EPA WORK ASSIGNMENT NO: 076-2JZZ
EPA CONTRACT NO: 68-W8-0110
FOSTER WHEELER ENVIRONMENTAL CORPORATION

ARCS II PROGRAM

FINAL
SITE INSPECTION PRIORITIZATION (SIP)
PAS HOLBROOK PROPERTY SITE
TOWN OF PARISH
OSWEGO COUNTY, NEW YORK
CERCLIS NO: NYD000511600

DECEMBER 1995

VOLUME II of II

NOTICE

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RECOMMENDATIONS

The overall score for the PAS Holbrook Property site is 2.74. The groundwater, surface water, and air pathways were evaluated on a potential-to-release basis. The soil exposure pathway was evaluated on an area of observed contamination.

The groundwater pathway score is 0.83 based on a potential-to-release basis. Groundwater within the 4-mile radius of the site is used as the sole source for potable water supplies. Approximately 4,420 people rely on groundwater from private wells for a potable water source. Existing analytical data indicates that residential wells within the vicinity of the site do not contain possible site-related contaminants.

The surface water pathway score is 5.41 for the overland flow segment and 0.36 for the groundwater to surface water component. Surface water runoff from the site enters an unnamed tributary which transects the site. The surface water pathway includes portions of Sage Creek and Lake Ontario, both of which are fisheries. Sensitive environment targets for the surface water pathway include fisheries, a coastal zone management area, protected habitat, and approximately 8.08 miles of wetland frontage. There are no surface water intakes located within the surface water TDL.

The soil exposure pathway score is 0.1. The area of observed contamination has not been documented. The site is utilized as a residence for an estimated three people. There are no schools or day-care centers within 200 feet of the potential area of observed contamination. There is a wetland on-site; however, the potential area of observed contamination does not occur within the boundaries of the wetland.

The air pathway score is 0.12 based on a potential-to-release. The nearest residence is located on-site. There is a total population of approximately 4,420 within the 4-mile radius. There are approximately 3,425.2 acres of wetlands within the air pathway TDL.

A sensitivity analysis was performed in order to determine how different scenarios would affect the site score and to assess the probability of an observed release and actual contamination of targets. The air pathway was not evaluated as there is no evidence to indicate that a release to this pathway has occurred. The following scenarios were evaluated:

I) A minimum of 17 people exposed to Level I groundwater contamination within four miles of the site is required for the overall site score to reach 29.35 and the groundwater pathway to score 58.45. A minimum of 167 people exposed to Level II groundwater contamination within four miles of the site is required for the overall site score to reach 28.5 and the groundwater pathway to score 56.75. Should a Level I release be determined to have occurred to the Holbrook potable well (assuming three residents), the overall site score would increase to 14.55 and the groundwater pathway score would increase to 28.59. Should a Level II release be determined to have occurred to the Holbrook potable well, the overall site score would increase to 11.21 and the groundwater pathway score would increase to 21.76.

These scenarios are unlikely as analytical data from the various rounds of residential well sampling and from the sampling of the Holbrook well near the barn do not indicate that a release to groundwater has occurred.

II) If a Level I or a Level II release to surface water for the compounds assigned to both sources is determined to have occurred at the PPE, the overall site score will reach 20.1 and the surface water pathway score will reach 40.2. Should a Level I or a Level II release to surface water be determined to have occurred at the first wetland encountered along the surface water TDL, 0.2 mile from the PPE, the site score will reach 50 and the surface water pathway score will reach 100.

These scenarios are unlikely as there is no evidence to indicate that possible site-related contaminants have migrated from the source areas to the unnamed tributary.

III) When a Level I observed release is assigned to the soil exposure pathway with three residents living within 200 feet of the area of observed contamination, the site score increases to 5.53 and the soil exposure pathway score increases to 9.6. When a Level II observed release is assigned to the soil exposure pathway with three residents living within 200 feet of the area of observed contamination, the site score increases to 3.97 and the soil exposure pathway score increases to 5.76.

When a Level I observed release is assigned to the soil exposure pathway and the number of residential individuals is at least 43, the site score is 28.93 and the soil exposure pathway score is 57.6. When a Level II observed release is assigned to the soil exposure pathway and the number of residential individuals is at least 429, the site score is 28.57 and the soil exposure pathway score is 56.88. In order to meet the population requirements, site related contamination to extend from the source to greater than 1/4 mile away. The 1988 NYSDEC sampling event indicates that soil contamination is not present throughout the site. These scenarios are unlikely.

Based on the existing information and the sensitivity analysis, a finding of No Further Remedial Action Planned (NFRAP) is recommended for the PAS Holbrook Property site.

NPL Characteristics Data Collection Form
PAS Holbrook Property Site - 11/14/95

Record Information

1. Site Name: PAS Holbrook Property Site
   (as entered in CERCLIS)
2. Site CERCLIS Number: NYD000511600
3. Site Reviewer: Michele Christina
4. Date: November 1995
5. Site Location: Parish/Oswego County, NY
   (City/County,State)
6. Congressional District: 24
7. Site Coordinates: Single

   Latitude: 43 26'20. Longitude: 076 07'27.5"

Site Description

1. Setting: Rural
2. Current Owner: Private - Individual
3. Current Site Status: Inactive
4. Years of Operation: Unknown
5. How Initially Identified: State/Local Program
6. Entity Responsible for Waste Generation:
   - Unknown
7. Site Activities/Waste Deposition:
   - Drum/Container Storage

Waste Description

8. Wastes Deposited or Detected Onsite:

- Organic Chemicals

Response Actions

9. Response/Removal Actions:

   - Emergency Waste Removal Has Occurred

RCRA Information

10. For All Active Facilities, RCRA Site Status:

    - Not Applicable

Demographic Information

11. Workers Present Onsite: No

12. Distance to Nearest Non-Worker Individual: Onsite

13. Residential Population Within 1 Mile: 297.0

14. Residential Population Within 4 Miles: 4420.0

Water Use Information

15. Local Drinking Water Supply Source:

    - Ground Water (within 4 mile distance limit)

16. Total Population Served by Local Drinking Water Supply Source: 4420.0

17. Drinking Water Supply System Type for Local Drinking Water Supply Sources:

    - Private

18. Surface Water Adjacent to/Draining Site:

    - Stream

HRS DOCUMENTATION RECORD
PAS Holbrook Property Site - 11/14/95

1. Site Name: PAS Holbrook Property Site
   (as entered in CERCLIS)

2. Site CERCLIS Number: NYD000511600

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6. Congressional District: 24

7. Site Coordinates: Single

   Latitude: 43 26'20. Longitude: 076 07'27.5"

	Score
Ground Water Migration Pathway Score (Sgw)	0.83
Surface Water Migration Pathway Score (Ssw)	5.41
Soil Exposure Pathway Score (Ss)	0.01
Air Migration Pathway Score (Sa)	0.12

Site Score	2.74

NOTE

EPA uses the terms "facility," "site," and "release" interchangeably. The term "facility" is broadly defined in CERCLA to include any area where hazardous substances have "come to be located" (CERCLA Section 109(9)), and the listing process is not intended to define or reflect boundaries of such facilities or releases. Site names, and references to specific parcels or properties, are provided for general identification purposes only. Knowledge regarding the extent of sites will be refined as more information is developed during the RI/FS and even during implementation of the remedy.

GROUND WATER MIGRATION PATHWAY SCORESHEET
PAS Holbrook Property Site - 11/14/95

GROUND WATER MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release to an Aquifer Aquifer: Lacustrine Sand		
1. Observed Release	550	0
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	5
2d. Travel Time	35	35
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	460
3. Likelihood of Release	550	460
Waste Characteristics		
4. Toxicity/Mobility	*	1.00E+00
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	2
Targets		
7. Nearest Well	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	5.40E+01
8d. Population (lines 8a+8b+8c)	**	5.40E+01
9. Resources	5	0.00E+00
10. Wellhead Protection Area	20	0.00E+00
11. Targets (lines 7+8d+9+10)	**	7.40E+01
12. Targets (including overlaying aquifers)	**	7.40E+01
13. Aquifer Score	100	0.83
GROUND WATER MIGRATION PATHWAY SCORE (Sgw)	100	0.83

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
PAS Holbrook Property Site - 11/14/95

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release by Overland Flow		
2a. Containment	10	10
2b. Runoff	25	0
2c. Distance to Surface Water	25	16
2d. Potential to Release by Overland Flow [lines 2a(2b+2c)]	500	160
3. Potential to Release by Flood		
3a. Containment (Flood)	10	0
3b. Flood Frequency	50	0
3c. Potential to Release by Flood (lines 3a x 3b)	500	0
4. Potential to Release (lines 2d+3c)	500	160
5. Likelihood of Release	550	160
Waste Characteristics		
6. Toxicity/Persistence	*	1.00E+04
7. Hazardous Waste Quantity	*	10
8. Waste Characteristics	100	18
Targets		
9. Nearest Intake	50	0.00E+00
10. Population		
10a. Level I Concentrations	**	0.00E+00
10b. Level II Concentrations	**	0.00E+00
10c. Potential Contamination	**	0.00E+00
10d. Population (lines 10a+10b+10c)	**	0.00E+00
11. Resources	5	5.00E+00
12. Targets (lines 9+10d+11)	**	5.00E+00
13. DRINKING WATER THREAT SCORE	100	0.17

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
PAS Holbrook Property Site - 11/14/95

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
14. Likelihood of Release (same as line 5)	550	160
Waste Characteristics		
15. Toxicity/Persistence/Bioaccumulation	*	5.00E+08
16. Hazardous Waste Quantity	*	10
17. Waste Characteristics	1000	180
Targets		
18. Food Chain Individual	50	2.00E+00
19. Population		
19a. Level I Concentrations	**	0.00E+00
19b. Level II Concentrations	**	0.00E+00
19c. Pot. Human Food Chain Contamination	**	3.00E-04
19d. Population (lines 19a+19b+19c)	**	3.00E-04
20. Targets (lines 18+19d)	**	2.00E+00
21. HUMAN FOOD CHAIN THREAT SCORE	100	0.70

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
PAS Holbrook Property Site - 11/14/95

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
22. Likelihood of Release (same as line 5)	550	160
Waste Characteristics		
23. Ecosystem Toxicity/Persistence/Bioacc.	*	5.00E+08
24. Hazardous Waste Quantity	*	10
25. Waste Characteristics	1000	180
Targets		
26. Sensitive Environments		
26a. Level I Concentrations	**	0.00E+00
26b. Level II Concentrations	**	0.00E+00
26c. Potential Contamination	**	1.30E+01
26d. Sensitive Environments (lines 26a+26b+26c)	**	1.30E+01
27. Targets (line 26d)	**	1.30E+01
28. ENVIRONMENTAL THREAT SCORE	60	4.54
29. WATERSHED SCORE	100	5.41
30. SW: OVERLAND/FLOOD COMPONENT SCORE (Sof)	100	5.41

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET
PAS Holbrook Property Site - 11/14/95

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release to Aquifer Aquifer: Lacustrine Sand		
1. Observed Release	550	0
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	5
2d. Travel Time	35	35
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	460
3. Likelihood of Release	550	460
Waste Characteristics		
4. Toxicity/Mobility/Persistence	*	1.00E+00
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	2
Targets		
7. Nearest Intake	50	0.00E+00
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	0.00E+00
8d. Population (lines 8a+8b+8c)	**	0.00E+00
9. Resources	5	5.00E+00
10. Targets (lines 7+8d+9)	**	5.00E+00
11. DRINKING WATER THREAT SCORE	100	0.06

