRIPTION

Runoff laden with Aroclor 1260 from the site enters Scajaquada Creek located approximately 70 feet east of the site. Scajaquada Creek enters the Black Rock Canal about 1200 feet downstream from the site. Black Rock Canal discharges to the Niagara River which is used for recreation.

01 X C. CONTAMINATION OF AIR — 02 OBSERVED (DATE:) — X POTENTIAL — ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 35,058 — 04 NARRATIVE DESCRIPTION

Potential exists since phenol readily volatilizes from soil, and there may be volatile oil products on site. Phenol is toxic through inhalation routes. However, no readings were detected above background on the OVA and HNu. The above population is based on a 1-mile radius.

01 D. FIRE/EXPLOSIVE CONDITIONS — 02 OBSERVED (DATE:) — POTENTIAL — ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

No potential exists. Although solvents are present on site, the analytical data did not reveal concentrations to support fire/explosion conditions.

01 X E. DIRECT CONTACT — 02 OBSERVED (DATE:) — X POTENTIAL — ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 35,085 — 04 NARRATIVE DESCRIPTION

Potential exists due to several holes in the fence on the southern border of the site.

01 X F. CONTAMINATION OF SOIL — 02 X OBSERVED (DATE: 12/10/86) — POTENTIAL — ALLEGED
03 AREA POTENTIALLY AFFECTED: 23 acres (ACRES) — 04 NARRATIVE DESCRIPTION

Aroclor 1016 and 1260, tetrachloroethene, trichloroethene, and styrene were detected in on-site soils.

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

No potential exists. Groundwater in the area is not used for drinking water. The nearest surface water intake is more than 3 miles away.

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

No potential exists. The site has been inactive for 21 years.

01 X I. POPULATION EXPOSURE/INJURY — 02 OBSERVED (DATE:) — X POTENTIAL — ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 35,085 — 04 NARRATIVE DESCRIPTION

Minimal potential exists as the site is inactive. The facility is completely fenced with entry being minimized except for several holes in the fence.

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

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

Low potential exists due to the extent of industrialization in the area.

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

The potential exists as runoff from the site could enter Scajaquada Creek and impact the fauna along the stream corridor.

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

The potential exists. Contaminated runoff from the site could potentially enter the Scajaquada Creek and Niagara River. The Scajaquada Creek and Niagara River are used for recreational fishing.

01 X M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums) — 02 _ OBSERVED (DATE: _____) X POTENTIAL _ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 35,085 — 04 NARRATIVE DESCRIPTION

The potential exists since the waste was not properly contained during landfilling operations.

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

Potential exists for contaminants to migrate off site and enter Scajaquada Creek, which ultimately enters the Niagara River; both are used for recreational purposes.

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

Potential exists for contaminated storm runoff to enter storm sewers.

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

Very low potential exists. The entrance gate is locked at all times. The rest of the site is completely fenced. There are a few holes in the fence near Scajaquada Creek, but access to them is very difficult.

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

There are no other known, potential, or alleged hazards present at this site.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 35,085

IV. COMMENTS

None

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

Field Notebook No. 1648, Dayton Malleable, TDD No. 02-8611-67, Site Inspection, NUS Corp. Region 2 FIT, Edison, New Jersey, December 10, 1986.
General Software Corporation, Graphical Exposure Modeling System (GEMS), Landover, Maryland, 1984.

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY 0002103828

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				
X C. AIR	1402001145	Unknown	Unknown	
_ D. RCRA				
_ E. RCRA INTERIM STATUS				
_ F. SPCC PLAN				
_ G. STATE (Specify)				
_ H. LOCAL (Specify)				
X I. OTHER (Specify) SPDES	0031275	Unknown	Unknown	
_ 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		
X F. LANDFILL	2,200	Ton/Yr.
_ G. LANDFARM		
_ H. OPEN DUMP		
X I. OTHER Land Disposal (Specify)	14,000	Gal/Yr.

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 None (Specify)

05 OTHER
X A. BUILDINGS ON SITE
8
06 AREA OF SITE
Approx. 23 (Acres)

07 COMMENTS

None

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

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

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

The landfill has no known liner or cover.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: X YES _ NO

02 COMMENTS

There are several breaks and holes in the fence near Scajaquada Creek.

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

Field Notebook No. 1648, Dayton Malleable, TDD No. 02-8611-67, Site Inspection, NUS Corp. Region 2 FIT, Edison, New Jersey, December 10, 1986.
NUS Background Files, Region 2, Edison, NJ.

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

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY D002103829

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL	02 STATUS ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. X	B. _	A. _	B. _	C. X	A. 3.5 (mi)
NON-COMMUNITY	C. _	D. _	D. _	E. _	F. _	B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

_ A. ONLY SOURCE FOR DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)

_ B. DRINKING

_ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available)

X D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER: 0

03 DISTANCE TO NEAREST DRINKING WATER WELL: Greater than 3 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFE
30 (ft)	Northwest	30 (ft)	432,000 (gpd)	_ YES X NO

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

The well nearest the site is 123 feet deep with water level at 30 feet. This well is 3.5 miles from the site and is used for industrial purposes.

10 RECHARGE AREA

X YES
_ NO

COMMENTS

11. DISCHARGE AREA

X YES
_ NO

COMMENTS The potential exists for groundwater discharge to Scajaquada Creek.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

X 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
Scajaquada Creek		Adjacent to site (mi)
Black Rock Canal		0.5 (mi)
Niagara River		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	02 DISTANCE TO NEAREST POPULATION
A. 35,085 NO. OF PERSONS	B. 108,757 NO. OF PERSONS	C. 227,793 NO. OF PERSONS	Adjacent to site (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: 43,182

04 DISTANCE TO NEAREST OFF-SITE BUILDING: Adjacent to site (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 Dayton Malleable facility is bordered to the west by Tonawanda Street, across which is an abandoned Conrail facility; to the north by a bank and residential area; to the east by the Scajaquada Creek; and to the south by other older industrial buildings. There are 3,501 people and 1585 residences within one-quarter mile of the facility.

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

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

02 PERMEABILITY OF BEDROCK (Check one)

X 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
50 (ft)	18 (ft)	7.6

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLO
6 (in)	2.5 (in)	< 3 %	Southeast	2-3

09 FLOOD POTENTIAL 10

SITE IS IN 500 YEAR FLOODPLAIN _ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWA

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE	OTHER
A. > 2 (mi)	B. > 1 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

> 1 (mi)

ENDANGERED SPECIES: Not Applicable

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 (mi)	C. > 1 (mi)	D. > 1 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The Dayton Malleable Facility is relatively flat and slopes from the south and north to near the center of the site and ther to the east into the creek. It is obvious, however, that the area has been filled in the past with foundry sand, and that generally the slope was toward the creek, perhaps on a 2 percent to 3 percent grade before filling took place.

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

Uncontrolled hazardous waste site ranking system, a user's manual, 40 CFR, Part 300, Appendix A, 1986.
Erie-Niagara Basin Ground-Water Resources, Basin Planning Report ENB-3 1968.
Field Notebook No. 1648, Dayton Malleable, TDD No. 02-8611-67, Site Inspection, NUS Corp., Region 2 FIT, Edison, New Jersey, December 10, 1986.

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER		Organics	
SURFACE WATER	2	York Laboratories 200 Monroe Turnpike Monroe, CT 06468	Results received March 19, 1987
WASTE			
AIR			
RUNOFF			
SPILL		Inorganics	
SOIL	7	JTC Environmental Consultants Inc. Four Research Place Suite 10 Rockville, MD 20850	Results received June 5, 1987
VEGETATION			
OTHER Sediment	2		

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
Air Monitoring	HNu Photoionizing Detector and OVA Flame Ionization Detector No readings above background were detected on the OVA or HNu in the ambient air. However, the OVA detected 7 ppm on a barrel found near S-7.

IV. PHOTOGRAPHS AND MAPS

01 TYPE X GROUND _ AERIAL

02 IN CUSTODY OF NUS Corp. Edison, N.J.
(Name of organization or individual)

03 MAPS
X YES
_ NO

04 LOCATION OF MAPS
NUS Corporation, Edison, N.J.

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Field Logbook No. 1648 filed under TDD No. 02-8611-67.

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

Field Notebook No. 1648, Dayton Malleable, TDD No. 02-8611-67, Site Inspection, NUS Corp. Region 2 FIT, Edison, New Jersey, December 10, 1986.

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

I. IDENTIFICATION
01 STATE: NY
02 SITE NUMBER: 3002103828

II. CURRENT OWNER(S)

01 NAME	02 D + B NUMBER	PARENT COMPANY (If applicable) 08 NAME	09 D + B NUMBER
Dayton Malleable		Pratt and Letchworth	
03 STREET ADDRESS (P.O. Box, RFD#, etc.)	**04 SIC CODE**	**10 STREET ADDRESS (P.O. Box, RFD#, etc.)**	**11 SIC CODE**
189 Tonawanda Street		189 Tonawanda Street	
05 CITY / 06 STATE / 07 ZIP CODE		**12 CITY / 13 STATE / 14 ZIP CODE**	
Buffalo, NY 14207		Buffalo, NY 14207	

01 NAME | 02 D + B NUMBER | 08 NAME | 09 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.) | 04 SIC CODE | 10 STREET ADDRESS (P.O. Box, RFD#, etc.) | 11 SIC CODE
05 CITY | 06 STATE | 07 ZIP CODE | 12 CITY | 13 STATE | 14 ZIP CODE

01 NAME | 02 D + B NUMBER | 08 NAME | 09 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.) | 04 SIC CODE | 10 STREET ADDRESS (P.O. Box, RFD#, etc.) | 11 SIC CODE
05 CITY | 06 STATE | 07 ZIP CODE | 12 CITY | 13 STATE | 14 ZIP CODE

01 NAME | 02 D + B NUMBER | 08 NAME | 09 D + B NUMBER
03 STREET ADDRESS (P.O. Box, RFD#, etc.) | 04 SIC CODE | 10 STREET ADDRESS (P.O. Box, RFD#, etc.) | 11 SIC CODE
05 CITY | 06 STATE | 07 ZIP CODE | 12 CITY | 13 STATE | 14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first) / IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME | 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

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)

New York State Department of Environmental Conservation, Interagency Task Force on Hazardous Wastes, 1978.

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

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
NY D002103828

II. CURRENT OPERATOR(S)

01 NAME		02 D + B Number	OPERATOR'S PARENT COMPANY (If applicable) 10 NAME		11 D + B NUMB
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD#, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER				

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

01 NAME		02 D + B Number	PREVIOUS OPERATOR'S PARENT COMPANIES (If applicable) 10 NAME		11 D + B NUMB
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD#, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER				

01 NAME		02 D + B Number	10 NAME		11 D + B NUMBE
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD#, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER				

01 NAME		02 D + B Number	10 NAME		11 D + B NUMBE
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD#, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER				

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

II ON-SITE GENERATOR

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

III OFF-SITE GENERATOR(S)

01 NAME		02 D + B NUMBER	01 NAME		02 D + B NUMBE
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 NUMBE
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 NUMBE
Downing Container Service Co.					
03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD#, etc.)		04 SIC CODE
191 Glason Street					
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Buffalo	NY	14203			

01 NAME		02 D + B NUMBER	01 NAME		02 D + B NUMBE
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)

New York State Department of Environmental Conservation, Interagency Task Force on Hazardous Wastes, 1978.

II. PAST RESPONSE ACTIVITIES

01 A. WATER SUPPLY CLOSED — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 D. SPILLED MATERIAL REMOVED — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 E. CONTAMINATED SOIL REMOVED — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 F. WASTE REPACKAGED — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 G. WASTE DISPOSED ELSEWHERE — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 H. ON SITE BURIAL — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 I. IN SITU CHEMICAL TREATMENT — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 J. IN SITU BIOLOGICAL TREATMENT — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 K. IN SITU PHYSICAL TREATMENT — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 L. ENCAPSULATION — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 M. EMERGENCY WASTE TREATMENT — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 N. CUTOFF WALLS — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 P. CUTOFF TRENCHES/SUMP — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 Q. SUBSURFACE CUTOFF WALL — 02 DATE: _____ — 03 AGENCY: _____
04 DESCRIPTION

No Previous History

II. PAST RESPONSE ACTIVITIES

01 ___ R. BARRIER WALLS CONSTRUCTED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 ___ S. CAPPING/COVERING 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 ___ T. BULK TANKAGE REPAIRED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 ___ U. GROUT CURTAIN CONSTRUCTED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 ___ V. BOTTOM SEALED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 ___ W. GAS CONTROL 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 ___ X. FIRE CONTROL 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 ___ Y. LEACHATE TREATMENT 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 ___ Z. AREA EVACUATED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 ___ 1. ACCESS TO SITE RESTRICTED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 ___ 2. POPULATION RELOCATED 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

No Previous History
01 ___ 3. OTHER REMEDIAL ACTIVITIES 02 DATE: _____ 03 AGENCY: _____
04 DESCRIPTION

None

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

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION _ YES X NO

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

No history of past enforcement action.

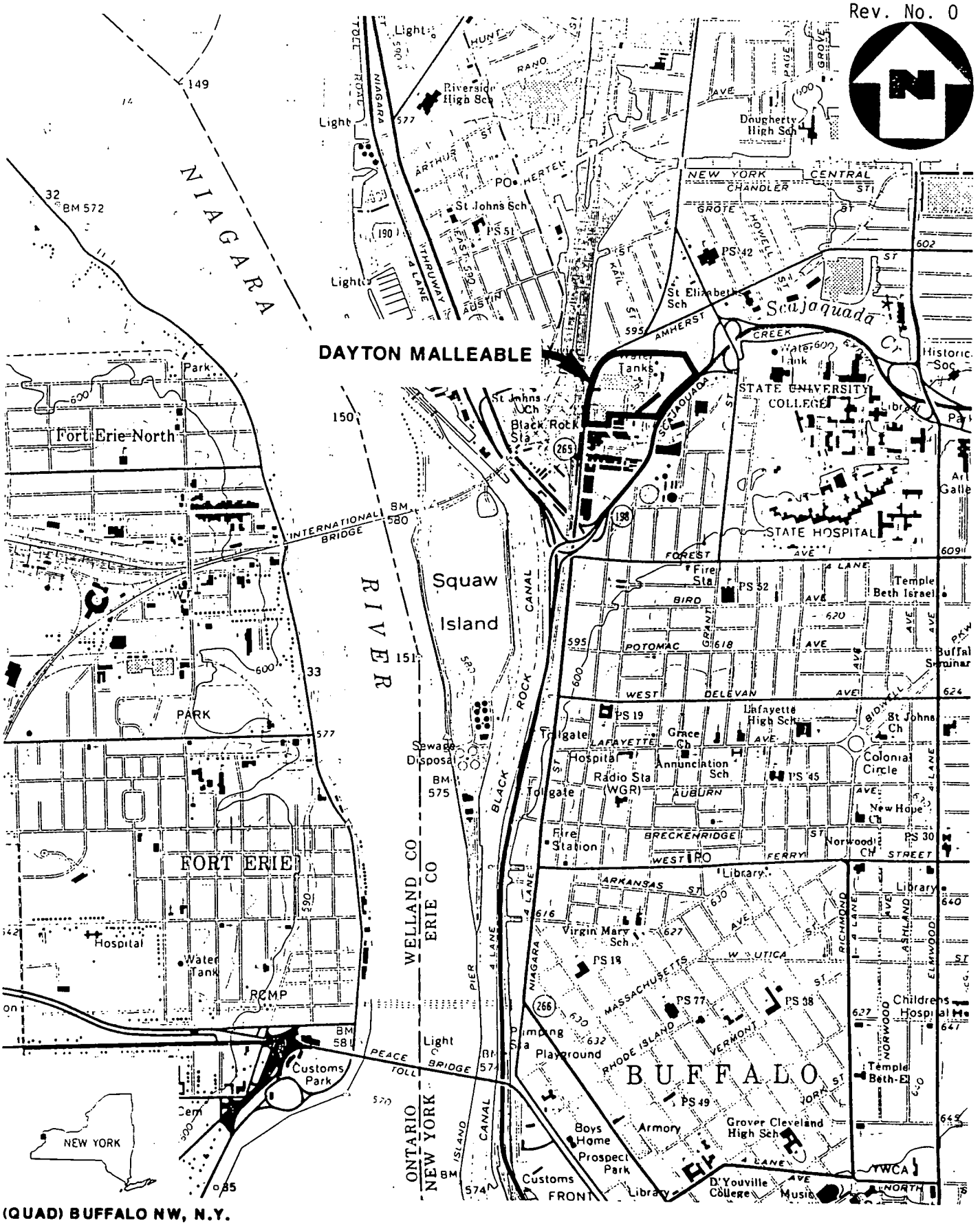
III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, report)

SECTION 3

MAPS AND PHOTOGRAPHS

DAYTON MALLEABLE
BUFFALO, NEW YORK

CONTENTS



(QUAD) BUFFALO NW, N.Y.

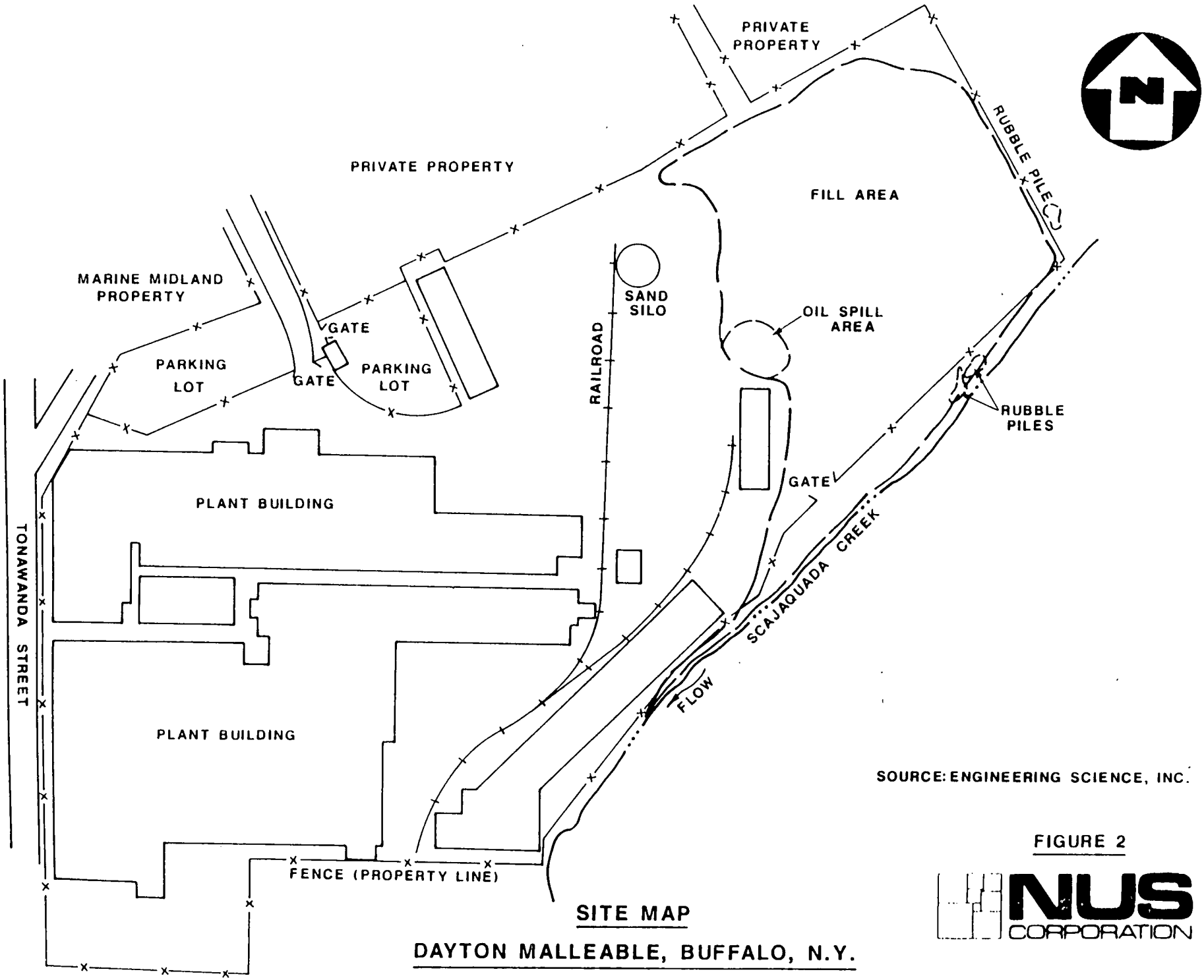
FIGURE 1

SITE LOCATION MAP

DAYTON MALLEABLE, BUFFALO, N.Y

SCALE: 1"=2000'

NUS CORPORATION



SOURCE: ENGINEERING SCIENCE, INC.

FIGURE 2

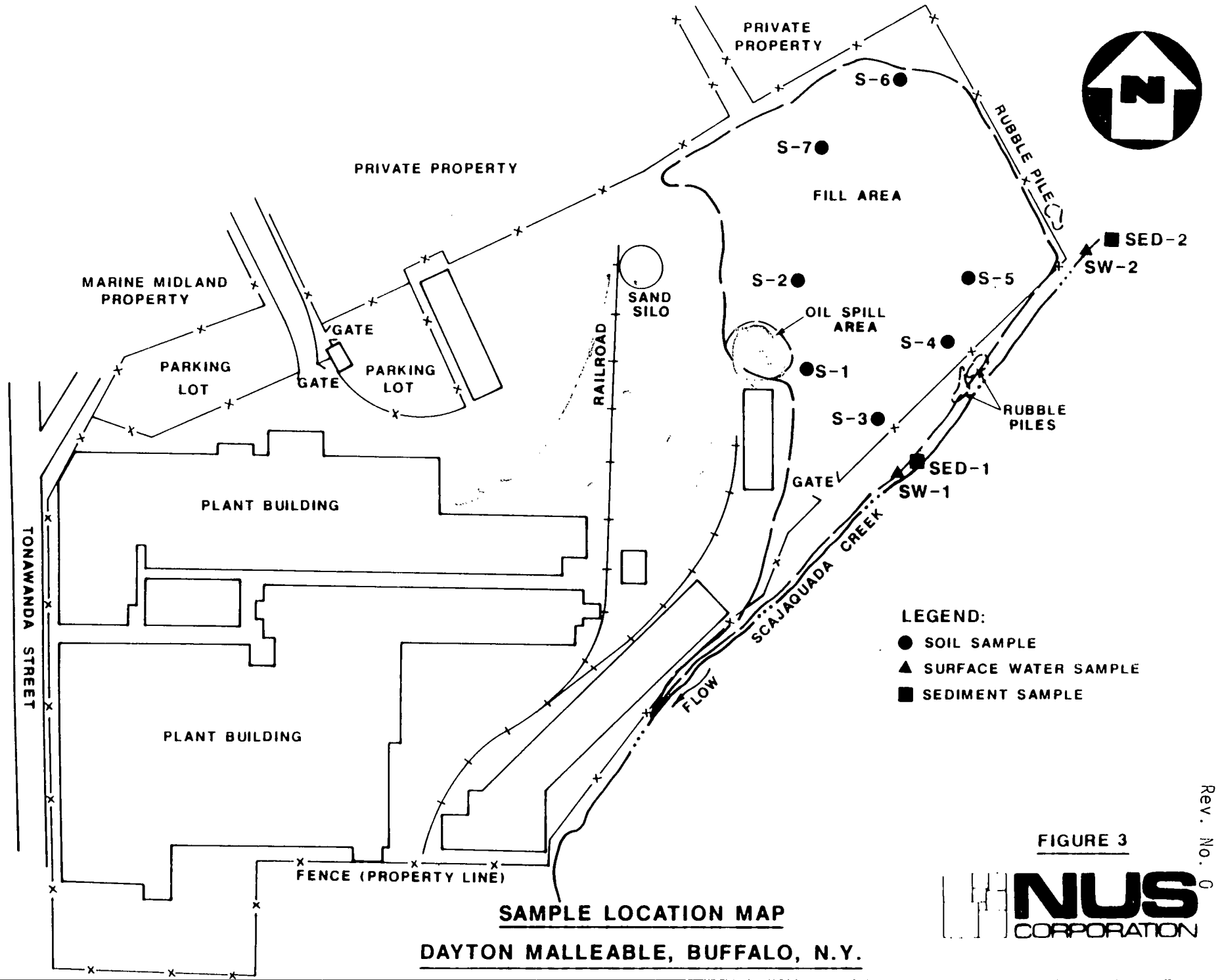
SITE MAP

DAYTON MALLEABLE, BUFFALO, N.Y.

(NOT TO SCALE)

NUS CORPORATION

02-8611-67-SR
Rev. No. 0



SAMPLE LOCATION MAP

DAYTON MALLEABLE, BUFFALO, N.Y.

FIGURE 3

NUS CORPORATION

02-8611-67-SR
Rev. No. 0

DAYTON MALLEABLE
BUFFALO, NEW YORK
TDD NO. 02-8611-67
DECEMBER 10, 1987

PHOTOGRAPH INDEX

ALL PHOTOGRAPHS TAKEN BY PETE BABICH

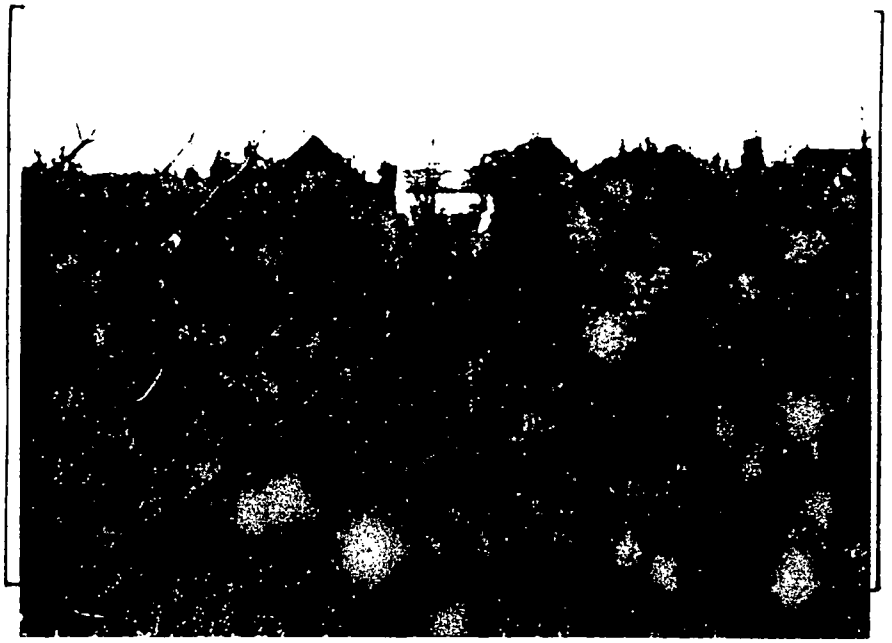
Photo Number	Description	Time
1P-1	Level B Recon	0950
1P-2	Barrels observed	0950
1P-3	Picture of lid. Writing on lid obscured.	1000
1P-4	Break in fence.	1015
1P-5	Duck on tree in Scajaquada Creek near NY56-SW-1 and NY56-SED-1.	1050
1P-6	NY56-SW-1. Downstream sample in Scajaquada Creek, 30 feet east of gate on south boundary fence. Sampler:Dan de Bruijn.	1100
1P-7	NY56-SED-1. Same location as NY56-SW1. Sampler: Dan de Bruijn.	1110
1P-8	NY56-SW2. Upstream sample in Scajaquada Creek, 100 feet east of eastern boundary fence. Sampler: Dan de Bruijn.	1130
1P-9	NY56-SED-2. Same location as NY56-SW-2. Sampler: Dan de Bruijn.	1135
1P-10	Deconned samples. NY56-SW-1, NY56-SED-1, NY56-SW2, and NY56-SED-2.	1200
1P-11	NY56-S-1. Approximately 100 feet east of 1-story cinder block building. Sampler: John Ducar.	1230
1P-12	NY56-S-2. Foundry sand pile, 200 feet southeast of sand silo. Sampler: John Ducar.	1230
1P-13	Deconned NY56-S-1 and NY56-S-2.	1245
1P-14	NY56-S-3. 30 feet east of gate on southern boundary fence, 6 feet from fence. Sampler: Dan de Bruijn.	1300
1P-15	NY56-S-4. 50 feet east of NY56-S-3 along the boundary fence. Sampler: Dan de Bruijn.	1307
1P-16	NY56-S-5. 75 feet from eastern boundary fence and 25 feet from southern boundary fence. Sampler: Dan de Bruijn.	1315
1P-17	NY56-S-6. At northeast edge of landfill, 75 feet from fence. Sampler: Dan de Bruijn.	1325
1P-18	Empty barrel near NY56-S-6.	1337

DAYTON MALLEABLE
BUFFALO, NEW YORK
TDD NO. 02-8611-67
DECEMBER 10, 1987

PHOTOGRAPH INDEX

Photo Number	Description	Time
1P-19	In middle of landfill approximately 200 feet from northern boundary fence. Sampler: Dan de Bruijn.	1345
1P-20	Deconned NY56-S-3, NY56-S-4, NY56-S-5, NY56-S-6, and NY56-S-7.	1400

DAYTON MALLEABLE, BUFFALO, NEW YORK



1P-1 December 10, 1987 0950
Level B Recon.

