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FINAL
SITE INSPECTION PRIORITIZATION REPORT
FINCH PRUYN
QUEENSBURY, NEW YORK

Volume 1 of 2

CERCLIS ID No.: NYD980508279

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Work Order No.: 04200-022-081-0079

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Prepared by:

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GENERAL DESCRIPTION AND SITE HISTORY

The Finch Pruyn site (CERCLIS ID No. NYD980508279) is located off of Route 149 in Queensbury, Warren County, New York (Ref. No. 1). The site is owned by Finch, Pruyn & Company (Ref. No. 2, p. 4; 3). Operations at the site involve the landfilling of sludge generated at Finch, Pruyn & Company's activated wastewater treatment plant (Ref. No. 2, p. 128). This wastewater treatment plant is located off-site at the company's paper mill located in Glens Falls. The landfilling operations began in 1977 as part of a Land Reclamation Area Permit as per 6 New York Code of Rules and Regulations (NYCRR) Part 360 (Ref. No. 2, pp. 101, 126, 128). Forty to 50 acres of the 186-acre site are reportedly active (Ref. Nos. 2, pp. 130, 326; 3). This tract of land is located in the Adirondack State Park, which is primarily forested (Ref. Nos. 2, p. 130; 4).

In 1982, 1983, and 1986, the New York State Department of Environmental Conservation (NYSDEC) documented violations of unspecified groundwater quality standards at the site (NYSDEC site no. 557002) (Ref. No. 2, p. 191). In 1982, standards were exceeded for iron, lead, and phenols (Ref. No. 2, pp. 111, 112). In 1983, the exact cause of the violation was not provided (Ref. No. 2, pp. 153, 154). In 1986, it was reported that standards for iron and phenol were exceeded (Ref. No. 2, p. 191). Background information states that the landfill is closing under NYCRR Part 360 Enforcement (Ref. No. 2, pp. 6, 57; 17, p. 4). The landfill is still active and reportedly will continue receiving sludge until a viable disposal alternative is found (Ref. No. 3).

An Order on Consent was executed by NYSDEC and Finch, Pruyn & Company, Inc. in February 1987. It reportedly has been modified several times, with the last revision dated June 1993 (Ref. Nos. 15; 17, p. 14). Background information indicates that quarterly sampling of five on-site monitoring wells (MW) is required under the Order on Consent. These wells are identified as MW-1, MW-2, MW-3A, MW-4D, and MW-4E (Ref. No. 17, p. 1B). Hudson Environmental Services, Inc. sampled and analyzed groundwater samples from the aforementioned monitoring wells from September 1991 to March 1994 on behalf of Finch, Pruyn and Company. Quality assurance/quality control (QA/QC) consisted of field blanks (FB), trip blanks (TB), and duplicates. Sample analysis was performed for all parameters as outlined in 6 NYCRR Part 360, Water Quality Analysis Table, for either the routine scan or a baseline scan. Concentrations of several metals and phenol in downgradient wells have been 8 to 50 times greater than the concentrations in the upgradient well (Ref. No. 17, pp. 4, 6-112).

NYSDEC reported, in 1993, an observed discharge of leachate from the landfill to a "natural low-lying area". This leachate discharge is a violation of the consent order which states that the landfill is subject to 6 NYCRR Part 360 regulations (Ref. No. 5).

One waste source - the waste pile - exists at this site. The source is considered to be a waste pile rather than a landfill for the purpose of this report, since soil is not mixed with the sludge (Ref. No. 2, p. 6). There is no liner in place to serve to contain the waste (Ref. No. 2, p. 179). Reportedly, the only waste disposed of at this site is the paper mill sludge (Ref. No. 2, p. 191). The volume of sludge disposed of in 1985 was estimated at 142,176 cubic yards (yd^3) (Ref. No. 2, p. 191). According to the NYSDEC, this same sludge is being used as a bottom liner at the Queensbury RDA and as a top cap at the Caputo PCB site in Moreau (Ref. No. 2, p. 153).

Finch Pruyn, under its Land Reclamation Plan Area Permit, was required to submit annual testing of the sludge deposited at the landfill. Also required under this permit was quarterly monitoring of the three on-site monitoring wells (Ref. No. 2, p. 101). During the years 1977, 1978, and 1979 General Testing Corporation (GTC) performed the analysis on the sludge (Ref. No. 2, pp. 124, 148, 243). The QA/QC of these data is unknown. During the years 1981 through 1986 Malcolm Pirnie (MP) performed the necessary analyses (Ref. No. 2, pp. 101-123, 202-205). The QA/QC of these data is also unknown. GTC and MP both analyzed for selected chemical and physical parameters, and some metals. Table 1 summarizes the sludge analysis data.

Hydrogen sulfide from the site was documented downwind of the site and in nearby residential areas by the State of New York Department of Health (NYDOH). On 29 January 1992, air samples were collected upwind and downwind of the site, and at the site by the NYDOH/Bureau of Environmental Exposure Investigation. This action was in response to numerous citizen complaints. The instrument used to collect these air samples was not identified (Ref. No. 14).

NUS Corporation conducted a sampling event at the site on 18 October 1990 as part of a screening site inspection on behalf of the United States Environmental Protection Agency (U.S. EPA). Six groundwater samples (four on-site and two off-site), six surface soil samples, and one subsurface soil sample were collected (Ref. No. 2, pp. 1, 389, 390). These samples were analyzed under the U.S. EPA Contract Laboratory Program (CLP) for Target Compound List (TCL) contaminants, excluding cyanide (Ref. No. 2, pp. 390, 402). The on-site groundwater samples collected included three from groundwater monitoring wells and one from a tap supplying potable water. The seven soil samples were collected throughout the active and inactive areas of the site (Ref. No. 2, p. 392). The QA/QC plan included field blanks, duplicates, matrix spike/matrix spike duplicates (MS/MSD), and a trip blank (Ref. No. 2, pp. 394-397). On-site groundwater samples revealed concentrations of aluminum, arsenic, barium, chromium, cobalt, copper, iron, lead, nickel, and vanadium that were significantly greater than background concentrations (Ref. No. 2, p. 22). Off-site groundwater samples did not indicate the presence of hazardous substances above background levels (Ref. No. 2, pp. 10-19).

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MANAGERS DESIGNERS CONSULTANTS

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TABLE 1

SUMMARY OF ANALYTICAL DATA FOR SLUDGE SAMPLING EVENTS CONDUCTED AT THE FINCH PRUYN SITE

Samples	7/18/77 ug/g	7/17/78 ug/g	8/16/78 ug/g	8/17/78 ug/g	7/21/83 ug/g	7/17/84 mg/kg	7/1/85 mg/L	7/16/86 mg/kg
Arsenic	< 0.1	0.087	< 0.16	< 0.14	< 1	< 1	< 0.2	0.54
Cadmium	0.84	174	< 0.78	<0.80	< 2	< 1	< 0.5	0.73
Chromium	0.63	2.98	< 3.8	< 4.0	6.53	25.4	< 2	3.4
Copper	8.46	7.53	6.21	8.06	19.6	15.2	5.3	14.3
Iron	150	274	248	274	2,177	6,518	115	932
Lead	1.4	3.8	4.66	8.06	< 25	15.3	< 2	14
Mercury	< 0.03	0.048	< 0.04	< 0.06	0.82	< 0.5	0.83	1.5
Nickel	1.02	3.79	< 3.8	< 4.0	10.4	19	1.7	2.91
Selenium	< 1	0.002	< 0.16	< 0.14	< 1	< 1	< 0.2	0.14
Zinc	14.45	17.4	10.9	12.9	47	52	13	27.7
Phenols	1.43	0.46	NA	NA	59.4	10.4	4.8	2.6
Reference No. 2	pp. 148, 149	p. 124	p. 124	p. 124	p. 114	p. 108	p. 102	p. 202

Notes:

ug/g - Micrograms per gram.
mg/kg - Milligrams per kilogram.
mg/L - Milligrams per liter.
< - Less than.
NA - Not analyzed for.

The landfill has an active gas collection system which was installed in January 1993 (Ref. No. 15). The site is still active and is still receiving sludge; this is to continue until a viable disposal alternative can be found (Ref. No. 3). Background information does not indicate whether the site is fenced or has restricted access.

EVALUATION OF EXISTING INFORMATION AND SITE INSPECTION REPORT

Existing information and analytical data, primarily from the March 1991 NUS Site Inspection Report and supporting documentation, were used to conduct an evaluation of the site. Updated and additional information was collected to further evaluate the site to determine the need for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial action. The information used to evaluate the current site status included groundwater population data within a 4-mile radius of the site, fisheries and sensitive environments within 15 miles downstream of the site, and 1990 census population data and sensitive environments, including threatened and endangered species, within 4 miles of the site.

HAZARD ASSESSMENT

Groundwater Pathway - Analytical results for groundwater samples indicate that an observed release of contaminants attributable to the site has occurred. Sampling events conducted in September 1979, January 1981, June 1982, July 1983, and October 1990, as well as quarterly sampling in 1992 and 1993, indicate the presence of metals in downgradient wells (monitoring wells A, B, 2, 3A, 4D, and 4E) at concentrations at least three times greater than the levels detected in the samples collected from background wells (monitoring wells C and 1) (Ref. Nos. 2, pp. 104, 105, 111, 115, 117, 118, 120, 122, 123, 377, 394, 404, 405; 17). Additionally, analytical results for groundwater samples collected in January 1981 indicate the presence of phenolics in monitoring well MW-A at concentrations 10 times greater than the levels detected in the samples collected from monitoring well MW-C (Ref. No. 2, pp. 115, 117). Table 2 summarizes selected groundwater analytical data for sampling events conducted at the site.