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET
PAS Holbrook Property Site - 11/14/95

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
12. Likelihood of Release (same as line 3)	550	460
Waste Characteristics		
13. Toxicity/Mobility/Persistence/Bioacc.	*	5.00E+02
14. Hazardous Waste Quantity	*	10
15. Waste Characteristics	1000	6
Targets		
16. Food Chain Individual	50	0.00E+00
17. Population		
17a. Level I Concentrations	**	0.00E+00
17b. Level II Concentrations	**	0.00E+00
17c. Pot. Human Food Chain Contamination	**	6.01E-05
17d. Population (lines 17a+17b+17c)	**	6.01E-05
18. Targets (lines 16+17d)	**	6.01E-05
19. HUMAN FOOD CHAIN THREAT SCORE	100	0.00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET
PAS Holbrook Property Site - 11/14/95

GROUND WATER TO SURFACE WATER MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
20. Likelihood of Release (same as line 3)	550	460
Waste Characteristics		
21. Ecosystem Tox./Mobility/Persist./Bioacc.	*	5.00E+04
22. Hazardous Waste Quantity	*	10
23. Waste Characteristics	1000	18
Targets		
24. Sensitive Environments		
24a. Level I Concentrations	**	0.00E+00
24b. Level II Concentrations	**	0.00E+00
24c. Potential Contamination	**	3.00E+00
24d. Sensitive Environments (lines 24a+24b+24c)	**	3.00E+00
25. Targets (line 24d)	**	3.00E+00
26. ENVIRONMENTAL THREAT SCORE	60	0.30
27. WATERSHED SCORE	100	0.36
28. SW: GW to SW COMPONENT SCORE (Sgs)	100	0.36

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

SOIL EXPOSURE PATHWAY SCORESHEET
PAS Holbrook Property Site - 11/14/95

SOIL EXPOSURE PATHWAY Factor Categories & Factors RESIDENT POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
1. Likelihood of Exposure	550	550
Waste Characteristics		
2. Toxicity	*	1.00E+04
3. Hazardous Waste Quantity	*	10
4. Waste Characteristics	100	18
Targets		
5. Resident Individual	50	0.00E+00
6. Resident Population		
6a. Level I Concentrations	**	0.00E+00
6b. Level II Concentrations	**	0.00E+00
6c. Resident Population (lines 6a+6b)	**	0.00E+00
7. Workers	15	0.00E+00
8. Resources	5	0.00E+00
9. Terrestrial Sensitive Environments	***	0.00E+00
10. Targets (lines 5+6c+7+8+9)	**	0.00E+00
11. RESIDENT POPULATION THREAT SCORE	**	0.00E+00

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.
*** No specific maximum value applies, see HRS for details.

SOIL EXPOSURE PATHWAY SCORESHEET
PAS Holbrook Property Site - 11/14/95

SOIL EXPOSURE PATHWAY Factor Categories & Factors NEARBY POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
12. Attractiveness/Accessibility	100	7.50E+01
13. Area of Contamination	100	5.00E+00
14. Likelihood of Exposure	500	2.50E+01
Waste Characteristics		
15. Toxicity	*	1.00E+04
16. Hazardous Waste Quantity	*	10
17. Waste Characteristics	100	18
Targets		
18. Nearby Individual	1	1.00E+00
19. Population Within 1 Mile	**	2.10E-01
20. Targets (lines 18+19)	**	1.21E+00
21. NEARBY POPULATION THREAT SCORE	**	5.44E+02
SOIL EXPOSURE PATHWAY SCORE (Ss)	100	0.01

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.

AIR PATHWAY SCORESHEET
PAS Holbrook Property Site - 11/14/95

AIR MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release		
2a. Gas Potential to Release	500	175
2b. Particulate Potential to Release	500	196
2c. Potential to Release	500	196
3. Likelihood of Release	550	196
Waste Characteristics		
4. Toxicity/Mobility	*	2.00E+00
5. Hazardous Waste Quantity	*	10
6. Waste Characteristics	100	2
Targets		
7. Nearest Individual	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	2.00E+00
8d. Population (lines 8a+8b+8c)	**	2.00E+00
9. Resources	5	0.00E+00
10. Sensitive Environments		
10a. Actual Contamination	***	0.00E+00
10b. Potential Contamination	***	4.00E+00
10c. Sens. Environments(lines 10a+10b)	***	4.00E+00
11. Targets (lines 7+8d+9+10c)	**	2.60E+01
AIR MIGRATION PATHWAY SCORE (Sa)	100	1.24E-01

* Maximum value applies to waste characteristics category.
** Maximum value not applicable.
*** No specific maximum value applies, see HRS for details.

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Contaminated Soil

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID	Contaminated Soil
b. Source Type	Contaminated Soil
c. Secondary Source Type	N.A.
d. Source Vol.(yd3/gal) | Source Area (ft2)	0.00 | 1.00
e. Source Volume/Area Value	2.94E-05
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)	0.00E+00
g. Data Complete?	NO
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)	0.00E+00
i. Data Complete?	NO
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)	2.94E-05

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Benzo(a)pyrene	< 2	NO	0.0E+00	ppm
Benzo(j,k)fluorene	< 2	NO	2.7E+00	ppm
Pentachlorophenol	< 2	NO	0.0E+00	ppm
Pyrene	< 2	NO	2.7E+00	ppm

Documentation for Source Type:

Soil sampling conducted by the NYSDEC in 1988 consisted of the collection of 3 surficial soil samples (approximate depths of several inches). Two of these soil samples were collected from an area behind the on-site residence where a majority of the removed drums were stored. Reportedly, the analytical data from these samples did not indicate the presence of organic contaminants. The third sample was collected from a former drum storage area adjacent to Bangall Road. This area also served as a utility pole storage area. During sample collection, a "creosote-like" odor was noted. Reportedly, the analytical data associated with this sample indicated the presence of several semivolatile compounds.

Reference: 7, p. 3 of 15; 8, pp. 1-6 of 6

Documentation for Source Hazardous Substances:

The 1988 sampling event conducted by the NYSDEC reportedly indicated the presence of contamination in a surficial soil sample collected adjacent to Bangall Road. Reportedly, this sample collected from a utility pole storage area and a former drum storage area contained benzo(a)pyrene (concentration unknown), pentachlorophenol (concentration unknown), fluoranthene (2.7 ppm), and pyrene (2.7 ppm). Drums present at the site and drums removed from the site in 1980 are suspected to have contained phenolic compounds.

Reference: 7, pp. 3,4 of 15

Documentation for Source Area:

The area of the potential contaminated soil source is unknown. For evaluation purposes, a minimum area of 1 sq ft has been assigned.

Reference: 1, p. 1 of 1

1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Drums

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID	Drums
b. Source Type	Drums
c. Secondary Source Type	N.A.
d. Source Vol.(yd3/gal) | Source Area (ft2)	110.00 | 0.00
e. Source Volume/Area Value	2.20E-01
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)	0.00E+00
g. Data Complete?	NO
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)	0.00E+00
i. Data Complete?	NO
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)	2.20E-01

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Pentachlorophenol	> 2	YES	0.0E+00	ppm
Phenol	> 2	YES	0.0E+00	ppm

Documentation for Source Type:

During a December 1992 site visit, 11 55-gallon drums were observed on-site in three areas: two empty and two with contents at the northeast corner of the utility pole rack; 4 partially buried inside the barn; 3 empty in an open area southwest of the barn. A partial label on one of the drums near the utility pole rack read: "PHENO...Flammable Liquid". None of the other drums were labeled.

An inspection conducted by NYSDEC on May 25, 1995 indicated that drums are still present at the residence. PID monitoring revealed readings around these drums which were above background.

Reference: 7, pp. 1,4 of 15; 15, p. 1 of 1

Documentation for Source Hazardous Substances:

A partial label on drums apparently containing contents near the utility pole rack read "PHENO..", indicative that the drums contained a phenolic compound. A soil sample collected in the area of the utility pole rack indicated the presence of pentachlorophenol. As there is no analytical data available from the material contained within the drums, phenol and pentachlorophenol have been attributed as a hazardous substance associated with the drums for evaluation purposes.

Reference: 7, p. 4 of 15

Documentation for Source Volume:

For evaluation purposes, the volume associated with the two intact drums containing material is assigned a value of 110 gallons (2 X 55 gallons).

Reference: 7, p. 4 of 15

3. SITE HAZARDOUS WASTE QUANTITY SUMMARY

No.	Source ID	Migration Pathways	Vol. or Area Value (2e)	Constituent or Wastestream Value (2f,2h)	Hazardous Waste Qty. Value (2k)
1	Contaminated Soil	GW-SW-SE-A	2.94E-05	0.00E+00	2.94E-05
2	Drums	GW-SW-SE-A	2.20E-01	0.00E+00	2.20E-01

4. PATHWAY HAZARDOUS WASTE QUANTITY AND WASTE CHARACTERISTICS SUMMARY TABLE

Migration Pathway	Contaminant Values		HWQVs*	WCVs**
Ground Water	Toxicity/Mobility	1.00E+00	10	2
SW: Overland Flow, DW	Tox./Persistence	1.00E+04	10	18
SW: Overland Flow, HFC	Tox./Persis./Bioacc.	5.00E+08	10	180
SW: Overland Flow, Env	Etox./Persis./Bioacc.	5.00E+08	10	180
SW: GW to SW, DW	Tox./Persistence	1.00E+00	10	2
SW: GW to SW, HFC	Tox./Persis./Bioacc.	5.00E+02	10	6
SW: GW to SW, Env	Etox./Persis./Bioacc.	5.00E+04	10	18
Soil Exposure:Resident	Toxicity	1.00E+04	10	18
Soil Exposure: Nearby	Toxicity	1.00E+04	10	18
Air	Toxicity/Mobility	2.00E+00	10	2

* Hazardous Waste Quantity Factor Values
** Waste Characteristics Factor Category Values

Note: SW = Surface Water
GW = Ground Water
DW = Drinking Water Threat
HFC = Human Food Chain Threat
Env = Environmental Threat

GROUND WATER PATHWAY AQUIFER SUMMARY
PAS Holbrook Property Site - 11/14/95

No.	Aquifer ID	Type	Overlaying No.	Inter-Connected with	Likelihood of Release	Targets
1	Lacustrine Sand	Non K	0	0	460	7.40E+01

Containment

No.	Source ID	HWQ Value	Containment Value
1	Contaminated Soil	2.94E-05	10
2	Drums	2.20E-01	10
	Containment Factor		10

Documentation for Ground Water Containment, Source Contaminated Soil:

There is no evidence of a liner, maintained engineered cover, run-on/run-off management system or functioning leachate collection system in the area of the contaminated soil.

Reference: 1, p. 1 of 1; 3, pp. 2-15 of 15

Documentation for Ground Water Containment, Source Drums:

As per HRS Table 3-2, there is no evidence to indicate the presence of a liner beneath the drums or diking surrounding the container area.

Reference: 1, p. 1 of 1; 3, pp. 2-15 of 15

Net Precipitation

Net Precipitation (inches) N.A.