1P-2 December 10, 1987 0950
Barrels observed.

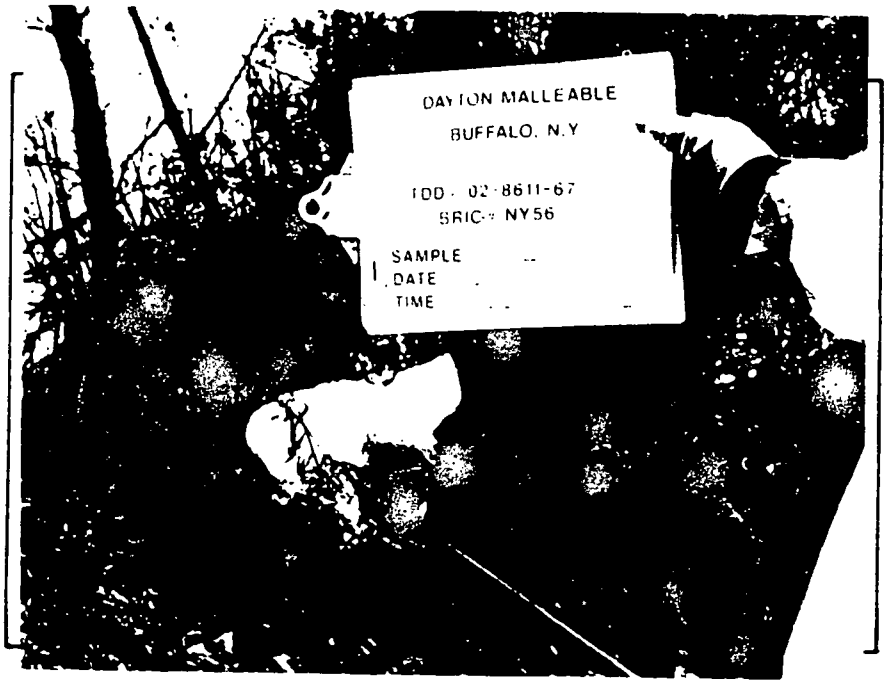
DAYTON MALLEABLE, BUFFALO, NEW YORK

1P-3 December 10, 1987 1000
Picture of lid. Writing on lid obscured.

1P-4 December 10, 1987 1015
Break in fence.

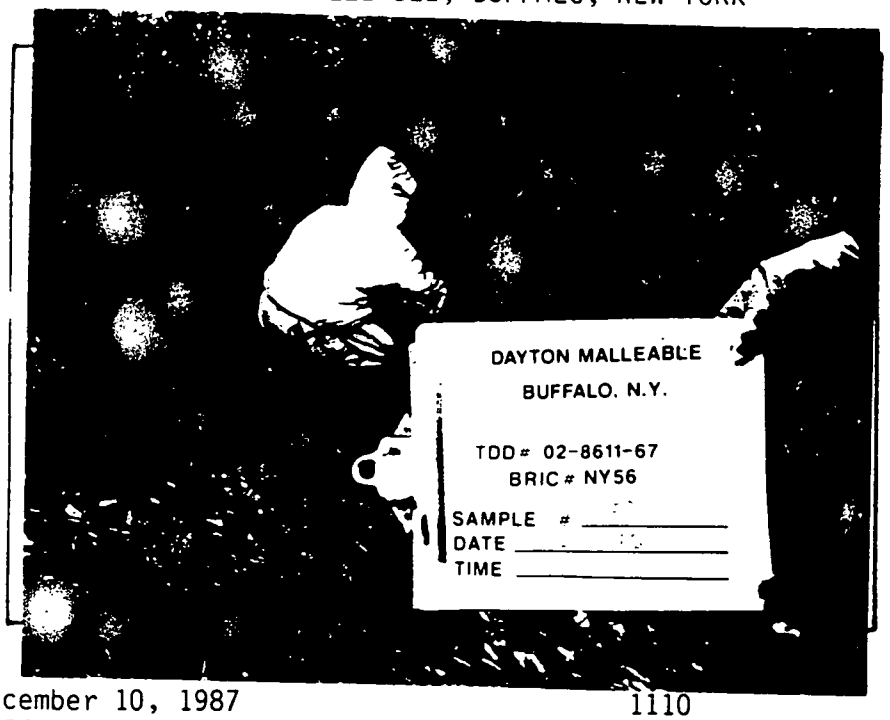
DAYTON MALLEABLE, BUFFALO, NEW YORK

1P-5 December 10, 1987 1050
Duck on tree in Scajaquada Creek near NY56-SW-1 and NY56-SED-1.

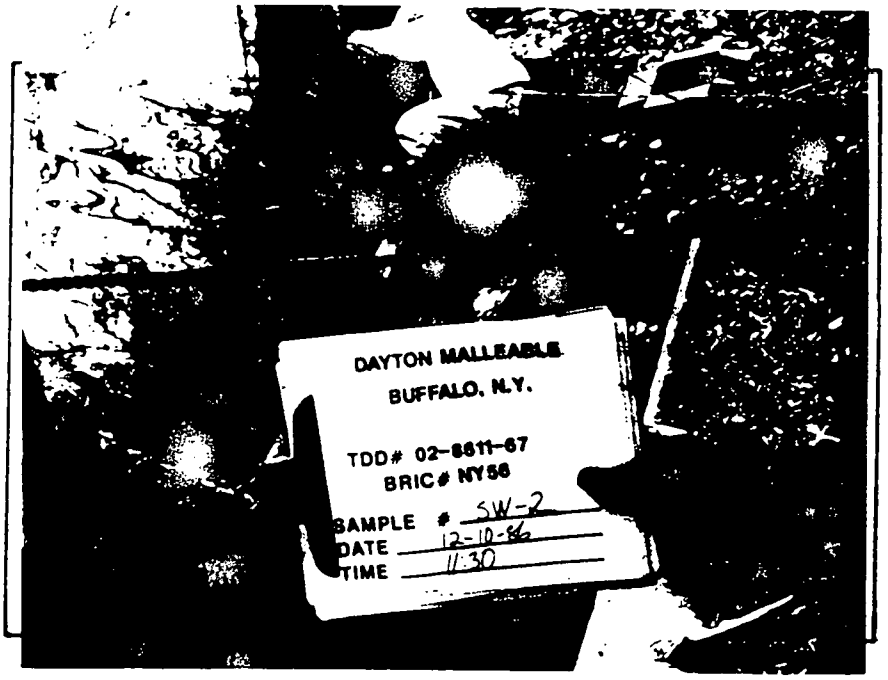


1P-6 December 10, 1987 1100
NY56-SW-1. Downstream sample in Scajaquada Creek, 30 feet east of gate on south boundary fence. Sampler: Dan de Bruijn.

DAYTON MALLEABLE, BUFFALO, NEW YORK

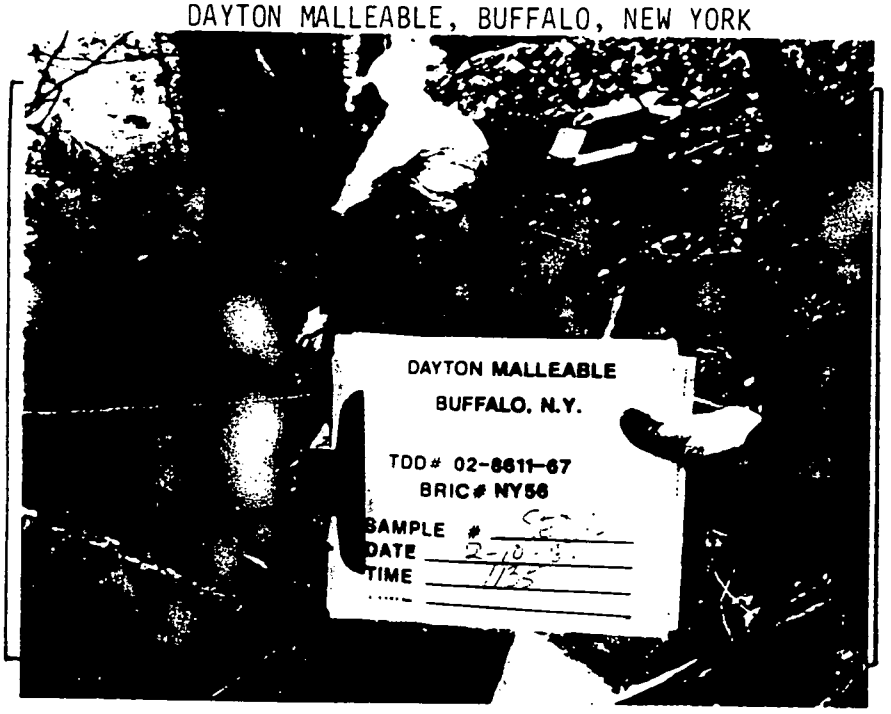


1P-7 December 10, 1987 1110
NY56-SED-1. Same location as NY56-SW-1. Sampler: Dan de Bruijn.

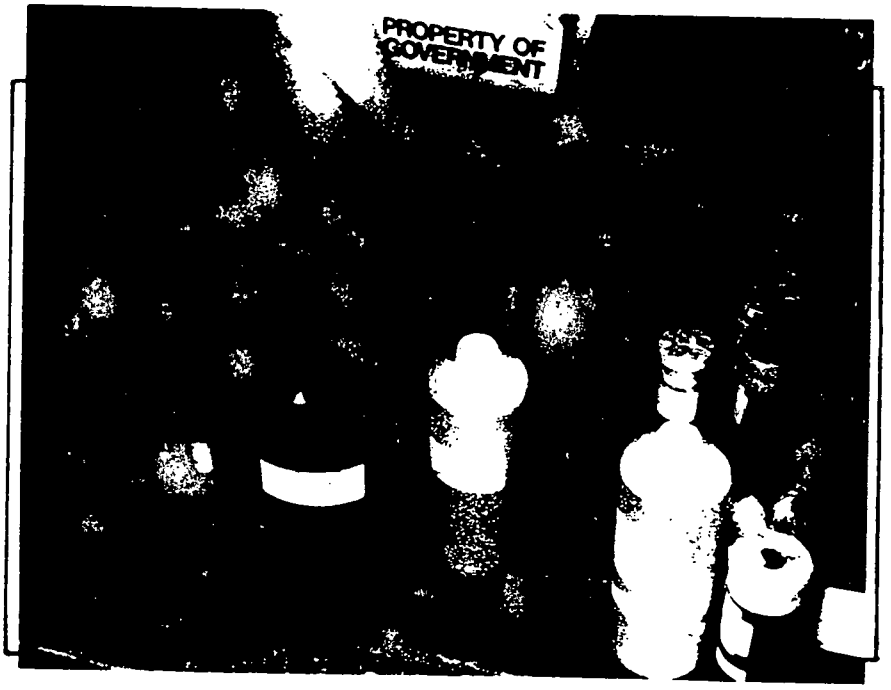


1P-8 December 10, 1987 1130
NY56-SW-2. Upstream sample in Scajaquada Creek, 100 feet east of eastern boundary fence. Sampler: Dan de Bruijn.

DAYTON MALLEABLE, BUFFALO, NEW YORK

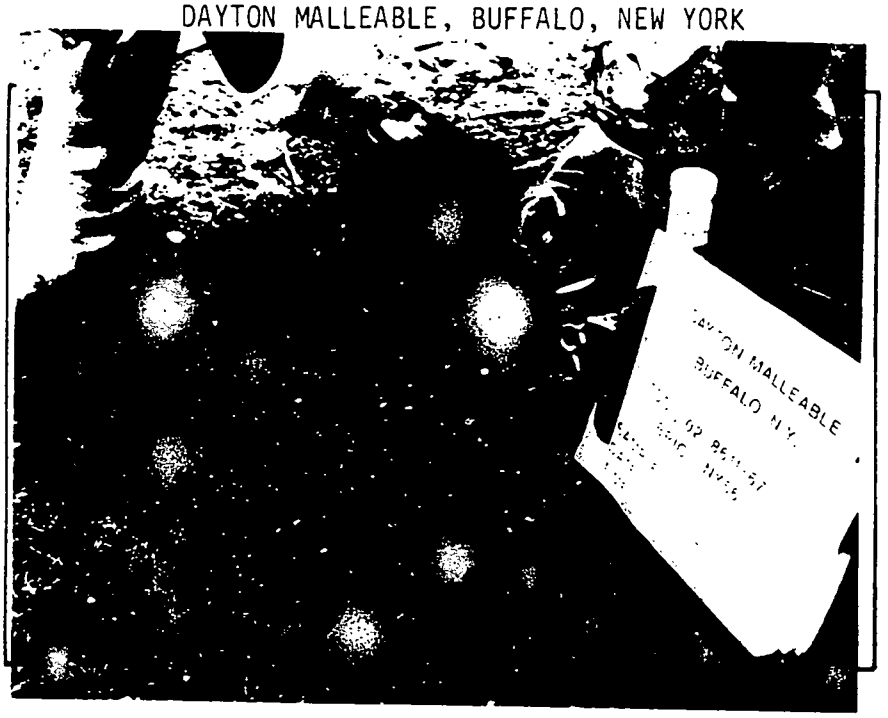


1P-9 December 10, 1987 1135
NY56-SED-2. Same location as NY56-SW-2. Sampler: Dan de Bruijn.



1P-10 December 10, 1987 1200
Deconned samples. NY56-SW-1, NY56-SED-1, NY56-SW2, and NY56-SED-2.

DAYTON MALLEABLE, BUFFALO, NEW YORK



1P-11 December 10, 1987 1230
NY56-S-1. Approximately 100 feet east of 1-story cinder block building. Sampler: John Ducar.

1P-12 December 10, 1987 1230
NY56-S-2. Foundry sand pile, 200 feet southeast of sand silo. Sampler: John Ducar.

DAYTON MALLEABLE, BUFFALO, NEW YORK

1P-13 December 10, 1987 1245
Deconned NY56-S-1 and NY56-S-2.

1P-14 December 10, 1987 1300
NY56-S-3. 30 feet east of gate on southern boundary fence, 6 feet from fence. Sampler: Dan de Bruijn.

DAYTON MALLEABLE, BUFFALO, NEW YORK

1P-15 December 10, 1987 1307
NY56-S-4. 50 feet east of NY56-S-3 along the boundary fence.
Sampler: Dan de Bruijn.

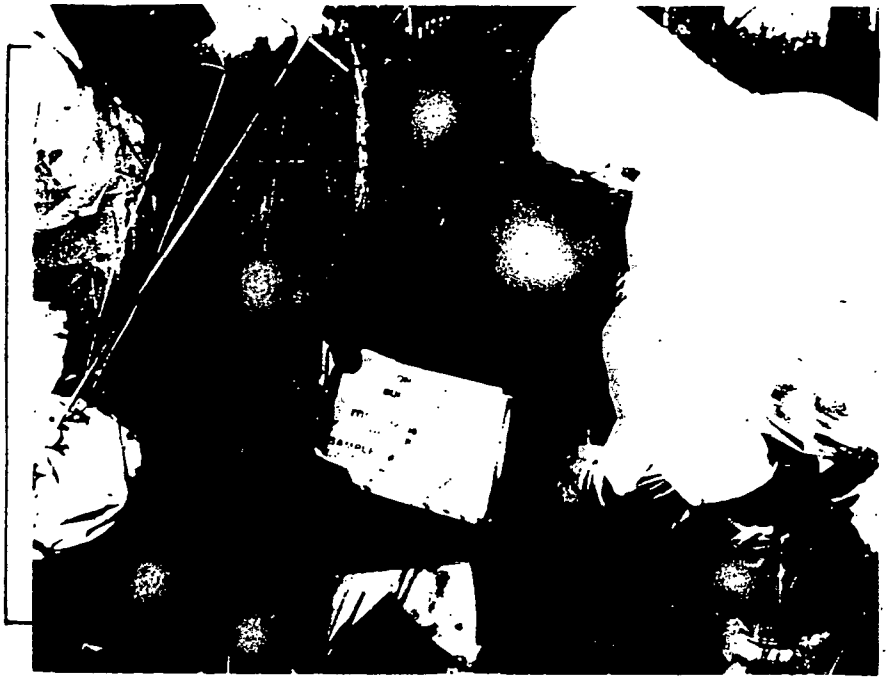
1P-16 December 10, 1987 1315
NY56-S-5. 75 feet from eastern boundary fence and 25 feet from southern boundary fence. Sampler: Dan de Bruijn.

DAYTON MALLEABLE, BUFFALO, NEW YORK

1P-17 December 10, 1987 1325
NY56-S-6. At northeast edge of landfill, 75 feet from fence.
Sampler: Dan de Bruijn.

1P-18 December 10, 1987 1337
Empty barrel near NY56-S-6.

DAYTON MALLEABLE, BUFFALO, NEW YORK



1P-19 December 10, 1987 1345
NY56-S-7. In middle of landfill approximately 200 feet from northern boundary fence. Sampler: Dan de Bruijn.

1P-20 December 10, 1987 1400
Deconned NY56-S-3, NY56-S-4, NY56-S-5, NY56-S-6, and NY56-S-7.

SECTION 5

PRESS RELEASE SUMMARY

SUMMARY STATEMENT

The Dayton Malleable Site is a 23-acre inactive landfill located in an urban area of Buffalo, Erie County, New York. The site is owned by Pratt and Letchworth, which is a division of Dayton Malleable. Scajaquada Creek, which discharges into the Niagara River, is located approximately 70 feet east of the site. The site is bordered to the west by railroad tracks and to the north and south by industrial complexes. Black Rock Canal is located approximately 1200 feet west of the site.

The landfill was active from 1949 to 1965. Approximately 2,200 tons of foundry sand and slag per year were dumped on site. Approximately 14,000 gallons of lubrication and hydraulic oil per year were also dumped on site. The spent foundry sand may contain a small amount of phenol as a binding material.

Seven soil, two surface water, and two sediment samples were collected during a site inspection on December 10, 1986. Analytical results indicate the presence of hazardous substances including Aroclor 1016, Aroclor 1260, tetrachloroethene, trichloroethene, styrene, solvents, polyaromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs). Primary concern is for off-site migration of these substances to Scajaquada Creek, which ultimately enters the Niagara River.

SECTION 6

BACKGROUND INFORMATION

REFERENCE NO. 1

Contents

Gary Bish 12/18/86 Peter T. Balsto 12-10-86

12-10-86

0830 - Gained site access by Mr. Lee Baron, employee of Pratt + Letchworth. He denied knowing that we were coming.

0900 - Set up command post.
Personnel present -
Rick Lorfing, Al Cherepon, Dan DeBruyn, Laurie Greiding, John Ducar, Pete Babich

0905 - Al Cherepon conducts safety meeting attended by:

SMO - Rick Lorfing — Rick Lorfing
SSO - Al Cherepon — Al Cherepon
SAMPLER - Dan DeBruyn — Dan DeBruyn
H+S Laurie Greiding — Laurie Greiding
SAMPLER John Ducar — John Ducar
P.M. Pete Babich - Pete Babich

Laurie Greiding present as H+S auditor.

Weather conditions - Cold, cloudy, windy 15-20 miles p.h.

25°F

SCIENTIFIC BINDERY PRODUCTS CHICAGO

Gary Bird 12/18/86 PC Babich 12-10-86

0915 Samplers John Duncan and Dan DeBruijn begin getting suited up to go to Level B zone before sampling

0925 - Samplers put on air packs.

John Duncan [illegible] #191312
Dan DeBruijn #307172

Equip. OVA - #307137
HNU - #307138
Mini Rad alert - #428520

0935 Dan DeBruijn goes on air to do air monitoring recon. If no readings above background field team will go to level D for sampling.

0950 - ~~Animal~~ Evidence of wildlife on site (Rabbit droppings)

0955 Douglas Russell, Diane Russell
293 Amherst St.
Buffalo N.Y. (See next page)

SCIENTIFIC BINDERY PRODUCTS CHICAGO [signature] 12/18/86 Pete C. Bakh[illegible] 12-10-86

6

12-10-86 2-8?1-67

0955 Spoke to Mr & Mrs Russell whose house borders the site. Stated their 5 y.o. daughter has elevated blood lead levels (6.2) Explained why we were there. They asked us if the daughter could have been exposed to lead at site. Told them they could contact EPA for results.

~~1000 - Dan DiBruyn off air.~~

1005 Dan DiBruyn back on air to near Scaggsvia Creek.

1010 Barrels observed in creek

1020 Site scan complete. NO readings observed on either [illegible] or HNu. Will go to level D protection. Off-air

~~1030~~

1040 Depart command post to sample waters.

1030 Prepare for SW1 + SED1 Downstream sample

Peter C Balos 12-10-86

SCIENTIFIC BINDERY PRODUCTS CHICAGO [signature] 12/18/86

The Following Image(s) are the Best Copy Available

BIEL'S

12-10-86 C-86-67

1050 - Al Hergen returns to post to get safety line. Steep, slippery embankment

1055 - HNU malfunctioning

1100 SW-1 being sampled by Don DeBruijn

1110 SW-1 complete. Start to take SED 1. Many worms ~~whitish~~ in the sed. Tried not to sample them.

1120 SED-1 complete

11:30 SW-2 started

1135 SW-2 complete SED-2 started

1140 SED-2 complete
Returning to command post

1155 Return to command post to get warm. Very cold and windy.

Peter C. Babcock 12-10-86

SCIENTIFIC BINDERY PRODUCTS CHICAGO 12/18/86 [signature]

12-10-86 Dayton Malleable [illegible]

1225 Leaving to start soil samples

[illegible] J. Ducar starts S-1

1233 S-1 [illegible]

1235 S-2 Started J. Ducar sample

1240 S2 Complete
Returning for more sample jars

1245 Decon of equip[illegible] now return
for S 3-7.

1300 S 3 Started by Dan DeBruyn
using [illegible] soil. Sample taken about
6 inches deep. 1305 Sample complete

1307 S-4 started by J. Ducar
Near mw-9 from landfill
[illegible]

1312 S4 Complete

SCIENTIFIC BINDERY PRODUCTS CHICAGO

Gary Birch 12/18/86

Peter C. Bohst 12-10-86

12-10-86 [illegible] 02-8611-67

1315 S-5 Started by D. DeBruijn

1320 S-5 completed

1325 S-6 Started D. DeBruijn
vegetation stressed

1340 Found barrel containing chemical
Chem-Pro... [illegible] contact
Liquid vapor harmful. Reacts
violently with strong acids.
Refer to MSDS - 7 ppm on HNu
vegetation stessed near S-7.

1345 S-7 Started by D. DeBruijn

1350 S-7 completed. Will now
head back to command post
to decon and get warm.

1355 Arrive at command post and
start to decon

1415 Site Clean up progressing.

1600 Depart site.

Peter C Bal... [signature]
12-10-86

[signature] 12/18/86

12-10-86

Dispatch #
BUF #235

23-1335

Airbill # 495-162-371
Organics sent to via Fed Exp
York Laboratories
200 Monroe Turnpike
Monroe, Ct. 06468
Attn: Robert Bradley
7 soil 2 sed 2 water 1 blank

Inorganics sent to via Fed. Exp.
JTC Environmental Consultants Inc
Four Research Place, Suite L-10
Rockville, MD. 20850 Attn: Norma Crawford
1 soil 2 sed 2 water 1 blank
Airbill # 495-162-360

SCIENTIFIC BINDERY PRODUCTS CHICAGO 12/8/86 Peter C Babcock 12-10-86

12-10-86

TABLE 1
SAMPLE DESCRIPTIONS
DAYTON MALLEABLE
CASE #6661

Sample ID Number	Organic Traffic Report #	Inorganic Traffic Report #	Time (Hours)	Sample Type	Sample Location
NY56-SW1	BH639	MBI199	1100	Aqueous	In Scajaquada Creek approximately 30 feet east of gate on southern boundary fence.
NY56-SED1	BH637	MBI197	1110	Sediment	Same as NY56-SW1
NY56-SW2	BH640	MBI200	1130	Aqueous	In Scajaquada Creek approximately 100 feet east of eastern boundary fence.
NY56-SED2	BH638	MBI198	1135	Sediment	Same as NY56-SW2.
NY56-S1	BH604	MBI190	1230	Soil	Approximately 100 feet east of 1 story cinderblock building.
NY56-S2	BH605	MBI191	1235	Soil	Approximately 200 feet southeast of sand silo.
NY56-S3	BH627	MBI192	1300	Soil	Approximately 30 feet east of gate on southern boundary line, 6 feet from fence.
NY56-S4	BH628	MBI193	1307	Soil	Approximately 50 feet east of S3 along boundary fence.
NY56-S5	BH629	MBI194	1315	Soil	Approximately 75 feet from eastern boundary fence 25 feet from southern boundary fence.
NY56-S6	BH630	MBI195	1325	Soil	At northeast edge of landfill, 75 feet from fence.
'56-S7	BH636	MBI196	1345	Soil	In middle of landfill approximately 200 feet from northern boundary fence.
'56-BL1	BH641	MBH601		Aqueous	EPA Laboratory, Edison, NJ.

N/A

Peter P. Balma 12-10-86

Gary Bishop 4/18/86

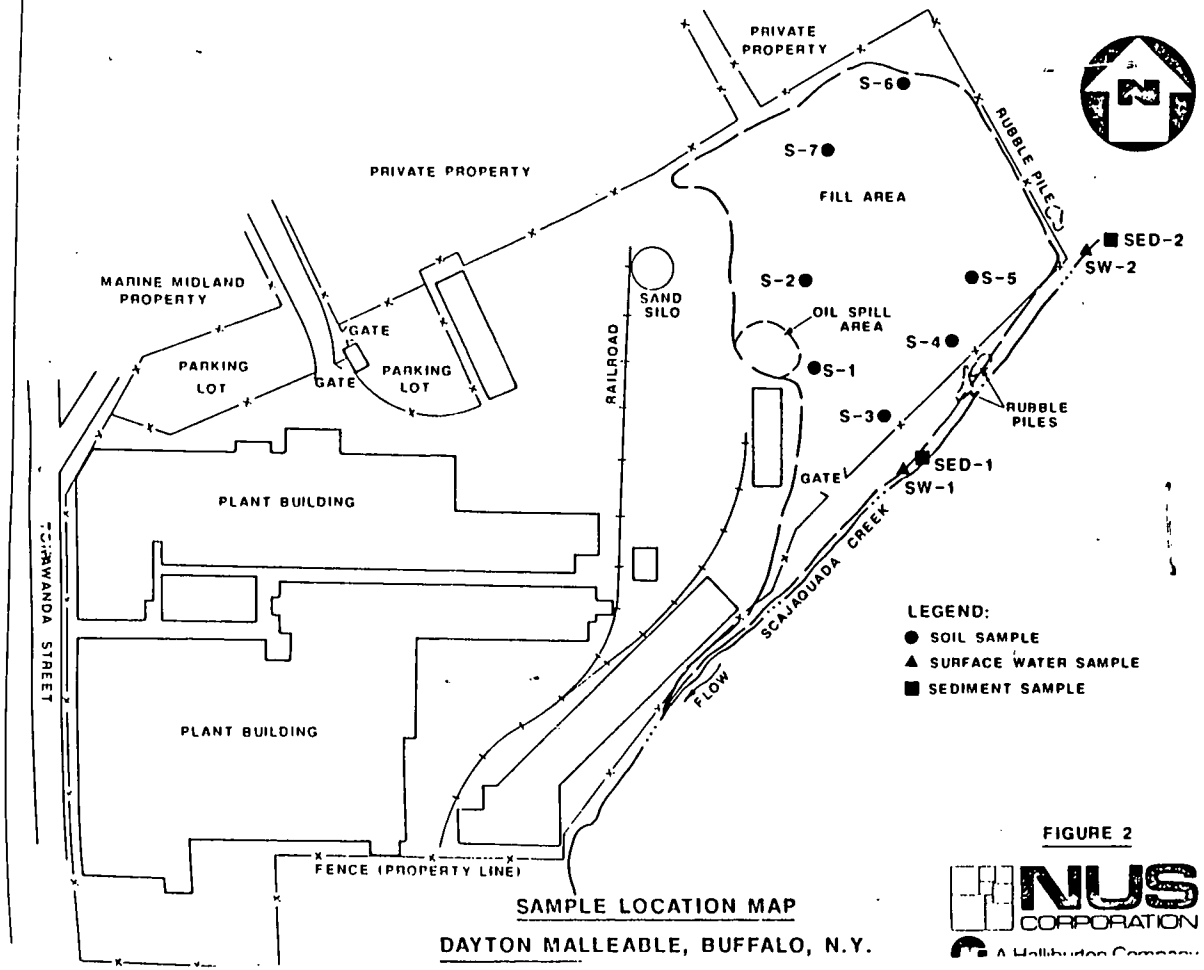


FIGURE 2

SAMPLE LOCATION MAP

DAYTON MALLEABLE, BUFFALO, N.Y.