Two off-site groundwater samples were collected on 18 October 1990 from private residences located approximately 1,500 feet downgradient of the site (Ref. No. 2, pp. 23, 394). Analytical results from these samples do not indicate the presence of contamination attributable to the site. Hazardous substances attributable to the site were detected in groundwater samples from on-site monitoring wells at levels sufficient to document an observed release; therefore, hazardous substances are known to be in contact with the groundwater.

TABLE 2

SUMMARY OF SELECTED GROUNDWATER ANALYTICAL DATA FOR SAMPLING EVENTS CONDUCTED AT THE FINCH PRUYN SITE

Contaminant	Background Concentration	Highest Concentration	Ref. No.
Phenols	< 0.005 mg/L	0.052 mg/L	No. 2, pp. 115, 117
Arsenic	< 0.001 mg/L	0.05 mg/L	No. 17, pp. 23, 33
Cadmium	< 0.0005 mg/L	0.004 mg/L	No. 17, pp. 23, 33
Lead	0.005 mg/L	0.04 mg/L	No. 17, pp. 24, 28
Zinc	< 0.01 mg/L	0.1 mg/L	No. 17, pp. 63, 70
Iron	.15 mg/L	80 mg/L	No. 2, p. 244
Nickel	< 6.0 ug/L	132 ug/L	No. 2, pp. 377, 394, 404, 405

Notes:

mg/L - Milligrams per liter.
< - Less than.
ug/L - Micrograms per liter.

The site is characterized by soils of the Hickley Cobbey group. These soils are deep, well to excessively drained, acid cobbley soils that have developed on outwash material derived from gneiss and granite, with some crystalline limestone (Ref. No. 2, p. 68). Boring logs for two on-site monitoring wells indicate that the site is underlain by brown to gray, fine to coarse sand and gravel and boulders to a depth of 228 feet below ground surface (BGS) (Ref. No. 2, p. 147). The borings did not encounter bedrock. There is no indication of any confining layers that might restrict infiltration (Ref. No. 2, p. 68). Groundwater is known to be obtained from bedrock wells for municipal drinking water. Therefore, the sand and gravel and the bedrock are considered interconnected and the aquifer of concern. The groundwater gradient was determined as being south toward Mud Pond (Ref. No. 2, p. 68). The permeability is estimated to be 10^{-4} centimeters per second (cm/s) (Ref. No. 18).

Groundwater within 4 miles of the site is used for domestic and commercial purposes (Ref. No. 6). Most of the population located within 4 miles of the site receives water from private groundwater wells. The Village of Fort Ann, which has a public water supply system, obtains water from bedrock wells (Ref. No. 7). The closest potable well is an on-site well, MW-C, which is 285 feet deep. This well serves eight on-site employees (Ref. No. 2, pp. 23, 336). The total population served by groundwater within 4 miles of the site is approximately 5,170 people (0-¼ mile: 40; ¼-½ mile: 70; ½-1 mile: 180; 1-2 miles: 610; 2-3 miles: 1,280; 3-4 miles: 2,990) (Ref. No. 8). The site is located a wellhead protection area.

Surface Water Migration Pathway - NYSDEC documented an observed release of leachate to a "natural low-lying area" in 1993 (Ref. No. 5). Although there is no indication of a Toxicity Characteristic Leachate Procedure (TCLP) analysis being performed on the waste at the site, the analysis on the sludge deposited there has documented the presence of metals and phenols (Ref. No. 2, pp. 102, 108, 114, 124, 142, 148, 149, 202). Thus, a release to surface water is suspected. Additionally, it is suspected that groundwater discharges to Mud Pond (Ref. No. 2, p. 24).

The most probable routes for contamination to reach surface water are by overland flow and by groundwater surfacing at Mud Pond. Since the soil at the site is characterized by a relatively high permeability (10^{-4} cm/s), any overland flow is likely to be absorbed into the soil prior to reaching Mud Pond, located approximately 400 feet south of the site (Ref. No. 4).

Mud Pond [estimated flowrate: 2 cubic feet per second (cfs)] drains through an unnamed tributary for approximately 0.5 mile to Halfway Creek. Halfway Creek flows [estimated flow rate: 10 cfs] from this tributary toward the east approximately 11 miles to the Champlain Barge Canal. The Champlain Barge Canal flows south-southwest (estimated flow rate: 10-100 cfs) for 4 miles where the 15-mile surface water migration pathway ends in Kingsbury (Ref. No. 4; 10).

Halfway Creek and the Champlain Barge Canal are fisheries (Ref. No. 11). There are no drinking water intakes located within 15 miles downstream of the site (Ref. No. 7). Maps delineating wetland sizes and locations were not available for this location. Since it is not readily apparent from United States Geological Survey (USGS) topographical maps whether there are wetlands associated with the surface water migration pathway, none will be evaluated. The NYSDEC has classified Mud Pond a Class A water body. Halfway Creek has been classified as a Class A water body with the last 0.3 mile as a Class D water body. Champlain Barge Canal has been classified as a Class C water body. Class D water is suitable for fish survival; Class C is suitable for fish propagation and survival; and Class A is suitable for water supply and fish propagation and survival. Classes A, B, and C are therefore considered sensitive environments (Ref. No. 12). There are no federally or State-listed threatened or endangered species habitats known to be present within the surface water pathway target distance limit (TDL) (Ref. No. 13)

Soil Exposure Pathway - Analytical results for soil samples do not indicate that contamination is present at the site (Ref. No. 2, p. 388). The area of the active waste pile was reported to cover 40 to 50 acres (Ref. No. 2, pp. 130, 326). There are no residences, schools, or day-care centers located within 200 feet of areas of known contamination (Ref. No. 2, pp. 130, 131). There is no information in the background files to indicate that off-site soil sampling has been conducted in association with this site. According to background information, there are approximately eight workers on-site. The site is not reported to be fenced (Ref. No. 2, p. 331).

Air Migration Pathway - An observed release of hydrogen sulfide from the Finch Pruyn Landfill was documented on 29 January 1992 by the NYDOH. Air samples were collected in response to numerous citizen complaints. The NYDOH/Bureau of Environmental Exposure Investigation visited the Finch Pruyn Landfill on 14 January 1992. Extremely strong odors were detected at the Finch Pruyn Landfill. On 29 January 1992, air samples were collected for hydrogen sulfide by the NYDOH. The instrument used was not identified. Analytical results indicated upwind concentrations of less than 0.9 parts per billion (ppb). Downwind concentrations were 1.8 ppb in residential areas, 260 ppb at the base of the Finch Pruyn Landfill, and 200 parts per million (ppm) in the vent pipes at Finch Pruyn Landfill (Ref. No. 14).

In January 1993, an active gas collection system was installed at the site. A vacuum fan collects gas from under reinforced polyethylene for final disposal by "burn-out flare". In addition, an electric transformer, which sparks every 15 seconds, has been installed on the flare. This assures that the flare will be lit if flammable gases are present (Ref. No. 15). It is not known if this system is permitted.

There are approximately 5,450 people living within 4 miles of the site (0-¼ mile: 30; ¼-½ mile: 80; ½-1 mile: 270; 1-2 miles: 1,050; 2-3 miles: 1,660; 3-4 miles: 2,360) (Ref. No. 16). Based on available maps, there are approximately 900 acres of wetlands within 4 miles of the site (0-¼ mile: 0; ¼-½ mile: 10; ½-1 mile: 10; 1-2 miles: 40; 2-3 miles: 320; 3-4 miles: 520) (Ref. No. 4). The habitats of two State-listed endangered species and three State-listed threatened species have been observed within 4 miles of the site (Ref. No. 13).

SUMMARY

The existing information and additional information gathered were sufficient to evaluate the site. There are sufficient data to document an observed release to groundwater and air. The nearest potable well is located on-site. Approximately 5,170 people obtain drinking water from groundwater wells located within 4 miles of the site. Eight people reportedly work at the site, and approximately 5,450 people live within 4 miles of the site. Fisheries and sensitive environments are located along most of the 15-mile surface water migration pathway. No residences, schools, or day-care centers exist within 200 feet of the site.

REFERENCES

1. U.S. Environmental Protection Agency (U.S. EPA) Superfund Program Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) List-4: Site Alias Location Listing, p. 355, 14 October 1994; and List-8: Site/Event Listing, p. 480, 12 September 1994.

2. U.S. EPA, Final Draft Site Inspection Report, Finch Pruyn, Queensbury, New York prepared by NUS Corporation, Superfund Division, 15 March 1991.

3. Phone Conversation Record: Conversation between Brian Huyck, New York State Department of Environmental Conservation(NYSDEC)/Solid Waste, and Melissa A. Magnuson, Roy F. Weston, Inc. (WESTON®), 9 November 1994.

4. Four-Mile Vicinity/Fifteen-Mile Surface Water Pathway Map for Finch Pruyn site, compiled from U.S. Department of the Interior, Geological Survey Topographic Maps, 7.5 minute series, Quadrangles for Lake George, NY, 1966; Putnam Mountain, NY, 1966; Fort Ann, NY, 1944; Glens Falls, NY, 1966; Hudson Falls, NY, 1966; and Hartford, NY, 1944.

5. Letter from H. Gerry Beres, P.E. NYSDEC, to Phil Arthur and Mr. Roger Dziengeleski, Finch, Pruyn, & Co., Inc., Subject: Finch, Pruyn Sludge Disposal Landfill Facility. 19 January 1993.

6. U.S. Geological Survey, Water Withdrawal Printout, Finch Pruyn site, 20 October 1994.

7. Project Note from Melissa Magnuson, WESTON, to Finch Pruyn file, Subject: Water Usage, 6 January 1995; plus attachments.

8. Project Note from M. Magnuson, WESTON, to Finch Pruyn file, Subject: Groundwater Population Calculations, 2 May 1995; plus attachments.

9. Project Note from Melissa Magnuson, WESTON, to Finch Pruyn file, Subject: Wellhead Protection, 6 January 1995; plus attachments.

10. Project Note from Melissa Magnuson, WESTON, to Finch Pruyn file, Subject: Surface Water Flow Rates, 28 December 1994.