Documentation for Net Precipitation:

As per HRS Figure 3-2, a net precipitation factor value of 6 was selected.

Reference: 1, p. 1 of 1

GROUND WATER PATHWAY LIKELIHOOD OF RELEASE Lacustrine Sand AQUIFER
PAS Holbrook Property Site - 11/14/95

Aquifer: Lacustrine Sand

Type of Aquifer: Non Karst

Overlaying Aquifer: 0

Interconnected with: 0

Documentation for Lacustrine Sand Aquifer:

Site specific geologic information was not available. Surface material at the site appears to be comprised of lake sediment, particularly, Lacustrine sand. It is estimated that this sand unit is approximately 10 feet thick. Beneath this sand unit is approximately 18 feet of Lodgement Till. This formation is a mix of clay, silt, sand and pebble to boulder sized material. It is typically dense and compacted. The bedrock unit below the till is the Medina (aka Albion) formation. This unit consists of red shale, siltstone and sandstone.

Reference: 16, pp. 8-20 of 26

OBSERVED RELEASE

No.	Well ID	Well Type	Distance (miles)	Level of Contamination

- N/A and/or data not specified

Observed Release Factor 0

POTENTIAL TO RELEASE

Containment

Containment Factor	10	

Net Precipitation

Net Precipitation Factor	6	

Depth to Aquifer

A. Depth of Hazardous Substances	0.25	feet

Documentation for Depth of Hazardous Substances:

The lowest known depth of contamination has not been documented. As the soil sample used for the contaminated soil source was collected from a shallow depth (approximately 3 inches), the depth of contamination has been assigned a value of 0.25 feet.

Reference: 8, p. 4 of 6

B. Depth to Aquifer from Surface	0.00	feet

Documentation for Depth to Aquifer from Surface :

The Lacustrine Sand unit begins at the surface of the site; a value of 0 feet has been assigned.

Reference: 16, p. 7 of 26

C. Depth to Aquifer (B - A)	0.00	feet
Depth to Aquifer Factor	5	

Travel Time

Are All Layers Karst?	NO

Documentation for Karst Layers:

There is no evidence to indicate the presence of karst below the site.

Reference: 16, pp. 8-20 of 26

Thickness of Layer(s) with Lowest Conductivity	0.00	feet

Documentation for Thickness of Layers with Lowest Conductivity:

The Lacustrine sand aquifer occurs from 0-10 feet below the ground's surface. Therefore, there is no layer of lowest conductivity between this formation and the source. A value of 0 was entered for the thickness of lowest conductivity layer.

Reference: 16, p. 18 of 26

Hydraulic Conductivity (cm/sec)	0.0E-00

Documentation for Hydraulic Conductivity:

As there is no layer of lowest conductivity, no conductivity value has been used.

Reference: 1, p. 1 of 1

Travel Time Factor	35
Potential to Release Factor	460

Source: 1 Contaminated Soil

Source Hazardous Waste Quantity Value: 0.00

Hazardous Substance	Toxicity Value	Mobility Value	Toxicity/ Mobility Value
Benzo(a)pyrene	10000	2.00E-09	2.00E-05
Benzo(j,k)fluorene	100	2.00E-07	2.00E-05
Pentachlorophenol	100	1.00E-02	1.00E+00
Pyrene	100	2.00E-09	2.00E-07

Source: 2 Drums

Source Hazardous Waste Quantity Value: 0.22

Hazardous Substance	Toxicity Value	Mobility Value	Toxicity/ Mobility Value
Pentachlorophenol	100	1.00E-02	1.00E+00
Phenol	1	1.00E+00	1.00E+00

Hazardous Substances Found in an Observed Release

Well No.	Observed Release Hazardous Substance	Toxicity Value	Mobility Value	Toxicity/ Mobility Value

- N/A and/or data not specified

Toxicity/Mobility Value from Source Hazardous Substances:	1.00E+00
Toxicity/Mobility Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Mobility Factor:	1.00E+00
Sum of Source Hazardous Waste Quantity Values:	2.20E-01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	2

GROUND WATER PATHWAY TARGETS FOR AQUIFER Lacustrine Sand
PAS Holbrook Property Site - 11/14/95

Population by Well

No.	Well ID	Sample Type	Distance (miles)	Level of Contamination	Population

- N/A and/or data not specified

Level I Population Factor: 0.00

Level II Population Factor: 0.00

GROUND WATER PATHWAY TARGETS FOR AQUIFER Lacustrine Sand
PAS Holbrook Property Site - 11/14/95

Potential Contamination by Distance Category

Distance Category (miles)	Population	Value
> 0 to 1/4	17.0	1.70E+00
> 1/4 to 1/2	54.0	3.30E+00
> 1/2 to 1	226.0	5.20E+00
> 1 to 2	900.0	9.40E+00
> 2 to 3	1429.0	2.12E+01
> 3 to 4	1794.0	1.31E+01

Potential Contamination Factor: 54.000

Documentation for Target Population > 0 to 1/4 mile Distance Category:

There are no municipal water supplies within a four-mile radius of the site. All 17 people residing within the 0-1/4 mile radius have been assigned to private wells in the most productive aquifer, the lacustrine sand aquifer.

Reference: 9, p. 8 of 8; 16, p. 2 of 26; 18, p. 1 of 1

Documentation for Target Population > 1/4 to 1/2 mile Distance Category:

There are no municipal water supplies within a four-mile radius of the site. All 54 people residing within the 1/4-1/2 mile radius have been assigned to private wells in the most productive aquifer, the lacustrine sand aquifer.

Reference: 9, p. 8 of 8; 16, p. 2 of 26; 18, p. 1 of 1

Documentation for Target Population > 1/2 to 1 mile Distance Category:

There are no municipal water supplies within a four-mile radius of the site. All 226 people residing within the 1/2-1 mile radius have been assigned to private wells in the most productive aquifer, the lacustrine sand aquifer.

Reference: 9, p. 7 of 8; 16, p. 2 of 26; 18, p. 1 of 1

Documentation for Target Population > 1 to 2 miles Distance Category:

There are no municipal water supplies within a four-mile radius of the site. All 900 people residing within the 1-2 mile radius have been assigned to private wells in the most productive aquifer, the lacustrine sand aquifer.

Reference: 9, p. 7 of 8; 16, p. 2 of 26; 18, p. 1 of 1

Documentation for Target Population > 2 to 3 miles Distance Category:

There are no municipal water supplies within a four-mile radius of the site. All 1,429 people residing within the 2-3 mile radius have been assigned to private wells in the most productive aquifer, the lacustrine sand aquifer.

Reference: 9, p. 7 of 8; 16, p. 2 of 26; 18, p. 1 of 1

Documentation for Target Population > 3 to 4 miles Distance Category:

There are no municipal water supplies within a four-mile radius of the site. All 1,794 people residing within the 3-4 mile radius have been assigned to private wells in the most productive aquifer, the lacustrine sand aquifer.

Reference: 9, p. 7 of 8; 16, p. 2 of 26; 18, p. 1 of 1

Nearest Well

Level of Contamination: Potential
Distance in miles: 0.00

Nearest Well Factor: 2.00E+01

Documentation for Nearest Well:

All residents within the 4-mile radius rely on private water for their potable water supplies. Therefore, the nearest potable well is on-site, the Holbrook residence.

Reference: 3, p. 2 of 15; 18, p. 1 of 1

Resources

Resource Use: NO

Resource Factor: 0.00E+00

Wellhead Protection Area

No wellhead protection area

Wellhead Protection Area Factor: 0.00E+00

Documentation for Wellhead Protection Area:

There are no wellhead protection areas in Oswego County.

Reference: 22, p. 1 of 1

SURFACE WATER PATHWAY SEGMENT SUMMARY
PAS Holbrook Property Site - 11/14/95

No.	Segment ID	Segment Type	Water Type	Start Point (mi)	End Point (mi)	Average Flow (cfs)
1	Unname Tributary	River	Fresh	0.00	4.10	9
2	Sage Creek	River	Fresh	4.10	13.70	50
3	Lake Ontario	Shallow Ar	Fresh	13.70	14.60	N.A.
4	Lake Ontario	Moderate D	Fresh	14.60	15.00	N.A.

Documentation for segment: Unname Tributary:

The unname tributary occurs at thr PAS Holbrook Property site to the junction with Sage Creek. The distance from the PPE to the end of this surface water segment is 4.1 miles. This segment was measured on the USGS topo quad via a map wheel.

The USGS does not maintain any gage stations along this surface water body. Therefore, the flow rate has been estimated using HRS table 4-13. A flow rate of 9 cubic feet per second (cfs) has been assigned to surface water segment A.

Reference: 1, p. 1 of 1; 12, p. 1 of 1; 17, pp. 1, 3 of 3

Documentation for segment: Sage Creek:

Sage Ceek occurs at the junction of the small tributary to Sage Creek to the end of Sage Creek at Lake Ontario. The distance from the junction to the end of Sage Creek is 9.6 miles. This surface water segment was measured on the USGS topo quad via a map wheel.

The USGS does not maintain any gage stations along this surface water body. Therefore, the flow rate has been estimated using HRS table 4-13. A flow rate of 50 cfs has been assigned to surface water segment B.

Reference: 1, p. 1 of 1; 12, p. 1 of 1; 17, pp. 1, 3 of 3

Documentation for segment: Lake Ontario:

Lake Ontario occurs at the end of Sage Creek and extends radially into Lake Ontario to depths of 20 feet. The distance from Sage Creek to the end of this surface water segment is 0.9 miles. This segment was measured on the USGS topo quad map via a map wheel.

As this surface water segment is a Great Lake, there is no flow rate assigned to it.

Reference: 1, p. 1 of 1; 12, p. 1 of 1; 17, pp. 1, 3 of 3

Documentation for segment: Lake Ontario:

Lake Ontario occurs at the end where lake depths are approximately greater than 20 feet and extends radially to the end of the 15-mile TDL. The distance between segment C and segment D is 0.4 miles. This segment was measured on the USGS topo quad map via a map wheel.

As this surface water segment is a Great Lake, no flow rate has been assigned to it.

Reference: 1, p. 1 of 1; 12, p. 1 of 1; 17, pp. 1, 3 of 3

SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE
PAS Holbrook Property Site - 11/14/95

OBSERVED RELEASE

No.	Sample ID	Sample Type	Distance (miles)	Level of Contamination DW	HFC	Env

- N/A and/or data not specified

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Observed Release Factor 0

SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE
PAS Holbrook Property Site - 11/14/95

POTENTIAL TO RELEASE

Potential to Release by Overland Flow

Containment

No.	Source ID	HWQ Value	Containment Value
1	Contaminated Soil	2.94E-05	10
2	Drums	2.20E-01	10

Containment Factor: 10

Documentation for Overland Flow Containment, Source Contaminated Soil:

There was no evidence of a maintained engineered cover or a run-on/run-off system in the area of contaminated soil.

Reference: 1, p. 1 of 1; 3, pp.2-15 of 15

Documentation for Overland Flow Containment, Source Drums:

As per HRS Table 4-2, there is no evidence to indicate the presence of diking surrounding drums.