NUS CORPORATION
A Halliburton Company

SCIENTIFIC BINDERY PRODUCTS CHICAGO

[illegible] Dragon [illegible]
12-10-86

Ethel C Baker[?]
12-10-86

1P	0930	Love B' Plain[?]	[illegible signature]
2P	0950	Barrels observed	
3P	1000	Picture of barrel lid. Writing on lid obscured.	
4P	1015	Break in fence	
5P	1030	Duck on Tree - Scajaquada Creek @SW-1 + Sed 1	
6P	1100	SW-1 30 ft east of gate on south boundary fence Downstream sample in Scajaquada Creek	D. DeBruijn
7P	1110	SED-1 30 ft east of gate on (S) boundary fence Downstream sample in Scajaquada Creek	D. DeBruijn
8P	1130	SW-2 8P (See 100 ft east of eastern fence. Upstream sample in Scajaquada Creek	D. DeBruijn
9P	1135	SED-2 (See SW-2) Upstream sample in Scajaquada Creek.	D. DeBruijn
10P	1200	Deconned samples.	[illegible signature]
11P	1230	S-1 about 100 ft East of 1 story cinderblock bldg.	T. Ducar
12P	1235	S-2 200 ft southeast of sand silo Foundry Sand pile	T. Ducar
13P	1245	S-1 & S-2 deconned	
14P	1300	S-3 about 20 ft east of gate on southern boundary fence 6 ft from fence.	D.D. Bruijn
15P	1307	S-4 about 50 ft east of S3 along boundary fence	Ducar
16P	1315	S-5 about 75 ft from eastern boundary fence 25 ft from southern boundary fence.	DeBruijn
17P	1325	S-6 At N.E. edge of landfill, 75 ft from fence	DeBruijn
18P	1337	Empty barrel HAN registration 100 ft from[?]	
19P	1345	S7 In middle of landfill approx. 200 ft from northern boundary fence.	D. DeBruijn

REFERENCE NO. 2

Uncontrolled Hazardous Waste Site Ranking System

A Users Manual

(HW-10)

Originally Published in
the July 16, 1982, *Federal Register*

United States
Environmental Protection
Agency

1984

Distance	Assigned Value
>150 feet	0
76 to 150 feet	1
21 to 75 feet	2
0 to 20 feet	3

Net precipitation (precipitation minus evaporation) indicates the potential for leachate generation at the facility. Net seasonal rainfall (seasonal rainfall minus seasonal evaporation) data may be used if available. If net precipitation is not measured in the region in which the facility is located, calculate it by subtracting the mean annual lake evaporation for the region (obtained from Figure 4) from the normal annual precipitation for the region (obtained from Figure 5). EPA Regional Offices will have maps for areas outside the continental U.S. Assign a value as follows:

Net Precipitation	Assigned Value
< -10 inches	0
-10 to +5 inches	1
+5 to +15 inches	2
>+15 inches	3

Permeability of unsaturated zone (or intervening geological formations) is an indicator of the speed at which a contaminant could migrate from a facility. Assign a value from Table 2.

Physical state refers to the state of the hazardous substances at the time of disposal, except that gases generated by the hazardous substances in a disposal area should be considered in rating this factor. Each of the hazardous substances being evaluated is assigned a value as follows:

(to page 16)

TABLE 2

PERMEABILITY OF GEOLOGIC MATERIALS*

Type of Material	Approximate Range of Hydraulic Conductivity	Assigned Value
Clay, compact till, shale; unfractured metamorphic and igneous rocks	$<10^{-7}$ cm/sec	0
Silt, loess, silty clays, silty loams, clay loams; less permeable limestone, dolomites, and sandstone; moderately permeable till	$10^{-5} - 10^{-7}$ cm/sec	1
Fine sand and silty sand; sandy loams; loamy sands; moderately permeable limestone, dolomites, and sandstone (no karst); moderately fractured igneous and metamorphic rocks, some coarse till	$10^{-3} - 10^{-5}$ cm/sec	2
Gravel, sand; highly fractured igneous and metamorphic rocks; permeable basalt and lavas; karst limestone and dolomite	$>10^{-3}$ cm/sec	3

*Derived from:

Davis, S. N., Porosity and Permeability of Natural Materials in Flow-Through Porous Media, R.J.M. DeWest ed., Academic Press, New York, 1969

Freeze, R.A. and J.A. Cherry, Groundwater, Prentice-Hall, Inc., New York, 1979

Physical State	Assigned Value
Solid, consolidated or stabilized	0
Solid, unconsolidated or unstabilized	1
Powder or fine material	2
Liquid, sludge or gas	3

3.3 Containment

Containment is a measure of the natural or artificial means that have been used to minimize or prevent a contaminant from entering ground water. Examples include liners, leachate collection systems, and sealed containers. In assigning a value to this rating factor (Table 3), consider all ways in which hazardous substances are stored or disposed at the facility. If the facility involves more than one method of storage or disposal, assign the highest from among all applicable values (e.g., if a landfill has a containment value of 1, and, at the same location, a surface impoundment has a value of 2, assign containment a value of 2).

3.4 Waste Characteristics

In determining a waste characteristics score, evaluate the most hazardous substances at the facility that could migrate (i.e., if scored, containment is not equal to zero) to ground water. Take the substance with the highest score as representative of the potential hazard due to waste characteristics. Note that the substance that may have been observed in the release category can differ from the

TABLE 3

CONTAINMENT VALUE FOR GROUND WATER ROUTE

Assign containment a value of 0 if: (1) all the hazardous substances at the facility are underlain by an essentially non permeable surface (natural or artificial) and adequate leachate collection systems and diversion systems are present; or (2) there is no ground water in the vicinity. The value "0" does not indicate no risk. Rather, it indicates a significantly lower relative risk when compared with more serious sites on a national level. Otherwise, evaluate the containment for each of the different means of storage or disposal at the facility using the following guidance.

A. Surface Impoundment

	Assigned Value
Sound run-on diversion structure, essentially non permeable liner (natural or artificial) compatible with the waste, and adequate leachate collection system	0
Essentially non permeable compatible liner with no leachate collection system; or inadequate freeboard	1
Potentially unsound run-on diversion structure; or moderately permeable compatible liner	2
Unsound run-on diversion structure; no liner; or incompatible liner	3

B. Containers

	Assigned Value
Containers sealed and in sound condition, adequate liner, and adequate leachate collection system	0
Containers sealed and in sound condition, no liner or moderately permeable liner	1
Containers leaking, moderately permeable liner	2
Containers leaking and no liner or incompatible liner	3

C. Piles

	Assigned Value
Piles uncovered and waste stabilized; or piles covered, waste unstabilized, and essentially non permeable liner	0
Piles uncovered, waste unstabilized, moderately permeable liner, and leachate collection system	1
Piles uncovered, waste unstabilized, moderately permeable liner, and no leachate collection system	2
Piles uncovered, waste unstablized, and no liner	3

D. Landfill

	Assigned Value
Essentially non permeable liner, liner compatible with waste, and adequate leachate collection system	0
Essentially non permeable compatible liner, no leachate collection system, and landfill surface precludes ponding	1
Moderately permeable, compatible liner, and landfill surface precludes ponding	2
No liner or incompatible liner; moderately permeable compatible liner; landfill surface encourages ponding; no run-on control	3

substance used in rating waste characteristics. Where the total inventory of substances in a facility is known, only those present in amounts greater than the reportable quantity (see CERCLA Section 102 for definition) may be evaluated.

Toxicity and Persistence have been combined in the matrix below because of their important relationship. To determine the overall value for this combined factor, evaluate each factor individually as discussed below. Match the individual values assigned with the values in the matrix for the combined rating factor. Evaluate several of the most hazardous substances at the facility independently and enter only the highest score in the matrix on the work sheet.

	Value for Persistence			
Value for Toxicity	0	1	2	3
0	0	0	0	0
1	3	6	9	12
2	6	9	12	15
3	9	12	15	18

Persistence of each hazardous substance is evaluated on its biodegradability as follows:

Substance	Assigned Value
Easily biodegradable compounds	0
Straight chain hydrocarbons	1
Substituted and other ring compounds	2
Metals, polycyclic compounds and halogenated hydrocarbons	3

more specific information is given in Tables 4 and 5.

Toxicity of each hazardous substance being evaluated is given a value using the rating scheme of Sax (Table 6) or the National Fire Protection Association (NFPA) (Table 7) and the following guidance:

Toxicity	Assigned Value
Sax level 0 or NFPA level 0	0
Sax level 1 or NFPA level 1	1
Sax level 2 or NFPA level 2	2
Sax level 3 or NFPA level 3 or 4	3

Table 4 presents values for some common compounds.

Hazardous waste quantity includes all hazardous substances at a facility (as received) except that with a containment value of 0. Do not include amounts of contaminated soil or water; in such cases, the amount of contaminating hazardous substance may be estimated.

On occasion, it may be necessary to convert data to a common unit to combine them. In such cases, 1 ton = 1 cubic yard = 4 drums and for the purposes of converting bulk storage, 1 drum = 50 gallons. Assign a value as follows:

Tons/Cubic Yards	No. of Drums	Assigned Value
0	0	0
1-10	1-40	1
11-62	41-250	2
63-125	251-500	3
126-250	501-1000	4
251-625	1001-2500	5
626-1250	2501-5000	6
1251-2500	5001-10,000	7
>2500	>10,000	8

TABLE 4
WASTE CHARACTERISTICS VALUES FOR SOME COMMON CHEMICALS

CHEMICAL/COMPOUND	TOXICITY [1]	FLAMMABILITY [2]	VOLATILITY [2]	REACTIVITY [3]
Acetaldehyde	3	0	3	2
Acetic Acid	3	0	2	1
Acetone	2	0	3	0
Aldrin	3	3	1	0
Ammonia, Anhydrous	3	0	1	0
Aniline	3	1	2	0
Benzene	3	1	3	0
Carbon Tetrachloride	3	3	0	0
Chlordane	3	3	0*	0*
Chlorobenzene	2	2	3	0
Chloroform	3	3	0	0
Cresol-O	3	1	2	0
Cresol-M&P	3	1	1	0
Cyclohexane	2	2	3	0
Endrin	3	3	1	0
Ethyl Benzene	2	1	3	0
Formaldehyde	3	0	2	0
Formic Acid	3	0	2	0
Hydrochloric Acid	3	0	0	0
Isopropyl Ether	3	1	3	1
Lindane	3	3	1	0
Methane	1	1	3	0
Methyl Ethyl Ketone	2	0	3	0
Methyl Parathion in Xylene Solution	3	0Δ	3	2
Naphthalene	2	1	2	0
Nitric Acid	3	0	0	0
Parathion	3	0Δ	1	2
PCB	3	3	0Δ	0Δ
Petroleum, Kerosene (Fuel Oil No. 1)	3	1	2	0
Phenol	3	1	2	0
Sulfuric Acid	3	0	0	2
Toluene	2	1	3	0
Trichlorobenzene	2	3	1	0
α-Trichloroethane	2	2	1	0
Xylene	2	1	3	0

[1] Sax, N. I., Dangerous Properties of Industrial Materials, Van Nostrand Rheinhold Co., New York, 4th ed., 1975. The highest rating listed under each chemical is used.

[2] JRB Associates, Inc., Methodology for Rating the Hazard Potential of Waste Disposal Sites, May 5, 1980.

[3] National Fire Protection Association, National Fire Codes, Vol. 13, No. 49, 1977.

* Professional judgment based on information contained in the U.S. Coast Guard CHRIS Hazardous Chemical Data, 1978.

Δ Professional judgment based on existing literature.

TABLE 5

PERSISTENCE (BIODEGRADABILITY) OF SOME ORGANIC COMPOUNDS*

VALUE = 3 HIGHLY PERSISTENT COMPOUNDS	
aldrin	heptachlor
benzopyrene	heptachlor epoxide
benzothiazole	1,2,3,4,5,7,7-heptachloronorbornene
benzothiophene	hexachlorobenzene
benzyl butyl phthalate	hexachloro-1,3-butadiene
bromochlorobenzene	hexachlorocyclohexane
bromoform butanal	hexachloroethane
bromophenyl phynil ether	methyl benzothiazole
chlordane	pentachlorobiphenyl
chlorohydroxy benzophenone	pentachlorophenol
bis-chloroisoprophyl ether	1,1,3,3-tetrachloroacetone
m-chloronitrobenzene	tetrachlorobiphenyl
DDE	thiomethylbenzothiazole
DDT	trichlorobenzene
dibromobenzene	trichlorobiphenyl
dibutyl phthalate	trichlorofluoromethane
1, 4-dichlorobenzene	2,4,6-trichlorophenol
dichlorodifluoroethane	triphenyl phosphate
dieldrin	bromodichloromethane
diethyl phthalate	bromoform
di(2-ethylhexyl)phthalate	carbon tetrachloride
dihexyl phthalate	chloroform
di-isobutyl phthalate	chloromochloromethane
dimethyl phthalate	dibromodichloroethane
4,6-dinitro-2-aminophenol	tetrachloroethane
dipropyl phthalate	1,1,2-trichloroethane
endrin	

VALUE = 1 SOMEWHAT PERSISTENT COMPOUNDS	
acetylene dichloride	limonene
behenic acid, methyl ester	methyl ester of lignoceric acid
benzene	methane
benzene sulfonic acid	2-methyl-5-ethyl-pyridine -
butyl benzene	methyl naphthalene
butyl bromide	methyl palmitate
e-caprolactam	methyl phenyl carbinol
carbon-disulfide	methyl stearate
o-cresol	naphthalene
decane	nonane
1,2-dichloroethane	octane
1,2-dimethoxy benzene	octyl chloride
1,3-dimethyl naphthalene	pentane
2,4-dimethyl phenol	phenyl benzoate
dioctyl adipate	phthalic anhydride
n-dodecane	propylbenzene
ethyl benzene	l-terpineol
2-ethyl-n-hexane	toluene
o-ethyltoluene	vinyl benzene
isodecane	xylene
isoprophyl benzene	

VALUE = 2 PERSISTENT COMPOUNDS	
acenaphthylene	cis-2-ethyl-4-methyl-1,3-dioxolane
atrazine	trans-2-ethyl-4-methyl-1,3-dioxolane
(diethyl) atrazine	guaiacol
barbital	2-hydroxyadiponitrile
borneol	isophorone
bromobenzene	indene
camphor	isoborneol
chlorobenzene	isopropanyl-r-isopropyl benzene
1,2-bis-chloroethoxy ethane	2-methoxy biphenyl
b-chloroethyl methyl ether	methyl biphenyl
chloromethyl ether	methyl chloride
chloromethyl ethyl ether	methylindene
3-chloropyridine	methylene chloride
di-t-butyl-p-benzoquinone	nitroanisole
dichloroethyl ether	nitrobenzene
dihydrocarvone	1,1,2-trichloroethylene
dimethyl sulfoxide	trimethyl-trioxo-hexahydro-triazine isomer
2,6-dinitrotoluene	

VALUE = 0 NONPERSISTENT COMPOUNDS	
acetaldehyde	methyl benzoate
acetic acid	3-methyl butanol
acetone	methyl ethyl ketone
acetophenone	2-methylpropanol
benzoic acid	octadecane
di-isobutyl carbinol	pentadecane
docosane	pentanol
eicosane	propanol
ethanol	propylamine
ethylamine	tetradecane
hexadecane	n-tridecane
methanol	n-undecane

TABLE 6

SAX TOXICITY RATINGS

0 = No Toxicity* (None)**

This designation is given to materials which fall into one of the following categories:

(a) Materials which cause no harm under any conditions of normal use.

(b) Materials which produce toxic effects on humans only under the most unusual conditions or by overwhelming dosage.

1 = Slight Toxicity* (Low)**

(a) *Acute local.* Materials which on single exposures lasting seconds, minutes, or hours cause only slight effects on the skin or mucuous membranes regardless of the extent of the exposure.

(b) *Acute systemic.* Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which produce only slight effects following single exposures lasting seconds, minutes, or hours, or following ingestion of a single dose, regardless of the quantity absorbed or the extent of exposure.

(c) *Chronic local.* Materials which on continuous or repeated exposures extending over periods of days, months, or years cause only slight and usually reversible harm to the skin or mucous membranes. The extent of exposure may be great or small.

(d) *Chronic systemic.* Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which produce only slightly usually reversible effects extending over days, months, or years. The extent of the exposure may be great or small.

In general, those substances classified as having "slight toxicity" produce changes in the human body which are readily reversible and which will disappear following termination of exposure, either with or without medical treatment.

2 = Moderate Toxicity* (Mod)**

(a) *Acute local.* Materials which on single exposure lasting seconds, minutes, or hours cause moderate effects on the skin or mucous membranes. These effects may be the result of intense exposure for a matter or seconds or moderate exposure for a matter of hours.

(b) *Acute systemic.* Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and produce moderate effects following single exposures lasting seconds, minutes, or hours, or following ingestion of a single dose.

(c) *Chronic local.* Materials which on continuous or repeated exposures extending over periods of days, months, or years cause moderate harm to the skin or mucous membranes.

(d) *Chronic systemic.* Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which produce moderate effects following continuous or repeated exposures extending over periods of days, months, or years.

Those substances classified as having "moderate toxicity" may produce irreversible as well as reversible changes in the human body. These changes are not of such severity as to threaten life or to produce serious physical impairment.

3 = Severe Toxicity* (High)**

(a) *Acute local.* Materials which on single exposure lasting seconds or minutes cause injury to skin or mucous membranes or sufficient severity to threaten life or to cause permanent physical impairment or disfigurement.

(b) *Acute systemic.* Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which can cause injury of sufficient severity to threaten life following a single exposure lasting seconds, minutes, or hours, or following ingestion of a single dose.

(c) *Chronic local.* Materials which on continuous or repeated exposures extending over periods of days, months, or years can cause injury to skin or mucous membranes of sufficient severity to threaten life or cause permanent impairment, which disfigurement, or irreversible change.

(d) *Chronic systemic.* Materials which can be absorbed into the body by inhalation, ingestion or through the skin and which can cause death or serious physical impairment following continuous or repeated exposures to small amounts extending over periods of days, months, or years.

*Sax, N.I., Dangerous Properties of Industrial Materials, Van Nostrand Rheinhold Company, New York, 4th Edition, 1975.

**Sax, N.I., Dangerous Properties of Industrial Materials, Van Nostrand Rheinhold Company, New York, 5th Edition, 1979.

TABLE 7

NFPA TOXICITY RATINGS*

0	Materials which on exposure under fire conditions would offer no health hazard beyond that of ordinary combustible material.
1	Materials only slightly hazardous to health. It may be desirable to wear self-contained breathing apparatus.
2	Materials hazardous to health, but areas may be entered freely with self-contained breathing apparatus.
3	Materials extremely hazardous to health, but areas may be entered with extreme care. Full protective clothing, including self-contained breathing apparatus, rubber gloves, boots and bands around legs, arms and waist should be provided. No skin surface should be exposed.
4	A few whiffs of the gas or vapor could cause death, or the gas, vapor, or liquid could be fatal on penetrating the fire fighters' normal full protective clothing which is designed for resistance to heat. For most chemicals having a Health 4 rating, the normal full protective clothing available to the average fire department will not provide adequate protection against skin contact with these materials. Only special protective clothing designed to protect against the specific hazard should be worn.

*National Fire Protection Association. National Fire Codes, Vol. 13, No. 49, 1977.

4.0 SURFACE WATER ROUTE

4.1 Observed Release

Direct evidence of release to surface water must be quantitative evidence that the facility is releasing contaminants into surface water. Quantitative evidence could be the measurement of levels of contaminants from a facility in surface water, either at the facility or downhill from it, that represents a significant (in terms of demonstrating that a release has occurred, not in terms of potential effects) increase over background levels. If direct evidence of release has been obtained (regardless of frequency), enter a value of 45 on line 1 of the work sheet (Figure 7) and omit the evaluation of the route characteristics and containment factors. If direct evidence of release is lacking, enter a value of 0 on line 1 and continue with the scoring procedure.

4.2. Route Characteristics

Facility slope and intervening terrain are indicators of the potential for contaminated runoff or spills at a facility to be transported to surface water. The facility slope is an indicator of the potential for runoff or spills to leave the facility. Intervening terrain refers to the average slope of the shortest path which would be followed by runoff between the facility boundary and the nearest downhill surface water. This rating factor can be assessed using topographic maps. Table 8 shows values assigned to various facility conditions.

TABLE 8

VALUES FOR FACILITY SLOPE AND INTERVENING TERRAIN

Facility Slope	Intervening Terrain				
	Terrain Average Slope ≤3%; or Site Separated from Water Body by Areas of Higher Elevation	Terrain Average Slope 3-5%	Terrain Average Slope 5-8%	Terrain Average Slope >8%	Site in Surface Water
Facility is closed basin	0	0	0	0	3
Facility has average slope ≤3%	0	1	1	2	3
Average slope 3-5%	0	1	2	2	3
Average slope 5-8%	0	2	2	3	3
Average slope >8%	0	2	3	3	3

4.3 Containment

Containment is a measure of the means that have been taken to minimize the likelihood of a contaminant entering surface water either at the facility or beyond the facility boundary. Examples of containment are diversion structures and the use of sealed containers. If more than one type of containment is used at a facility, evaluate each separately (Table 9) and assign the highest score.

4.4 Waste Characteristics

Evaluate waste characteristics for the surface water route with the procedures described in Section 3.4 for the ground water route.

4.5 Targets

Surface water use brings into the rating process the use being made of surface water downstream from the facility. The use or uses of interest are those associated with water taken from surface waters within a distance of three miles from the location of the hazardous substance. Assign a value as follows:

Surface Water Use (Fresh or Salt Water)	Assigned Value
Not currently used	0
Commercial or industrial	1
Irrigation, economically important resources (e.g., shellfish), commercial food preparation, or recreation (e.g., fishing, boating, swimming)	2
Drinking Water	3

TABLE 9

CONTAINMENT VALUES FOR SURFACE WATER ROUTE

Assign containment a value of 0 if: (1) all the waste at the site is surrounded by diversion structures that are in sound condition and adequate to contain all runoff, spills, or leaks from the waste; or (2) intervening terrain precludes runoff from entering surface water. Otherwise, evaluate the containment for each of the different means of storage or disposal at the site and assign a value as follows:

A. Surface Impoundment

	Assigned Value
Sound diking or diversion structure, adequate freeboard, and no erosion evident	0
Sound diking or diversion structure, but inadequate freeboard	1
Diking not leaking, but potentially unsound	2
Diking unsound, leaking, or in danger of collapse	3

B. Containers

	Assigned Value
Containers sealed, in sound condition, and surrounded by sound diversion or containment system	0
Containers sealed and in sound condition, but not surrounded by sound diversion or containment system	1
Containers leaking and diversion or containment structures potentially unsound	2
Containers leaking, and no diversion or containment structures or diversion structures leaking or in danger of collapse	3

C. Waste Piles

	Assigned Value
Piles are covered and surrounded by sound diversion or containment system	0
Piles covered, wastes unconsolidated, diversion or containment system not adequate	1
Piles not covered, wastes unconsolidated, and diversion or containment system potentially unsound	2
Piles not covered, wastes unconsolidated, and no diversion or containment or diversion system leaking or in danger or collapse	3

D. Landfill

	Assigned Value
Landfill slope precludes runoff, landfill surrounded by sound diversion system, or landfill has adequate cover material	0
Landfill not adequately covered and diversion system sound	1
Landfill not covered and diversion system potentially unsound	2
Landfill not covered and no diversion system present, or diversion system unsound	3

Distance to a sensitive environment refers to the distance from the hazardous substance (not the facility boundary) to an area containing an important biological resource or to a fragile natural setting that could suffer an especially severe impact from pollution. Table 10 provides guidance on assigning a value to this rating factor.

Population served by surface water with water intake within 3 miles downstream from facility (or 1 mile in static surface water such as a lake) is a rough indicator of the potential hazard exposure of the nearby population served by potentially contaminated surface water. Measure the distance from the probable point of entry to surface water following the surface water flow (stream miles). The population includes residents as well as others who would regularly use the water such as workers in factories or offices and students. Include employees in restaurants, motels, or campgrounds but exclude customers and travelers passing through the area in autos, buses and trains. The distance is measured from the hazardous substance, including observations in stream or sediment samples, regardless of facility boundaries. Where only residential houses can be counted (e.g., from an aerial photograph), and residents are known to be using surface water, assume 3.8 individuals per dwelling unit. Where surface water is used for irrigation, convert to population by assuming 1.5 persons per acre of land irrigated. Assign a value as follows:

TABLE 10

VALUES FOR SENSITIVE ENVIRONMENT (SURFACE WATER)

ASSIGNED VALUE =	0	1	2	3
DISTANCE TO WETLANDS* (5 acre minimum)				
Coastal	>2 miles	1 - 2 miles	½ - 1 mile	< ½ mile
Fresh Water	>1 mile	¼ - 1 mile	100 feet - ¼ mile	< 100 feet
DISTANCE TO CRITICAL HABITAT (of endangered species)**	>1 mile	½ - 1 mile	¼ - ½ mile	< ¼ mile

*Wetland is defined by EPA in the Code of Federal Regulations 40 CFR Part 230, Appendix A, 1980

**Endangered species are designated by the U.S. Fish and Wildlife Service.

REFERENCE #3

DRAFT

PHASE II (THIRD ROUND) WORK PLAN
ENGINEERING INVESTIGATIONS AND EVALUATIONS AT
INACTIVE HAZARDOUS WASTE DISPOSAL SITES

PRATT AND LETCHWORTH - SITE #915045
ERIE COUNTY
NEW YORK

Prepared For:

New York State Department of Environmental Conservation

Submitted By:

Engineering-Science, Inc.

In Association With

Dames & Moore

2/28/86

WORK PLAN

PHASE II THIRD ROUND INVESTIGATION

PRATT AND LETCHWORTH

INTRODUCTION

The Pratt and Letchworth site is located in the City of Buffalo, Erie County, New York (see Figure 1). The Pratt and Letchworth site, approximately 3 to 5 acres in size, is on Tonawanda Street adjacent to Scajaquada Creek. Pratt and Letchworth, a Division of Dayton Malleable Iron Company (now Amcas Industries) has operated the site from 1860 to date (Smith and Schnacke, 1985).

From 1949 to 1965, Pratt and Letchworth landfilled approximately 19,000 tons of foundry sand and 16,000 tons of foundry slag into and adjacent to the Scajaquada Creek. Liquid wastes including lubricant and hydraulic oil, 1,1,1-trichloroethane degreaser, alchol-based foundry sand binders containing naptha and phosphoric acid wastes have been stored in drums at the landfill. As of April 1985, there were 70 to 100 drums on-site which contained unidentified liquids and many of these drums showed signs of leakage. These drums were removed and/or relocated during the summer of 1985, and clean sand was placed over the stained soils. An unknown quantity of drums have been removed from the site in the past by Speedy Oil for off-site disposal.

Analysis of foundry sand samples collected adjacent to the creek detected heavy metals including cadmium, chromium, and nickel. Analysis of foundry sand samples and a sample of clay underlying the sand revealed significant concentrations of phenols. Sediment samples from Scajaquada Creek were analyzed and significant concentrations of cadmium, chromium, and nickel were detected.