REFERENCES (CONTINUED)

11. Phone Conversation Record: Conversation between Les Saltfman, NYSDEC, and Melissa Magnuson, WESTON, 25 October 1994.

12. Project Note from Melissa Magnuson, WESTON, to Finch Pruyn file, Subject: Surface Water Classification, 6 January 1995; plus attachments.

13. Project Note from Melissa Magnuson, WESTON, to Finch Pruyn file, Subject: Sensitive Environments, 4 May 1995.

14. Letter from Robert Montione, New York State Department of Health, to Gerald Beres, NYSDEC, Subject: Air Monitoring. 27 February 1992.

15. Letter from Roger A. Dziengeleski, Finch Pruyn & Co., Inc., to H. Gerry Beres, P.E., NYSDEC, Subject: Finch Pruyn. 22 January 1993.

16. Letter from Bob Frost, Frost Associates, to Jan Holderness, WESTON, Subject: Finch Pruyn. 22 October 1994.

17. Project Note from Melissa Magnuson, WESTON, to Finch Pruyn file, Subject: Groundwater Sampling, 6 January 1995; plus attachments.

18. Hazard Ranking System; Final Rule, 40 Code of Federal Regulations (CFR) Part 300, Federal Register, Volume 55, No. 241, p. 51601, 14 December 1990.

REFERENCE NO. 1

CERCLIS DATA BASE TIME: 16:40:05 U.S. EPA SUPERFUND PROGRAM VERSION 2.04
LEVEL: REGION 02 ** C E R C L I S ** RUN DATE: 10/17/96
SELECTION: INTEGRATED LIST 4: SITE ALIAS LOCATION LISTING RUN TIME: 12:19:23

SEQUENCE: REG, ST, SITE NAME
REGION: 02

EPA IDENTIFICATION NUMBER	SITE NAME/ALIAS NAME STREET/ALIAS STREET CITY/ALIAS CITY COUNTY NAME	STATE/ALIAS STATE COUNTY CODE	ZIP CODE	ALIAS SEQ. #	NAME SOURCE	FEDERAL FACILITY FLAG	CONGRESSIONAL DISTRICT (S)
NYD001619873 (CONTINUED)	FENBAR PRECISION MACHINST INC. WESTCHESTER	NY		01			
NYD980508261	FERDULA LF OLD ERIE CANAL FRANKFORT HERKIMER	NY 043	13340		STS	N	
NYD003814003	FERRO CORP /ELECTRO DIV 661 WILLET RD LACKAWANNA ERIE	NY 029	14218		HWDMS	N	
	FERRO CORPORATION-SPECIALTY CERAMICS DIV			01			
NYD980508279	FINCH PRUYN OFF RTE 149 QUEENSBURY WARREN	NY 113	12801		STS	N	
NY1417195210	FIRE ISL NATL SEASHORE/WILLIAM FLOYD EST 20 WASHINGTON AVENUE MASTIC SUFFOLK	NY 103	11951			Y	
NYD013506514	FISHER CAGE COLTEEN ST WATERTOWN JEFFERSON	NY 045	13601		STS	N	
NYD000518357	FISHERS ISLAND LF UNKNOWN FISHERS ISLAND SUFFOLK	NY 103	06390		EPA	N	
	FISHERS ISLAND LF SUFFOLK	NY		01			
NYD980508287	FISHKILL LF GARY RD FISHKILL DUTCHESS	NY 027	12524		STS	N	

SELECTION:
SEQUENCE: REGION, STATE, SITE NAME

EVENTS: ALL

SITE_ID_NO.	SITE_NAME STREET CITY COUNTY CODE AND NAME (ASSOCIATED NPL SITE)	STATE ZIP CONG_DIST.	OPRBLE UNIT	EVENT TYPE	EVENT QUAL	ACTUAL START DATE	ACTUAL COMPL DATE	CURRENT EVENT LEAD
0980508279	FINCH PRUYN		00	DS1			04/01/79	EPA (FUND)
	OFF RTE 149			PA1			06/08/87	STATE(FUND)
	QUEENSBURY	NY 12801		SI1		10/16/90	03/20/91	EPA (FUND)
	113 WARREN							
1417195210	FIRE ISL NATL SEASHORE/WILLIAM FLOYD EST		00	DS1			02/01/91	EPA (FUND)
	20 WASHINGTON AVENUE			PA1		12/03/90	03/12/91	FED. FAC.
	MASTIC	NY 11951		SI1	NO FURTHER REMDL ACT PLND		08/15/93	FED. FAC.
	103 SUFFOLK							
0013506514	FISHER CAGE		00	DS1			06/24/87	EPA (FUND)
	CULTEEN ST			PA1	NO FURTHER REMDL ACT PLND		09/01/87	EPA (FUND)
	WATERTOWN	NY 13601						
	045 JEFFERSON							
0000518357	FISHERS ISLAND LF		00	DS1			06/01/83	EPA (FUND)
	UNKNOWN			PA1			06/01/83	EPA (FUND)
	FISHERS ISLAND	NY 06390		HR1			05/01/83	OTHER
	103 SUFFOLK			SI1	NO FURTHER REMDL ACT PLND	05/01/83	06/01/83	EPA (FUND)
0980508287	FISHKILL LF		00	DS1			04/01/80	EPA (FUND)
	GARY RD			PA1			10/01/83	EPA (FUND)
	FISHKILL	NY 12524		PA2		02/01/90	05/01/90	STATE(FUND)
	027 DUTCHESS			SI1		10/01/83	10/01/83	EPA (FUND)

REFERENCE NO. 2

02-9008-26-SI
REV. NO. 0

FINAL DRAFT
SITE INSPECTION REPORT
FINCH PRUYN
QUEENSBURY, NEW YORK

PREPARED UNDER

TECHNICAL DIRECTIVE DOCUMENT NO. 02-9008-26
CONTRACT NO. 68-01-7346

FOR THE

ENVIRONMENTAL SERVICES DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

MARCH 15, 1991

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY:

DAVID J. GRUPP
PROJECT MANAGER

SUSAN ANDERSON
SITE MANAGER

REVIEWED/APPROVED BY:

RONALD M. NAMAN
FIT OFFICE MANAGER

SITE SUMMARY AND RECOMMENDATIONS

The Finch Pruyn Site is an active papermill sludge landfill facility located in Queensbury, Warren County and Fort-Ann, Washington County, New York. The site is located south of Route 149 and is within the southern boundary of the Adirondack State Park. The Town of Fort Ann municipal landfill is located to the east of the site and other landfills are located in the immediate surrounding area. The site is situated on 186 acres, of which approximately 60 acres are utilized for a land reclamation project. These landfill/land reclamation activities take place on the Warren County portion of the site as zoning regulations prevent landfilling from taking place in Washington County. The Washington County portion of the property can only be utilized for removing sand and gravel to be used for cover material. The landfill is unlined and will be under closure in late 1992 or early 1993. Papermill sludge from Finch Pruyn's primary and secondary activated wastewater treatment plant located in Glens Falls are the only wastes disposed of in the landfill. Three groundwater monitoring wells on site have been sampled quarterly by the New York State Department of Conservation (NYSDEC) since 1982. At present, additional groundwater monitoring wells are being installed as part of the closure plan. In 1985, the NYSDEC documented violations of groundwater standards on site (Ref. 1 p.4-3). A U.S. Environmental Protection Agency (U.S. EPA) Site Investigation Report dated August 7, 1986 reported that a citizens complaint letter dated October 16, 1979 referred to sludge leaking into Mud Pond. No surface water samples have been collected from Mud Pond. A NYSDEC Phase I Investigation Report was prepared by Wehran Engineering, P.C. on January 9, 1987. A NYSDEC memorandum dated January 9, 1987 reported that the Finch Pruyn Site was deleted from the NYSDEC Phase II list because the company was looking into a consent order for closure which would include a Phase II study effort (Ref. No. 2).

NUS Corporation Region 2 FIT conducted a site inspection on October 18, 1990 during which three groundwater samples were collected from on-site monitoring wells, one of which is used as an on-site drinking water source, and two groundwater samples were collected from off-site residential wells downgradient of the site. One subsurface soil and six surface soil samples were also collected from the site. Analytical results indicate a release of metals to the groundwater. Sludge sample analytical results indicate the presence of these same metals in varying concentrations over the years.

Within 4 miles of the site, groundwater is used as a drinking water source. Private wells are the main source of drinking water. The only known public supply wells are located 3 to 4 miles east of the site. The total population utilizing groundwater for drinking is approximately 6,000 people. The depths of these wells range form 100 to 300 feet. The closest well is located on site.

The nearest surface water is Mud Pond located approximately 400 feet south of the site. Mud Pond is considered a deep water marsh. Waters from Mud Pond flow into a tributary of Halfway Creek, and are classified as New York State Class A waters. The likelihood of a release of contaminants

SITE SUMMARY AND RECOMMENDATIONS (CONT'D)

from the site to Mud Pond would be via discharge of contaminated groundwater. There are no drinking water intakes from these waters downstream of the site.

The site is recommended for an **EXPANDED SITE INSPECTION**. This recommendation is based on:

- The release of contaminants to groundwater.
- The potential release of contaminants to Mud Pond via contaminated groundwater discharge. Mud Pond is considered a deep water marsh.
- The use of groundwater as the only source of drinking water for the majority of residents within 4 miles of the site.
- The location of the site within the boundary of the Adirondack State Park.