Reference: 1, p. 1 of 1; 3, pp. 2-15 of 15

SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE
PAS Holbrook Property Site - 11/14/95

Distance to Surface Water

Distance to Surface Water: 850.0 feet

Distance to Surface Water Factor: 16

Documentation for Distance to Surface Water:

The distance, approximately 850 feet, from the contaminated soil source at the front of the Holbrook property to the PPE was obtained via direct measurement from the surface water pathway map.

Reference: 12, p. 1 of 1

Runoff

A. Drainage Area: 48.8 acres

Documentation for Drainage Area:

The entire site drains into the small tributary which transects the site. The entire area, 48.8 acres, of the site was used for the drainage area.

Reference: 3, p. 3 of 15; 7, p. 3 of 15

B. 2-year, 24-hour Rainfall: 2.5 inches

Documentation for Rainfall:

A value of 2.5 was selected from a 2-year, 24-hour rainfall map.

Reference: 21, p. 2 of 2

C. Soil Group: A
Coarse-textured soils with high infiltration rates

Documentation for Soil Group:

The site is underlain with lacustrine sand.

Reference: 16, p. 18 of 26

Runoff Factor: 0

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Potential to Release by Overland Flow Factor: 160

SURFACE WATER PATHWAY OVERLAND FLOW/FLOOD COMPONENT LIKELIHOOD OF RELEASE
PAS Holbrook Property Site - 11/14/95

Potential to Release by Flood

No.	Source ID	HWQ Value	Flood Containment Value	Flood Frequency Value	Potential to Release by Flood
- N/A and/or data not specified					

Potential to Release by Flood Factor: 0

Documentation for Flood Containment, Source Contaminated Soil:

There is no evidence to indicate that the potential contaminated soil area is contained for any flood.

Reference: 3, pp. 2-15 of 15

Documentation for Flood Frequency, Source Contaminated Soil:

The site is not within a designated flood plain.

Reference: 14, p. 1 of 1

Documentation for Flood Containment, Source Drums:

There is no evidence to indicate that the drums are contained for floods.

Reference: 3, pp. 2-15 of 15

Documentation for Flood Frequency, Source Drums:

The site is not located within any flood plain.

Reference: 14, p. 1 of 1

Source: 1 Contaminated Soil

Source Hazardous Waste Quantity Value: 0.00

Hazardous Substance	Toxicity Value	Persistence Value	Toxicity/ Persistence Value
Benzo(a)pyrene	10000	1.00E+00	1.00E+04
Benzo(j,k)fluorene	100	1.00E+00	1.00E+02
Pentachlorophenol	100	1.00E+00	1.00E+02
Pyrene	100	1.00E+00	1.00E+02

SW PATHWAY: OVERLAND/FLOOD DRINKING WATER THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 2 Drums

Source Hazardous Waste Quantity Value: 0.22

Hazardous Substance	Toxicity Value	Persistence Value	Toxicity/ Persistence Value
Pentachlorophenol	100	1.00E+00	1.00E+02
Phenol	1	1.00E+00	1.00E+00

Hazardous Substances Found in an Observed Release

Sample No.	Observed Release Hazardous Substance	Toxicity Value	Persistence Value	Toxicity/ Persistence Value

- N/A and/or data not specified

Toxicity/Persistence Value from Source Hazardous Substances:	1.00E+04
Toxicity/Persistence Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Persistence Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	2.20E-01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	18

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Level I Concentrations

Intake	Distance Along the In-water Segment from the Probable Point of Entry (miles)	Population
- N/A and/or data not specified		

Population Served by Level I Intakes: 0.0

Level I Population Factor: 0.00E+00

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Level II Concentrations

Intake	Distance Along the In-water Segment from the Probable Point of Entry (miles)	Population
- N/A and/or data not specified		

Population Served by Level II Intakes: 0.0

Level II Population Factor: 0.00E+00

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT DRINKING WATER THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Potential Contamination

Intake ID	Average Annual Flow (cfs)	Population Served
- N/A and/or data not specified		

Type of Surface Water Body	Total Population	Dilution-Weighted Population
- N/A and/or data not specified		

Dilution-Weighted Population Served by Potentially Contaminated Intakes: 0.0

Potential Contamination Factor: 0.0

Nearest Intake

Location of Nearest Drinking Water Intake: N.A.

Nearest Intake Factor: 0.00

Resources

Resource Use: YES

Resource Value: 5.00E+00

Documentation for Resources:

Although no surface water within the 15-mile TDL is utilized as a drinking water supply, the Lake Ontario segments of the TDL are classified as Class A fresh surface waters, suitable for drinking water purposes.

Reference: 27, p. 4 of 4

SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 1 Contaminated Soil

Source Hazardous Waste Quantity Value: 0.00

Hazardous Substance	Toxicity Value	Persistence Value	Bio-accum. Value	Toxicity/ Persistence/ Bioaccum. Value
Benzo(a)pyrene	10000	1.00E+00	5.00E+04	5.00E+08
Benzo(j,k)fluorene	100	1.00E+00	5.00E+03	5.00E+05
Pentachlorophenol	100	1.00E+00	5.00E+02	5.00E+04
Pyrene	100	1.00E+00	5.00E+01	5.00E+03

SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 2 Drums

Source Hazardous Waste Quantity Value: 0.22

Hazardous Substance	Toxicity Value	Persistence Value	Bio-accum. Value	Toxicity/ Persistence/ Bioaccum. Value
Pentachlorophenol	100	1.00E+00	5.00E+02	5.00E+04
Phenol	1	1.00E+00	5.00E+00	5.00E+00

Hazardous Substances Found in an Observed Release

Sample No.	Observed Release Hazardous Substance	Toxicity Value	Persistence Value	Bio-accum. Value	Toxicity/ Persistence/ Bioaccum. Value

- N/A and/or data not specified

SW PATHWAY: OVERLAND/FLOOD HUMAN FOOD CHAIN THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Toxicity/Persistence/Bioaccumulation Value from Source Hazardous Substances:	5.00E+08
Toxicity/Persistence/Bioaccumulation Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Persistence/Bioaccumulation Factor:	5.00E+08
Sum of Source Hazardous Waste Quantity Values:	2.20E-01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	180

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Level I Concentrations

Fishery	Annual Production (pounds)	Human Food Chain Population Value
- N/A and/or data not specified		

Sum of Human Food Chain Population Values: 0.00E+00

Level I Concentrations Factor: 0.00E+00

Level II Concentrations

Fishery	Annual Production (pounds)	Human Food Chain Population Value
- N/A and/or data not specified		

Sum of Human Food Chain Population Values: 0.00E+00

Level II Concentrations Factor: 0.00E+00

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Potential Contamination

Fishery	Annnual Production (pounds)	Type of Surface Water Body	Average Annual Flow (cfs)	Pop. Value (Pi)	Dilution Weight (Di)	Pi*Di
2 Sage Creek	1.0	River	50	0.0	1.00E-01	3.00E-03
3 Lake Ontario	1.0	Shallow	0	0.0	1.00E-04	3.00E-06
4 Lake Ontario	1.0	Moderate	0	0.0	1.00E-05	3.00E-07

Sum of (Pi*Di): 3.00E-03

Potential Human Food Chain Contamination Factor: 3.00E-04

Documentation for Unname Tributary Fishery:

There is no information available to document that unname tributary is a fishery. Therefore, it is assumed that this surface water body is not a fishery used for human consumption.

Reference: 17, p. 1 of 3

Documentation for Sage Creek Fishery:

Sage Creek is fished quite often and contains fish species such as northern pike, smelt, small mouth bass and suckers. No production data is available for this surface water segment therefore, a value of 1 lb/yr has been assigned.

Reference: 17, pp. 1-3 of 3

Documentation for Lake Ontario Fishery:

Lake Ontario is a fishery. It is stocked with various fish including brown trout and landlocked salmon. As no production data was available, a value of 1 lb/year was used.

Reference: 19, p. 3 of 3

Documentation for Lake Ontario Fishery:

Lake Ontario is a fishery. It is stocked with various fish including brown trout and landlocked salmon. As no production data was available, a value of 1 lb/year was used.

Reference: 19, p. 3 of 3

Food Chain Individual

Location of Nearest Fishery: Sage Creek
Distance from the Probable Point of Entry: 4.10 miles
Type of Surface Water Body: River
Dilution Weight: 0.1000000
Level of Contamination: Potential

Food Chain Individual Factor: 2.00

Documentation for Sage Creek:

Sage Ceek B occurs at the junction of the small tributary to Sage Creek to the end of Sage Creek at Lake Ontario. The distance from the junction to the end of Sage Creek is 9.6 miles. This surface water segment was measured on the USGS topo quad via a map wheel.

The USGS does not maintain any gage stations along this surface water body. Therefore, the flow rate has been estimated using HRS table 4-13. A flow rate of 50 cfs has been assigned to surface water segment B.

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT HUMAN FOOD CHAIN THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Reference: 1, p. 1 of 1; 12, p. 1 of 1; 17, pp. 1, 3 of 3

SW PATHWAY: OVERLAND FLOW/FLOOD ENVIRONMENTAL THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 1 Contaminated Soil

Source Hazardous Waste Quantity Value: 0.00

Hazardous Substance	Eco-toxicity Value	Persistence Value	Bio-accum. Value	Ecotoxicity/ Persistence/ Bioaccum. Value
Benzo(a)pyrene	10000	1.00E+00	5.00E+04	5.00E+08
Benzo(j,k)fluorene	10000	1.00E+00	5.00E+03	5.00E+07
Pentachlorophenol	100	1.00E+00	5.00E+03	5.00E+05
Pyrene	0	1.00E+00	5.00E+01	0.00E+00

SW PATHWAY: OVERLAND FLOW/FLOOD ENVIRONMENTAL THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 2 Drums

Source Hazardous Waste Quantity Value: 0.22

Hazardous Substance	Eco-toxicity Value	Persistence Value	Bio-accum. Value	Ecotoxicity/ Persistence/ Bioaccum. Value
Pentachlorophenol	100	1.00E+00	5.00E+03	5.00E+05
Phenol	10000	1.00E+00	5.00E+00	5.00E+04

SW PATHWAY: OVERLAND FLOW/FLOOD ENVIRONMENTAL THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Hazardous Substances Found in an Observed Release

Sample No.	Observed Release Hazardous Substance	Eco-toxicity Value	Persistence Value	Bio-accum. Value	Ecotoxicity/ Persistence/ Bioaccum. Value
- N/A and/or data not specified					

Ecotoxicity/Persistence/Bioaccummulation Value from Source Hazardous Substances:	5.00E+08
Ecotoxicity/Persistence/Bioaccummulation Value from Observed Release Hazardous Substances:	0.00E+00
Ecotoxicity/Persistence/Bioaccummulation Factor:	5.00E+08
Sum of Source Hazardous Waste Quantity Values:	2.20E-01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	180

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Level I Concentrations

Sensitive Environment	Distance from Probable Point of Entry to Sensitive Env. (miles)	Sensitive Environment Value
- N/A and/or data not specified		

Sum of Sensitive Environments Values: 0

Wetlands

Wetland	Distance from Probable Point of Entry to Wetland (miles)	Wetlands Frontage (miles)
- N/A and/or data not specified		

Total Wetlands Frontage: 0.00 Miles Total Wetlands Value: 0

Sum of Sensitive Environments Value + Wetlands Value: 0.00E+00

Level I Concentrations Factor: 0.00E+00

Level II Concentrations

Sensitive Environment	Distance from Probable Point of Entry to Sensitive Env. (miles)	Sensitive Environment Value
- N/A and/or data not specified		