The Pratt and Letchworth facility is bordered to the west by Tonawanda Street across which is an abandoned Conrail facility, to the north by a bank and residential area, to the east by the Scajaquada Creek, and to the south by other older industrial buildings.

The bedrock beneath the site is expected to be shaley Bertie Limestone (dolomite). Depth to the top of rock is estimated to be 50 feet. The soil column overlying the bedrock is estimated to be:

Soil Type	Approximate Depth (ft)
Foundry Sand and Misc. Fill	0 - 18
Red Lacustrine Silty Clay	18 - 40
Till	40 - 50
Top of Rock	50

Foundry sand reaches depths of 18 feet on the eastern end of the site. A perched water table may exist occasionally on top of the red clay, however, this unit has been observed to be dry to a depth of 20 feet.

OBJECTIVES

The objectives of the Phase II activities are:

- To collect additional field data necessary to identify the occurrence and extent of contamination and to determine if any imminent health hazard exists.
- To perform a conceptual evaluation of remedial alternatives and estimate budgetary costs for the most likely alternative.
- To prepare a site investigation report, including a final HRS score.

SITE RECONNAISSANCE

A site reconnaissance was conducted at the Pratt and Letchworth site on October 29, 1985 by a team of ES and NYSDEC personnel. The visit allowed for verification of proposed monitoring well and surface sample locations (see Figure 2).

The site was examined to identify access problems for geophysics, drilling, and sampling crews. The primary access restriction is the fence with locked gates which completely encloses the property. The plant is out of operation and presently only a caretaker is on-site to grant access. Special arrangements will have to be made for access during field activities.

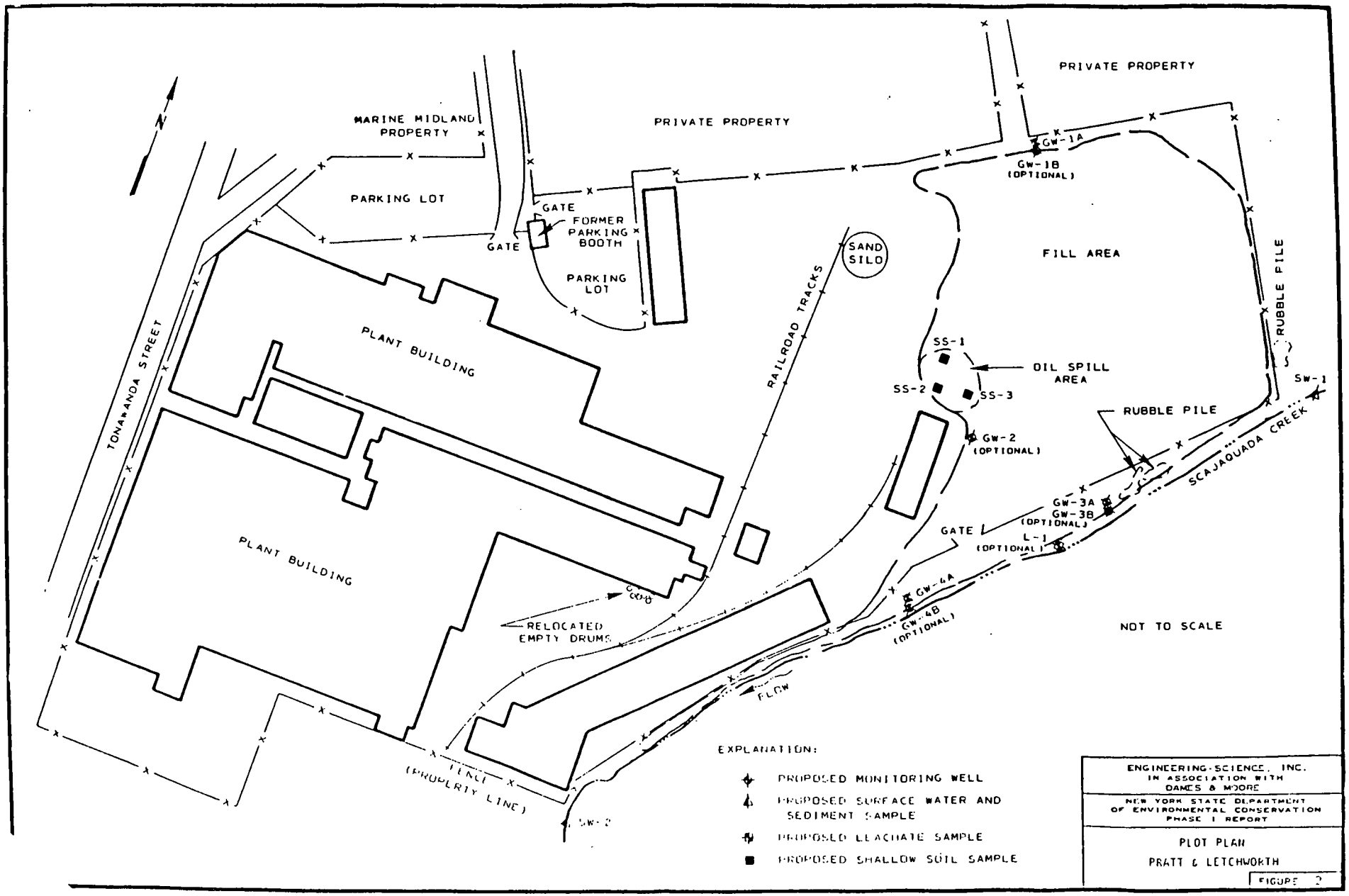
It should also be noted that wells GW-3a and 3b and GW-4a and 4b may have to be advanced through some construction debris used as fill.

FIELD INVESTIGATION

The project has been subdivided into specific tasks. Table 1 briefly summarizes each task. Field efforts required to complete this investigation are described herein.

Geophysical Survey

A geophysical study consisting of an Electrical Resistivity (ER) and Magnetometer surveys is recommended for the Pratt and Letchworth site. The ER and Magnetometer surveys will be performed at various locations within and beyond the perimeter of the site. The results of the studies will aid in determining the overall subsurface geologic conditions, delineate significant discontinuities, define whether or not a contaminant plume exists, and locate buried materials. The ER and Magnetometer surveys will be conducted using a grid to cover the site and related areas around the site. The starting corner of the grid will be located from an established reference point on or adjacent to the site. This will allow for accurate location of the geophysical survey later.


MARINE MIDLAND PROPERTY
PARKING LOT
GATE
GATE
FORMER PARKING BOOTH
PARKING LOT
PRIVATE PROPERTY
PRIVATE PROPERTY
GW-1A
GW-1B (OPTIONAL)
SAND SILO
FILL AREA
RUBBLE FILE
RAILROAD TRACKS
TONAWANDA STREET
PLANT BUILDING
PLANT BUILDING
SS-1
OIL SPILL AREA
SS-2
SS-3
SW-1
RUBBLE PILE
GW-2 (OPTIONAL)
SCAJAQUADA CREEK
GW-3A
GW-3B (OPTIONAL)
GATE
L-1 (OPTIONAL)
GW-4A
GW-4B (OPTIONAL)
RELOCATED EMPTY DRUMS
FLOW
FENCE (PROPERTY LINE)
SW-2
NOT TO SCALE
EXPLANATION:
PROPOSED MONITORING WELL
PROPOSED SURFACE WATER AND SEDIMENT SAMPLE
PROPOSED LEACHATE SAMPLE
PROPOSED SHALLOW SOIL SAMPLE
ENGINEERING-SCIENCE, INC. IN ASSOCIATION WITH DAMES & MOORE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PHASE I REPORT
PLOT PLAN
PRATT & LETCHWORTH
FIGURE 2

The data collected during the geophysical survey will also be used to aid in the placement of the test borings and monitoring wells.

Test Borings and Well Installations

Once geophysical data have been reviewed and conclusions have been drawn, final locations of soil test borings and monitoring wells will be made. Test borings and monitoring wells will be installed using Rotary Drilling methods. Hollow-stem augers (6-1/4" ID) will be used where possible. Biodegradeable drilling muds will be used where the borehole will not remain open by itself. Rock coring will be employed where bedrock drilling is required. NYSDEC protocols will be strictly adhered to during all drilling and sampling operations. All drilling equipment will be decontaminated prior to the drilling of each hole. All downhole materials (well materials, developing materials, drilling tools) will be decontaminated prior to entering the borehole. An experienced ES or D&M geologist will ensure that these procedures are carried out.

Soil samples will be taken at 5 foot intervals using a split-spoon sampler. The sampling device will be decontaminated prior to each sample. Additional samples will be collected where major changes in lithology occur or are deemed necessary by the supervising geologist and/or site conditions. A grain size analysis for non-cohesive materials will be conducted for each separately identifiable unit in each well and in the screened interval. Generally, with cohesive units, one Atterberg limit will be completed from each separately identifiable unit at the site. However, the decision as to whether or not to do more than one Atterberg limit will be made in the field. Only grain size analysis will be performed if conditions are a mixture of cohesive and non-cohesive materials. Hydrometer analysis will also be performed on soils if 20 percent of the sample is less than No. 200 sieve size. For costing purposes, either two grain size or two Atterberg limit analyses were assumed per boring, depending upon the lithology encountered. A permeability test will also be conducted on each well boring.

Seven groundwater monitoring wells will be installed on the site. Locations of proposed monitoring wells are shown on Figure 2. Groundwater monitoring wells will be designated GW-1a, GW-1b, GW-2, GW-3a, GW-3b, GW-4a, and GW-4b, and will progress from the background well to the most contaminated as expected from available site information. The "a" designation represents deep wells to be screened in the bedrock aquifer. The "b" is used to designate optional wells which will be installed at the fill/clay interface if it is determined during the installation of the bedrock wells that a significant amount of water is present at the fill/clay interface. If this perched aquifer is encountered, GW-2 will also be installed downgradient of the spill area. A summary of the well designations, the rationale for well placement, the screened aquifer, the approximate boring depths, and the length of screen is presented in Table 2. Wells will be constructed of 2 inch threaded, flush-joint, PVC pipe and slotted screen. All installations will include a quartz sand filter pack and a 2 foot bentonite seal.

To allow for accurate water level measurements, each of the well elevations will be determined relative to a USGS datum. If a USGS datum is not accessible to the site, the elevation measurements will be made relative to a site specific datum. Elevation measurements will be made to the top of casing to the nearest 0.01 foot and the ground surface adjacent to the well to the nearest 0.1 foot. Preliminary measurements will also be made when necessary to assist in placement of downgradient wells. Also, the distance between each of the on-site monitoring wells will be obtained.

During drilling operations, steps will be taken to ensure the integrity of each monitoring well. These procedures will be detailed in a Quality Assurance/Quality Control Plan for the site. All wells, upon completion, will be protected by a protective casing with locking cap. Procedures used in well installation will follow NYSDEC monitoring well installation protocols and will be detailed in a QA/QC plan for the site.

TABLE 2
PHASE II WORK PLAN - SAMPLING SUMMARY
PRATT AND LETCHWORTH

Designation	Location Rationale	Aquifer Screened	Approx. Boring Depth (ft)	Length of Screen (ft)
Groundwater				
GW-1a	Upgradient	Bedrock	60	10
GW-1b*	Upgradient	Fill/clay	30	10
GW-2*	Downgradient of spill area	Fill/clay	30	10
GW-3a	Downgradient of fill	Bedrock	60	10
GW-3b*	Downgradient of fill	Fill/clay	30	10
GW-4a	Downgradient of fill	Bedrock	60	10
GW-4b*	Downgradient of fill	Fill/clay	30	10
Surface Water				
SW-1	Upgradient			
SW-2	Downgradient			
Sediment				
SW-1	Upgradient			
SW-2	Downgradient			
Leachate				
L-1	If seep from fill is found			
Soil Samples				
SS-1	Top of fill below sand cover			
SS-2	Top of fill below sand cover			
SS-3	Top of fill below sand cover			

* Optional

NOTE: Locations, aquifer screened, approximate boring depth, length of screen (ft) listed are based on existing data and are the basis of the cost estimate. These criteria may change based on the results of the geophysical surveys and/or field conditions.

2/28/86

Sampling and Analysis

Groundwater

Groundwater from the seven wells identified in Table 2 will be analyzed for Hazardous Substance List (HSL) metals and organics, using the Superfund and Contract Laboratory Protocol, January, 1985, and total halogenated compounds (TOX). Dedicated tubes, hoses, and line will be provided for development and sampling of each well. Bailers will be decontaminated as required in the QA/QC plan.

Surface Water

Two surface water samples will be collected at the site (see Figure 2). The sample designation and location rationale is presented in Table 2. Each of the samples will be analyzed for Hazardous Substance List (HSL) metals and organics, using the Superfund and Contract Laboratory Protocol, January, 1985, and TOX. Surface water samples will be designated SW-1 and SW-2.

Sediment

Two sediment samples will be collected at the same locations on the site. These samples will also be designated as SW-1 and SW-2, and are located on Figure 2. The sample designation and location rationale is presented in Table 2. The sediment samples will be analyzed for Hazardous Substance List (HSL) metals and organics, using the Superfund and Contract Laboratory Protocol, January, 1985, and TOX.

Leachate

If a seep from the fill can be found along the bank of the Scajaquada Creek, it will be sampled. The leachate sample is also presented in Table 2. This sample will be analyzed for Hazardous Substance List (HSL) metals and organics, using the Superfund and Contract Laboratory Protocol, January, 1985, and TOX. The leachate sample will be designated L-1, and is located on Figure 2.

Soil Samples

Three additional soil samples will be collected from the former drum storage area using a portable hand auger or shovel. Soil samples will be analyzed for Hazardous Substance List (HSL) metals and organics, using the Superfund and Contract Laboratory Protocol, January, 1985, and for TOX. Soil samples will be designated as SS-1, SS-2, and SS-3. The general locations for the proposed soil samples are found on Figure 2. These samples are to be collected in the upper six inches of the foundry sand fill material below the shallow sand cover which was placed over the spill area.

Table 3 summarizes the analyses to be performed at the Pratt and Letchworth site. Type of sample, number of samples and analysis methods are included.

TASK DESCRIPTION

The proposed Phase II tasks are described in Table 1. Well and sampling locations are shown on Figure 2.

COST ESTIMATE

The estimated manhours required for the Phase II project are presented in Table 4 and the estimated project costs by tasks are presented in Table 5. The total cost excluding Task II-G (Sampling and Analysis) is also presented in Table 5.

HEALTH AND SAFETY PLAN

The Health and Safety Plan will be submitted as a separate document. At this time, we anticipate Level D health and safety gear will be required during the field work.

QUALITY ASSURANCE PLAN

The Quality Assurance Plan will be submitted as a separate document.

HAZARD ANALYSIS

Site: #915045

Owner: Pratt and Letchworth
Tonawanda Street
Buffalo, New York

Surrounding Land Use: Industrial area surrounded by residential development on North, South ahd East, Niagara River ¼ mile to West.

Anticipated Effect of Disposal Site on Groundwater Drinking Supplies:

Surrounding Area: None - surrounding area served by surface source, Public Water Supply

Potential leaching of contaminants into Scajaquada Creek.

Airborne Transport of Pollutants: None - site inactive

Need for Immediate Action: None

Need for Future Action: Soil borings in fill and oil dumping area,evaluate for possible PCB contamination.

Responsible Agency: New York State DEC

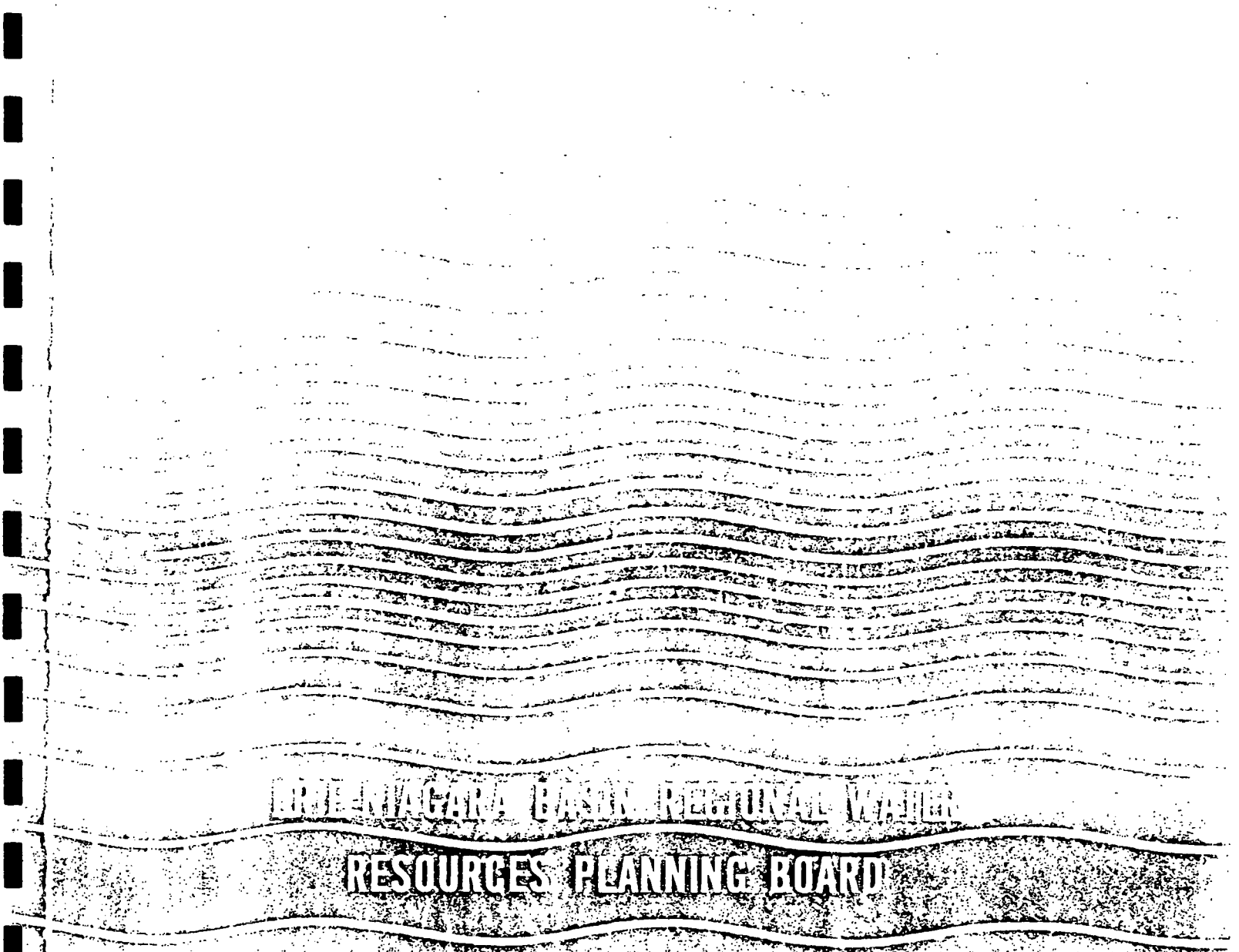
REFERENCE #4

The Following Image(s) are the Best Copy Available

BIEL'S

Erie-Niagara Basin

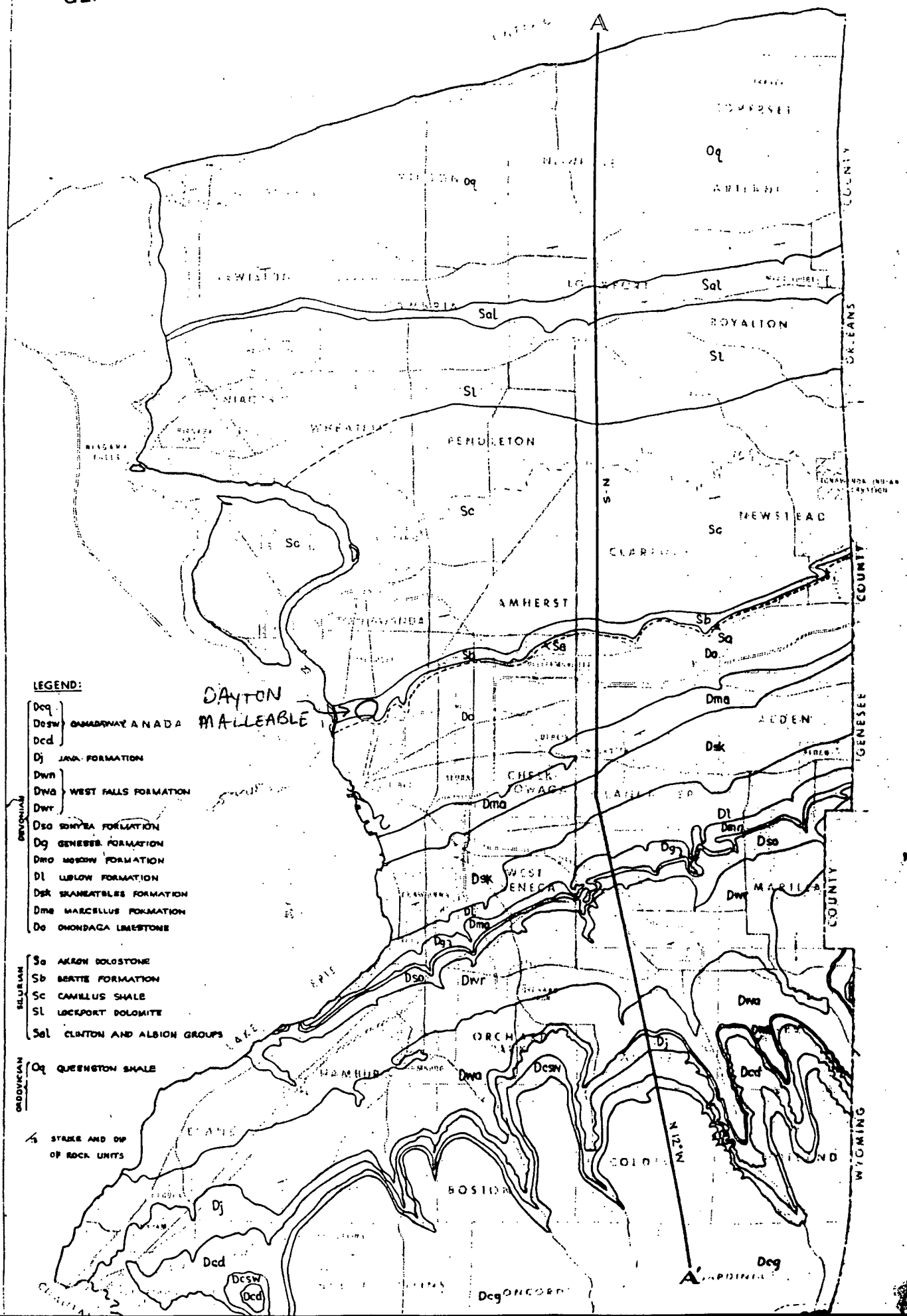
Ground-Water Resources



THE NEW YORK STATE WATER RESOURCES COMMISSION

CONSERVATION DEPARTMENT • DIVISION OF WATER RESOURCES

GENERALIZED GEOLOGIC MAP



This formation is hydrologically unique among the shale units in the region. Normally, because of its fine grain size and compact nature, shale does not yield much water to wells (typically less than 5 gpm). The Camillus Shale, however, is a significant water-bearing unit in this area due to the large amounts of gypsum contained in the formation. Because of its highly soluble nature, gypsum is easily removed by percollating ground waters, resulting in solution openings which are capable of storing large amounts of water.

This means, of course, that, like the Lockport Dolomite, water is found in localized zones within the unit rather than throughout the entire extent and thickness of the formation. Some of the thicker beds of gypsum may be expected to have a latteral extent of 3 to 4 miles.

Water reaches these zones by percolation through vertical fractures. The situation is therefore similar to the Lockport Dolomite, in which the primary function of vertical fractures is for recharge. Yields of successful wells tapping the Camillus Shale range from 300 gpm to 1,200 gpm. These large yields are due to the large amounts of water which are contained in the solution openings of the formation.

Ground water flow through the aquifer is toward Tonawanda Creek which is the major discharge point for this formation (Figure 13-5). Because of pumping effects, induced infiltration is occurring from Sawyer Creek along localized reaches.

Normal transmissibility values (T), range from 40,000 to 70,000 gpd/ft. In some areas, T is as low as 7,000 gpd/ft. This wide range in values is not dependent upon geographic location, but rather is a function of whether a given well intersects significant water-bearing openings. Low T-values can be expected where openings are not intersected.

D. LIMESTONE UNIT

For hydrologic purposes, the Bertie, Akron, and Onodaga Formations can be collectively considered as a single aquifer, herein referred to as the Limestone Unit.

The total thickness of this southward dipping unit is roughly 174 feet, but variations occur locally. The composition, from the base to the top, consists of dolomite, dolomitic limestone with interbedded shale, greenish-grey and buff dolomite, limestone and cherty limestone.

The water-bearing characteristics are similar to the Lockport Dolomite. The greater solubility of this unit, however, has resulted in a more pronounced solution widening of the fractures. Principal zones of discharge are at the base of the unit where is contacts the Camillus shale, and a shaly zone about 20 feet above the base.