SITE ASSESSMENT REPORT: SITE INSPECTION

PART I: SITE INFORMATION

1. **Site Name/Alias** Finch Pruyn

   Street Off Rt. 149

   City Queensbury **State** New York **Zip** 12801

2. **County** Warren **County Code** 113 **Cong. Dist.** 24

3 **EPA ID No.** NYD980508279

4. **Block No.** 2 (Warren County) **Lot Nos.** 2, 4, 5.1, 18

   Block No. 1 (Washington County) **Lot No.** 1

5. **Latitude** 43° 23' 50" N **Longitude** 73° 36' 45" W

   USGS Quad. Putnam Mt. New York

6. **Owner** Finch Pruyn & Co. **Tel. No.** (518) 793-2541

   Street 1 Glen Street

   City Glens Falls **State** New York **Zip** 12801

7. **Operator** (Same as above) **Tel. No.** (518) 793-2541

   Street _____

   City _____ **State** _____ **Zip** _____

8. **Type of Ownership**

   ☒ Private ☐ Federal ☐ State
   ☐ County ☐ Municipal ☐ Unknown ☐ Other _____

9. **Owner/Operator Notification on File**

   ☐ RCRA 3001 **Date** _____ ☐ CERCLA 103c **Date** _____
   ☐ None ☒ Unknown

10. **Permit Information**

Permit	Permit No.	Date Issued	Expiration Date	Comments
Land Reclamation	NY0005525			
Solid Waste	1017		June 21, 1982	

11. **Site Status**

☒ Active - ☐ Inactive ☐ Unknown

12. **Years of Operation** 1977 to Present

13. **Identify the types of waste sources (e.g., landfill, surface impoundment, piles, stained soil, above- or below-ground tanks or containers, land treatment, etc.) on site. Initiate as many waste unit numbers as needed to identify all waste sources on site.**

(a) **Waste Sources**

Waste Unit No.	Waste Source Type	Facility Name for Unit
1	Landfill	Land Reclamation Project/Landfill

(b) **Other Areas of Concern**

Identify any miscellaneous spills, dumping, etc. on site; describe the materials and identify their locations on site.

Ref. Nos. 1, 7, 9, 12, 27, 28, 29, 30

14. **Information available from**

Contact Amy Brochu **Agency** U.S. EPA **Tel. No.** (201) 906-6802

Preparer Susan Anderson **Agency** NUS Corp. Region 2 FIT **Date** March 15, 1991

PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following items.

Waste Unit 1 - Land Reclamation Project/Landfill

Source Type

X	Landfill		Contaminated Soil
	Surface Impoundment		Pile
	Drums		Land Treatment
	Tanks/Containers		Other

Description:

The Finch Pruyn Site is a 186-acre tract of land of which approximately 60 acres is utilized for a land reclamation project as a landfill for dewatered papermill sludge from Finch Pruyn's primary and secondary wastewater treatment plant. The unlined landfill has been in operation since 1977 and is in the process of closure under a Part 360 enforcement action which will be completed in late 1992 or early 1993. The sludge is compacted and covered with gravel to form building blocks or cells. A series of adjacent cells, 5 to 7 feet in height, are constructed to form a lift. The ratio of sludge to gravel is approximately 3 to 1. Located at the eastern portion of the landfill is an area where gravel is excavated for cover material and is also sold. Figures 1 and 2 provide a Site Location Map and Site Map, respectively.

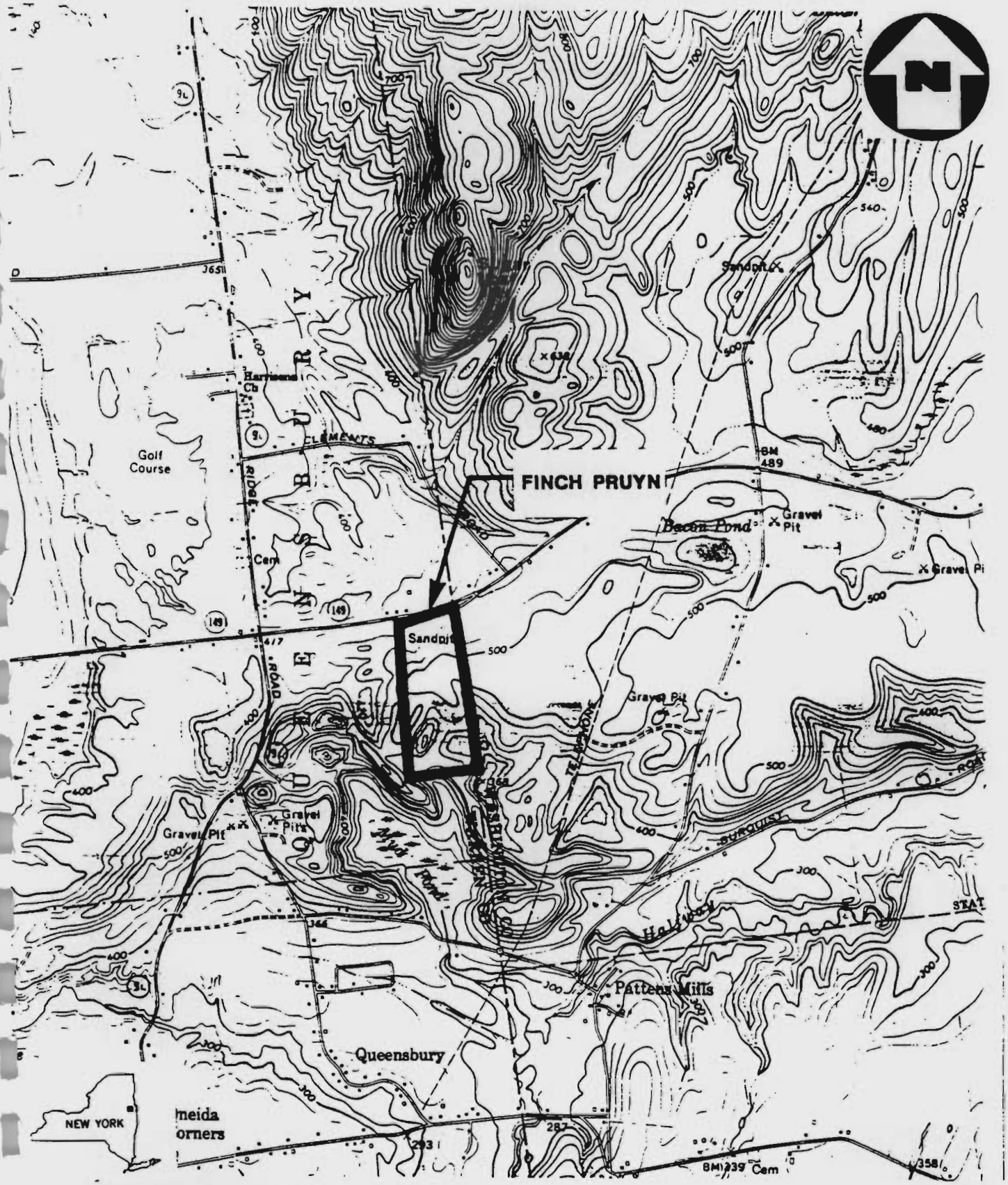
Hazardous Waste Quantity

Approximately 100,000 to 150,000 cubic yards of papermill sludge are deposited in the landfill annually. The total sludge volume reported in 1985 was 142,172 cubic yards; reported in 1986 was 119,900 cubic yards.

Hazardous Substances/Physical State

Papermill sludges are the only wastes deposited at the landfill. Chemical analysis of the sludge indicates the presence of metals and phenols. Metals present include copper, chromium, cadium, iron, nickel, and zinc.

Ref. Nos. 1, pp. 1-1, 1-2, 4-1 to 5.1, R-4 to R-28; 3; 4; 5; 6; 8; 9; 10; 11



(QUAD) PUTNAM MOUNTAIN, N.Y.