Sum of Sensitive Environments Values: 0

Wetlands

Wetland	Distance from Probable Point of Entry to Wetland (miles)	Wetlands Frontage (miles)
- N/A and/or data not specified		

Total Wetlands Frontage: 0.00 Miles Total Wetlands Value: 0

Sum of Sensitive Environments Value + Wetlands Value: 0.00E+00

Level II Concentrations Factor: 0.00E+00

Potential Contamination

Sensitive Environments

Type of Surface Water Body	Sensitive Environment	Sensitive Environment Value
River	20 Coastal Zone Area	100
River	21 Black Tern habitat	50
River	22 Significant habitat	5

Wetlands

Type of Surface Water Body	Sensitive Environment	Wetlands Frontage	Wetlands Value
River	1 PFO1E	0.20	25
River	2 PFO1E	0.16	25
River	3 PSS1EH	0.12	25
River	4 PSS1C	0.20	25
River	5 P FO/SS 1E	0.20	25
River	6 PFO1E	0.20	25
River	7 PFO1E	0.40	25
River	8 PSS1E	0.20	25
River	9 PFO1E	0.52	25
River	10 PSS1E	0.92	25
River	11 PSS1C	0.40	25
River	12 P FO/SS 1C	0.80	25
River	13 PSS1C	0.32	25
River	14 P FO/SS 1A	0.96	25
River	15 PSS1A	1.00	25
River	16 PSS1C	0.20	25
River	17 P FO/SS 1A	0.16	25
River	18 P FO/SS 1A	0.12	25
River	19 PEM5F	1.00	25

Documentation for Sensitive Environment PFO1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 0.2 mile from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PFO1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.16 mile and is located 0.52 mile from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1EH:

Measurements were made using a map wheel. This qualifying wetland was determined to hava a frontage value of 0.12 mile and is located 0.64 mile from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1C:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 0.8 mile from the site

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment P FO/SS 1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 1.36 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PFO1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 1.8 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PFO1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.4 mile and is located 2 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 2.4 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PFO1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.52 mile and is located 2.72 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1E :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.92 mile and is located 3.2 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1C :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.4 mile and is located 4.4 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment P FO/SS 1C :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.8 mile and is located 5.4 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1C :

Measurements were made using a map wheel. The qualifying wetland was determined to have a frontage value of 0.32 mile and is located 6.4 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment P FO/SS 1A :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.96 mile and is located 7.88 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1A :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 1 mile and is located 9.16 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1C :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 10.24 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment P FO/SS 1A :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.16 mile and is located 10.56 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment P FO/SS 1A :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.12 mile and is located 10.96 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PEM5F :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 1 mile and is located 13.04 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment Coastal Zone Area :

A Coastal Zone Management Area is present starting approximately 12.7 miles from the site. An environmental value of 100 was assigned as per HRS Table 4-23.

Reference: 1, p. 1 of 1; 20, p. 3 of 3

Documentation for Sensitive Environment Black Tern habitat :

The Black Tern has habitat that is listed as protected by the state. This habitat is located approximately 13.45 miles along the surface water pathway TDL. An environmental value of 50 was assigned based on HRS Table 4-23.

Reference: 1, p. 1 of 1; 12, p. 1 of 1; 28, p. 2 of 4

Documentation for Sensitive Environment Significant habitat:

An area located approximately 13.45 miles along the surface water pathway TDL has been designated as significant coastal fish and wildlife habitats by the state of New York. An environmental value of 5 was assigned based on HRS Table 4-23.

Reference: 1, p. 1 of 1; 12, p. 1 of 1; 28, p. 2 of 4

SW PATHWAY: OVERLAND FLOW/FLOOD COMPONENT ENVIRONMENTAL THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Type of Surface Water Body	Sum of Sens. Environment Values(Sj)	Sum of Wetland Frontage Values(Wj)	Dilution Weight (Dj)	Dj(Wj+Sj)
Minimal Stream	0	100	1.00E+00	1.00E+02
Small to Moderate Stream	155	150	1.00E-01	3.05E+01

Sum of Dj(Wj+Sj): 1.30E+02
Sum of Dj(Wj+Sj)/10: 1.31E+01

Potential Contamination Sensitive Environment Factor: 1.30E+01

SURFACE WATER PATHWAY GW TO SW CONTAINMENT SUMMARY
PAS Holbrook Property Site - 11/14/95

Containment

No.	Source ID	HWQ Value	Containment Value
1	Contaminated Soil	2.94E-05	10
2	Drums	2.20E-01	10
	Containment Factor		10

Documentation for Ground Water Containment, Source Contaminated Soil:

There is no evidence of a liner, maintained engineered cover, run-on/run-off management system or functioning leachate collection system in the area of the contaminated soil.

Reference: 1, p. 1 of 1; 3, pp. 2-15 of 15

Documentation for Ground Water Containment, Source Drums:

As per HRS Table 3-2, there is no evidence to indicate the presence of a liner beneath the drums or diking surrounding the container area.

Reference: 1, p. 1 of 1; 3, pp. 2-15 of 15

Net Precipitation

Net Precipitation (inches)	0.00

Documentation for Net Precipitation:

As per HRS Figure 3-2, a net precipitation factor value of 6 was selected.

Reference: 1, p. 1 of 1

SURFACE WATER PATHWAY GW TO SW COMPONENT LIKELIHOOD OF RELEASE
PAS Holbrook Property Site - 11/14/95

Aquifer: Lacustrine Sand

Type of Aquifer: Non Karst

Overlaying Aquifer: 0

Interconnected with: 0

Documentation for Lacustrine Sand Aquifer:

Site specific geologic information was not available. Surface material at the site appears to be comprised of lake sediment, particularly, Lacustrine sand. It is estimated that this sand unit is approximately 10 feet thick. Beneath this sand unit is approximately 18 feet of Lodgement Till. This formation is a mix of clay, silt, sand and pebble to boulder sized material. It is typically dense and compacted. The bedrock unit below the till is the Medina (aka Albion) formation. This unit consists of red shale, siltstone and sandstone.

Reference: 16, pp. 8-20 of 26

OBSERVED RELEASE

No.	Well ID	Well Type	Distance (miles)	Level of Contamination

- N/A and/or data not specified

Observed Release Factor 0

POTENTIAL TO RELEASE

Ground Water to Surface Water Angle

Probable Point of Entry	0.00	miles
Angle Theta	90	

Documentation for Ground to Surface Water PPE and Angle Theta:

Groundwater flow direction is regionally toward the northwest. As such, there is no difference between the PPE of the Groundwater to Surface Water component and the PPE of the Overland Flow/Flood Component. Angle theta was determined to be 90 degrees based on a measurement made by a protractor on the USGS quad map.

Reference: 16, pp. 19, 20 of 26; 12, p. 1 of 1

Containment

Containment Factor	10

Net Precipitation

Net Precipitation Factor	6

Depth to Aquifer

A. Depth of Hazardous Substances	0.25	feet

Documentation for Depth of Hazardous Substances:

The lowest known depth of contamination has not been documented. As the soil sample used for the contaminated soil source was collected from a shallow depth (approximately 3 inches), the depth of contamination has been assigned a value of 0.25 feet.

Reference: 8, p. 4 of 6

B. Depth to Aquifer from Surface	0.00	feet

Documentation for Depth to Aquifer from Surface :

The Lacustrine Sand unit begins at the surface of the site; a value of 0 feet has been assigned.

Reference: 16, p. 7 of 26

C. Depth to Aquifer (B - A)	0.00	feet
Depth to Aquifer Factor	5	

Travel Time

Are All Layers Karst?	NO

Documentation for Karst Layers:

There is no evidence to indicate the presence of karst below the site.

Reference: 16, pp. 8-20 of 26

Thickness of Layer(s) with Lowest Conductivity	0.00	feet

Documentation for Thickness of Layers with Lowest Conductivity:

The Lacustrine sand aquifer occurs from 0-10 feet below the ground's surface. Therefore, there is no layer of lowest conductivity between this formation and the source. A value of 0 was entered for the thickness of lowest conductivity layer.

Reference: 16, p. 18 of 26

Hydraulic Conductivity (cm/sec)	0.0E-00

Documentation for Hydraulic Conductivity:

As there is no layer of lowest conductivity, no conductivity value has been used.

Reference: 1, p. 1 of 1

Travel Time Factor	35

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Potential to Release Factor	460

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 1 Contaminated Soil

Source Hazardous Waste Quantity Value: 0.00

Hazardous Substance	Toxicity Factor Value	Persist. Value	Mobility Value	Toxicity/ Mobililty/ Persistence
Benzo(a)pyrene	10000	1.00E+00	2.00E-09	2.00E-05
Benzo(j,k)fluorene	100	1.00E+00	2.00E-07	2.00E-05
Pentachlorophenol	100	1.00E+00	1.00E-02	1.00E+00
Pyrene	100	1.00E+00	2.00E-09	2.00E-07

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 2 Drums

Source Hazardous Waste Quantity Value: 0.22

Hazardous Substance	Toxicity Factor Value	Persist. Value	Mobility Value	Toxicity/ Mobililty/ Persistence
Pentachlorophenol	100	1.00E+00	1.00E-02	1.00E+00
Phenol	1	1.00E+00	1.00E+00	1.00E+00

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Hazardous Substances Found in an Observed Release

Observed Release Hazardous Substance	Toxicity Factor Value	Persist. Value	Toxicity/ Persistence

- N/A and/or data not specified

SW PATHWAY: GW TO SW COMPONENT DRINKING WATER THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Toxicity/Mobility/Persistence Value from Source Hazardous Substances:	1.00E+00
Toxicity/Mobility/Persistence Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Mobility/Persistence Factor:	1.00E+00
Sum of Source Hazardous Waste Quantity Values:	2.20E-01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	2

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

Level I Concentrations

Intake	Distance Along the In-water Segment from the Probable Point of Entry (miles)	Population
- N/A and/or data not specified		

Population Served by Level I Intakes: 0.0

Level I Population Factor: 0.00E+00

Level II Concentrations

Intake	Distance Along the In-water Segment from the Probable Point of Entry (miles)	Population
- N/A and/or data not specified		

Population Served by Level II Intakes: 0.0

Level II Population Factor: 0.00E+00

Potential Contamination

Intake ID	Average Annual Flow (cfs)	Population Served
- N/A and/or data not specified		

Type of Surface Water Body	Total Population	Dilution-Weighted Population
- N/A and/or data not specified		

Dilution-Weighted Population Served by Potentially Contaminated Intakes: 0.0

Potential Contamination Factor: 0.0

Nearest Intake

Location of Nearest Drinking Water Intake: N.A.

Nearest Intake Factor: 0.00

Resources

Resource Use: YES

Resource Value: 5.00E+00

Documentation for Resources:

Although no surface water within the 15-mile TDL is utilized as a drinking water supply, the Lake Ontario segments of the TDL are classified as Class A fresh surface waters, suitable for drinking water purposes.