Table 6.--Records of selected wells in the Erie-Niagara basin (Continued)

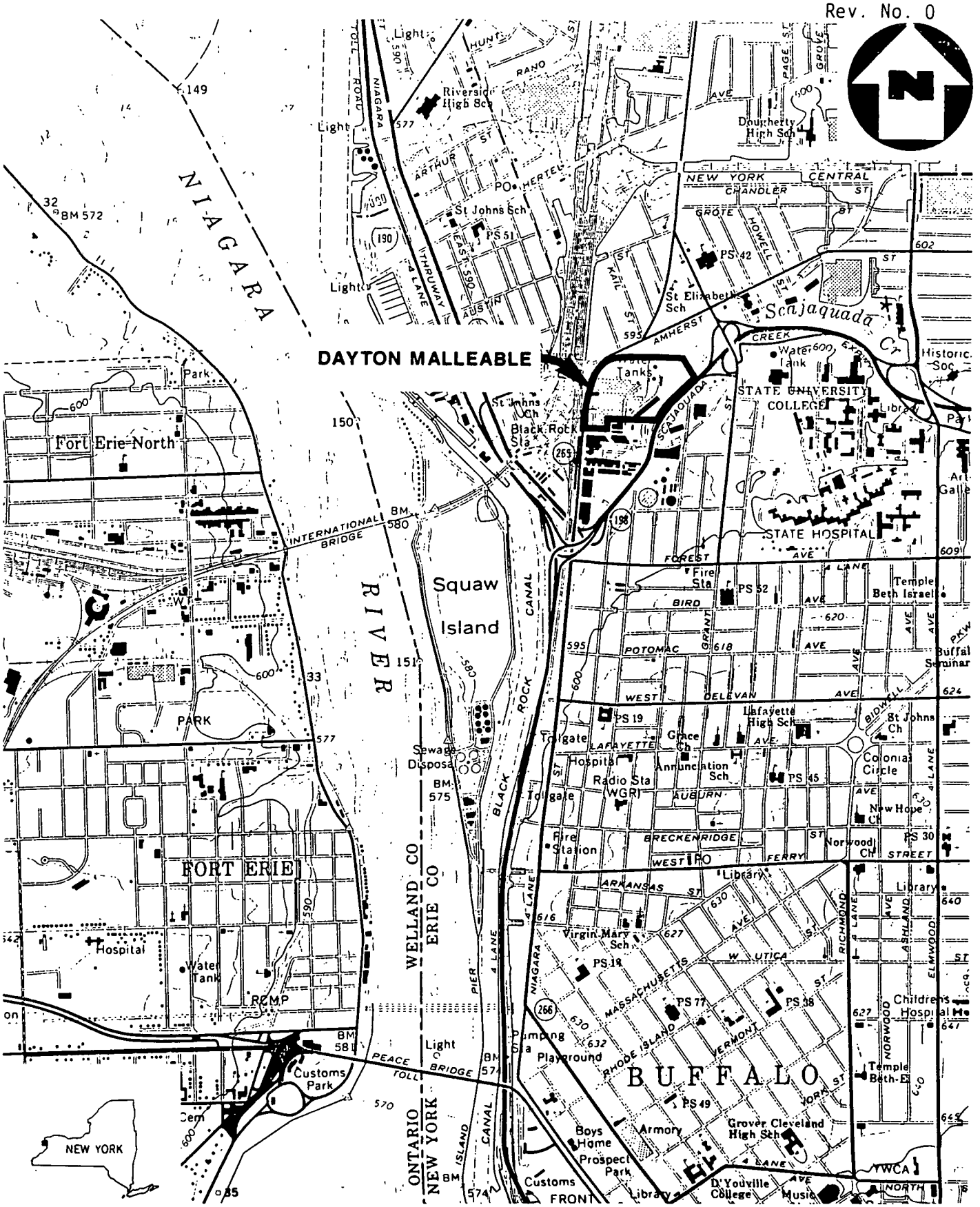
Well number	County	Owner	Year completed	Type of well	Depth of well (feet)	Diameter (inches)	Depth to bedrock (feet)	Water-bearing material	Altitude above sea level (feet)	Water level: Below land surface (feet)	Water level: Date	Method of lift	Estimated pumpage or flow (gallons per day)	Use	Remarks
254-829-3	Erie	Village of Alden	1964	Drl	re35	--	--	Sand and gravel	845	--	--	Tur	--	PS	Construction of well is reported to be similar to that of well 254-829-1; yield 220 gpm.
254-830-1	do.	W. and J. Fahringer	a1904	Drl	rl,150	8	--	Lockport Dolomite?	840	r350	8-62	Dw	--	C	Gas test well which yields a black brine used for mineral baths.
254-834-1	do.	G. Glose	1962	Drl	66.2	10	e7	Shale	770	p26.3	8-19-64	Jet	450	D	H_2S.
-2	do.	R. Maue	1961	Drl	52.9	6	a10	do.	765	7.1	8-19-64	Jet	200	D	Iron; H_2S; water-bearing zone at 25 feet; blasting charge fired at 20-25 ft to increase yield.
255-812-1	Genesee	Western New York Concrete Corp.	1957	Drl	85.9	8	--	Sand and gravel	965	2.4	7-17-63	--	--	A	Anal; screen, 8-inch diameter; 77.9-85.9 ft; pumping test 60 gpm, swl 2 ft, dd 42 ft (r).
-2	do.	do.	1957	Drl	81.4	8	--	do.	970	7.3	7-17-63	--	--	A	Yield about 50 gpm (r); OW.
-3	do.	H. Eart	1944	Drl	38.5	6	--	do.	945	6.3	6-16-64	Sw	1,000	F	Iron.
255-848-1	Erie	Commodore Theater	--	Drl	r75	8	7	Limestone	640	0	1951	Tur	--	C	Air-conditioning use; pumping data, 130 gpm, dd 10 ft (r).
255-850-1	do.	Nagel Dairy	--	Drl	r90	8	20	do.	660	r,p20	1951	Tur	--	C	Pumping data, 180 gpm, dd 45 ft.
256-818-1	Genesee	D. Hegge	1959	Drl	45	6	a30	Shale	935	9.7	7-30-64	Jet	700	F	Yield 8 gpm (r).
256-822-1	do.	K. Skeet	1962	Drl	27.5	6	3	do.	890	7.3	7-30-64	Sw	300	D	Anal; H_2S.
256-831-1	Erie	Sierackl	1959	Drl	52.3	6	a40	do.	800	16.6	8-19-64	Jet	200	D	Anal.
256-835-1	do.	Huber	1964	Drl	68.5	6	--	do.	770	18.7	7-23-64	--	--	D	
-2	do.	C. Suess	1958	Drl	59	6	a34	Limestone	750	29.6	8-19-64	Jet	250	D	Anal.
256-844-1	do.	Twin Industries Corp., Aerospace Division	1951	Drl	r117	6	--	do.	715	--	--	Tur	--	U, I	Iron; H_2S; well is unused because quality of wate has deteriorated; formerly supplied 150,000 gpd, yield about 285 gpm.
-2	do.	do.	1951	Drl	90	8	--	do.	715	r45	7- 3-64	--	--	U, I	
257-812-1	Genesee	E. Foster	1955	Drl	65	6	--	Sand and gravel	895	5.2	6-16-64	Jet	1,500	F	
-2	do.	W. Cook	1960	Drl	71.3	6	--	do.	895	5.2	6-16-64	Sw	150	D	Anal; Iron.
257-817-1	do.	J. Pankszyck	1961	Drl	r52	--	--	Shale	920	--	--	Jet	--	D	Iron.
257-824-1	do.	Village of Corfu	1954	Drl	r39.3	12, 8	30	Sand and gravel; shale	850	6	1- 6-54	Tur	55,000	PS	Temp 49.8, 1-17-63; screen, 8-inch diameter, 100-slot from 34.3-39.3 ft; 12-inch diameter gravel peck from 32-39.3 ft; pumping rate 90 gpm; pumping test 100 gpm, swl 6 ft, dd 11 ft.
-2	do.	do.	1952	Drl	r36.6	12	32	do.	850	4	10-27-52	--	--	A	Pumping test, 110 gpm, swl 4 ft, dd 12 ft.
257-855-1	Erie	E. I. du Pont de Nemours & Co.	1925	Drl	r101	8	55	Camillus Shale	590	r30	1951	AL	--	A, I	Yield 125 gpm; 1 of 3 wells of the "north" well field; combined pumpage was 200,000 gpd.
-2	do.	do.	1925	Drl	r123	8	55	do.	590	r30	1951	AL	--	A, I	Yield 125 gpm; 1 of 7 wells of the "south" well field; combined pumpage was 1 mgd.
258-809-1	Genesee	O-AT-KA Milk Products Cooperative, Inc.	1958	Drl	r49.2	18, 10	--	Sand and gravel	900	26.5	8- 1-58	Tur	--	I	Screen, 10-inch diameter, 125-slot, from 41 to 49 ft; gravel packed, Cape May No. 5 gravel; pumping test, 456 gpm, swl 26.5 ft, dd 12.8 ft.
-2	do.	do.	1958	Drl	--	8	--	do.	900	22.2	5- 8-63	Tur	--	I	
258-813-1	do.	H. Loveland	--	Drl	11.7	3	--	Shale	900	8.1	6-26-63	--	--	A	
-2	do.	do.	--	Drl	33	6	--	do.	900	12.1	6-26-63	Sw	--	U	Anal; Iron; temp 48.0.

Table 6.--Records of selected wells in the Erie-Niagara basin (Continued)

Well number	County	Owner	Year completed	Type of well	Depth of well (feet)	Diameter (inches)	Depth to bedrock (feet)	Water-bearing material	Altitude above sea level (feet)	Water level: Below land surface (feet)	Water level: Date	Method of lift	Estimated pumpage or flow (gallons per day)	Use	Remarks
258-815-1	Genesee	F. Peck	--	Drl	31	6	--	Shale	920	8.1	6-26-63	Sw	50	D	Anal; Iron; temp 49.0; yield 12 gpm (r).
				Drl	41.6		41.6	Sand	870	9.1	8-19-64	Sw	400	Ag	Anal; H_2S; yield 11 gpm (r).


DAYTON
MALLEABLE

REFERENCE NO. 5



(QUAD) BUFFALO NW, N.Y.

FIGURE 1

SITE LOCATION MAP

DAYTON MALLEABLE, BUFFALO, N.Y

SCALE: 1"=2000'

NUS CORPORATION

REFERENCE NO. 6

DRAFT

GRAPHICAL EXPOSURE MODELING SYSTEM

(GEMS)

USER'S GUIDE

Prepared for:

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES AND TOXIC SUBSTANCES
EXPOSURE EVALUATION DIVISION
Task No. 4
Contract No. 68016618
William Wood - Project Officer
Loren Hall - Task Manager

Prepared by:

GENERAL SOFTWARE CORPORATION
8401 Corporate Drive
Landover, Maryland 20785

Submitted: June 25, 1984

MASTER AREA REFERENCE FILE (MARF) OF THE 1980 CENSUS

Source

The Master Area Reference File (MARF) is a proprietary product of Donnelly Marketing, Inc., a subsidiary of Dunn and Bradstreet, and is available only to EPA users and to contractors engaged in EPA projects.

Description

The complete corrected MARF of the 1980 Census, with geographic coordinates for small geographic areas, is installed for GEMS on a separate disk pack. It consists of four subfiles, one for each major census geographic region, and is available to users when that disk pack is mounted. The file has a variety of location identification information, including region, state, county, place, census tracts and enumeration districts or block groups (See Figure C-1 for illustrations). It also contains population count by race, the number of occupied and owner-occupied housing units, group quarters, and number of families for all the enumeration districts/block groups for the continental United States, Hawaii, and Alaska.

CEDPOP, a subset of the MARF of the 1980 Census, is accessible through GEMS. In addition to total population and household counts, the file includes geographic coordinates for the population-weighted centroid of each census block group or enumeration district (BG/ED) in the file.

Use

The complete MARF 80 Census file, installed in GEMS on a separate disk, is expected to be used heavily by GEMS users to identify household and population by racial groups at any required geographic level. County aggregate populations have already been created from this file.

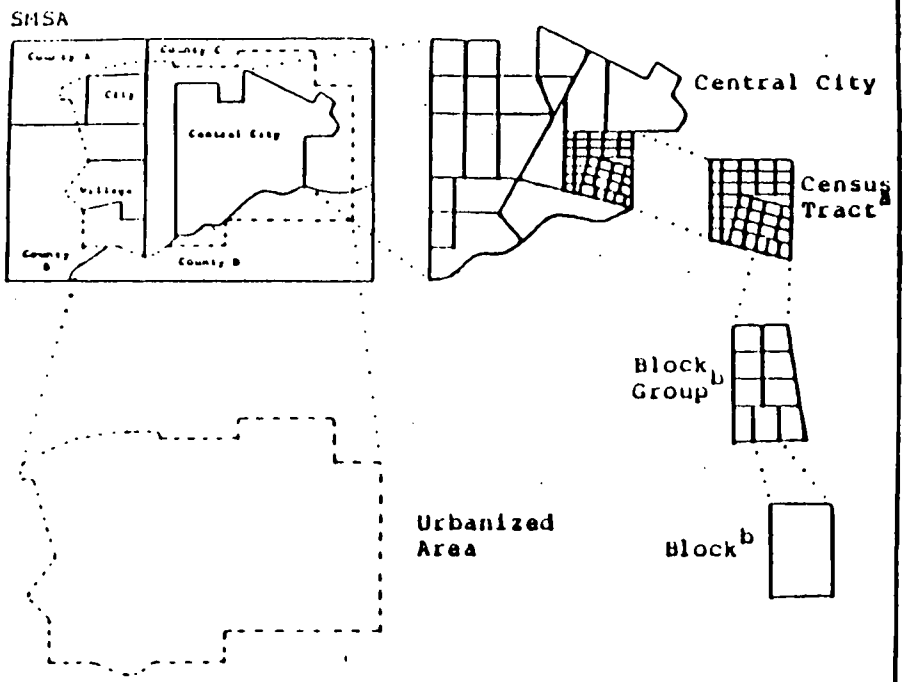
CEDPOP was interfaced with ATM80 in GEMS to provide estimates of population sizes exposed to concentrations of airborne chemicals around a release site and with BOXMOD80 to provide population estimates within area source regions. The population centroids are identified, and populations are accumulated in sectors (typically the sixteen wind direction sectors) surrounding the center point within a user-specified number of radial distances out from the center.

The CEDPOP file also is accessed by CENSUS DATA and RADII-5 procedures under the GEODATA HANDLING operation in GEMS. CENSUS DATA accumulates population and housing counts by up to ten user-specified radial distances and from one-to-sixteen sectors. The RADII-5 program tabulates the same information (except housing counts) and displays the centroid locations for user-specified circular distances around a center point.

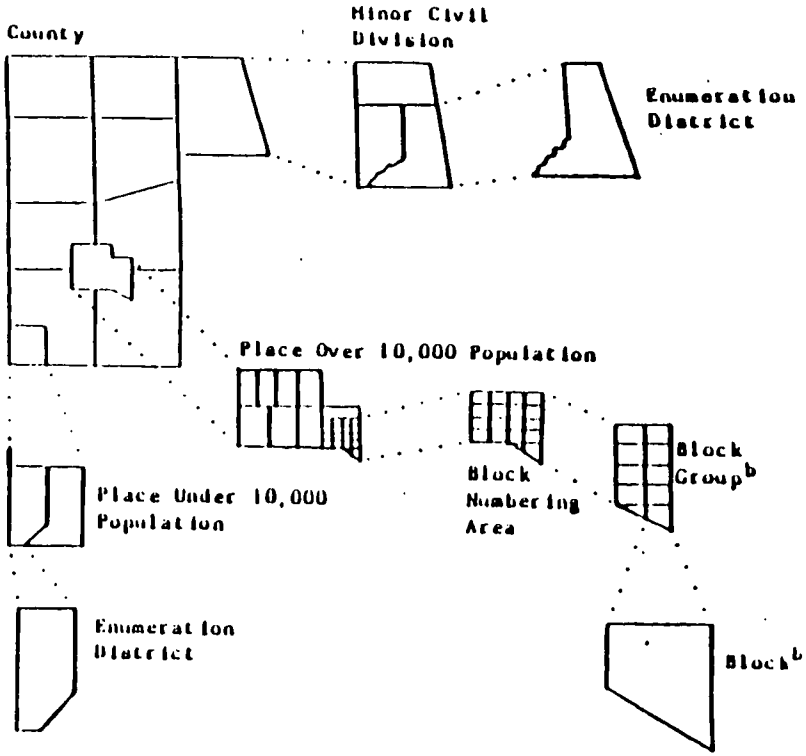
	data on the following environmental parameters: agriculture, climate, vegetation, forestry, air quality, land, natural areas, population, water quality, terrain (soils) and wildlife.
GAGE	The GAGE dataset contains primarily stream flow rates monitored consistently by approximately 99,500 stream gaging stations throughout the country, and some estimated flows.
IFDDIR	IFDDIR contains industrial facility data for approximately 28,000 direct dischargers excluding publicly owned treatment works (POTWs)
IFDIND	IFDIND contains limited industrial facility data for approximately 12,000 indirect dischargers which discharge through other facilities, usually POTWs.
Master Area Reference File (MARF) 1980 census	This dataset contains a variety of location identification information, population count by race, the number of occupied and owner-occupied

TABLE 2-2. GEMS Datasets (Continued)

DATASET NAME	DESCRIPTION
	number of families for all the enumeration district/block groups for continental USA, Hawaii, and Alaska.
Meteorological Data	Several meteorological data files are contained in this category: (1) the Stability Tabular Array (STAR) data file has meteorological data for 394 first order weather stations in the continental USA, (2) A master index file (STARSEL), and (3) An auxiliary file (AUX).
Publicly Owned Treatment Works (POTWs)	This dataset contains 1982 survey data on the unit treatment process, the influent and effluent and hour rates, and the population served by



Inside Urbanized Area



Outside Urbanized Area

[a]The entire SMSA is subdivided into census tracts.

[b]Blocks and block groups do not have symbolized boundaries as do the other areas, but are identified by number.

Figure C-1. Geographic Hierarchy Inside and Outside Urbanized Areas (UA's)

GO

Data List of Dataset: NY16 Number of Records = 6

REC #	POP	HOUSE	DISTANCE	SECTOR
1	3501	1585	0.400000	1
2	4573	1842	0.810000	1
3	27011	10551	1.60000	1
4	73672	29204	3.20000	1
5	119036	46690	4.80000	1
6	128096	55195	6.40000	1

Press RETURN to page forward, enter Pnnn to position the starting record of the next page, enter BACK to reselect variables, or enter END to stop
:

REFERENCE NO. 7

The Following Image(s) are the Best Copy Available

BIEL'S

BOWSER-MORNER Testing Laboratories, Inc.

DAYTON, OHIO 45401
420 Davis Ave. P.O. Box 51
513/253-8805

TOLEDO, OHIO 43696
122 S. St. Clair St. P.O. Box 838
419/255-8200

MAYSVILLE, KY 41056
Route 8 West P.O. Box 686
606/564-5508

Pratt and Letchworth Site,
Buffalo, New York

For

Smith & Schnacke
2000 Courthouse Plaza, NE
P.O. Box 1817
Dayton, Ohio 45401

BOWSER MORNER

Pratt and Letchworth Site,
Buffalo, New York

For

Smith & Schnacke
2000 Courthouse Plaza, NE
P.O. Box 1817
Dayton, Ohio 45401

Laboratory Report No. 26903-882-294

August 31, 1982

BOWSER-MORNER
Testing Laboratories, Inc.

BOWSER-MORNER Testing Laboratories, Inc.

Founded 1911

CORPORATE ADDRESS • 420 Davis Ave. • P.O. Box 51 • Dayton, Ohio 45401 • 513/253-8805

August 31, 1982

Smith & Schnacke
2000 Courthouse Plaza, NE
P.O. Box 1817
Dayton, Ohio 45401

Attention: Mr. Robert Maynard

Re: Pratt and Letchworth Site,
Buffalo, New York

Gentlemen:

We are pleased to submit our report of the investigation at the above-referenced site. The purpose of this investigation was to make a visual reconnaissance of the site, obtain as much information relative to the site as possible, and to obtain samples for testing.

If there are any questions, or if we can be of further service, please contact us.

Respectfully submitted,

Bowser-Morner Testing Laboratories, Inc.

David C. Cowherd, M.S., P.E.
Vice President and
Chief Geotechnical Engineer

STATE OF OHIO
DAVID C. COWHERD
30871
REGISTERED PROFESSIONAL ENGINEER

DCC/mjj(#59)

1-Client
1-DMI, Inc.
3-NY DEC
2-File

TOLEDO DISTRICT • 122 S. St. Clair St. • P.O. Box 838 • Toledo, Ohio 43696 • 419/255-8200

TABLE OF CONTENTS

SECTION I

TEXT

I. AUTHORIZATION

Authorization to proceed with this project was given by Mr. Robert H. Maynard of Smith & Schnacke.

II. SITE RECONNAISSANCE

A. Observations On-Site

The Pratt and Letchworth site was visited by the writer on July 15, 1982. At that time a thorough visual reconnaissance was made. The site is located at 189 Tonawanda Street in Buffalo, New York. It fronts on Tonawanda Street, and is bordered on the rear by Scajaquada Creek. Adjacent to and east of the creek is New York Highway 198, and the site is near the intersection of Amherst Street and Tonawonda Street. The site at this present time is relatively flat. The specific site generally drains from the south and north to near the center of the site, and then to the east into the creek. It is obvious, however, that the area has been filled in the past with foundry sand, and that generally the slope was toward the creek, perhaps on a 2% to 3% grade before filling took place. The creek appears to be approximately 20 to 25 feet below the surface of the ground at the Pratt and Letchworth site. The depth of the creek was not ascertained at this location.

The site contains a fill of foundry sand over much of its eastern end. A small slag pile and various types of debris are situated at several locations over the site. The general topography in the area drains from east and west toward the creek and then south along the creek into the Niagara River approximately 1/2 mile away.

Based on the visual reconnaissance and discussions with personnel at the site, the following observations are made. There is 15 to 18 feet of foundry

sand in place on a portion of the site. The soil material below the foundry sand is a heavy red clay. An excavation which had been made inside a building was observed in which this clay had been excavated. A sample of the clay was obtained and brought to the laboratory for physical testing. Personnel at the site remember that past excavations on the site at least 20 feet in depth were totally within this clay material. There was no groundwater in any of these excavations and in all excavations at the site the red clay also was found to be present at shallow depths. The same red clayey soil was also observed in excavations at other places throughout the area. The oil used on the roads was compressor oil and hydraulic oil and not transformer oil.

General observations in the area indicate the red clayey material is underlain by limestone which is probably highly fractured. The depth is not known; however, some of the excavations on-site were taken to at least 20 feet depths without encountering rock. Piles were driven for the foundations for the drop forges, indicating that the rock may be relatively deep. Limestone rock is exposed in some of the cuts around the general area.

B. Published Information

Published geologic information indicates that this site is in a glacial ground moraine. The red material encountered on-site is not till however, and appears to be a residual soil. It may even be a clay shale as opposed to a clay. It would appear, therefore, based on the surficial information gained during this reconnaissance, that the specific area in question does not contain glacial till. The SCS soil data for the site is not of much use as it is listed on the soil survey of Erie County, New York, as unclassified city land.

III. PROBABLE HYDROLOGIC REGIME

The general flow of the creek is toward the south immediately at the site and generally toward the southwest over the area as a whole. The flow from the Scajaquada Creek enters the upper Black Rock harbor south and slightly west of the the site. As previously stated, the local surface flow is from the east and west into the creek area. Also as previously stated the general area has been filled with foundry sand and the area now is reasonably level. It is probable the original ground surface sloped toward the creek at 2% to 3%. The clay underlying the general area is relatively impermeable and will not transmit flow. There appeared to be some fissures in the clay; however, the clay is a swelling type and would swell and close the fissures upon the entry of water. It is, therefore, our opinion that the clay or clay shale stratum presents an aquaclude through which water is not seeping.

The probable hydrologic regime is as follows: surface water which falls or runs onto the sand seeps vertically down through the sand (which has a relatively high permeability), intercepts the clay layer, and then migrates horizontally toward the creek. The rate of migration is probably rapid, with water from the sand reaching the creek within two to three days after rainfall events. Water falling or running onto the fill site and down through the sand would have time to pick up any contaminants on the surface of the ground or in the sand and ultimately would carry them to the creek.

It is our understanding from personnel at the site that the roads were not oiled after the mid 1960's. If there were any contaminants in the oil material placed on the road, most of it would have run off as surface runoff. Some of that runoff could have seeped into the sand and flowed along the clay and sand interface over to its juncture with the creek.

Thus, we would expect any contaminants from the road oiling that might have been carried by the water would be found at the base of the sand at its juncture with the clay and the creek.

On the basis of this analysis and our test results, we believe it is unlikely that there has been any PCB contamination of the area from road oiling or disposal in the fill.

It is further our opinion that if there were any other pollutants present on-site, they would not have leached through the clay layer, as the clay forms an effective boundary to any further downward penetration of material. Any such contaminants would have migrated along the interface of the sand and clay layer and would be found at the juncture with the creek to the east.

IV. SAMPLING AND TESTING

Based on the probable hydrologic regime of the area, it is obvious that if there were any contaminants entering the creek, it should be at the juncture of the sand and clay. As stated above, the clay forms an effective boundary to any further downward penetration of any contaminants and these materials would migrate along the sand layer toward the creek. Based on this fact, it was decided to obtain samples of the sand from the creek bank just above the clay and samples of the clay just below the sand. (This interface is exposed at the creek bank). Samples were taken at the creek bank area. The surficial sand and clay were scraped away to expose an undisturbed juncture of the sand and clay. A 20-pound sample of the sand was taken just above the clay and a sample of the clay of approximately 20 pounds was taken just below the sand. In addition, a sample of sand (about

20 pounds) was taken from the surface of the sand fill. The samples were identified as follows:

1) foundry sand from surface of fill,

2) foundry sand just above the clay; and

3) clay soil.

These samples were shipped to Bowser-Morner and appropriate physical and chemical tests were performed on these materials. The physical testing of the clay yielded the following information.

TABLE 1

PARAMETER	VALUE
U.S.G.S. Classification	"CL" Silty Clay
Liquid Limit	43
Plastic Limit	25
Plasticity Index	18
% Clay	80
% Silt	17
% Sand	3

The grain size curve, including the hydrometer analysis, is included with this report for your convenience. It is obvious that the clay is a very heavy clay soil with a very low permeability.

The State of New York, Department of Environmental Conservation, requested that the samples be subjected to tests for PCB's, arsenic, cadmium, chromium, iron, and nickel. This was done and the following values were obtained.

TABLE 2

PARAMETER	SAMPLE NUMBER VALUE (ppm) #1	#2	#3
Arsenic	<0.03	<0.03	<0.03
Cadmium	<0.01	0.06	0.05
Chromium	<0.05	0.65	1.50
Iron	<0.25	2.50	5.60
Nickel	<0.25	0.30	1.00
PCB	<1.00	<1.00	<1.00

PPM values

As a quality control check, a PCB "spiked" sample was submitted along with the other samples. This sample was "spiked" with 5 ppm of PCB and the reported value from the laboratory was 5.3 ppm. The following test procedures were utilized in the chemical testing.

1) Leaching of metals from solid wastes in accordance with Federal Register, EP Toxicity, Vol. 45, No. 98/Monday, May 19, 1980/33127.
2) Quantitative determination of the leachable metal concentration by Atomic Absorption.
3) Quantitation of the polychlorinated biphenyls (PCB) in accordance with "Sampling Methods and Analytical Procedures Manual for PCB Disposal; Interim Report U.S. EPA, Office of Solid Waste, February 10, 1978.

The metals testing was performed by Bowser-Morner, while the PCB testing was performed by Pollution Control Science, Inc.

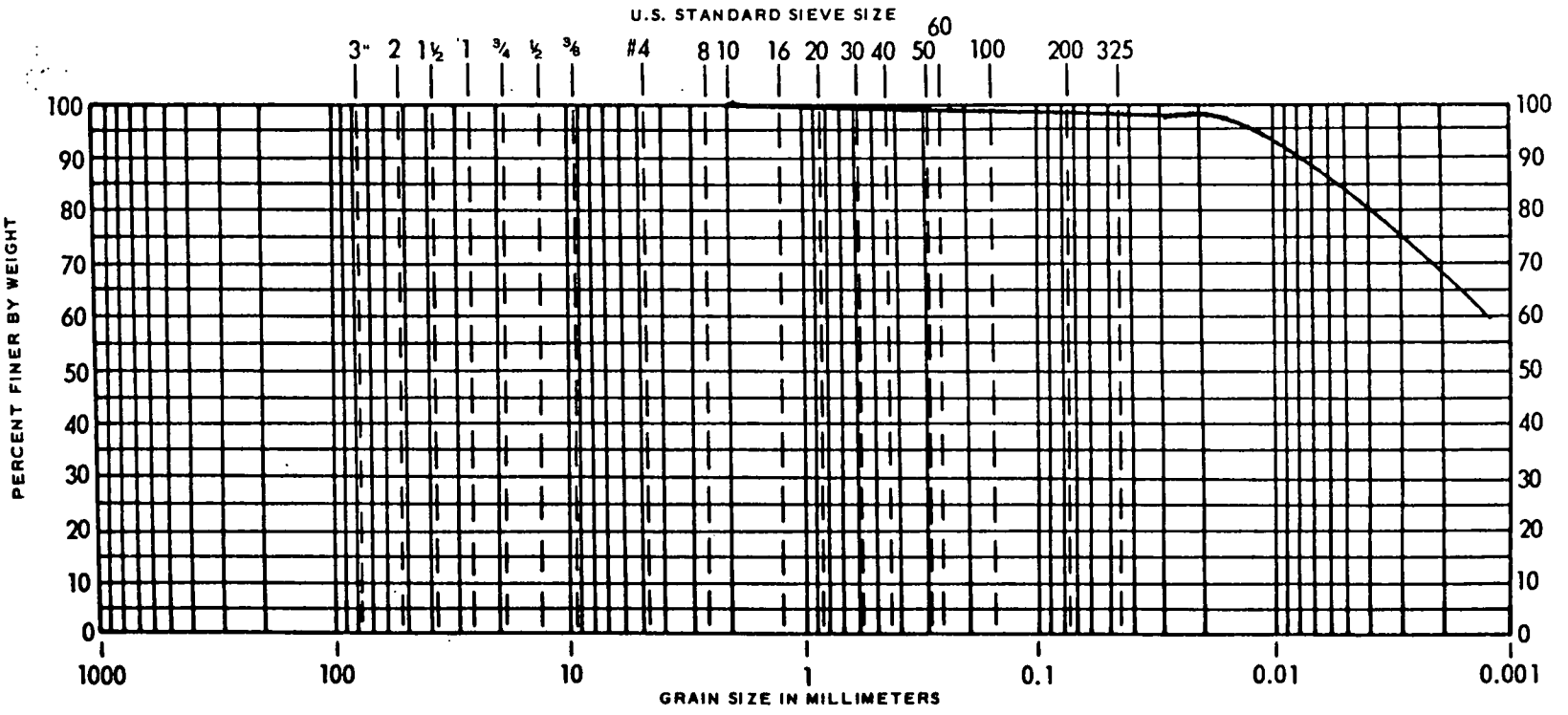
V. CONCLUSIONS

It is obvious from the above testing that there are no PCB's within detectable limits on the site, either near the surface of the sand, or at the juncture of the sand and clay. In addition, none of the metals measured are high, and the metals values noted from sampling the surface of the sand are all below detectable limits. It is probable that the somewhat higher values noted for the clay and the sand at their juncture and are due to the natural background levels within the clay, as these values are not at all unusual for background values for clay soils.