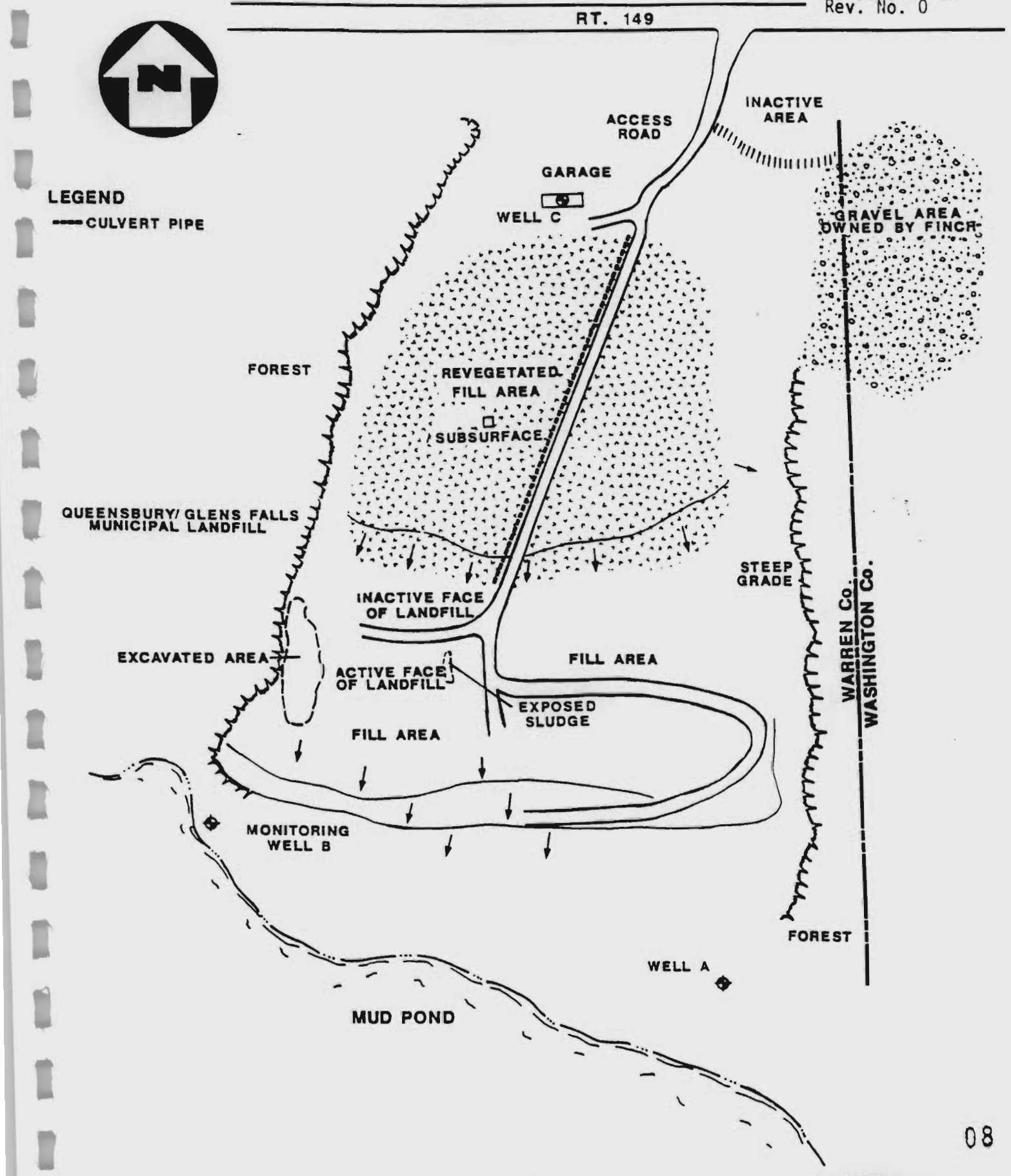
07

FIGURE 1

SITE LOCATION MAP

FINCH PRUYN, QUEENSBURY, N.Y.

NUS CORPORATION



08

SITE MAP

FIGURE 2

FINCH PRUYN, QUEENSBURY, N.Y.

NOT TO SCALE

NUS CORPORATION

PART III: SAMPLING RESULTS

EXISTING ANALYTICAL DATA

Analytical results from sludge samples analyzed by General Testing Corporation in 1977, 1978, and 1979, and by Malcolm Pirnie in 1983, 1984, 1985, and 1986 indicate the presence of metals and phenols. Analytical results from these sludge analyses are summarized in Table 1, and indicate variations in the concentrations of these metals and phenols. Malcolm Pirnie conducted quarterly testing of the three groundwater monitoring wells on site from 1981 to 1986. Groundwater analyses indicates the presence of various metals and phenols.

Table 1
Sludge Analyses
Finch Pruyn, Queensbury, New York

Year	Cadmium	Chromium	Copper	Iron	Nickel	Zinc	Phenol
1977	.84	.63	8.46	150	1.02	14.45	1.43
1978	174	2.98	7.53	274	3.79	17.4	0.46
1979							2.125
1983	<2.0	6.53	19.6	2,177	10.4	47.0	59.4
1984	<1.0	25.4	15.2	6,518	19.0	52.0	10.4
1985	<.5	<2.0	5.3	115	1.7	13.0	4.8
1986	0.73	3.4	14.3	932	2.91	27.7	2.6

Note: All concentrations expressed in micrograms per gram (ug/g)

Ref. Nos. 1, pp. R-4 to R-48; 4; 10

SITE INSPECTION RESULTS

NUS Corporation Region 2 FIT conducted sampling at the Finch Pruyn Site on October 18, 1990. A total of 13 environmental samples were collected. Table 2 presents a summary of the analytical data. Figures 3 and 4 provide a Sample Location Map and an Off-Site Sample Location Map, respectively. Samples were analyzed under the Contract Laboratory Program (CLP) for Target Compound List (TCL) contaminants (excluding cyanide). A complete presentation of the analytical results can be found in Reference Number 33.

Groundwater samples were collected to determine whether a release of contaminants to groundwater has occurred. Surface soil samples and a subsurface soil sample were collected to characterize wastes and soil contamination.

Ref. No. 33

SITE NAME: FINCH PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
FINCH PRUYN SITE, QUEENSBURY, NEW YORK

VOLATILES	NYML-GW1	NYML-GW2	NYML-GW3	NYML-GW4(DUP)	NYML-GW5	NYML-GW5(MS/MSD)	NYML-S1(MS/MSD)	NYML S2	NYML-S3	NYML-S4(DUP)	NYML-S5
Sample ID No.	BFC14	BFC15	BFC16	BFC17	BFC18	BFC19	BFC24	BFC25	BFC26	BFC27	BFC28
Traffic Report No.	WATER	WATER	WATER	WATER	WATER	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
Matrix	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Units	1	1	1	1	1	1	1	5	1	1	1
Dilution Factor	--	--	--	--	--	--	7	68	13	13	16
Percent Moisture											
Chloromethane	R					R		R			
Bromomethane	R					R		R			
Vinyl Chloride	R					R		R			
Chloroethane	R					R		R			
Methylene Chloride	R					R		R			
Acetone	R					R		R		160	250
Carbon Disulfide	R					R		R			8
1,1-Dichloroethene	R					R		R			
1,1-Dichloroethane	R					R		R			
Trans-1,2-Dichloroethene (total)	R					R		R			
Chloroform	R					R		R			
1,2-Dichloroethane	R					R		R			
2-Butanone	R					R		R			
1,1,1-Trichloroethane	R					R		R			
Carbon Tetrachloride	R					R		R			
Vinyl Acetate	R					R		R			
Bromodichloromethane	R					R		R			
1,2-Dichloropropane	R					R		R			
cis-1,3-Dichloropropene	R					R		R			
Trichloroethene	R					R		R			
Dibromochloromethane	R					R		R			
1,1,2-Trichloroethane	R					R		R			
Benzene	R					R		R			
trans-1,3-Dichloropropene	R					R		R			
Bromoform	R					R		R			
4-Methyl-2-Pentanone	R					R		R			
2-Hexanone	R					R		R			
Tetrachloroethene	R					R		R			
Toluene	R					R		R			
1,1,2,2-Tetrachloroethane	R					R		R			
Chlorobenzene	R					R		R			
Ethylbenzene	R					R		R			
Styrene	R					R		R			
Xylenes (Total)	R					R		R			

NOTES:
Blank space - compound analyzed for but not detected
B - compound found in lab blank as well as sample, indicates possible/probable blank contamination
E - estimated value
J - estimated value, compound present below CRQL but above IDL
R - analysis did not pass EPA QA/QC
N - Presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%

SITE NAME: FINCH PRUYN
TDDB: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
FINCH PRUYN SITE, QUEENSBURY, NEW YORK
(cont'd)

SEMI-VOLATILES											
Sample ID No.	NYML-GW1	NYML-GW2	NYML-GW3	NYML-GW4(DUP)	NYML-GW5	NYML-GW6(MS/MSD)	NYML-S1(MS/MSD)	NYML-S2	NYML-S3	NYML-S4(DUP)	NYML-S5
Traffic Report No.	BFC14	BFC15	BFC16	BFC17	BFC18	BFC19	BFC24	BFC25	BFC26	BFC27	BFC28
Matrix	WATER	WATER	WATER	WATER	WATER	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor/GPC Cleanup (Y)	1	1	1	1	1	1	1	1	1	1	1
Percent Moisture	--	--	--	--	--	--	7	68	13	13	16
Pentachlorophenol											
Phenanthrene											
Anthracene											
Di-n-butylphthalate											
Fluoranthene											
Pyrene											
Butylbenzylphthalate											
3,3'-Dichlorobenzidine											
Benzo(a)anthracene											
Chrysene											
bis(2-Ethylhexyl)phthalate											
Di-n-octylphthalate											
Benzo(b)fluoranthene											
Benzo(k)fluoranthene											
Benzo(a)pyrene											
Indeno(1,2,3-cd)pyrene											
Dibenz(a,h)anthracene											
Benzo(g,h,i)perylene											

NOTES:
Blank space - compound analyzed for but not detected
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E - estimated value
J - estimated value, compound present below CRQL but above IDL
R - analysis did not pass EPA QA/QC
N - Presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%

SITE NAME: FINCH PRUYN
TDDB: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
FINCH PRUYN SITE, QUEENSBURY, NEW YORK
(cont'd)

SEMI-VOLATILES	NYML-S6	NYML-S7	NYML-RIN1	NYML-RIN2	NYML-RIN3	NYML-RIN4	NYML-FBLK1
Sample ID No.	BFC29	BFC30	BFC34	BFC35	BFC36	BFC37	BFC38
Traffic Report No.	SOIL	SOIL	WATER	WATER	WATER	WATER	WATER
Matrix	ug/kg	ug/kg	ug/L	ug/L	ug/L	ug/L	ug/L
Units	1	1	1	1	1	1	N/A
Dilution Factor/GPC Cleanup (Y)	16	12	--	--	--	--	N/A
Percent Moisture							
Phenol							NR
bis(2-Chloroethyl)ether							NR
2-Chlorophenol							NR
1,3-Dichlorobenzene							NR
1,4-Dichlorobenzene							NR
Benzyl alcohol							NR
1,2-Dichlorobenzene							NR
2-Methylphenol							NR
bis(2-Chloroisopropyl)ether							NR
4-Methylphenol							NR
N-Nitroso-di-n-dipropylamine							NR
Hexachloroethane							NR
Nitrobenzene							NR
Isophorone							NR
2-Nitrophenol							NR
2,4-Dimethylphenol							NR
Benzoic acid							NR
bis(2-Chloroethoxy)methane							NR
2,4-Dichlorophenol							NR
1,2,4-Trichlorobenzene							NR
Naphthalene							NR
4-Chloroaniline							NR
Hexachlorobutadiene							NR
4-Chloro-3-Methylphenol							NR
2-Methylnaphthalene							NR
Hexachlorocyclopentadiene							NR
2,4,6-Trichlorophenol							NR
2,4,5-Trichlorophenol							NR
2-Chloronaphthalene							NR
2-Nitroaniline							NR
Dimethylphthalate							NR
Acenaphthylene							NR
2,6-Dinitrotoluene							NR
3-Nitroaniline							NR
Acenaphthene							NR
2,4-Dinitrophenol							NR
4-Nitrophenol							NR
Dibenzofuran							NR
2,4-Dinitrotoluene							NR
Diethylphthalate							NR
4-Chlorophenyl-phenyl ether							NR
Fluorene							NR
4-Nitroaniline							NR
4,6-Dinitro-2-methylphenol							NR
N-nitrosodiphenylamine							NR
4-Bromophenyl-phenyl ether							NR
Hexachlorobenzene							NR