Reference: 27, p. 4 of 4

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 1 Contaminated Soil

Source Hazardous Waste Quantity Value: 0.00

Hazardous Substance	Toxicity Value	Persist. Value	Mobility Value	Bio-accum. Value	Tox./Mobil./ Persistence/ Bioaccum. Value
Benzo(a)pyrene	10000	1.00E+00	2.00E-09	5.00E+04	1.00E+00
Benzo(j,k)fluorene	100	1.00E+00	2.00E-07	5.00E+03	1.00E-01
Pentachlorophenol	100	1.00E+00	1.00E-02	5.00E+02	5.00E+02
Pyrene	100	1.00E+00	2.00E-09	5.00E+01	1.00E-05

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 2 Drums

Source Hazardous Waste Quantity Value: 0.22

Hazardous Substance	Toxicity Value	Persist. Value	Mobility Value	Bio-accum. Value	Tox./Mobil./ Persistence/ Bioaccum. Value
Pentachlorophenol	100	1.00E+00	1.00E-02	5.00E+02	5.00E+02
Phenol	1	1.00E+00	1.00E+00	5.00E+00	5.00E+00

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Hazardous Substances Found in an Observed Release

Observed Release Hazardous Substance	Toxicity Value	Persist. Value	Bio-accum. Value	Toxicity/ Persistence Bioaccum. Value

- N/A and/or data not specified

SW PATHWAY: GW TO SW COMPONENT HUMAM FOOD CHAIN THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Toxicity/Mobility/Persistence/Bioaccumulation Value from Source Hazardous Substances:	5.00E+02
Toxicity/Mobility/Persistence/Bioaccumulation Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Mobility/Persistence/Bioaccumulation Factor:	5.00E+02
Sum of Source Hazardous Waste Quantity Values:	2.20E-01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	6

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

Level I Concentrations

Fishery	Annual Production (pounds)	Human Food Chain Population Value

- N/A and/or data not specified

Sum of Human Food Chain Population Values: 0.00E+00

Level I Concentrations Factor: 0.00E+00

Level II Concentrations

Fishery	Annual Production (pounds)	Human Food Chain Population Value

- N/A and/or data not specified

Sum of Human Food Chain Population Values: 0.00E+00

Level II Concentrations Factor: 0.00E+00

SW PATHWAY: GW TO SW COMPONENT HUMAN FOOD CHAIN THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Potential Contamination

	Fishery	Annnual Production (pounds)	Type of Surface Water Body	Average Annual Flow (cfs)	Pop. Value (Pi)	Dilution Weight (Di)	Pi*Di
2	Sage Creek	1.0	River	50	0.0	2.00E-02	6.00E-04
3	Lake Ontario	1.0	Shallow	0	0.0	2.00E-05	6.00E-07
4	Lake Ontario	1.0	Moderate	0	0.0	2.00E-06	6.00E-08

Sum of (Pi*Di): 6.01E-04

Potential Human Food Chain Contamination Factor: 6.01E-05

Documentation for Unname Tributary Fishery:

There is no information available to document that unname tributary is a fishery. Therefore, it is assumed that this surface water body is not a fishery used for human consumption.

Reference: 17, p. 1 of 3

Documentation for Sage Creek Fishery:

Sage Creek is fished quite often and contains fish species such as northern pike, smelt, small mouth bass and suckers. No production data is available for this surface water segment therefore, a value of 1 lb/yr has been assigned.

Reference: 17, pp. 1-3 of 3

Documentation for Lake Ontario Fishery:

Lake Ontario is a fishery. It is stocked with various fish including brown trout and landlocked salmon. As no production data was available, a value of 1 lb/year was used.

Reference: 19, p. 3 of 3

Documentation for Lake Ontario Fishery:

Lake Ontario is a fishery. It is stocked with various fish including brown trout and landlocked salmon. As no production data was available, a value of 1 lb/year was used.

Reference: 19, p. 3 of 3

Food Chain Individual

Location of Nearest Fishery: Sage Creek
Distance from the Probable Point of Entry: 4.10 miles
Type of Surface Water Body: River
Dilution Weight: 0.0200000
Level of Contamination: Potential

Food Chain Individual Factor: 2.00

Documentation for Sage Creek:

Sage Ceek B occurs at the junction of the small tributary to Sage Creek to the end of Sage Creek at Lake Ontario. The distance from the junction to the end of Sage Creek is 9.6 miles. This surface water segment was measured on the USGS topo quad via a map wheel.

The USGS does not maintain any gage stations along this surface water body. Therefore, the flow rate has been estimated using HRS table 4-13. A flow rate of 50 cfs has been assigned to surface water segment B.

SW PATHWAY: GW TO SW COMPONENT HUMAN FOOD CHAIN THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Reference: 1, p. 1 of 1; 12, p. 1 of 1; 17, pp. 1, 3 of 3

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 1 Contaminated Soil

Source Hazardous Waste Quantity Value: 0.00

Hazardous Substance	Eco-toxicity Value	Persist. Value	Mob. Value	Bio-accum. Value	Ecotoxicity/ Mobility/ Persistence/ Bioaccum. Value
Benzo(a)pyrene	10000	1.00E+00	2.00E-09	5.00E+04	1.00E+00
Benzo(j,k)fluorene	10000	1.00E+00	2.00E-07	5.00E+03	1.00E+01
Pentachlorophenol	100	1.00E+00	1.00E-02	5.00E+03	5.00E+03
Pyrene	0	1.00E+00	2.00E-09	5.00E+01	0.00E+00

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 2 Drums

Source Hazardous Waste Quantity Value: 0.22

Hazardous Substance	Eco-toxicity Value	Persist. Value	Mob. Value	Bio-accum. Value	Ecotoxicity/ Mobility/ Persistence/ Bioaccum. Value
Pentachlorophenol	100	1.00E+00	1.00E-02	5.00E+03	5.00E+03
Phenol	10000	1.00E+00	1.00E+00	5.00E+00	5.00E+04

Hazardous Substances Found in an Observed Release

Observed Release Hazardous Substance	Eco-toxicity Value	Persist. Value	Bio-accum. Value	Ecotoxicity/ Persistence/ Bioaccum. Value

- N/A and/or data not specified

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Ecotoxicity/Mobility/Persistence/Bioaccummulation Value from Source Substances:	5.00E+04
Ecotoxicity/Mobility/Persistence/Bioaccummulation Value from Observed Hazardous Substances:	0.00E+00
Ecotoxicity/Mobility/Persistence/Bioaccummulation Factor:	5.00E+04
Sum of Source Hazardous Waste Quantity Values:	2.20E-01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	18

Level I Concentrations

- N/A and/or data not specified

Level II Concentrations

- N/A and/or data not specified

Most Distant Level I Sample

- N/A and/or data not specified

Most Distant Level II Sample

- N/A and/or data not specified

Level I Concentrations

Sensitive Environment	Distance from Probable Point of Entry to Sensitive Env. (miles)	Sensitive Environment Value
- N/A and/or data not specified		

Sum of Sensitive Environments Values: 0

Wetlands

Wetland	Distance from Probable Point of Entry to Wetland (miles)	Wetlands Frontage (miles)
- N/A and/or data not specified		

Total Wetlands Frontage: 0.00 Miles Total Wetlands Value: 0

Sum of Sensitive Environments Value + Wetlands Value: 0.00E+00

Level I Concentrations Factor: 0.00E+00

Level II Concentrations

Sensitive Environment	Distance from Probable Point of Entry to Sensitive Env. (miles)	Sensitive Environment Value
- N/A and/or data not specified		

Sum of Sensitive Environments Values: 0

Wetlands

Wetland	Distance from Probable Point of Entry to Wetland (miles)	Wetlands Frontage (miles)
- N/A and/or data not specified		

Total Wetlands Frontage: 0.00 Miles Total Wetlands Value: 0

Sum of Sensitive Environments Value + Wetlands Value: 0.00E+00

Level II Concentrations Factor: 0.00E+00

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Potential Contamination

Sensitive Environments

Type of Surface Water Body	Sensitive Environment	Sensitive Environment Value
River	20 Coastal Zone Area	100
River	21 Black Tern habitat	50
River	22 Significant habitat	5

Wetlands

Type of Surface Water Body	Sensitive Environment	Wetlands Frontage	Wetlands Value
River	1 PFO1E	0.20	25
River	2 PFO1E	0.16	25
River	3 PSS1EH	0.12	25
River	4 PSS1C	0.20	25
River	5 P FO/SS 1E	0.20	25
River	6 PFO1E	0.20	25
River	7 PFO1E	0.40	25
River	8 PSS1E	0.20	25
River	9 PFO1E	0.52	25
River	10 PSS1E	0.92	25
River	11 PSS1C	0.40	25
River	12 P FO/SS 1C	0.80	25
River	13 PSS1C	0.32	25
River	14 P FO/SS 1A	0.96	25
River	15 PSS1A	1.00	25
River	16 PSS1C	0.20	25
River	17 P FO/SS 1A	0.16	25
River	18 P FO/SS 1A	0.12	25
River	19 PEM5F	1.00	25

Documentation for Sensitive Environment PFO1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 0.2 mile from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PFO1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.16 mile and is located 0.52 mile from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1EH:

Measurements were made using a map wheel. This qualifying wetland was determined to hava a frontage value of 0.12 mile and is located 0.64 mile from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1C:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 0.8 mile from the site

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment P FO/SS 1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 1.36 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PFO1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 1.8 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PFO1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.4 mile and is located 2 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 2.4 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PFO1E:

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.52 mile and is located 2.72 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1E :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.92 mile and is located 3.2 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1C :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.4 mile and is located 4.4 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment P FO/SS 1C :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.8 mile and is located 5.4 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1C :

Measurements were made using a map wheel. The qualifying wetland was determined to have a frontage value of 0.32 mile and is located 6.4 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment P FO/SS 1A :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.96 mile and is located 7.88 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1A :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 1 mile and is located 9.16 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PSS1C :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.2 mile and is located 10.24 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment P FO/SS 1A :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.16 mile and is located 10.56 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment P FO/SS 1A :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 0.12 mile and is located 10.96 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment PEM5F :

Measurements were made using a map wheel. This qualifying wetland was determined to have a frontage value of 1 mile and is located 13.04 miles from the site.

Reference: 12, p. 1 of 1

Documentation for Sensitive Environment Coastal Zone Area :

A Coastal Zone Management Area is present starting approximately 12.7 miles from the site. An environmental value of 100 was assigned as per HRS Table 4-23.

Reference: 1, p. 1 of 1; 20, p. 3 of 3

Documentation for Sensitive Environment Black Tern habitat :

The Black Tern has habitat that is listed as protected by the state. This habitat is located approximately 13.45 miles along the surface water pathway TDL. An environmental value of 50 was assigned based on HRS Table 4-23.

Reference: 1, p. 1 of 1; 12, p. 1 of 1; 28, p. 2 of 4

Documentation for Sensitive Environment Significant habitat:

An area located approximately 13.45 miles along the surface water pathway TDL has been designated as significant coastal fish and wildlife habitats by the state of New York. An environmental value of 5 was assigned based on HRS Table 4-23.