SECTION II

LABORATORY DATA

SOIL CLASSIFICATION SHEET



COBBLES	GRAVEL 0%		SAND 3%			SILT	CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	17%	80%

PROJECT	Smith & Schnacke Buffalo, N.Y.	NATURAL % MOISTURE	2.5
BORING NO.		LIQUID LIMIT	43
SAMPLE NO.		PLASTIC LIMIT	25
DEPTH		PLASTICITY INDEX	18
CLASSIFICATION	"CL" Silty Clay	COLOR	Reddish Brown
		REMARKS	"U.S.C.S."

BOWSER-MORNER
TESTING LABORATORIES, INC.

II-1

2A-34R

REFERENCE NO. 8

TABLE 1
SAMPLE DESCRIPTIONS
DAYTON MALLEABLE
CASE #6661

Sample ID Number	Organic Traffic Report #	Inorganic Traffic Report #	Time (Hours)	Sample Type	Sample Location
NY56-SW1	BH639	MBI199	1100	Aqueous	In Scajaquada Creek approximately 30 feet east of gate on southern boundary fence.
NY56-SED1	BH637	MBI197	1110	Sediment	Same as NY56-SW1
NY56-SW2	BH640	MBI200	1130	Aqueous	In Scajaquada Creek approximately 100 feet east of eastern boundary fence.
NY56-SED2	BH638	MBI198	1135	Sediment	Same as NY56-SW2.
NY56-S1	BH604	MBI190	1230	Soil	Approximately 100 feet east of 1 story cinderblock building.
NY56-S2	BH605	MBI191	1235	Soil	Approximately 200 feet southeast of sand silo.
NY56-S3	BH627	MBI192	1300	Soil	Approximately 30 feet east of gate on southern boundary line, 6 feet from fence.
NY56-S4	BH628	MBI193	1307	Soil	Approximately 50 feet east of S3 along boundary fence.
NY56-S5	BH629	MBI194	1315	Soil	Approximately 75 feet from eastern boundary fence 25 feet from southern boundary fence.
NY56-S6	BH630	MBI195	1325	Soil	At northeast edge of landfill, 75 feet from fence.

TABLE 1
SAMPLE DESCRIPTIONS
DAYTON MALLEABLE CONT'D
CASE #6661

Sample ID Number	Organic Traffic Report #	Inorganic Traffic Report #	Time (Hours)	Sample Type	Sample Location
NY56-S7	BH636	MBI196	1345	Soil	In middle of landfill approximately 200 feet from northern boundary fence.
NY56-BL1	BH641	MBH601	NA	Aqueous	EPA Laboratory, Edison, NJ.

Title: Appendix A.3: Data Acceptability Narrative

Case# 6661 Site Dayton Malleable
Lab JTC

A.3.1 Are all data of acceptable quality? Yes ___ No ✓

If no, list exceptions with reason(s) for rejection of qualification as estimated value (J).

Hg — MBI 199, 200 — Data invalidated due to field blank value greater than two times the IDL.

Tl — MBI 199, 200, 601 — Data invalidated due lower spike recovery than 50%.

Tl, Pb — MBI 190 through MBI 198 — Data flagged with 'J' due to spike recovery less than 50%.

Pb

MMB Reviewer: Hans Sheikh Date: 6/1/87
Signature

Verified by: [signature] Date: 6/2/87
Signature

ORGANIC DATA REPORTING QUALIFIERS

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

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

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

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

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

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

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

PROJECT LOG DATA
TEAM: DAYTON MULTIPARLE
SAMPLING DATE: 12/11/86
CASE NUMBER: 6661

VOLATILES

SAMPLE NUMBER	NY56-S1	NY56-S2	NY56-S3	NY56-S4	NY56-S5	NY56-S6	NY56-S7	NY56-SED1	NY56-SED2	NY56-SW1	NY56-SW2	NY56-BL1
TRAFFIC REPORT NUMBER	BH604	BH605	BH627	BH628	BH629	BH630	BH636	BH637	BH638	BH639	BH640	BH641
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	WATER	WATER	WATER
UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l	ug/l	ug/l
Chloromethane												
Bromomethane												
Vinyl Chloride												
Chloroethane												
Methylene Chloride	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Acetone	Q	Q	Q	Q	Q	Q	Q	Q	Q	130B	110B	Q
Carbon Disulfide												
1,1-Dichloroethene												
1,1-Dichloroethane												
Trans-1,2-Dichloroethene												
Chloroform	Q	Q	Q		Q	Q	J	Q	Q	Q	Q	Q
1,2-Dichloroethane												
2-Butanone								30		Q	Q	Q
1,1,1-Trichloroethane	11	J	56		41	7	Q			Q	Q	
Carbon Tetrachloride												
Vinyl Acetate												
Bromodichloromethane												
1,2-Dichloropropane												
Trans-1,3-Dichloropropene												
Trichloroethene	19B	17	49B		47B	8	24				Q	Q
Dibromochloromethane												
1,1,2-Trichloroethane												
Benzene	1EB	Q	Q		Q					Q	Q	
Cis-1,3-Dichloropropene												
2-Chloroethylvinylether												
Bromoform												
2-Hexanone					Q							
4-Methyl-2-Pentanone					J							
Tetrachloroethene	8	Q	24		23		12			Q	Q	
1,1,2,2-Tetrachloroethane												
Toluene	25B	Q	15B		19B			Q		Q	Q	
Chlorobenzene												
Ethylbenzene	8B	Q			Q		10			Q	Q	Q
Styrene	14	10B					9					
Total Xylenes												

NOTES TO ORGANICS DATA:
Blank space - compound analyzed for but not detected
Q - analysis did not pass EPA QA/QC requirements
J - compound present below contract-specified detection limits, but above instrument detection limit
B - compound found in laboratory blank as well as the sample, and indicates possible/probable blank contamination
E - estimated value due to the presence of interference
NR - analysis not required

ANALYTICAL DATA
SITE: BOYTON MALLEABLE
SAMPLING DATE: 12/11/86
LOG: 6661

INORGANICS

SAMPLE NUMBER	NY56-S1	NY56-S2	NY56-S3	NY56-S4	NY56-S5	NY56-S6	NY56-S7	NY56-SED1	NY56-SED2	NY56-SW1	NY56-SW2	NY56-BL1
TRAFFIC REPORT NUMBER	MBI190	MBI191	MBI192	MBI193	MBI194	MBI195	MBI196	MBI197	MBI198	MBI199	MBI200	MBH601
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	WATER	WATER	WATER
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/l	ug/l	ug/l
Aluminum	6132.6	967	3093.6	1238	3306.1	7085.5	996.6	8886.7	11660.7	374.3	758.2	
Antimony						36.1E						
Arsenic						22						
Barium	283.7	22.5E	122.1E	26.3E	42.3E	173.5	18.7E	125.1E	143.6E	45.5E	48.4E	
Beryllium												
Cadmium	4.3		5.9	0.8	5.3	18.2	4.7	12.5	5.5			5.1
Calcium	50914.3	664.3E	3183.2	1349.9E	5482.2	104306.4	1247.2E	59694.6	36114.4	82851.7	77686.4	
Chromium	653.2		118.5	69.2	30.3	1307.8	22.3	124.8	81.3			
Cobalt												
Copper	68.7		170.2	110.3	53.8	1951.6	42.7	108.2	98.5	24.5E		
Iron	42954.1E	3763	74958.9	64448.4	23057.5	200910.6	32629.3	29496.6	43540.6	851.3	1581.1	
Lead	603.6E	6.25E	135.5E	32.6E	101.1E	317.2E	21.9E	272.9E	266.3E	20.45	25	
Magnesium	8101.6	274E	1139.6E		1659.9E	17075.6		12424.2	5459.3	25597.2	10312.5	
Manganese	9951.9	73.1	753.7	560.2	463.2	19337.9	405.7	2992	3222.4	38.6	58.6	
Mercury	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Nickel	31.5		164.5	57.4	56.0	145			30.5			
Potassium	760E					1082E			1270E	5580	2520E	
Selenium												
Silver												11.3
Sodium										160129	134090	
Thallium										Q	Q	
Vanadium	47.3					132.9			27.6E			
Zinc	169.4		138	26.7	150.2	415.7	15.3	437.3	233.7	57.3	70.9	

NOTES TO INORGANICS DATA:
Blank space - compound analyzed for but not detected
Q - analysis did not pass EPA QA/QC requirements
[]- compound present below contract-specified detection limits, but above instrument detection limit
B - compound found in laboratory blank as well as the sample and indicates possible/probable blank contamination
E - value estimated due to laboratory interference
NR- analysis not required

QUALITICAL DATA
NAME: DAYTON MALLEABLE
SAMPLING DATE:12/11/86
CASE NUMBER: 6661

SEMI-VOLATILES

SAMPLE NUMBER	NY56-S1	NY56-S2	NY56-S3	NY56-S4	NY56-S5	NY56-S6	NY56-S7	NY56-SED1	NY56-SED2	NY56-SW1	NY56-SW2	NY56-BL1
TRAFFIC REPORT NUMBER	BH604	BH605	BH627	BH628	BH629	BH630	BH636	BH637	BH638	BH639	BH640	BH641
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SED	SED	WATER	WATER	WATER
UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l	ug/l	ug/l
Phenol												
Bis(2-Chloroethyl)Ether												
2-Chlorophenol												
1,3-Dichlorobenzene												
1,4-Dichlorobenzene												
Benzyl Alcohol												
1,2-Dichlorobenzene												
2-Methylphenol												
Bis(2-Chloroisopropyl)Ether												
4-Methylphenol			J									
N-Nitroso-Di-n-Propylamine												
Hexachloroethane												
Nitrobenzene												
Isophorone												
2-Nitrophenol												
2,4-Dimethylphenol			J									
Benzoic Acid					J							
Bis(2-Chloroethoxy)Methane												
2,4-Dichlorophenol												
1,2,4-Trichlorobenzene												
Naphthalene		J	J	J	J				J		J	
4-Chloroaniline												
Hexachlorobutadiene												
4-Chloro-3-Methylphenol												
2-Methylnaphthalene	J		J	J	J	J			J			
Hexachlorocyclopentadiene												
2,4,6-Trichlorophenol												
2,4,5-Trichlorophenol												
2-Chloronaphthalene												
2-Nitroaniline												
Dimethyl Phthalate												
Acenaphthylene												
3-Nitroaniline												
Acenaphthene			J						J			
2,4-Dinitrophenol												
4-Nitrophenol												
Dibenzofuran			J						J			
2,4-Dinitrotoluene												
2,6-Dinitrotoluene												
Diethylphthalate												
4-Chlorophenylphenyl ether												
Fluorene			J			J						
4-Nitroaniline												
4,6-Dinitro-2-Methylphenol												
N-Nitrosodiphenylamine												
4-Bromophenylphenyl ether												
Hexachlorobenzene												
Pentachlorophenol												

ANALYTICAL DATA
NAME: DAYTON MALLEABLE
SAMPLING DATE:12/11/86
CASE NUMBER: 6661

SEMI-VOLATILES															
SAMPLE NUMBER	NY56-S1	NY56-S2	NY56-S3	NY56-S4	NY56-S5	NY56-S6	NY56-S7	NY56-SED1	NY56-SED2	NY56-SW1	NY56-SW2	NY56-BL1
TRAFFIC REPORT NUMBER	BH604	BH605	BH627	BH628	BH629	BH630	BH636	BH637	BH638	BH639	BH640	BH641
MATRIX	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SED	SED	WATER	WATER	WATER
UNITS	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l	ug/l	ug/l
Phenanthrene	J		J	J	J	J	J	J	26000			
Anthracene			J		J	J		J	J			
Di-n-Butylphthalate		Q		Q	Q	Q	Q					
Fluoranthene	J		J	J	J	390	J	390	31000			
Pyrene	J		610	J	J	750	J	530	26000			
Butylbenzylphthalate												
3,3'-Dichlorobenzidine												
Benzo(a)Anthracene			J			J		J	J			
Bis(2-Ethylhexyl)Phthalate	120ER	Q	Q	Q	450R	Q	Q	460B			J	J
Chrysene			J		J	J		J	J			
Di-n-Octyl Phthalate		J	J	J	J			J			Q	Q
Benzo(b)Fluoranthene			390		J	350		J	J			
Benzo(k)Fluoranthene									J			
Benzo(a)Pyrene			J			J		J	J			
Indeno(1,2,3-cd)Pyrene			J			J			J			
Dibenzo(a,h)Anthracene												
Benzo(ghi)Perylene			J					J				

NOTES TO ORGANICS DATA:
Blank space - compound analyzed for but not detected
Q - analysis did not pass EPA QA/QC requirements
J - compound present below contract-specified detection limits, but above instrument detection limit
B - compound found in laboratory blank as well as the sample, and indicates possible/probable blank contamination
E - estimated value due to the presence of interference
NR - analysis not required

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Date 01 09 87

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name JTC Environmental Consultants Case No. 6661

SOW No. 784 Q.C. Report No. 298

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MBE190	73-3667	MBE199	73-3676
191	3668	200	3677
192	3669	MBH601	3678
193	3670		
194	3671		
195	3672		
196	3673		
197	3674		
198	3675		

Comments:

ICP Interelement and background corrections applied? Yes ✓ No ___.

If yes, corrections applied before ✓ or after ___ generation of raw data.

Footnotes:

NR - not required by contract at this time
Form I:
Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP), A (Flame AA), or F (Furnace AA)
U - Indicates element was analyzed for but not detected. Report with the instrument detection limit value (e.g., 10U).
E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.
s - Indicates value determined by Method of Standard Addition.
R - Indicates spike sample recovery is not within control limits.
* - Indicates duplicate analysis is not within control limits.
+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

FORM I

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EPA Sample No
mb1170
Date 01/07/87

INORGANIC ANALYSIS DATA SHEET

Lab Name: JTC ENVIRONMENTAL CNSLTS Case No 6661
SOW No 784
Lab Sample ID No 703667 QC Report No 298

Elements Identified and Measured

Concentration: Low Medium
Matrix: Water Soil * Sludge Other

Units: mg/Kg

1	Aluminum	6132.6	*	p	13	Magnesium	8101.6	p
2	Antimony	23.8 U	R	p	14	Manganese	9951.9	* p
3	Arsenic	6.1 u		f	15	Mercury	0.379	* C.V.
4	Barium	283.7		p	16	Nickel	31.5	p
5	Beryllium	2.9 U		p	17	Potassium	[760]	f
6	Cadmium	4.3		p	18	Selenium	3.1 u R	f
7	Calcium	50914.3	*	p	19	Silver	5.3 U R	p
8	Chromium	653.2	*	p	20	Sodium	2070.4 U	p
9	Cobalt	11.0 U		p	21	Thalium	6.1 u	f
10	Copper	68.7	R *	p	22	Tin	19.5 U	p
11	Iron	42954.1		E p	23	Vanadium	47.3	p
12	Lead	603.6	R *	p	24	Zinc	169.4	p

Cyanide

Percent Solids (%) 81.87

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

Comments:

Lab Manager MH

FORM I (1)

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EPA Sample No
mbi191
Date 01/09/87

INORGANIC ANALYSIS DATA SHEET

Lab Name JTC ENVIRONMENTAL CNSLTS
SOW No 784
Lab Sample ID No 703668

Case No 6661
QC Report No 290

Elements Identified and Measured
Concentration (Low) Medium
Matrix: Water Soil * Sludge Other

Units: mg/Kg

1	Aluminum		967.0	*	p	13	Magnesium	[274.0]	p
2	Antimony		21.9 U	R	p	14	Manganese	73.1 *	p
3	Arsenic		5.6 u		f	15	Mercury	0.895 *	c,v
4	Barium	[	22.5]		p	16	Nickel	21.9 U	p
5	Beryllium		2.6 U		p	17	Potassium	579 u	f
6	Cadmium		2.6 U		p	18	Selenium	2.8 u R	f
7	Calcium	[	664.0]	*	p	19	Silver	4.9 U R	p
8	Chromium		4.9 U	*	p	20	Sodium	1907.3 U	p
9	Cobalt		10.1 U		p	21	Thalium	5.6 u	f
10	Copper		12.4 U	R *	p	22	Tin	10.0 U	p
11	Iron		3760.0	E	p	23	Vanadium	10.1 U	p
12	Lead		6.2 S → 6.0	R	f	24	Zinc	8.4 U	p

Cyanide

Percent Solids (%) 88.87

Footnotes:
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Comments

Lab Manager MH

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EPA Sample No

mbi192

Date 01/09/87

INORGANIC ANALYSIS DATA SHEET

Lab Name: JTC ENVIROMENTAL CNSLTS.
Case No 5661
SOW No 784
Lab Sample ID No 733669
QC Report No. 278

Elements Identified and Measured

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

Units: mg/Kg

1	Aluminum	3099.6 *	p	13	Magnesium	[1139.63	p
2	Antimony	24.6 U R	p	14	Manganese	753.7 *	p
3	Arsenic	6.3 u	f	15	Mercury	0.10 u *	C.V
4	Barium	[122.13	p	16	Nickel	164.5	p
5	Beryllium	3.0 U	p	17	Potassium	651 u	A
6	Cadmium	5.9	p	18	Selenium	3.2 UR	f
7	Calcium	Ca 3183.21 *	p	19	Silver	5.5 U R	p
8	Chromium	118.5 *	p	20	Sodium	2142.6 U	p
9	Cobalt	11.4 U	p	21	Thalium	6.3 u	f
10	Copper	170.2 R *	p	22	Tin	20.2 U	p
11	Iron	74958.9 E	p	23	Vanadium	11.4 U	p
12	Lead	135.5 R *	p	24	Zinc	138.0	p

Cyanide

Percent Solids (%) 79.11

Footnotes:
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Comments:

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FORM I

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EPA Sample No
mbi190
Date 01/02/87

INORGANIC ANALYSIS DATA SHEET

Lab Name UTC ENVIRONMENTAL CNSLTS Case No 6661
SOW No 784
Lab Sample ID No 733670 QC Report No 298

Elements Identified and Measured

Concentration: (Low) Medium
Matrix: Water Soil * Sludge Other

Units mg/Kg

1	Aluminum		1230.0	*p	13	Magnesium	271.2 U p
2	Antimony		23.7 U.P	p	14	Manganese	560.2 *p
3	Arsenic		6.1 u	f	15	Mercury	0.172 *C.V
4	Barium	E	26.3J	p	16	Nickel	57.4 p
5	Beryllium		2.9 U	p	17	Potassium	626 u f
6	Cadmium		3.8	p	18	Selenium	3.0 u R f
7	Calcium	E	1049.9J	*p	19	Silver	5.3 U R p
8	Chromium		69.2	*p	20	Sodium	2061.5 U p
9	Cobalt		10.9 U	p	21	Thalium	6.1 u f
10	Copper		110.3 R	*p	22	Tin	19.5 U p
11	Iron		64440.4	E p	23	Vanadium	10.9 U p
12	Lead		32.6 ~~7.360~~ R	f	24	Zinc	26.7 p

Cyanide

Percent Solids (%) 82.22

Footnotes:
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Comments:

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EPA Sample No
mbi194

Date 01/09/87

INORGANIC ANALYSIS DATA SHEET

Lab Name GTC ENVIRONMENTAL CNSLTS Case No. 6661
SDM No TG4
Lab Sample ID No 700671 QC Report No 298

Elements Identified and Measured

Concentration Matrix: Water Low Soil * Medium Sludge Other

Units: mg/Kg

1	Aluminum	3006.1	* p	12	Magnesium	[1659.9]	p
2	Antimony	25.5 U R	p	14	Manganese	463.2 *	p
3	Arsenic	6.5 u	f	15	Mercury	0.268 *	C.V
4	Barium	[42.3]	p	16	Nickel	56.0	p
5	Beryllium	3.1 U	p	17	Potassium	673 u	f
6	Cadmium	5.3	p	18	Selenium	3.3 u R	f
7	Calcium	5482.2 *	p	19	Silver	5.7 U R	p
8	Chromium	30.3 *	p	20	Sodium	2216.3 U	p
9	Cobalt	11.8 U	p	21	Thalium	6.5 u	f
10	Copper	53.8 R *	p	22	Tin	20.9 U	p
11	Iron	23057.5 E	p	23	Vanadium	11.8 U	p
12	Lead	101.1 R *	p	24	Zinc	150.2	p

Cyanide

Percent Solids (%) 76.48

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

Comments

Lab Manager MH

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EPA Sample No
mbi195
Date 01/02/87

INORGANIC ANALYSIS DATA SHEET

Lab Name JTC ENVIRONMENTAL CNSLTS Case No 6661
SOW No 784
Lab Sample ID No 703672 QC Report No 208

Elements Identified and Measured
Concentration (Low *)
Matrix Water Soil * Sludge Other Medium

Units: mg/Kg

1	Aluminum	7085.5	* p	13	Magnesium	17075.6	p
2	Antimony	[36.13]	p	14	Manganese	19337.9 *	p
3	Arsenic	22	f	15	Mercury	0.33 *	C.V
4	Barium	173.5	p	16	Nickel	145.0	p
5	Beryllium	3.4 U	p	17	Potassium	[1082]	f
6	Cadmium	10.2	p	18	Selenium	3.6 u R	f
7	Calcium	104306.4	* p	19	Silver	6.3 U R	p
8	Chromium	1307.8	* p	20	Sodium	2444.1 U	p
9	Cobalt	13.9 U	p	21	Thalium	7.2 u	f
10	Copper	1951.6	R * p	22	Tin	152.3	p
11	Iron	200910.6	E p	23	Vanadium	132.9	p
12	Lead	317.2	R * p	24	Zinc	415.7	p

Cyanide Percent Solids (%) 69.35

Footnotes:
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Comments:

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EPA Sample No
mbil96
Date 01/09/87

INORGANIC ANALYSIS DATA SHEET

Lab Name JTC ENVIROMENTAL CNSLTS Case No 6461
SDG No 784
Lab Sample ID No 733673 QC Report No 290

Elements Identified and Measured

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

Units: mg/Kg

1	Aluminum	996.6 *	p	13	Magnesium	313.7 U	p
2	Antimony	27.4 U R	p	14	Manganese	405.7 *	p
3	Arsenic	7.0 u	f	15	Mercury	2.1 *	c,v
4	Barium	[18.7]	p	16	Nickel	27.4 U	p
5	Beryllium	3.3 U	p	17	Potassium	724 u	f
6	Cadmium	4.7	p	18	Selenium	3.5 u R	f
7	Calcium	[1247.2] *	p	19	Silver	6.1 U R	p
8	Chromium	22.3 *	p	20	Sodium	2304.3 U	p
9	Cobalt	12.7 U	p	21	Thalium	7.0 u	f
10	Copper	42.7 R *	p	22	Tin	22.5 U	p
11	Iron	32629.3	p	23	Vanadium	12.7 U	p
12	Lead	21.9 ~~600~~ U R	f	24	Zinc	15.3	p

Cyanide

Percent Solids (%) 71.09

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

Comments:

Lab Manager MH

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EPA Sample No
mbi197
Date 01/02/87

INORGANIC ANALYSIS DATA SHEET

Lab Name JTC ENVIRONMENTAL CNSLTS. Case No 6661
SDG No 784
Lab Sample ID No 700674 QC Report No. 298

Elements Identified and Measured
Concentration: Low Medium
Matrix: Water Soil * Sludge Other

Units: mg/Kg

1	Aluminum	8886.7	* p	13	Magnesium	12424.2	p
2	Antimony	65.6 U R	p	14	Manganese	2992.0 *	p
3	Arsenic	17 u	f	15	Mercury	0.27 u *	C.V
4	Barium E	125.13	p	16	Nickel	65.6 U	p
5	Beryllium	7.9 U	p	17	Potassium	1733 u	f
6	Cadmium	12.5	p	18	Selenium	8.4 uR	f
7	Calcium	59694.6	* p	19	Silver	14.6 U R	p
8	Chromium	124.8	* p	20	Sodium	5705.2 U	p
9	Cobalt	30.3 U	p	21	Thalium	16.8 u	f
10	Copper	108.2	R * p	22	Tin	53.9 U	p
11	Iron	29496.6	E p	23	Vanadium	30.3 U	p
12	Lead	272.9	R *j p	24	Zinc	497.3	p
Cyanide				Percent Solids (%)		29.71	

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

Comments.