SITE NAME: FINCH PRUYN
IDOR: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
FINCH PRUYN SITE, QUEENSBURY, NEW YORK
(cont'd)

SEMI-VOLATILES	NYML-S6	NYML-S7	NYML-RIN1	NYML-RIN2	NYML-RIN3	NYML-RIN4	NYML-BLK1
Sample ID No.	BFC29	BFC30	BFC34	BFC35	BFC36	BFC37	BFC38
Traffic Report No.	SOIL	SOIL	WATER	WATER	WATER	WATER	WATER
Matrix	ug/kg	ug/kg	ug/L	ug/L	ug/L	ug/L	ug/L
Units	1	1	1	1	1	1	N/A
Dilution Factor/GPC Cleanup (Y)	16	12	--	--	--	--	N/A
Percent Moisture							
Pentachlorophenol							NR
Phenanthrene							NR
Anthracene							NR
Di-n-butylphthalate							NR
Fluoranthene							NR
Pyrene							NR
Butylbenzylphthalate							NR
3,3'-Dichlorobenzidine							NR
Benzo(a)anthracene							NR
Chrysene							NR
bis(2-Ethylhexyl)phthalate							NR
Di-n-octylphthalate							NR
Benzo(b)fluoranthene							NR
Benzo(k)fluoranthene							NR
Benzo(a)pyrene							NR
Indeno(1,2,3-cd)pyrene							NR
Dibenz(a,h)anthracene							NR
Benzo(g,h,i)perylene							NR

NOTES:
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J - estimated value, compound present below CRQL but above IDL
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N - Presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%

02-9008-26-SI
Rev. No. 0

SITE NAME: FINCH PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
FINCH PRUYN SITE, QUEENSBURY, NEW YORK
(cont'd)

PESTICIDES											
Sample ID No.	NYML-GW1	NYML-GW2	NYML-GW3	NYML-GW4(DUP)	NYML-GW5	NYML-GW6(MS/MSD)	NYML-S1(MS/MSD)	NYML-S2	NYML-S3	NYML-S4(DUP)	NYML-S5
Traffic Report No.	BFC14	BFC15	BFC16	BFC17	BFC18	BFC19	BFC24	BFC25	BFC26	BFC27	BFC28
Matrix	WATER	WATER	WATER	WATER	WATER	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor/GPC Cleanup (Y)	1	1	1	1	1	1	1	1	1	1	1
Percent Moisture	--	--	--	--	--	--	7	68	13	13	16
alpha-BHC											
beta-BHC											
delta-BHC											
gamma-BHC (Lindane)											
Heptachlor											
Aldrin											
Heptachlor epoxide											
Endosulfan I											
Dieldrin											
4,4'-DDE											
Endrin											
Endosulfan II											
4,4'-DDD											
Endosulfan sulfate											
4,4'-DDT											
Methoxychlor											
Endrin ketone											
alpha-Chlordane											
gamma-Chlordane											
Toxaphene											
Aroclor-1016											
Aroclor-1221											
Aroclor-1232											
Aroclor-1242											
Aroclor-1248											
Aroclor-1254											
Aroclor-1260											

NOTES:
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N - Presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%

SITE NAME: FINCH PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
FINCH PRUYN SITE, QUEENSBURY, NEW YORK
(cont'd)

PESTICIDES	NYML-S6	NYML-S7	NYML-RIN1	NYML-RIN2	NYML-RIN3	NYML-RIN4	NYML-TBLK1
Sample ID No.	BFC29	BFC30	BFC34	BFC35	BFC36	BFC37	BFC38
Traffic Report No.	SOIL	SOIL	WATER	WATER	WATER	WATER	WATER
Matrix	ug/kg	ug/kg	ug/L	ug/L	ug/L	ug/L	ug/L
Units	1	1	1	1	1	1	N/A
Dilution Factor/GPC Cleanup (Y)	16	12	--	--	--	--	N/A
Percent Moisture							
alpha-BHC							NR
beta-BHC							NR
delta-BHC							NR
gamma-BHC (Lindane)							NR
Heptachlor							NR
Aldrin							NR
Heptachlor epoxide							NR
Endosulfan I							NR
Dieldrin							NR
4,4'-DDE							NR
Endrin							NR
Endosulfan II							NR
4,4'-DDD							NR
Endosulfan sulfate							NR
4,4'-DDT							NR
Methoxychlor							NR
Endrin ketone							NR
alpha-Chlordane							NR
gamma-Chlordane							NR
Toxaphene							NR
Aroclor-1016							NR
Aroclor-1221							NR
Aroclor-1232							NR
Aroclor-1242							NR
Aroclor-1248							NR
Aroclor-1254							NR
Aroclor-1260							NR

NOTES:
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B - compound found in lab blank as well as sample, indicates possible/probable blank contamination
E - estimated value
J - estimated value, compound present below CRQL but above IDL
R - analysis did not pass EPA QA/QC
N - Presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%

SITE NAME: FINCH PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130
LAB NAME: SKINNER & SHERMAN

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
FINCH PRUYN SITE, QUEENSBURY, NEW YORK
(cont'd)

INORGANICS	NYML-GW1	NYML-GW2	NYML-GW3	NYML-GW4(DUP)	NYML-GW5	NYML-GW6(MS/MSD)	NYML-S1(MS/MSD)	NYML-S2	NYML-S3	NYML-S4(DUP)	NYML-S5
Sample ID No.	MBDH66	MBDH67	MBDH81	MBDH82	MBDH83	MBDH84	MBDH89	MBDH90	MBDH91	MBDH92	MBDH93
Traffic Report No.											
Matrix	WATER	WATER	WATER	WATER	WATER	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aluminum	J	62700	6930	8790			3130	3440 E	3400	3600	3360
Antimony											
Arsenic		11.6	J	J		J	2.7	J	J	J	2.3
Barium	J	394 E	J	J		J	48	J	J	J	J
Beryllium		J	J	J							
Cadmium											
Calcium	47000	406000	108000	115000	J	60600	61500	36500 E	49600	59700	49000
Chromium	J	232	28.3 E	18.8 E			4	10.9 E	5.4	4.2	5
Cobalt		60.5	J	J			J		J	27.7 E	J
Copper	48	174	32.4	32.1	J	J	8.7 E	21.1 E	7 E	14.7 E	5.4
Iron	J	129000 E	18200 E	19700 E	600 E	2190 E	7890	3450 E	9610	7890	8610
Lead	J	74.4	14.7 E	17.6 E	4.2 E	J	6.1 E	5.9 E	R	R	R
Magnesium	17100	144000	25300	28500	J	23800	17100	J	13300	20300	12000
Manganese	J	R	R	R	J	R	R	R	R	R	R
Mercury					0.44						
Nickel		132	52.8	58.4	J		J	J	J	28.3 E	J
Potassium	J	10200	J	J	J	J	J	J	J	J	J
Selenium											
Silver											
Sodium	J	7860 E	J	J	180000 E	6230 E	J	J	J	J	J
Thallium											
Vanadium		128	J	J			J	J	J	J	J
Zinc	R	R	R	R	R	R	R	R	R	R	R

NOTES:
Blank space - compound analyzed for but not detected
E - estimated value
J - estimated value, compound present below CRDL but above IDL
R - analysis did not pass EPA QA/QC
NR - analysis not required

SITE NAME: FINCH PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130
LAB NAME: SKINNER & SHERMAN

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
FINCH PRUYN SITE, QUEENSBURY, NEW YORK
(cont'd)

INORGANICS	MYNL-S6	MYNL-S7	MYNL-RIN1	MYNL-RIN2	MYNL-RIN3	MYNL-RIN4	MYNL-TBLK1
Sample ID No.	MBDH94	MBDH95	MBDH99	MBDW01	MBDW02	MBDD17	N/A
Traffic Report No.	SOIL	SOIL	WATER	WATER	WATER	WATER	N/A
Matrix	mg/kg	mg/kg	ug/L	ug/L	ug/L	ug/L	ug/L
Units							
Aluminum	9130	3670	J				NR
Antimony							NR
Arsenic	3.5	2.4					NR
Barium	108	J					NR
Beryllium							NR
Cadmium							NR
Calcium	1710	24900	J	J	J	J	NR
Chromium	13.6	5.6					NR
Cobalt	J	J					NR
Copper	5.8	6.6 E				J	NR
Iron	13800	9280					NR
Lead	R	R	3.2 E	J			NR
Magnesium	1820	9420					NR
Manganese	R	R	J	J	J	J	NR
Mercury							NR
Nickel	11.7	J				J	NR
Potassium	J	J					NR
Selenium	R	J				J	NR
Silver							NR
Sodium	J	J					NR
Thallium							NR
Vanadium	19.1 E	J					NR
Zinc	R	R	R	R	R	R	NR

NOTES:
Blank space - compound analyzed for but not detected
E - estimated value
J - estimated value, compound present below CRDL but above IDL
R - analysis did not pass EPA QA/QC
NR - analysis not required