Reference: 1, p. 1 of 1; 12, p. 1 of 1; 28, p. 2 of 4

SW PATHWAY: GW TO SW COMPONENT ENVIRONMENTAL THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Type of Surface Water Body	Sum of Sens. Environment Values(Sj)	Sum of Wetland Frontage Values(Wj)	Dilution Weight (Dj)	Dj(Wj+Sj)
Minimal Stream	0	100	2.00E-01	2.00E+01
Small to Moderate Stream	155	150	2.00E-02	6.10E+00

Sum of Dj(Wj+Sj): 2.61E+01
Sum of Dj(Wj+Sj)/10: 2.61E+00

Potential Contamination Sensitive Environment Factor: 3.00E+00

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT LIKELIHOOD OF EXPOSURE
PAS Holbrook Property Site - 11/14/95

Likelihood of Exposure

No.	Source ID	Level of Contamination
1	Contaminated Soil	Level II

Likelihood of Exposure Factor: 550

Documentation for Area of Contamination, Source Contaminated Soil:

Since there is no definative analytical data to indicate a specific area associated with the contaminated soil source, a minimum value of 1 sq ft has been assigned for the area of observed contamination.

Reference: 7, pp. 3, 4 of 15

Source No.	Hazardous Substance	Depth (ft.)	Concent.	Cancer	RFD	Units
1	Benzo(a)pyrene	< 2	0.0E+00	8.0E-02	0.0E+00	ppm
1	Benzo(j,k)fluorene	< 2	2.7E+00	0.0E+00	2.3E+04	ppm
1	Pentachlorophenol	< 2	0.0E+00	4.9E+00	1.7E+04	ppm
1	Pyrene	< 2	2.7E+00	0.0E+00	1.7E+04	ppm

Documentation for Source Contaminated Soil, Contaminants:

The 1988 sampling event conducted by the NYSDEC reportedly indicated the presence of contamination in a surficial soil sample collected adjacent to Bangall Road. Reportedly, this sample collected from a utility pole storage area and a former drum storage area contained benzo(a)pyrene (concentration unknown), pentachlorophenol (concentration unknown), fluoranthene (2.7 ppm), and pyrene (2.7 ppm). Drums present at the site and drums removed from the site in 1980 are suspected to have contained phenolic compounds.

Reference: 7, pp. 3,4 of 15

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT LIKELIHOOD OF EXPOSURE
PAS Holbrook Property Site - 11/14/95

Documentation for Source Drums, Contaminants:

A partial label on drums apparently containing contents near the utility pole rack read "PHENO..", indicative that the drums contained a phenolic compound. A soil sample collected in the area of the utility pole rack indicated the presence of pentachlorophenol. As there is no analytical data available from the material contained within the drums, phenol and pentachlorophenol have been attributed as a hazardous substance associated with the drums for evaluation purposes.

Reference: 7, p. 4 of 15

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 1 Contaminated Soil

Source Hazardous Waste Quantity Value: 0.00

Hazardous Substance	Toxicity Value
Benzo(a)pyrene	10000
Benzo(j,k)fluorene	100
Pentachlorophenol	100
Pyrene	100

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT WASTE CHARACTERISTICS

PAS Holbrook Property Site - 11/14/95

Toxicity Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	2.94E-05
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	18

SOIL EXPOSURE PATHWAY RESIDENT POPULATION THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Targets

Level I Population:	0.0	Value:	0.00
Level II Population:	0.0	Value:	0.00
Workers:	0.0	Value:	0.00
Resident Individual:	Potentia	Value:	0.00
Resources:	NO	Value:	0.00

Terrestial Sensitive Environment	Value
- N/A and/or data not specified	

Terrestrial Sensitive Environments Factor: 0.00

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT LIKELIHOOD OF EXPOSURE
PAS Holbrook Property Site - 11/14/95

Likelihood of Exposure

No.	Source ID	Level of Contamination	Attractiveness/ Accessibility	Area of Contam. (sq. feet)
1	Contaminated Soil	Level II	75	1

Highest Attractiveness/Accessibility Value: 75
Sum of Eligible Areas Of Contamination (sq. feet): 1
Area of Contamination Value: 5

Likelihood of Exposure Factor Category: 25

Documentation for Attractiveness/Accessibility, Source Contaminated Soil:

The site is accessible and is utilized as a residence.

Reference: 3, p. 2 of 15

Documentation for Attractiveness/Accessibility, Source Drums:

The site is accessible and is used as a residence.

Reference: 3, p. 2 of 15

Source No.	Hazardous Substance	Depth (ft.)	Concent.	Cancer	RFD	Units
1	Benzo(a)pyrene	< 2	0.0E+00	8.0E-02	0.0E+00	ppm
1	Benzo(j,k)fluorene	< 2	2.7E+00	0.0E+00	2.3E+04	ppm
1	Pentachlorophenol	< 2	0.0E+00	4.9E+00	1.7E+04	ppm
1	Pyrene	< 2	2.7E+00	0.0E+00	1.7E+04	ppm

Documentation for Source Contaminated Soil, Contaminants:

The 1988 sampling event conducted by the NYSDEC reportedly indicated the presence of contamination in a surficial soil sample collected adjacent to Bangall Road. Reportedly, this sample collected from a utility pole storage area and a former drum storage area contained benzo(a)pyrene (concentration unknown), pentachlorophenol (concentration unknown), fluoranthene (2.7 ppm), and pyrene (2.7 ppm). Drums present at the site and drums removed from the site in 1980 are suspected to have contained phenolic compounds.

Reference: 7, pp. 3,4 of 15

Documentation for Source Drums, Contaminants:

A partial label on drums apparently containing contents near the utility pole rack read "PHENO..", indicative that the drums contained a phenolic compound. A soil sample collected in the area of the utility pole rack indicated the presence of pentachlorophenol. As there is no analytical data available from the material contained within the drums, phenol and pentachlorophenol have been attributed as a hazardous substance associated with the drums for evaluation purposes.

Reference: 7, p. 4 of 15

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 1 Contaminated Soil

Source Hazardous Waste Quantity Value: 0.00

Hazardous Substance	Toxicity Value
Benzo(a)pyrene	10000
Benzo(j,k)fluorene	100
Pentachlorophenol	100
Pyrene	100

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT WASTE CHARACTERISTICS

PAS Holbrook Property Site - 11/14/95

Toxicity Factor:	1.00E+04
Sum of Source Hazardous Waste Quantity Values:	2.94E-05
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	18

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Nearby Individual

Population within 1/4 mile: 17.0

Nearby Individual Value: 1.0

Population Within 1 Mile

Travel Distance Category	Number of People	Value
> 0 to 1/4 mile	17.0	0.0
> 1/4 to 1/2 mile	54.0	0.1
> 1/2 to 1 mile	226.0	0.1
	Population Within 1 Mile Factor:	0.2

Documentation for Population > 0 to 1/4 mile Distance Category:

Approximately 17 people reside within 0 to 0.25 mile of the site. Information is based on Census Bureau 1990 STF-1A files.

Reference: 9, p. 8 of 8

Documentation for Population > 1/4 to 1/2 mile Distance Category:

Approximately 54 people reside within 0.25 to 0.5 mile of the site. Information is based on Census Bureau 1990 STF-1A files.

Reference: 9, p. 8 of 8

SOIL EXPOSURE PATHWAY NEARBY POPULATION THREAT TARGETS
PAS Holbrook Property Site - 11/14/95

Documentation for Population > 1/2 to 1 mile Distance Category:

Approximately 226 people reside within 0.5 to 1 mile of the site. Information is based on Census Bureau 1990 STF-1A files.

Reference: 9, p. 7 of 8

AIR PATHWAY LIKELIHOOD OF RELEASE
PAS Holbrook Property Site - 11/14/95

OBSERVED RELEASE

No.	Sample ID	Distance (miles)	Level of Contamination

- N/A and/or data not specified

Observed Release Factor: 0

Gas Migration Potential

GAS POTENTIAL TO RELEASE

Source ID	Source Type	Gas Contain. Value (A)	Gas Source Type Value (B)	Gas Migrtn. Potent. Value (C)	Sum (B+C)	Gas Potential to Rel: Value A(B+C)
Contaminated Soil	Contaminated Soil	7	19	6	25	175
Drums	Drums	3	33	11	44	132

Gas Potential to Release Factor: 175

Documentation for Gas Containment, Source Contaminated Soil:

For evaluation purposes, it is assumed that uncontaminated soil cover is <1 foot and the potential contaminated soil is covered with vegetation.

Reference: 1, p. 1 of 1

Documentation for Source Type, Source Contaminated Soil:

Soil sampling conducted by the NYSDEC in 1988 consisted of the collection of 3 surficial soil samples (approximate depths of several inches). Two of these soil samples were collected from an area behind the on-site residence where a majority of the removed drums were stored. Reportedly, the analytical data from these samples did not indicate the presence of organic contaminants. The third sample was collected from a former drum storage area adjacent to Bangall Road. This area also served as a utility pole storage area. During sample collection, a "creosote-like" odor was noted. Reportedly, the analytical data associated with this sample indicated the presence of several semivolatile compounds.

Reference: 7, p. 3 of 15; 8, pp. 1-6 of 6

Documentation for Gas Containment, Source Drums:

As per HRS Table 6-3, the source consists of intact, sealed containers with no protection from weather.

Reference: 1, p. 1 of 1

Documentation for Source Type, Source Drums:

During a December 1992 site visit, 11 55-gallon drums were observed on-site in three areas: two empty and two with contents at the northeast corner of the utility pole rack; 4 partially buried inside the barn; 3 empty in an open area southwest of the barn. A partial label on one of the drums near the utility pole rack read: "PHENO...Flammable Liquid". None of the other drums were labeled.

An inspection conducted by NYSDEC on May 25, 1995 indicated that drums are still present at the residence. PID monitoring revealed readings around these drums which were above background.

Reference: 7, pp. 1,4 of 15; 15, p. 1 of 1

Source: Contaminated Soil

Gaseous Hazardous Substance	Hazardous Substance Gas Migration Potential Value
Benzo(a)pyrene	6
Benzo(j,k)fluorene	6
Pentachlorophenol	6
Pyrene	6

Average of Gas Migration Potential Value for 3 Hazardous Substances: 6.000

Gas Migration Potential Value From Table 6-7: 6

Source: Drums

Gaseous Hazardous Substance	Hazardous Substance Gas Migration Potential Value
Pentachlorophenol	6
Phenol	11

Average of Gas Migration Potential Value for 3 Hazardous Substances: 8.500

Gas Migration Potential Value From Table 6-7: 11

Particulate Migration Potential

PARTICULATE POTENTIAL TO RELEASE

Source ID	Source Type	Partic. Contain. Value (A)	Partic. Source Type Value (B)	Partic. Migrtn. Potent. Value (C)	Sum (B+C)	Partic. Potential to Rel. Value A(B+C)
Contaminated Soil	Contaminated Soil	7	22	6	28	196
Drums	Drums	3	22	6	28	84

Particulate Potential to Release Factor: 196

Documentation for Particulate Containment, Source Contaminated Soil:

For evaluation purposes, it is assumed that the uncontaminated soil cover is < 1 foot and that the area is vegetated for the potential contaminated soil source.

Reference: 1, p. 1 of 1

Documentation for Source Type, Source Contaminated Soil:

Soil sampling conducted by the NYSDEC in 1988 consisted of the collection of 3 surficial soil samples (approximate depths of several inches). Two of these soil samples were collected from an area behind the on-site residence where a majority of the removed drums were stored. Reportedly, the analytical data from these samples did not indicate the presence of organic contaminants. The third sample was collected from a former drum storage area adjacent to Bangall Road. This area also served as a utility pole storage area. During sample collection, a "creosote-like" odor was noted. Reportedly, the analytical data associated with this sample indicated the presence of several semivolatile compounds.