Lab Manager MM

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EPA Sample No

mbi198

Date 01/02/87

INORGANIC ANALYSIS DATA SHEET

Lab Name: GTC ENVIRONMENTAL CNSLTS — Case No 6661
SOW No 784
Lab Sample ID No 703675 — QC Report No 298

Elements Identified and Measured

Concentration: Low — Medium: Water / Soil * / Sludge / Other

Units: mg/Kg

1	Aluminum	11660.7	*	p	13	Magnesium	5459.3	p
2	Antimony	28.2 U	R	p	14	Manganese	3222.4 *	p
3	Arsenic	7.2 u		f	15	Mercury	1.2 *	C.V
4	Barium	[143.6]		p	16	Nickel	30.5	p
5	Beryllium	3.4 U		p	17	Potassium	[1270]	~~f~~
6	Cadmium	5.5		p	18	Selenium	3.6 u R	f
7	Calcium	36114.4	*	p	19	Silver	6.3 U P	p
8	Chromium	81.3	*	p	20	Sodium	2451.9 U	p
9	Cobalt	13.0 U		p	21	Thalium	7.2 u	f
10	Copper	98.5	R *	p	22	Tin	23.1 U	p
11	Iron	43540.6		E p	23	Vanadium	[27.6]	p
12	Lead	266.3	R *	p	24	Zinc	233.7	p

Cyanide

Percent Solids (%) 69.13

Footnotes:
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Comments:

Lab Manager MM

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EPA Sample No
mb1??
Date 01/09/87

INORGANIC ANALYSIS DATA SHEET

Lab Name JTC ENVIRONMENTAL CNSLTS Case No 6661
SOW No 784
Lab Sample ID No 722676 QC Report No. 296

Elements ~~Identified~~ and Measured

Concentration Low * Medium
Matrix: Water * Soil Sludge Other

Units: ug/L

1	Aluminum	374 3	p	13	Magnesium	25597 2	p
2	Antimony	39.0 U	p	14	Manganese	38 6	p
3	Arsenic	10. u	f	15	Mercury	8.1	c.v
4	Barium [	45 5J	p	16	Nickel	39 0 U	p
5	Beryllium	4.7 U	p	17	Potassium	5580	~~A~~
6	Cadmium	4.7 U	p	18	Selenium	5.0 u R	f
7	Calcium	82051.7	p	19	Silver	8 7 U	p
8	Chromium	8.7 U	p	20	Sodium	160129 0	p
9	Cobalt	18.0 U	p	21	Thalium	50 ~~36.2~~ u R	f
10	Copper [	24.5J	p	22	Tin	32.0 U	p
11	Iron	851 3	p	23	Vanadium	18.0 U	p
12	Lead	20.4 S ~~0.60~~	f	24	Zinc	57.3	p

Cyanide

Percent Solids (%) .00

MH 1/27/87

Footnotes:
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Comments:

Lab Manager MH

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EPA Sample No
mbi200
Date 01/09/87

INORGANIC ANALYSIS DATA SHEET

Lab Name UTC ENVIRONMENTAL CNSLTS Case No 4661
SDG No 784
Lab Sample ID No 730677 QC Report No 298

Elements Identified and Measured
Concentration: (Low) Medium
Matrix: Water # Soil Sludge Other

Units: ug/L

1	Aluminum	758.2	p	13	Magnesium	10312.5	p
2	Antimony	39.0 U	pp	14	Manganese	58.6	p
3	Arsenic	10. U	f	15	Mercury	1.5	C.V
4	Barium	[48.4]	p	16	Nickel	39.0 U	p
5	Beryllium	4.7 U	p	17	Potassium	[2520]	f
6	Cadmium	4.7 U	p	18	Selenium	5.0 U R	f
7	Calcium	77686.4	p	19	Silver	8.7 U	p
8	Chromium	8.7 U	p	20	Sodium	134090.0	p
9	Cobalt	18.0 U	p	21	Thalium	10.0 U R	f
10	Copper	22.0 U	p	22	Tin	32.0 U	p
11	Iron	1581.1	p	23	Vanadium	18.0 U	p
12	Lead	25.0 ~~16.3~~ GD	f	24	Zinc	70.9	p

Cyanide Percent Solids (%) .00

Footnotes:
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Comments:

Lab Manager MH

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EPA Sample No
mbk601
Date 01/09/87

INORGANIC ANALYSIS DATA SHEET

Lab Name JTC ENVIRONMENTAL CNSLTS Case No 6661
SDG No 784
Lab Sample ID No 703670 QC Report No 298

Elements ~~Identified~~ and Measured

Concentration: Low
Matrix: Water * Soil Sludge Other Medium

Units: ug/L

1	Aluminum	170.0 U	p	13	Magnesium	446.0 U	p
2	Antimony	39.0 U	p	14	Manganese	13.0 U	p
3	Arsenic	10. u	f	15	Mercury	1.6	C.V
4	Barium	13.0 U	p	16	Nickel	39.0 U	p
5	Beryllium	4.7 U	p	17	Potassium	1030 u	ft
6	Cadmium	5.1	p	18	Selenium	5.0 u R	f
7	Calcium	570.0 U	p	19	Silver	11.0	p
8	Chromium	8.7 U	p	20	Sodium	3390.0 U	p
9	Cobalt	18.0 U	p	21	Thalium	10.0 u R	f
10	Copper	22.0 U	p	22	Tin	32.0 U	p
11	Iron	31.0 U	p	23	Vanadium	18.0 U	p
12	Lead	5.0 U	f	24	Zinc	15.0 U	p

Cyanide Percent Solids (%) 00

Footnotes:
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Comments:

Lab Manager MH

Sample Number
BH628

Organics Analysis Data Sheet
(Page 1)

CC3244

Laboratory Name: York Labs
Case No: 6661
Lab Sample ID No: 0360004
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: ~~12/18/86~~ 12/17/86 & 01/13/87
Conc/Dil Factor: 1.0 pH 7.35
Percent Moisture: (Not Decanted) 18.05

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

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

Laboratory Name: York Laboratory

Case No: EPA 166161

Sample Number: BH 628

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12-12-86

Date Analyzed: 01-06-87

Conc/Dil Factor: 1.0

Percent Moisture (Decanted): 18.05

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes JEE 1/12/87

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1, 3-Dichlorobenzene	
06-46-7	1, 4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1, 2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	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	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	21J
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	35J
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2, 4, 6-Trichlorophenol	330u
95-95-4	2, 4, 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	1600u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	36J
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	57JB
206-44-0	Fluoranthene	73J
129-00-0	Pyrene	55J
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3'-Dichlorobenzidine	1600u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	75JB
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	34J
205-99-2	Benzo(b)Fluoranthene	330u
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	

(1)-Cannot be seperated from diphenylamine

9/95

Laboratory Name York Labs

Case No 6661

Sample Number BN 628

CC0346

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/12/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 1.0

Percent Moisture (decanted) 18.43

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 u
319-85-7	Beta-BHC	8.0 u
319-86-8	Delta-BHC	8.0 u
58-89-9	Gamma-BHC (Lindane)	8.0 u
76-44-8	Heptachlor	8.0 u
309-00-2	Aldrin	8.0 u
1024-57-3	Heptachlor Epoxide	8.0 u
959-98-8	Endosulfan I	8.0 u
60-57-1	Dieldrin	16. u
72-55-9	4,4'-DDE	16. u
72-20-8	Endrin	16. u
33213-65-9	Endosulfan II	16. u
72-54-8	4,4'-DDD	16. u
1031-07-8	Endosulfan Sulfate	16. u
50-29-3	4,4'-DDT	16. u
72-43-5	Methoxychlor	80. u
53494-70-5	Endrin Ketone	16. u
57-74-9	Chlordane	80. u
8001-35-2	Toxaphene	160. u
12674-11-2	Aroclor-1016	80. u
11104-28-2	Aroclor-1221	80. u
11141-16-5	Aroclor-1232	80. u
53469-21-9	Aroclor-1242	80. u
12672-29-6	Aroclor-1248	80. u
11097-69-1	Aroclor-1254	160. u
11096-82-5	Aroclor-1260	320.

.32 ppm

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.09 V_t 20,000 V_i 4.0

Sample Number
.BH640

Organics Analysis Data Sheet
(Page 1)

000094

Laboratory Name: YorkLabs
Case No: 6661
Lab Sample ID No: 036001
QC Report No:
Sample Matrix: Water
Contract No: 68-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/13/86
Date Analyzed: 12/13/86
Conc/Dil Factor: 1.00 pH N/A
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	6B
67-64-1	Acetone	110B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	1JB
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	3JB
71-55-6	1,1,1-Trichloroethane	2JB
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

000895

Laboratory Name: York Laboratories

Case No: EPA 6661

Sample Number: BH 640

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12-11-86

Date Analyzed: 12-31-86

Conc/Dil Factor: 1.0

Percent Moisture (Decanted): N/A

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	
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	
39638-32-9	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	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	0.4 J
106-47-8	4-Chloroaniline	10u
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	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

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

(1)-Cannot be seperated from diphenylamine

6/25

Laboratory Name York Labs

Case No 6661

Sample Number
BN 640

000896

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/11/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 1.0

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.02JB
319-85-7	Beta-BHC	0.05U
319-86-8	Delta-BHC	0.05U
58-89-9	Gamma-BHC (Lindane)	0.05U
76-44-8	Heptachlor	0.05U
309-00-2	Aldrin	0.05U
1024-57-3	Heptachlor Epoxide	0.05U
959-98-8	Endosulfan I	0.05U
60-57-1	Dieldrin	0.10U
72-55-9	4,4'-DDE	0.01J
72-20-8	Endrin	0.10U
33213-65-9	Endosulfan II	0.10U
72-54-8	4,4'-DDD	0.10U
1031-07-8	Endosulfan Sulfate	0.10U
50-29-3	4,4'-DDT	0.10U
72-43-5	Methoxychlor	0.50U
53494-70-5	Endrin Ketone	0.10U
57-74-9	Chlordane	0.5U
8001-35-2	Toxaphene	1.0U
12674-11-2	Aroclor-1016	0.5U
11104-28-2	Aroclor-1221	0.5U
11141-16-5	Aroclor-1232	0.5U
53469-21-9	Aroclor-1242	0.5U
12672-29-6	Aroclor-1248	0.5U
11097-69-1	Aroclor-1254	0.5U
11096-82-5	Aroclor-1260	0.5U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4.0

Sample Number
BH641

Organics Analysis Data Sheet
(Page 1)

000865

Laboratory Name: York Labs
Case No: 6661
Lab Sample ID No: 0360012
QC Report No:
Sample Matrix: Water
Contract No: 68-01-7157
Data Release Authorized By: [signature]
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/14/86
Date Analyzed: 12/14/86
Conc/Dil Factor: 1.00 pH N/A
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	3JB
67-64-1	Acetone	12B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	1JB
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	4JB
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

Laboratory Name: York Laboratories

Case No: EPA 6661

Sample Number: BH 641

Organics Analysis Data Sheet
(Page 2)

000966

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12-11-86

Date Analyzed: 12-29-86

Conc/Dil Factor: 1.0

Percent Moisture (Decanted): N/A

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	
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	
39638-32-9	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	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
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	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

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

(1)-Cannot be seperated from diphenylamine

a/2

Laboratory Name York Labs

Case No 6661

Sample Number
BH 641

Organics Analysis Data Sheet
(Page 3)

000867

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/11/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 1.0

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.01JB
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 B
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.5 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.5 U
11104-28-2	Aroclor-1221	0.5 U
11141-16-5	Aroclor-1232	0.5 U
53469-21-9	Aroclor-1242	0.5 U
12672-29-6	Aroclor-1248	0.5 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000. or W_s _____ V_t 10,000. V_i 4.0

000043

Sample Number
BH604

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: York Labs
Case No: 6661
Lab Sample ID No: 0360001
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/16/86
Date Analyzed: 12/16/86
Conc/Dil Factor: 1.0 pH 7.86
Percent Moisture: (Not Decanted) 20.21

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	14B
67-64-1	Acetone	28B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	2JB
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	11
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	19B
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	1JB
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	8
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	25B
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	8B
100-42-5	Styrene	14
	Total Xylenes	5U

Data Reporting Qualifiers

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

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

000044

Laboratory Name: York Laboratory

Case No: EPA 66161

Sample Number: BH 604

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: ~~12-18-86~~ 12-12-86 01-06-87

Date Analyzed: 01-06-87

Conc/Dil Factor: 1.0

Percent Moisture (Decanted): 20.21

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes 1/12/87

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	
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	
39638-32-9	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	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
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	27J
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2, 4, 6-Trichlorophenol	330u
95-95-4	2, 4, 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	1600u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	45J
120-12-7	Anthracene	330u
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene	44J
129-00-0	Pyrene	87J
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	120JB
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	
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	

(1)-Cannot be seperated from diphenylamine

9/95

000045

Laboratory Name: York Laboratories
Case No: EPA 66661

Sample Number: BH 604

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared: 12-18-86
Date Analyzed: 01-05-87
Conc/Dil Factor: 1.0
Percent Moisture (Decanted): 20.21

GPC Cleanup ☐Yes ☒No
Separatory Funnel Extraction ☒Yes 1/12/87
Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	20000u
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	
39638-32-9	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	96000u
111-91-1	bis(-2-Chloroethoxy)Methane	20000u
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	96000u
91-58-7	2-Chloronaphthalene	20000u
88-74-4	2-Nitroaniline	96000u
131-11-3	Dimethyl Phthalate	20000u
208-96-8	Acenaphthylene	20000u
99-09-2	3-Nitroaniline	96000u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	20000u
51-28-5	2, 4-Dinitrophenol	96000u
100-02-7	4-Nitrophenol	96000u
132-64-9	Dibenzofuran	20000u
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	↓ ↓
100-01-6	4-Nitroaniline	96000u
534-52-1	4, 6-Dinitro-2-Methylphenol	96000u
86-30-6	N-Nitrosodiphenylamine (1)	20000u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	↓ ↓
87-86-5	Pentachlorophenol	96000u
85-01-8	Phenanthrene	20000u
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	↓ ↓
91-94-1	3, 3'-Dichlorobenzidine	40000u
56-55-3	Benzo(a)Anthracene	20000u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
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	↓ ↓

(1)-Cannot be seperated from diphenylamine

U03046

Laboratory Name York Labs

Case NO 66661

Sample Number
BH 604

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/12/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 1.0

Percent Moisture (decanted) 14.36

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16. U
72-55-9	4,4'-DDE	16. U
72-20-8	Endrin	16. U
33213-65-9	Endosulfan II	16. U
72-54-8	4,4'-DDD	16. U
1031-07-8	Endosulfan Sulfate	16. U
50-29-3	4,4'-DDT	16. U
72-43-5	Methoxychlor	80. U
53494-70-5	Endrin Ketone	16. U
57-74-9	Chlordane	80. U
8001-35-2	Toxaphene	160. U
12674-11-2	Aroclor-1016	80. U
11104-28-2	Aroclor-1221	80. U
11141-16-5	Aroclor-1232	80. U
53469-21-9	Aroclor-1242	80. U
12672-29-6	Aroclor-1248	1200.
11097-69-1	Aroclor-1254	160 U
11096-82-5	Aroclor-1260	~~29,000.~~ D

MCC 1/13/87

V_t = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.09 V_t 20,000 V_t 4.0

Sample Number
BH639

Organics Analysis Data Sheet
(Page 1)

000329

Laboratory Name: YorkLabs
Case No: 6661
Lab Sample ID No: 0360010
QC Report No:
Sample Matrix: Water
Contract No: 68-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/13/86
Date Analyzed: 12/13/86
Conc/Dil Factor: 1.00 pH N/A
Percent Moisture: (Not Decanted) N/A

CAS Number		(ug/l or ug/Kg (Circle One))
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	~~Methylene Chloride~~	~~6B~~
67-64-1	Acetone	130B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	~~Chloroform~~	~~1JB~~
107-06-2	1, 2-Dichloroethane	5U
78-93-3	~~2-Butanone~~	~~3JB~~
71-55-6	~~1, 1, 1-Trichloroethane~~	~~1JB~~
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

000830

Laboratory Name: York Laboratories

Case No: EPA 6661

Sample Number: BH 639

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12-11-86

Date Analyzed: 12-29-86

Conc/Dil Factor: 1.0

Percent Moisture (Decanted): N/A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l or ug/Kg (Circle One))
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	
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	
39638-32-9	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	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
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	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

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

(1)-Cannot be seperated from diphenylamine

9/93

Laboratory Name York Labs

Case No 6661

Sample Number BH639

Organics Analysis Data Sheet
(Page 3)

000831

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/11/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 1.0

Percent Moisture (decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/L or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05U
319-85-7	Beta-BHC	0.05U
319-86-8	Delta-BHC	0.05U
58-89-9	Gamma-BHC (Lindane)	0.05U
76-44-8	Heptachlor	0.05U
309-00-2	Aldrin	0.05U
1024-57-3	Heptachlor Epoxide	0.05U
959-98-8	Endosulfan I	0.05U
60-57-1	Dieldrin	~~0.05~~ 0.10U MKS 1.13.18T
72-55-9	4,4'-DDE	0.10U
72-20-8	Endrin	0.10U
33213-65-9	Endosulfan II	0.10U
72-54-8	4,4'-DDD	0.10U
1031-07-8	Endosulfan Sulfate	0.10U
50-29-3	4,4'-DDT	0.10U
72-43-5	Methoxychlor	0.50U
53494-70-5	Endrin Ketone	0.10U
57-74-9	Chlordane	0.5U
8001-35-2	Toxaphene	1.0U
12674-11-2	Aroclor-1016	0.5U
11104-28-2	Aroclor-1221	0.5U
11141-16-5	Aroclor-1232	0.5U
53469-21-9	Aroclor-1242	0.5U
12672-29-6	Aroclor-1248	0.5U
11097-69-1	Aroclor-1254	1.0U
11096-82-5	Aroclor-1260	1.0U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4.0

Sample Number
BH605

Organics Analysis Data Sheet
(Page 1)

000177

Laboratory Name: York Labs
Case No: 6661
Lab Sample ID No: 0360002
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 12/17/86
Conc/Dil Factor: 1.0 pH 7.83
Percent Moisture: (Not Decanted) 15.38

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	~~Methylene Chloride~~	~~19B~~
67-64-1	~~Acetone~~	~~67B~~
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	~~Chloroform~~	1JB
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	2J
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	17
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	~~Benzene~~	~~0.85B~~
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	~~Tetrachloroethene~~	~~6B~~
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	~~Toluene~~	~~13B~~
108-90-7	Chlorobenzene	5U
100-41-4	~~Ethylbenzene~~	~~5B~~
100-42-5	Styrene	10B
	Total Xylenes	5U

Data Reporting Qualifiers

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

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

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

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

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

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

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

Laboratory Name: York Laboratories

Case No: EPA 66661

Sample Number: BH 605

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12-12-86

Date Analyzed: 12-31-86

Conc/Dil Factor: 1.0

Percent Moisture (Decanted): 15.38

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes fee 1/12/87

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	
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	
39638-32-9	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	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	12 J
106-47-8	4-Chloroaniline	330u
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	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	1600u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	330u
120-12-7	Anthracene	330u
84-74-2	~~Di-n-Butylphthalate~~	~~65 J B~~
206-44-0	Fluoranthene	330u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	
91-94-1	3, 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	~~bis(2-Ethylhexyl)Phthalate~~	~~90 J B~~
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	73 J
205-99-2	Benzo(b)Fluoranthene	330u
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	

(1)-Cannot be seperated from diphenylamine

c/2

Laboratory Name York Labs

Case No 6661

Sample Number
BN605

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/12/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 1.0

Percent Moisture (decanted) 12.52

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 u
319-85-7	Beta-BHC	8.0 u
319-86-8	Delta-BHC	8.0 u
58-89-9	Gamma-BHC (Lindane)	8.0 u
76-44-8	Heptachlor	8.0 u
309-00-2	Aldrin	8.0 u
1024-57-3	Heptachlor Epoxide	8.0 u
959-98-8	Endosulfan I	8.0 u
60-57-1	Dieldrin	~~8.0~~ 16 u
72-55-9	4,4'-DDE	16 u
72-20-8	Endrin	16 u
33213-65-9	Endosulfan II	16 u
72-54-8	4,4'-DDD	16 u
1031-07-8	Endosulfan Sulfate	16 u
50-29-3	4,4'-DDT	16 u
72-43-5	Methoxychlor	80 u
53494-70-5	Endrin Ketone	16 u
57-74-9	Chlordane	80 u
8001-35-2	Toxaphene	160 u
12674-11-2	Aroclor-1016	80 u
11104-28-2	Aroclor-1221	80 u
11141-16-5	Aroclor-1232	80 u
53469-21-9	Aroclor-1242	80 u
12672-29-6	Aroclor-1248	80 u
11097-69-1	Aroclor-1254	160 u
11096-82-5	Aroclor-1260	160 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.02 V_t 20,000 V_i 4.0

Sample Number
BH627

Organics Analysis Data Sheet
(Page 1)

000241

Laboratory Name: York Labs
Case No: 6661
Lab Sample ID No: 0360083
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/16/86
Date Analyzed: 12/16/86
Conc/Dil Factor: 1.0 pH 7.05
Percent Moisture: (Not Decanted) 21.31

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	~~Methylene Chloride~~	~~3B~~
67-64-1	~~Acetone~~	~~38B~~
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	~~Chloroform~~	~~2B~~
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	56
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	49B
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	~~Benzene~~	~~2JB~~
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	24
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	15B
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

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

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

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

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

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

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

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

Sample Number
BH627RE

Organics Analysis Data Sheet
(Page 1)

000242

Laboratory Name: York Labs
Case No: 6661
Lab Sample ID No: 0360003
QC Report No:
Sample Matrix: Soil
Contract No: CB-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 12/17/86
Conc/Dil Factor: 1.0 pH 7.05
Percent Moisture: (Not Decanted) 21.31

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	~~Methylene Chloride~~	~~25B~~
67-64-1	Acetone	140B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	~~Chloroform~~	~~3JB~~
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	2J
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	3J
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	19JB
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	~~Toluene~~	~~6B~~
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

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

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

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

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

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

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

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

Laboratory Name: York Laboratories

Case No: EPA 6661

Sample Number: BH 627

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12-12-86

Date Analyzed: 01-02-87

Conc/Dil Factor: 1.0

Percent Moisture (Decanted): 21.31

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes JCC 1/12/87

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	
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	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	19 J
621-64-7	N-Nitroso-Di-n-Propylamine	330u
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2, 4-Dimethylphenol	26 J
65-85-0	Benzoic Acid	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	68 J
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	36 J
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2, 4, 6-Trichlorophenol	330u
95-95-4	2, 4, 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	30 J
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	26 J
121-14-2	2, 4-Dinitrotoluene	330u
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	32 J
100-01-6	4-Nitroaniline	1600u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	290 J
120-12-7	Anthracene	57 J
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene	300 J
129-00-0	Pyrene	610
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	250 J
117-81-7	bis(2-Ethylhexyl)Phthalate	110 J B
218-01-9	Chrysene	280 J
117-84-0	Di-n-Octyl Phthalate	60 J
205-99-2	Benzo(b)Fluoranthene	390
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	230 J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	200 J
53-70-3	Dibenz(a, h)Anthracene	330u
191-24-2	Benzo(g, h, i)Perylene	310 J

(1)-Cannot be separated from diphenylamine

4/87

Laboratory Name York Labs

Case No 6661

Sample Number
BN 627

Organics Analysis Data Sheet
(Page 3)

000244

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/12/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 1.0

Percent Moisture (decanted) 16.55

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16 U
72-55-9	4,4'-DDE	16. U
72-20-8	Endrin	16. U
33213-65-9	Endosulfan II	16. U
72-54-8	4,4'-DDD	16. U
1031-07-8	Endosulfan Sulfate	16. U
50-29-3	4,4'-DDT	16. U
72-43-5	Methoxychlor	80. U
53494-70-5	Endrin Ketone	16. U
57-74-9	Chlordane	80. U
8001-35-2	Toxaphene	160. U
12674-11-2	Aroclor-1016	80. U
11104-28-2	Aroclor-1221	80. U
11141-16-5	Aroclor-1232	80. U
53469-21-9	Aroclor-1242	80. U
12672-29-6	Aroclor-1248	80. U
11097-69-1	Aroclor-1254	160. U
11096-82-5	Aroclor-1260	460.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.02 V_t 20,000 V_i 4.0

Sample Number
BH629

Organics Analysis Data Sheet
(Page 1)

000406

Laboratory Name: York Labs
Case No: 6661
Lab Sample ID No: 0360005
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/16/86
Date Analyzed: 12/16/86
Conc/Dil Factor: 1.0 pH 7.55
Percent Moisture: (Not Decanted) 24.15

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	31B
67-64-1	~~Acetone~~	~~35B~~
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	~~Chloroform~~	~~7B~~
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	4J
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	47B
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	~~Benzene~~	~~2JB~~
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	4J
591-78-6	~~2-Hexanone~~	~~17B~~
127-18-4	Tetrachloroethene	23
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	19B
108-90-7	Chlorobenzene	5U
100-41-4	~~Ethylbenzene~~	~~6B~~
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

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

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

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

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

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

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

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

Sample Number
BH629 RE

Organics Analysis Data Sheet
(Page 1)

000407

Laboratory Name: York Labs
Case No: 6661
Lab Sample ID No: 0360005
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/20/86
Date Analyzed: 12/20/86
Conc/Dil Factor: 1.0 pH 7.55
Percent Moisture: (Not Decanted) 24.13

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	14B
67-64-1	Acetone	32B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	3J
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	6
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	42
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	24
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5U
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

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

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

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

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

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

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

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

000403

Laboratory Name York Laboratories

Case No: EPA 6661

Sample Number
BH 629

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-12-86

Date Analyzed: 12-30-86

Conc/Dil Factor: 1.0

Percent Moisture (Decanted) 24.15

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ~~☒~~Yes 1/12/87

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	
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	
39638-32-9	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	220 J
111-91-1	bis(-2-Chloroethoxy)Methane	330u
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	16 J
106-47-8	4-Chloroaniline	330u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	17 J
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2, 4, 6-Trichlorophenol	330u
95-95-4	2, 4, 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	1600u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	63 J
120-12-7	Anthracene	7 J
84-74-2	~~Di-n-Butylphthalate~~	~~28 JB~~
206-44-0	Fluoranthene	90 J
129-00-0	Pyrene	130 J
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	bis(2-Ethylhexyl)Phthalate	450 B
218-01-9	Chrysene	74 J
117-84-0	Di-n-Octyl Phthalate	42 J
205-99-2	Benzo(b)Fluoranthene	42 J
207-08-9	Benzo(k)Fluoranthene	330u
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	

(1)-Cannot be seperated from diphenylamine

9/25

Laboratory Name York Labs

Case No 6661

Sample Number
BN 629

Organics Analysis Data Sheet
(Page 3)

000403

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/12/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 1.0

Percent Moisture (decanted) 23.67

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16. U
72-55-9	4,4'-DDE	16. U
72-20-8	Endrin	16. U
33213-65-9	Endosulfan II	16. U
72-54-8	4,4'-DDD	16. U
1031-07-8	Endosulfan Sulfate	16. U
50-29-3	4,4'-DDT	16. U
72-43-5	Methoxychlor	80. U
53494-70-5	Endrin Ketone	16. U
57-74-9	Chlordane	80. U
8001-35-2	Toxaphene	160. U
12674-11-2	Aroclor-1016	80 U
11104-28-2	Aroclor-1221	80 U
11141-16-5	Aroclor-1232	80 U
53469-21-9	Aroclor-1242	80. U
12672-29-6	Aroclor-1248	80. U
11097-69-1	Aroclor-1254	160. U
11096-82-5	Aroclor-1260	1200.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00 V_t 20,000 V_i 4.0

Sample Number
BH630

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: York Labs
Case No: 6661 000508
Lab Sample ID No: 0360006
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/16/86
Date Analyzed: 12/16/86
Conc/Dil Factor: 1.0 pH 7.22
Percent Moisture: (Not Decanted) 32.91

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	10B
67-64-1	Acetone	29B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	3JB
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	7
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

Laboratory Name: York Laboratories

Case No: EPA 66161

Sample Number: BH 630

Organics Analysis Data Sheet
(Page 2)

000509

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12-12-86

Date Analyzed: 12-30-86

Conc/Dil Factor: 1.0

Percent Moisture (Decanted): 32.91

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ~~☒Yes~~ ☑Yes 1/12/89

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	
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	
39638-32-9	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	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
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	14 J
77-47-4	Hexachlorocyclopentadiene	330u
88-06-2	2, 4, 6-Trichlorophenol	330u
95-95-4	2, 4, 5-Trichlorophenol	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	11 J
100-01-6	4-Nitroaniline	1600u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	220 J
120-12-7	Anthracene	35 J
84-74-2	Di-n-Butylphthalate	94 JB
206-44-0	Fluoranthene	390
129-00-0	Pyrene	750
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	250 J
117-81-7	bis(2-Ethylhexyl)Phthalate	68 JB
218-01-9	Chrysene	290 J
117-84-0	Di-n-Octyl Phthalate	330u
205-99-2	Benzo(b)Fluoranthene	350
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	250 J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	160 J
53-70-3	Dibenz(a, h)Anthracene	330u
191-24-2	Benzo(g, h, i)Perylene	330u

(1)-Cannot be seperated from diphenylamine

4/2

Laboratory Name York Labs

Case No 6661

Sample Number
BH 630

000510

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/12/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 1.0

Percent Moisture (decanted) 25.22

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	23.
60-57-1	Dieldrin	16. U
72-55-9	4,4'-DDE	16. U
72-20-8	Endrin	16. U
33213-65-9	Endosulfan II	16. U
72-54-8	4,4'-DDD	16. U
1031-07-8	Endosulfan Sulfate	16. U
50-29-3	4,4'-DDT	16. U
72-43-5	Methoxychlor	80. U
53494-70-5	Endrin Ketone	16. U
57-74-9	Chlordane	80. U
8001-35-2	Toxaphene	160. U
12674-11-2	Aroclor-1016	80. U
11104-28-2	Aroclor-1221	80. U
11141-16-5	Aroclor-1232	80. U
53469-21-9	Aroclor-1242	80. U
12672-29-6	Aroclor-1248	80. U
11097-69-1	Aroclor-1254	160. U
11096-82-5	Aroclor-1260	330.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.06 V_t 20,000 V_i 4.0

Sample Number
BH636

Organics Analysis Data Sheet
(Page 1)

000581

Laboratory Name: YorkLabs
Case No: 6661
Lab Sample ID No: 0360007
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/20/86
Date Analyzed: 12/20/86
Conc/Dil Factor: 1.0 pH 5.92
Percent Moisture: (Not Decanted) 26.23

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	15B
67-64-1	Acetone	28B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	4J
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	1J
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	2J
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	1J
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5U
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	1J
100-42-5	Styrene	9
	Total Xylenes	5U

Data Reporting Qualifiers

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

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

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

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

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

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

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

000582

Laboratory Name York Laboratories

Case No: EPA 6661

Sample Number
BH 636

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 12-12-86

Date Analyzed: 12-30-86

Conc/Dil Factor: 1.0

Percent Moisture (Decanted) 26.23

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes 1/12/87

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	
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	
39638-32-9	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	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
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	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	↓ ↓
100-01-6	4-Nitroaniline	1600u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	↓ ↓
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	15 J
120-12-7	Anthracene	330u
84-74-2	~~Di-n-Butylphthalate~~	34 JB
206-44-0	Fluoranthene	19 J
129-00-0	Pyrene	28 J
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	330u
117-81-7	~~bis(2-Ethylhexyl)Phthalate~~	~~43 JB~~
218-01-9	Chrysene	330u
117-84-0	Di-n-Octyl Phthalate	
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	↓ ↓

(1)-Cannot be seperated from diphenylamine

6/87

Laboratory Name York Labs

Case No 6661

Sample Number
BW 636

Organics Analysis Data Sheet
(Page 3)

000583

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/12/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 1.0