02-9008-26-S
Rev. No. 0

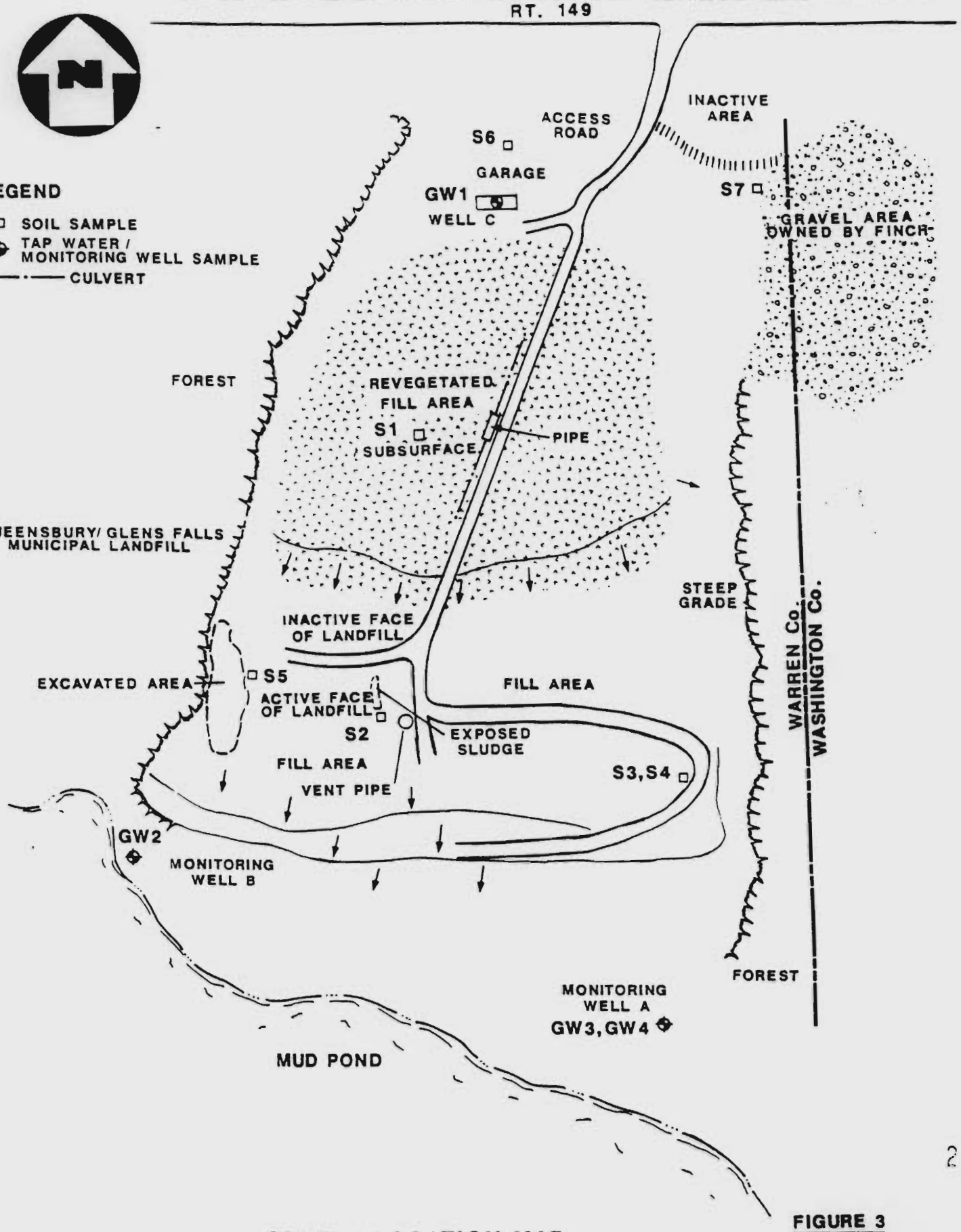


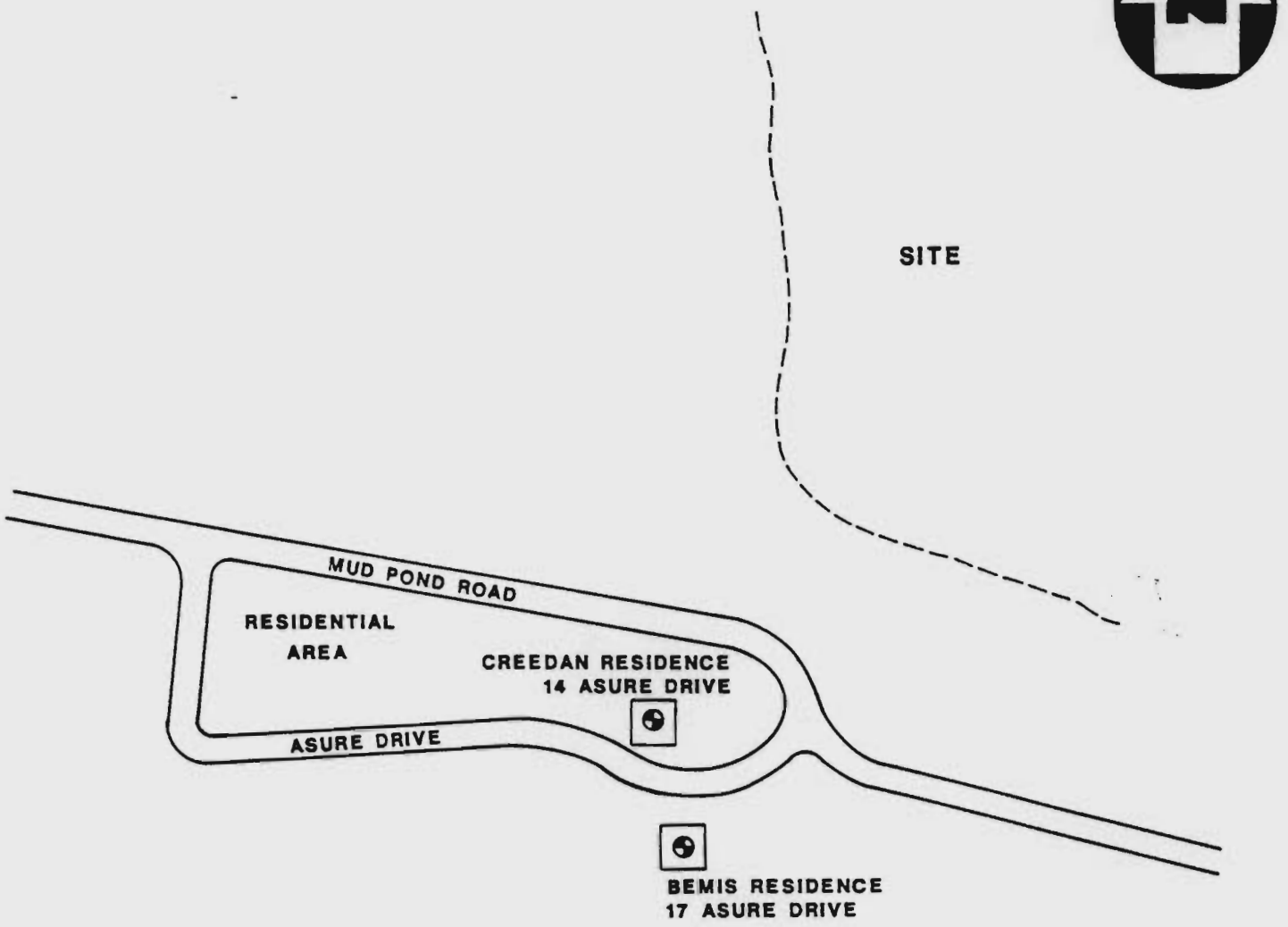
FIGURE 3

SAMPLE LOCATION MAP

FINCH PRUYN, QUEENSBURY, N.Y.

NOT TO SCALE

NUS CORPORATION



LEGEND

TAP WATER SAMPLE

OFF-SITE SAMPLE LOCATION MAP

FINCH PRUYN, QUEENSBURY, N.Y.

NOT TO SCALE

FIGURE 4

NUS CORPORATION

PART IV: HAZARD ASSESSMENT

GROUNDWATER ROUTE

1. **Describe the likelihood of a release of contaminant(s) to the groundwater as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For observed release, define the supporting analytical evidence.**

Analytical results of groundwater samples collected by NUS Corporation Region 2 FIT on October 18, 1990 indicate a release of metals to the groundwater. Groundwater samples were collected from three monitoring wells on site:

- Monitoring well MW-C (GW1) - upgradient
- Monitoring well MW-B (GW2) - downgradient
- Monitoring well MW-A (GW3)- downgradient

Analytical results indicate the presence of aluminum (62,700 micrograms per liter [ug/L]), arsenic (11.6 ug/L), barium (394 ug/L - estimated), chromium (232 ug/L), cobalt (68.5 ug/L), copper (174 ug/L), iron (129,000 ug/L - estimated), lead (74.4 ug/L), nickel (132 ug/L), and vanadium (128 ug/L) in the downgradient wells. These metals were not detected or were detected below contract required detection limits in the upgradient well with the exception of copper which was detected at 48 ug/L. Sludge sample analytical results indicate the presence of iron, cadmium, chromium, nickel, and copper at varying concentrations.

Analytical results from the January 6, 1981 groundwater monitoring also indicated a release of phenol to the groundwater. Phenol was detected at a concentration of $<.005$ milligrams per liter (mg/L) in the upgradient well and at a concentration of .052 mg/L in the downgradient well. Iron, lead, and cadmium were also detected at higher concentrations in the downgradient wells.

Ref. Nos. 1, pp. R-4 to R-28; 4; 10; 33

2. **Describe the aquifer of concern; include information such as depth, thickness, geologic composition, areas of karst terrain, permeability, overlying strata, confining layers, interconnections, discontinuities, depth to water table, groundwater flow direction.**

The surficial soil surrounding the site is characterized by Hinckley Cobbey group soils. These soils are deep, well- to excessively-drained, acid cobbly soils. Well logs from the groundwater wells drilled on site indicate the site is underlain by brown to gray, fine- to coarse-grained sand and gravel, and boulders. The aquifer of concern for this area is the unconsolidated glacial deposits composed of sand and gravel, and is under unconfined conditions. Bedrock was not encountered while drilling; therefore, the actual thickness of this deposit is unknown. The well logs indicate the thickness of this deposit to be in excess of 228 feet on the northern portion of the site and in excess of 80 feet in the southern portion. The water table at the site ranges in depth below the surface from approximately 10 feet in the south to 178 feet in the north. The northern portion of the site is at a significantly higher elevation than the southern portion. The general groundwater flow direction is south across the site to Mud Pond.