Reference: 7, p. 3 of 15; 8, pp. 1-6 of 6

Documentation for Particulate Containment, Source Drums:

As per HRS Table 6-9, source consists of intact and sealed containers.

Reference: 1, p. 1 of 1

Documentation for Source Type, Source Drums:

During a December 1992 site visit, 11 55-gallon drums were observed on-site in three areas: two empty and two with contents at the northeast corner of the utility pole rack; 4 partially buried inside the barn; 3 empty in an open area southwest of the barn. A partial label on one of the drums near the utility pole rack read: "PHENO...Flammable Liquid". None of the other drums were labeled.

An inspection conducted by NYSDEC on May 25, 1995 indicated that drums are still present at the residence. PID monitoring revealed readings around these drums which were above background.

Reference: 7, pp. 1,4 of 15; 15, p. 1 of 1

Documentation for Particulate Migration Potential:

A particulate migration factor value of 6 was selected from HRS Figure 6-2.

Reference: 1, p. 1 of 1; 11, p. 1 of 1

Source: Contaminated Soil

Particulate Hazardous Substance
Benzo(a)pyrene
Benzo(j,k)fluorene
Pentachlorophenol
Pyrene

Source: Drums

Particulate Hazardous Substance
Pentachlorophenol

AIR PATHWAY WASTE CHARACTERISTICS
PAS Holbrook Property Site - 11/14/95

Source: 1 Contaminated Soil

Source Hazardous Waste Quantity Value: 0.00

Hazardous Substance	Toxicity Value	Gas Mobility Value	Particulate Mobility Value	Toxicity/ Mobility Value
Benzo(a)pyrene	10000	2.00E-04	2.00E-04	2.00E+00
Benzo(j,k)fluorene	100	2.00E-04	2.00E-04	2.00E-02
Pentachlorophenol	100	2.00E-02	2.00E-04	2.00E+00
Pyrene	100	2.00E-03	2.00E-04	2.00E-01

Source: 2 Drums

Source Hazardous Waste Quantity Value: 0.22

Hazardous Substance	Toxicity Value	Gas Mobility Value	Particulate Mobility Value	Toxicity/ Mobility Value
Pentachlorophenol	100	2.00E-02	2.00E-04	2.00E+00
Phenol	1	1.00E+00	NA	1.00E+00

Hazardous Substances Found in an Observed Release

Sample ID	Observed Release Hazardous Substance	Particulate Toxicity/ Mobility Value	Gas Toxicity/ Mobility Value

- N/A and/or data not specified

Documentation for Particulate Mobility:

A particlate mobility factor value of 0.0002 was selected from HRS Figure 6-3.

Reference: 1, p. 1 of 1; 11, p. 1 of 1

Toxicity/Mobility Value from Source Hazardous Substances:	2.00E+00
Toxicity/Mobility Value from Observed Release Hazardous Substances:	0.00E+00
Toxicity/Mobility Factor:	2.00E+00
Sum of Source Hazardous Waste Quantity Values:	2.20E-01
Hazardous Waste Quantity Factor:	10
Waste Characteristics Factor Category:	2

Actual Contamination

No.	Sample ID	Distance (miles)	Level of Contamination

- N/A and/or data not specified

Potential Contamination

Distance Categories Subject to Potential Contamination	Population	Value
Onsite	3.0	0.4000
> 0 to 1/4 mile	14.0	0.4000
> 1/4 to 1/2 mile	54.0	0.3000
> 1/2 to 1 mile	226.0	0.3000
> 1 to 2 miles	900.0	0.3000
> 2 to 3 miles	1429.0	0.4000
> 3 to 4 miles	1794.0	0.2000
	Potential Contaminantion Factor:	2.0000

Documentation for Population Onsite Distance Category:

The Holbrook residence is on-site. Within 0 to 0.25 mile of the site, approximately 17 people reside within approximately 6 households; approximately 3 people per household.

Reference: 3, p. 5 of 15; 9, p. 8 of 8

Documentation for Population > 0 to 1/4 mile Distance Category:

A total of 14 people have been attributed to 0 to .25 mile radius of the site (17 - 3 Holbrook residents = 14). Population information derived from Census Bureau's 1990 STF-1A files.

Reference: 9, p. 8 of 8

Documentation for Population > 1/4 to 1/2 mile Distance Category:

Approximately 54 people reside within 0.25 to 0.5 mile of the site based on Census Bureau's 1990 STF-1A files.

Reference: 9, p. 8 of 8

Documentation for Population > 1/2 to 1 mile Distance Category:

Approximately 226 people reside within 0.5 to 1 mile of the site based on Census Bureau's 1990 STF-1A files.

Reference: 9, p. 7 or 8

Documentation for Population > 1 to 2 miles Distance Category:

Approximately 900 people reside within 1 to 2 miles of the site based on Census Bureau's 1990 STF-1A files.

Reference: 9, p. 7 of 8

Documentation for Population > 2 to 3 miles Distance Category:

Approximately 1429 people reside within 2 to 3 miles of the site based on Census Bureau's 1990 STF-1A files.

Reference: 9, p. 7 of 8

Documentation for Population > 3 to 4 miles Distance Category:

Approximately 1794 people reside within 3 to 4 miles of the site based on 1990 Census Bureau's STF-1A files.

Reference: 9, p. 7 of 8

Nearest Individual Factor

Level of Contamination: Potential
Distance in miles: 0 to 1/8

Nearest Individual Value: 20

Documentation for Nearest Individual:

The Holbrook residence is on-site.

Reference: 3, p. 5 of 15

Resources

Resource Use: NO

Resource Value: 0

Actual Contamination, Sensitive Environments

Sensitive Environment	Distance (miles)	Sensitive Environment Value
- N/A and/or data not specified		

Actual Contamination, Wetlands

Distance Category	Wetland Acreage	Wetland Acreage Value
- N/A and/or data not specified		

Sensitive Environments Actual Contamination Factor: 0.000
(Sum of Sensitive Environments + Wetlands Values)

Potential Contamination, Sensitive Environments

Sensitive Environment	Distance (miles)	Sensitive Environment Value	Distance Weight	Weighted Value/10
- N/A and/or data not specified				

Potential Contamination, Wetlands

Distance Category	Wetland Acreage	Wetland Acreage Value	Distance Weight	Weighted Value/10
> 3 to 4 miles	1256.0	500.0	0.0014	0.070
> 2 to 3 miles	859.0	500.0	0.0023	0.115
> 1 to 2 miles	1017.0	500.0	0.0051	0.255
> 1/2 to 1 mile	240.0	250.0	0.0160	0.400
> 1/4 to 1/2 mile	43.0	25.0	0.0540	0.135
> 0 to 1/4 mile	9.2	25.0	0.2500	0.625
Onsite	1.0	25.0	1.0000	2.500

Total Wetland Acreage: 3425.2

Sum of Wetland Weighted Acreage Values/10: 4.100

Sensitive Environment Potential Contamination Factor: 4.000

Documentation for Sensitive Environment wetland:

The qualifying wetlands were located on the NWI quad maps. The area was measured using a planimeter. Starting at a random point, the measurement ended upon return to the starting point. One square inch on the planimeter is equal to 91.83 acres on the NWI map. The NWI map was divided into the appropriate radii (0, 1/4, 1/2, 1, etc.) and the wetlands between each radius was measured. The area of each wetland was measured twice and the average of the two measurements was the value used. The sum of the total wetland

acreage within the 0 to 1/4 mile radius of the PAS Holbrook site is 0.10 sqare inches or 9.2 acres.

Reference: 13, p. 1 of 1

Documentation for Sensitive Environment wetland:

The qualifying wetlands were located on the NWI quad maps. The area was measured using a planimeter. Starting at a random point, the measurement ended upon return to the starting point. One square inch on the planimeter is equal to 91.83 acres on the NWI map. The NWI map was divided into the appropriate radii (0, 1/4, 1/2, 1, etc.) and the wetlands between each radius was measured. The area of each wetland was measured twice and the average of the two measurements was the value used. The sum of the total wetland acreage within the 1/4 to 1/2 mile radius of the PAS Holbrook site is 0.465 square inches or 43 acres.

Reference: 13, p. 1 of 1

Documentation for Sensitive Environment wetland:

The qualifying wetlands were located on the NWI quad maps. The area was measured using a planimeter. Starting at a random point, the measurement ended upon return to the starting point. One square inch on the planimeter is equal to 91.83 acres on the NWI map. The NWI map was divided into the appropriate radii (0, 1/4, 1/2, 1, etc.) and the wetlands between each radius was measured. The area of each wetland was measured twice and the average of the two measurements was the value used. The sum of the total wetland acreage within the 1/2 to 1 mile radius of the PAS Holbrook site is 2.61 square inches or 240 acres.

Reference: 13, p. 1 of 1

Documentation for Sensitive Environment wetland:

The qualifying wetlands were located on the NWI quad maps. The area was measured using a planimeter. Starting at a random point, the measurement ended upon return to the starting point. One square inch on the planimeter is equal to 91.83 acres on the NWI map. The NWI map was divided into the appropriate radii (0, 1/4, 1/2, 1, etc.) and the wetlands between each radius was measured. The area of each wetland was measured twice and the average of the two measurements was the value used. The sum of the total wetland acreage within 1 to 2 miles of the PAS Holbrook site is 11.07 square inches or 1,017 acres.

Reference: 13, p. 1 of 1

Documentation for Sensitive Environment wetland:

The qualifying wetlands were located on the NWI quad maps. The area was measured using a planimeter. Starting at a random point, the measurement ended upon return to the starting point. One square inch on the planimeter is equal to 91.83 acres on the NWI map. The NWI map was divided into the appropriate radii (0, 1/4, 1/2, 1, etc.) and the wetlands between each radius was measured. The area of each wetland was measured twice and the average of the two measurements was the value used. The sum of the total wetland acreage within 2 to 3 miles of the PAS Holbrook site is 9.4 square inches or 859 acres.

Reference: 13, p. 1 of 1

Documentation for Sensitive Environment wetland:

The qualifying wetlands were located on the NWI quad maps. The area was measured using a planimeter. Starting at a random point, the measurement ended upon return to the starting point. One square inch on the planimeter is equal to 91.83 acres on the NWI map. The NWI map was divided into the appropriate radii (0, 1/4, 1/2, 1, etc.) and the wetlands between each radius was measured. The area of each wetland was measured twice and the average of the two measurements was the value used. The sum of the total wetland

acreage within 3 to 4 miles of the PAS Holbrook site is 13.675 square inches or 1256 acres.

Reference: 13, p. 1 of 1

Documentation for Sensitive Environment wetland:

The qualifying wetlands were located on the NWI quad maps. The area was measured using a planimeter. Starting at a random point, the measurement ended upon return to the starting point. One square inch on the planimeter is equal to 91.83 acres on the NWI map. The NWI map was divided into the appropriate radii (0, 1/4, 1/2, 1, etc.) and the wetlands between each radius was measured. The area of each wetland was measured twice and the average of the two measurements was the value used. The sum of the total wetland acreage on-site is 0.011 square inches or 1 acre.

Reference: 13, p. 1 of 1