Percent Moisture (decanted) 22.12

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	16. U
72-55-9	4,4'-DDE	16. U
72-20-8	Endrin	16. U
33213-65-9	Endosulfan II	16. U
72-54-8	4,4'-DDD	16. U
1031-07-8	Endosulfan Sulfate	16. U
50-29-3	4,4'-DDT	16. U
72-43-5	Methoxychlor	80. U
53494-70-5	Endrin Ketone	16. U
57-74-9	Chlordane	80. U
8001-35-2	Toxaphene	160. U
12674-11-2	Aroclor-1016	80. U
11104-28-2	Aroclor-1221	80. U
11141-16-5	Aroclor-1232	80. U
53469-21-9	Aroclor-1242	80. U
12672-29-6	Aroclor-1248	80. U
11097-69-1	Aroclor-1254	160. U
11096-82-5	Aroclor-1260	160. U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00 V_t 20,000 V_i 4.0

Sample Number
BH637

Organics Analysis Data Sheet
(Page 1)

000650

Laboratory Name: YorkLabs
Case No: 6661
Lab Sample ID No: 03 60 008
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7157
Data Release Authorized By:
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12/17/86
Date Analyzed: 12/17/86
Conc/Dil Factor: 1.0 pH 7.52
Percent Moisture: (Not Decanted) 63.58

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	16B
67-64-1	Acetone	72
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	13B
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	30
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

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

Data Reporting Qualifiers

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

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

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

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

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

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

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

Laboratory Name: York Laboratories

Case No: EPA 6661

Sample Number: BH 637

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12-12-86

Date Analyzed: 12-30-86

Conc/Dil Factor: 1.0

Percent Moisture (Decanted): 63.60

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☒Yes 12/12/87

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330u
111-44-4	bis(-2-Chloroethyl)Ether	
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	
39638-32-9	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	1600u
111-91-1	bis(-2-Chloroethoxy)Methane	330u
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	1600u
91-58-7	2-Chloronaphthalene	330u
88-74-4	2-Nitroaniline	1600u
131-11-3	Dimethyl Phthalate	330u
208-96-8	Acenaphthylene	330u
99-09-2	3-Nitroaniline	1600u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330u
51-28-5	2, 4-Dinitrophenol	1600u
100-02-7	4-Nitrophenol	1600u
132-64-9	Dibenzofuran	330u
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	1600u
534-52-1	4, 6-Dinitro-2-Methylphenol	1600u
86-30-6	N-Nitrosodiphenylamine (1)	330u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	1600u
85-01-8	Phenanthrene	230 J
120-12-7	Anthracene	37 J
84-74-2	Di-n-Butylphthalate	330u
206-44-0	Fluoranthene	390
129-00-0	Pyrene	530
85-68-7	Butylbenzylphthalate	330u
91-94-1	3, 3'-Dichlorobenzidine	660u
56-55-3	Benzo(a)Anthracene	210 J
117-81-7	bis(2-Ethylhexyl)Phthalate	460 B
218-01-9	Chrysene	260 J
117-84-0	Di-n-Octyl Phthalate	130 J
205-99-2	Benzo(b)Fluoranthene	250 J
207-08-9	Benzo(k)Fluoranthene	330u
50-32-8	Benzo(a)Pyrene	220 J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	330u
53-70-3	Dibenz(a, h)Anthracene	330u
191-24-2	Benzo(g, h, i)Perylene	210 J

(1)-Cannot be seperated from diphenylamine

6/93

Laboratory Name York Labs

Case No 6661

Sample Number BN637

Organics Analysis Data Sheet
(Page 3)

000652

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/12/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 1.0

Percent Moisture (decanted) 58.94

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 u
319-85-7	Beta-BHC	8.0 u
319-86-8	Delta-BHC	8.0 u
58-89-9	Gamma-BHC (Lindane)	8.0 u
76-44-8	Heptachlor	8.0 u
309-00-2	Aldrin	8.0 u
1024-57-3	Heptachlor Epoxide	8.0 u
959-98-8	Endosulfan I	8.0 u
60-57-1	Dieldrin	16. u
72-55-9	4,4'-DDE	280.
72-20-8	Endrin	16u
33213-65-9	Endosulfan II	16u
72-54-8	4,4'-DDD	58. C
1031-07-8	Endosulfan Sulfate	16u
50-29-3	4,4'-DDT	750 C
72-43-5	Methoxychlor	80. u
53494-70-5	Endrin Ketone	16. u
57-74-9	Chlordane	80. u
8001-35-2	Toxaphene	160 u
12674-11-2	Aroclor-1016	80. u
11104-28-2	Aroclor-1221	80. u
11141-16-5	Aroclor-1232	80. u
53469-21-9	Aroclor-1242	80. u
12672-29-6	Aroclor-1248	80. u
11097-69-1	Aroclor-1254	160. u
11096-82-5	Aroclor-1260	1000.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.09 V_t 20,000 V_i 4.0

Sample Number
BH638

Organics Analysis Data Sheet
(Page 1)

000737

Laboratory Name: York Labs
Case No: 6661
Lab Sample ID No: 0360009
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7157
Data Release Authorized By: John C. Cobb
Date Sample Received: 12/11/86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: ~~12/16/87~~ 12/17/87
Date Analyzed: ~~12/16/87~~ 12/17/86 JCC 1/28/87
Conc/Dil Factor: 1.0 pH 7.61
Percent Moisture: (Not Decanted) 31.04

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	~~Methylene Chloride~~	13B
67-64-1	~~Acetone~~	24B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	~~Chloroform~~	~~5B~~ 4JB JCC 1/28/87
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U
71-55-6	1, 1, 1-Trichloroethane	~~4J~~ 5U JCC 1/28/87
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	~~5B~~ 5U JCC 1/28/87
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5U
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

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

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

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

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

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

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

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

000738

Laboratory Name York Laboratories

Case No: EPA 6661

Sample Number
BH 638

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low (Medium) (Circle One)

Date Extracted/Prepared 12-18-86

Date Analyzed: 01-05-87

Conc/Dil Factor: 1.0

Percent Moisture (Decanted) 31.04

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes 1/12/87

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	20000u
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	
39638-32-9	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	96000u
111-91-1	bis(-2-Chloroethoxy)Methane	20000u
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	↓ ↓
91-20-3	Naphthalene	2200 J
106-47-8	4-Chloroaniline	20000 u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	↓ ↓
91-57-6	2-Methylnaphthalene	590 J
77-47-4	Hexachlorocyclopentadiene	20000u
88-06-2	2, 4, 6-Trichlorophenol	20000u
95-95-4	2, 4, 5-Trichlorophenol	96000u
91-58-7	2-Chloronaphthalene	20000u
88-74-4	2-Nitroaniline	96000u
131-11-3	Dimethyl Phthalate	20000u
208-96-8	Acenaphthylene	20000u
99-09-2	3-Nitroaniline	96000u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	2700 J
51-28-5	2, 4-Dinitrophenol	96000u
100-02-7	4-Nitrophenol	96000u
132-64-9	Dibenzofuran	1900 J
121-14-2	2, 4-Dinitrotoluene	20000u
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	↓ ↓
100-01-6	4-Nitroaniline	96000u
534-52-1	4, 6-Dinitro-2-Methylphenol	96000u
86-30-6	N-Nitrosodiphenylamine (1)	20000u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	↓ ↓
87-86-5	Pentachlorophenol	96000u
85-01-8	Phenanthrene	26000
120-12-7	Anthracene	5500 J
84-74-2	Di-n-Butylphthalate	20000u
206-44-0	Fluoranthene	31000
129-00-0	Pyrene	26000
85-68-7	Butylbenzylphthalate	20000u
91-94-1	3, 3'-Dichlorobenzidine	40000u
56-55-3	Benzo(a)Anthracene	15000 J
117-81-7	bis(2-Ethylhexyl)Phthalate	20000u
218-01-9	Chrysene	15000 J
117-84-0	Di-n-Octyl Phthalate	20000u
205-99-2	Benzo(b)Fluoranthene	14000 J
207-08-9	Benzo(k)Fluoranthene	7100 J
50-32-8	Benzo(a)Pyrene	13000 J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	6500 J
53-70-3	Dibenz(a, h)Anthracene	20000u
191-24-2	Benzo(g, h, i)Perylene	20000u

(1)-Cannot be separated from diphenylamine

9/25

Laboratory Name York Labs

Case No 6661

Sample Number BH 638

000739

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 12/12/86

Date Analyzed: 12/23/86

Conc/Dil Factor: 5.0

Percent Moisture (decanted) 34.0

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	40. U
319-85-7	Beta-BHC	40. U
319-86-8	Delta-BHC	40. U
58-89-9	Gamma-BHC (Lindane)	40. U
76-44-8	Heptachlor	40. U
309-00-2	Aldrin	40. U
1024-57-3	Heptachlor Epoxide	40. U
959-98-8	Endosulfan I	40. U
60-57-1	Dieldrin	80. U
72-55-9	4,4'-DDE	77. J
72-20-8	Endrin	80. U
33213-65-9	Endosulfan II	80 U
72-54-8	4,4'-DDD	41. J C
1031-07-8	Endosulfan Sulfate	80.
50-29-3	4,4'-DDT	200. C
72-43-5	Methoxychlor	400. U
53494-70-5	Endrin Ketone	80. U
57-74-9	Chlordane	400. U
8001-35-2	Toxaphene	800. U
12674-11-2	Aroclor-1016	400.
11104-28-2	Aroclor-1221	400. U
11141-16-5	Aroclor-1232	400. U
53469-21-9	Aroclor-1242	400. U
12672-29-6	Aroclor-1248	400. U
11097-69-1	Aroclor-1254	800 U
11096-82-5	Aroclor-1260	800 U

V_i = Volume of extract injected (ul)

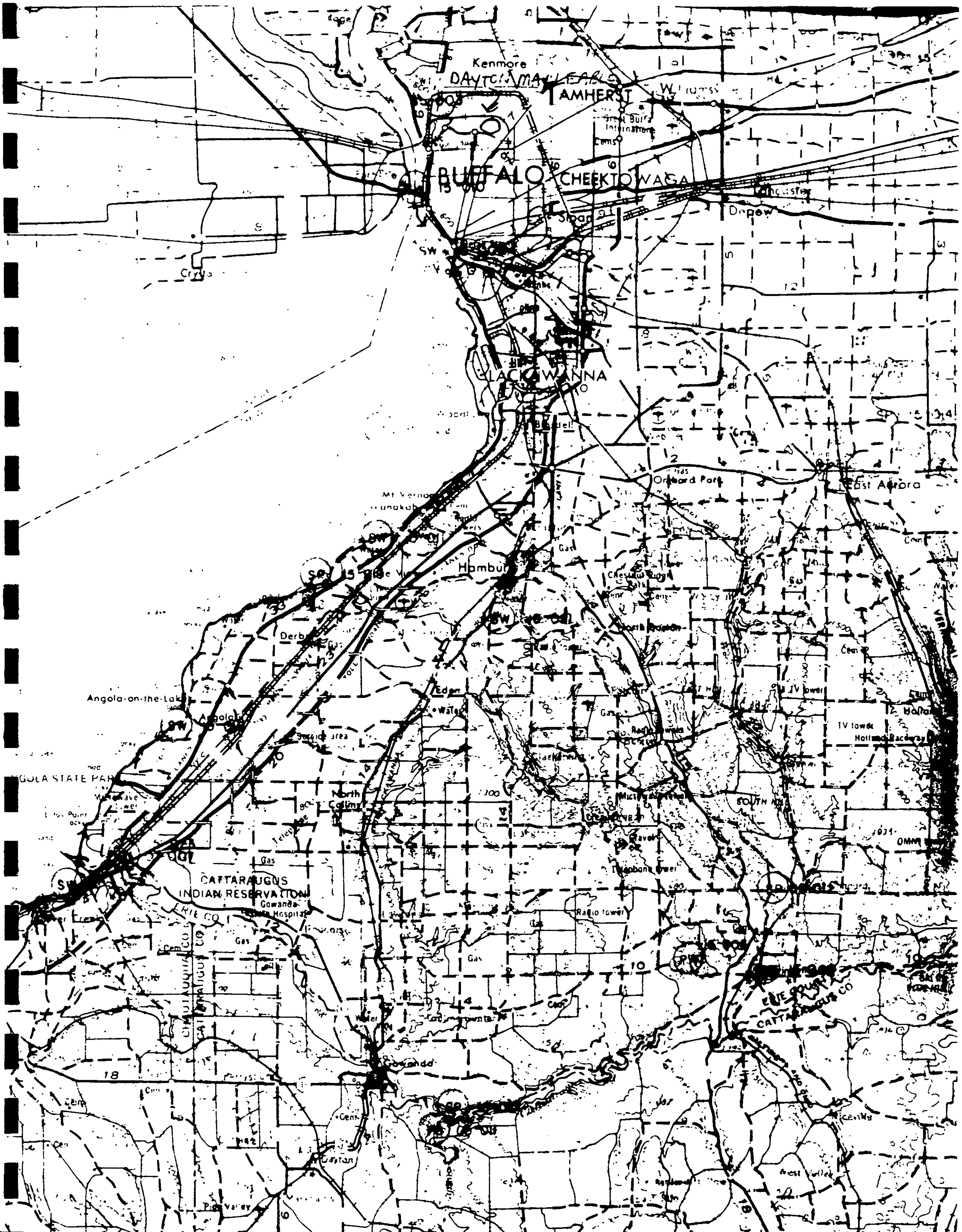
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00 V_t 20,000. V_i 4.0

REFERENCE NO. 9


Kenmore
DAYTON MALLEABLE
AMHERST
BUFFALO
CHEEKTOWAGA
Depew
LACKAWANNA
Orchard Park
East Aurora
Hamburg
Derby
Angola-on-the-Lake
Angola
Eden
North Collins
CATTARAUGUS
INDIAN RESERVATION
Gowanda
ERIE CO
CHAUTAUQUA CO
CATTARAUGUS CO
Holland
Springville
Gowanda
Dayton
Radio tower
TV tower
Gas
Cem

REFERENCE NO. 10

EPA

POTENTIAL HAZARDOUS WASTE SITE IDENTIFICATION

REGION: II | SITE NUMBER: NY0000010168

The initial identification of a potential site or incident should not be interpreted as a finding of illegal activity or confirmation that an actual health or environmental threat exists. All identified sites will be assessed under the EPA's Hazardous Waste Site Enforcement and Response System to determine if a hazardous waste problem actually exists.

A. SITE NAME: PRATT & LETCHWORTH

B. STREET (or other identifier): 184 TONAWANDA STREET

C. CITY: BUFFALO

D. STATE: N.Y.

E. ZIP CODE: 14207

F. COUNTY NAME: ERIE

G. OWNER/OPERATOR (if known)

1. NAME: PRATT & LETCHWORTH, DIVISION OF DAYTON MALLEABLE

2. TELEPHONE NUMBER:

H. TYPE OF OWNERSHIP (if known)

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE ☐ 6. UNKNOWN

I. SITE DESCRIPTION

INACTIVE LANDFILL, WAS ACTIVE FROM 1949 TO 1965
SOME FOUNDRY SANDS DISPOSED AT THE SQUAW ISLAND LF (USED AS ROAD BED MATERIAL). ALSO SOME SLAG, SAND, LUBE OIL, HYDRAULIC OIL PAPER & WOOD WERE DUMPED ON SITE.

J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.): HAZARDOUS WASTE DISPOSAL SITES IN NEW YORK STATE (LIST OF 6/1980)

K. DATE IDENTIFIED (mo., day, & yr.): 4/15/80

L. SUMMARY OF POTENTIAL OR KNOWN PROBLEM

HAZARDOUS WASTE — CONFIRMED.
SAND — 1200 TONS/YEAR
SLAG — 1000 " "
LUBE & HYDRAULIC OIL — 14000 GALS/YEAR

ENVIRONMENTAL PROBLEMS: NEEDS FURTHER INVESTIGATION AND SAMPLING TO DETERMINE & ASSESS IMPACT ON HEALTH & ENVIRONMENT.

HEALTH PROBLEMS: UNKNOWN

M. PREPARER INFORMATION

1. NAME: GEORGE B. RADAN

2. TELEPHONE NUMBER: 212 264-1576

3. DATE (mo., day, & yr.): 11/10/80

EPA Form 2070-8 (5-80)

REFERENCE NO. 11

NUS CORPORATION — TELECON NOTE

CONTROL NO:	DATE:	TIME:
02-8511-21A	3/6/86	4:00 pm

DISTRIBUTION:

File

BETWEEN:	OF:	PHONE:
Ron Koczaja	Erie Co. Health Dept	(716) 846-7677

AND:

Dennis Sutton (NUS)

DISCUSSION:

Surface water intakes (Drinking water supply) for Erie Co. New York.

1) For Town of Cheektowaga - water supply comes from
   a) Sturgeon Point intake on Town of Tonawanda intake (see below) when demand is high.
2) For City of Buffalo - intake is in Lake Erie just outside Erie Basin Marina
3) For Town of Tonawanda - intake is in Niagara River near Strawberry Island
4) For City of Tonawanda - intake is in Niagara River on northern tip of Grand Island
5) Towns of Alden, Collins, North Collins, Holland and Springville supplies are from municipal groundwater wells

ACTION ITEMS:

according to Mr. Koczaja the USGS and ~~Dept. of State Dr~~ Dept of Environmental Planning published a report on a groundwater study in Erie Co. a Mr Todd Miller in the Ithica USGS may have more info on this.

water intakes may be located on USGS Topo maps

REFERENCE NO. 12

NUS CORPORATION AND SUBSIDIARIES — TELECON NOTE

CONTROL NO:	DATE: 7/18/88	TIME: 0945 HRS

DISTRIBUTION: DAYTON MALLOABLE
TDD # 02-8611.67

Pg 1/2

BETWEEN: RON KOCZAJA	OF: ERIE CO. HEALTH DEPT.	PHONE: (716)846-6085

AND: B. LEONARD (NUS)

DISCUSSION: RE: SURFACE WATER INTAKES

THE FOLLOWING SURFACE WATER INTAKES ARE LOCATED ON THE NIAGARA RIVER:

- WATER INTAKES 1/4 MILE OFFSHORE ~~IN~~ FH JUST ~~BUFFALO~~ FH NORTH OF STRAWBERRY ISLAND. INTAKES UTILIZED BY TOWN OF TONAWANDA & ERIE COUNTY WATER ~~AUTH.~~ (ECWA)

- INTAKE ON WEST BRANCH OF NIAGARA RIVER JUST NORTH OF BEAVER ISLAND ~~PARK~~. UTILIZED BY THE ECWA.

ACTION ITEMS: ~~—~~
FH
- INTAKE ON EAST BRANCH OF NIAGARA RIVER JUST SOUTH OF CANAL BARAGE. UTILIZED BY CITY OF TONAWANDA.

NUS 067 REVISED 0685

NUS CORPORATION AND SUBSIDIARIES — TELECON NOTE

CONTROL NO:	DATE: 7/18/88	TIME: 0945

DISTRIBUTION: DAYTON MALLEABLE TDD # 02-8611-67 Pg 2/2

BETWEEN: RON KOCZAJA	OF: ERHD	PHONE: (716) 846-6085

AND: E. LEONARD (NUS)

DISCUSSION:

- TWO INTAKES IN ~~THE~~ FILL LAKE ERIE ONE IN ERIE BASIN BY THE HEADWATERS OF THE NIAGARA RIVER UTILIZED BY THE CITY OF BUFFALO. THE SECOND AT STURGEON POINT APPROXIMATELY 30 MILES SOUTH INTO LAKE ERIE. UTILIZED BY TOWN OF TONOWANDA.

THE NIAGARA RIVER IS ALSO USED RECREATIONALLY. THERE IS A STATE PARK, AND SEVERAL COUNTY AND TOWN PARKS. RECREATION INCLUDES FISHING, BOATING & SWIMMING.

ACTION ITEMS:

E. Leonard 7/18/88

NUS 067 REVISED 0685

REFERENCE NO. 13

NUS CORPORATION
SUPERFUND DIVISION

PROJECT NOTES

TO: Project File

DATE: 7-18-88

FROM: Peter Babcock

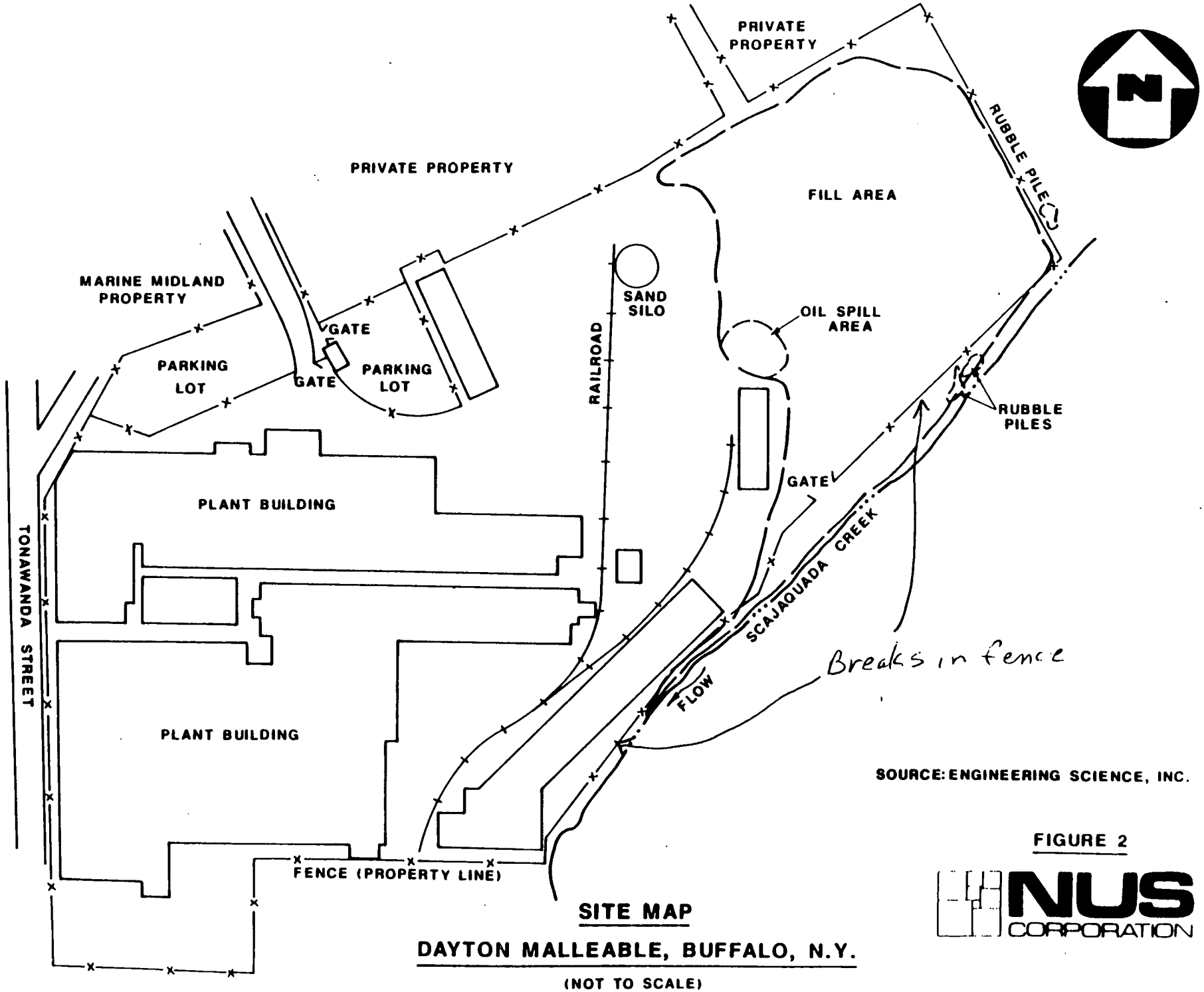
COPIES:

SUBJECT: Site ~~Job~~ accessibility

REFERENCE: Dayton Mailable

Although it was not noted in the field log book during the site inspection, there were several breaks in the fence near Scajaquada Creek. See attached map for appropriate locations

NUS 443A 58 1182



SOURCE: ENGINEERING SCIENCE, INC.

FIGURE 2

SITE MAP

DAYTON MALLEABLE, BUFFALO, N.Y.

(NOT TO SCALE)

NUS CORPORATION

02-5611-07-SR
Rev. No. 0

REFERENCE NO. 14

NUS CORPORATION AND SUBSIDIARIES — TELECON NOTE

CONTROL NO:	DATE: 7/18/87	TIME: 1016 HRS

DISTRIBUTION: DAYTON MALCOABLE

TO ~~DA~~ ~~02-87~~ 02-8611-67
FH

BETWEEN: CLERK	OF: TOWN OF TONAWANDA — WATER DEPT.	PHONE: (716) 877-4453

AND: E. LEONARD (NUS)

DISCUSSION: RE: SURFACE WATER INTAKES

WATER TREATMENT FACILITY LOCATED AT THE FOOT OF SHERIDAN DRIVE, BUFFALO, & NY ON THE NIAGARA RIVER.
FH

E R Leonard 7/18/87

ACTION ITEMS:

NUS 067 REVISED 0685

REFERENCE NO. 15

NUS CORPORATION AND SUBSIDIARIES — TELECON NOTE

CONTROL NO:	DATE: 11/5/86	TIME: 1015
DISTRIBUTION:		
BETWEEN: Ron Skozzafa	OF: Erie County Health	PHONE: (716) 846-7674
AND: Nick E Mark		

DISCUSSION:

Re: Well Information in Buffalo Area.

There is almost no use of groundwater in the Buffalo area. The only still existing well is Dunlop Tire in N. Tonawanda.

I listed wells at issue out of La Sala, Groundwater Resources reference and these were his answers:

No longer Existing - Donner-Hanna Coke Corp; Arctic Ice; Rivoli; Commodore; Roosevelt Theater; He did not have specific knowledge of NY Telephone, W+F Manufacturing; Fairmont Foods. He noted that although he did not have specific knowledge of these wells these are old wells and no longer existing well use in the Buffalo area have been phased out through the years.

ACTION ITEMS:

NUS 067 REVISED 0685

REFERENCE # 16

Pratt & Letchworth Copy

INTERAGENCY TASK FORCE ON HAZARDOUS WASTES
M.P.O. Box 561
Niagara Falls, New York 14302
(716) 285-3057

I. General Information

1. Company Name: Pratt & Letchworth Division

Mailing Address: 189 Tonawanda Street, Buffalo, New York 14226
Street / City / State / Zip

Present Plant Location: [XXX] Same as Above

Street / City / State / Zip

2. If Subsidiary or Division, Name of Parent Company: Dayton Malleable, Inc

3. Person Responsible for Present Plant Operations: Kenneth Schroeder
Name

General Manager — 873-0300
Title / Telephone

4. Person Answering this Questionnaire: Jack R. Stark
Name

Operations Manager — 873-0300
Title / Telephone

II. Company History

1. Date Company founded: 1848

Date and State of Incorporation: Pratt & Letchworth was purchased by Dayton Malleable in 1923. Dayton Malleable incorporated in the state of Ohio in 1869.

Date Company Began Operations in Erie or Niagara County: 1848

2. Other Company Names since 1930 (specify time periods): Dayton Malleable Iron Company changed its name to Dayton Malleable Inc. in 1973.

3. Other Plant Locations in Erie or Niagara County since 1930 (specify locations and time periods): None

4. Names of Companies Acquired which have Operated Plants in Erie or Niagara County since 1930 (specify name of company, date of acquisition, location of plant, and periods of operation): None

. 0 1978

5. Identify all Treatment or Disposal Sites in Erie or Niagara County used since 1930 (use separate sheet for each site).

a. Name of Site: Downing Container Service

b. Location: Site Unknown

c. Owner or Operator: _____

d. Time Period Site was Used: Used Downing since approximately 1960

e. Describe Waste Types Treated or Disposed at this Site	Physical State	Total Quantity	Type of Containe If Any
(1) Sand	Bulk	100 ton year est.	-
(2) Dust	Bulk	400 ton year est	-
(3) Paper & wood	Bulk	3000 cu yd year est.	-
(4)			
(5)			

f. Wastes Were [xxx] land disposed [ ] incinerated [ ] reclaimed [ ] treated [ ] other (specify) _____

g. Names of waste haulers including your company transporting such wastes to this site, if a disposal site.

Name _____ Telephone _____

Street _____ City _____ State _____

Time Periods such Hauler Transported to this Site _____

Name _____ Telephone _____

Street _____ City _____ State _____

Time Periods such Hauler Transported to this Site _____

h. List Names and Addresses of other Companies using this Site, if a disposal site.

_____