Ref. Nos. 1, p. 4-2; 32

3. **Is a designated well head protection area within 4 miles of the site?**

A well head protection area has not been designated within 4 miles of the site.

Ref. No. 16

4. **What is the depth from the lowest point of waste disposal/storage to the highest seasonal level of the saturated zone of the aquifer of concern?**

Depth to groundwater varies between approximately 178 feet in the northern portion of site and 10 feet in the southern portion. The actual depth of the sludge is unknown; however, the landfill is reportedly designed to provide a 60 foot separation between sludge deposited and groundwater.

Ref. No. 1, pp. 4-2, R-36

5. **What is the permeability value of the least permeable continuous intervening stratum between the ground surface and the aquifer of concern?**

Well logs indicate the site is underlain predominantly with sand and gravel. The permeability value associated with this material is greater than 10^{-3} cm/sec.

Ref. Nos. 1, p.4-2; 25

6. **What is the net precipitation for the area?**

The net precipitation in this area is approximately 16 inches.

Ref. No. 35

7. **What is the distance to and depth of the nearest well that is currently used for drinking purposes?**

The nearest potable well that is currently in use is located on site in the landfill office building. The depth of this well is 285 feet.

Ref. Nos. 1, p.4-2; 31

8. **If a release to groundwater is observed or suspected, determine the number of people that obtain drinking water from wells that are documented or suspected to be located within the contamination boundary of the release.**

Analytical results indicate a release of contaminants to groundwater at the site. Two off-site groundwater samples were collected from private residences approximately 1,500 feet downgradient of the site. Analytical results from these samples do not indicate the presence of contaminants attributable to the site. The on-site well used for drinking is upgradient of the landfill. Analytical results from the sample collected from this well did not indicate the presence of contaminants attributable to the site. Based on these results, there is no population suspected of being within the contamination boundary.

Ref. Nos. 12, 33

9. **Identify the population served by wells located within 4 miles of the site that draw from the aquifer of concern.**

Distance	Population
0 - ¼ mi	11
>¼ - ½ mi	23
>½ - 1 mi	70
>1 - 2 mi	865
>2 - 3 mi	3,699
>3 - 4 mi	1,279

The population within 4 miles of the site is predominantly served by private wells with the exception of the town of Fort Ann which is served by two public supply wells which are located approximately 3 to 4 miles east of the site; the population served by these wells is 550.

Ref. Nos. 13, 14, 15, 17, 18, 19

10. **Identify uses of groundwater within 4 miles of the site (i.e. private drinking source, municipal source, commercial, irrigation, unuseable).**

Groundwater within 4 miles of the site is used as private and municipal drinking water sources.

Ref. Nos. 1, 14, 15, 17, 18, 19

SURFACE WATER ROUTE

11. **Describe the likelihood of a release of contaminant(s) to surface water as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For observed release, define the supporting analytical evidence.**

There is a potential for a release of contaminants to surface water. Surface runoff from the site is in a southerly direction towards Mud Pond which is approximately 400 feet south of wastes deposited on the landfill. Most surface runoff will most likely infiltrate the highly permeable soils at the site prior to reaching Mud Pond. There were no defined runoff paths from the site to Mud Pond observed during site inspection acitivities. The site also reportedly has a gravel filled drainage system in the southern portion of the site to prevent runoff from the site from discharging directly to Mud Pond. An EPA Site Investigation Report dated August 7, 1986 reported that a citizens complaint letter dated October 16, 1979 referred to sludge leaking into Mud Pond. No sludge was observed to be leaking into Mud Pond at the time of the NUS site inspection. The likelihood of a release from the site to surface water would most probably be from the discharge of contaminated groundwater to Mud Pond.

Ref. Nos. 1, pp. 4-1 to 4-4; 8; 31, pp. 13, 22; 33

12. **Identify the nearest downslope surface water. If possible, include a description of possible surface drainage patterns from the site.**

The site is approximately 400 feet north of Mud Pond. Surface runoff from the site is in a southerly direction; however, it is most likely intercepted by highly permeable soils and a gravel-filled drainage system installed to prevent surface runoff from entering Mud Pond.

Water from Mud Pond flows south into a tributary of Halfway Creek which flows in an easterly direction into the Champlain Barge Canal. This surface water pathway is shown in Figure 5.

Ref. Nos. 1, p. 4-1; 12

13. **What is the distance to the nearest downslope surface water? Measure the distance along a course that runoff can be expected to follow.**

The site is approximately 400 feet north of Mud Pond.

Ref. No. 12

14. **Determine the floodplain that the site is located within.**

The site is located above Mud Pond, and is on an area of minimal flooding.

Ref. No. 23

15. **What is the 2-year 24-hour rainfall?**

The 2-year 24-hour rainfall is approximately 5 inches.

Ref. No. 34

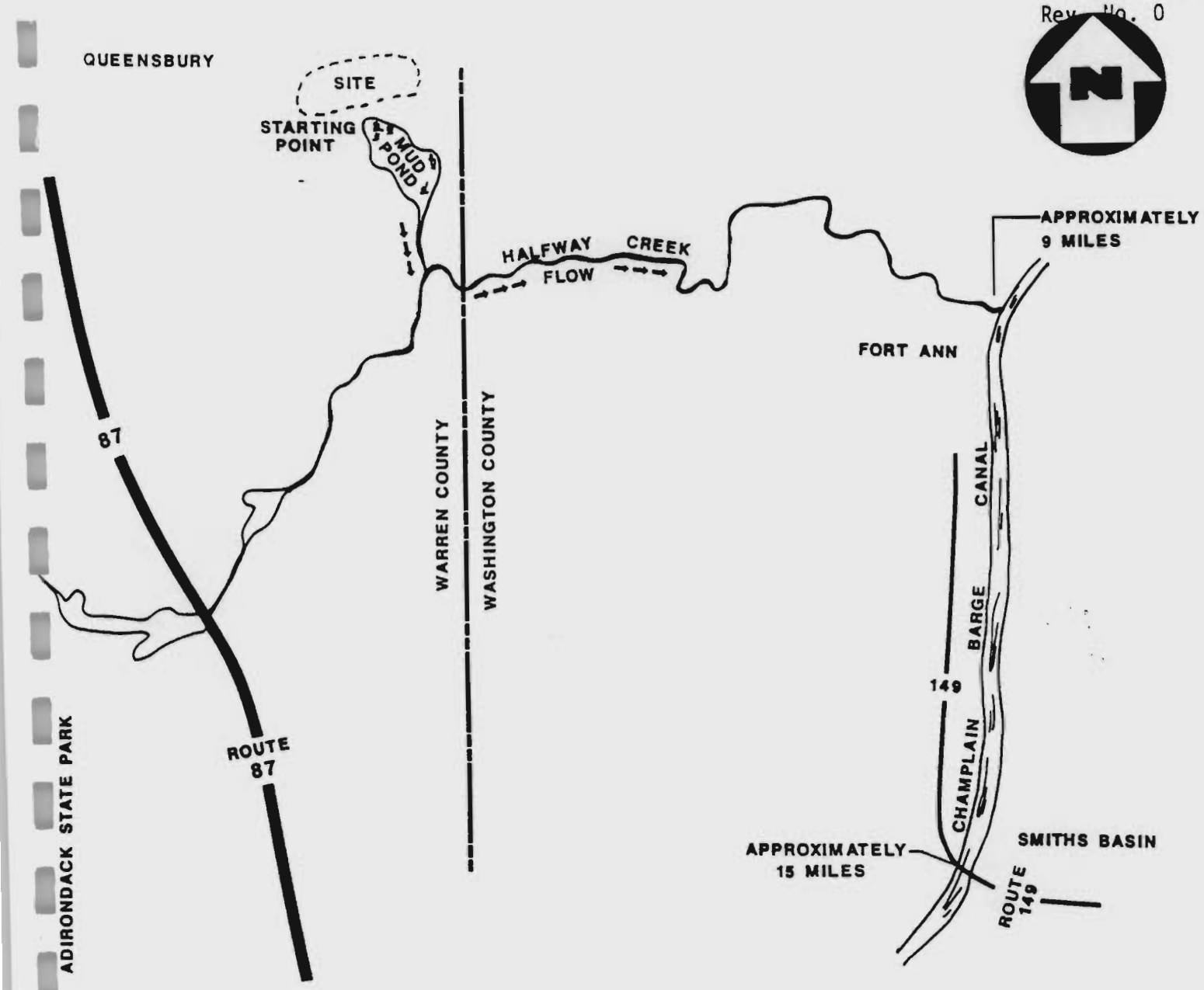


FIGURE 5

SURFACE WATER PATHWAY

FINCH PRUYN, QUEENSBURY, N.Y.

(NOT TO SCALE)

NUS CORPORATION

16. **Identify drinking water intakes in surface waters within 15 miles downstream of the site. For each intake identify: the distance from the point of surface water entry, population served, and stream flow at the intake location.**

There are no surface water intakes within 15 miles downstream of the site used for drinking or irrigation purposes.

Ref. Nos. 20, 21, 22

17. **Identify fisheries that exist within 15 miles downstream of the point of surface water entry. For each fishery specify the following information:**

Fishery	Water Body Type	Flow (cfs)
Halfway Creek	Small to Moderate Stream	20-30
Champlain Barge Canal	Canal	Unknown

Ref. Nos. 20, 21, 22, 24

18. **Identify sensitive environments that exist within 15 miles of the point of surface water entry. For each sensitive environment specify the following:**

Environment	Water Body Type	Flow (cfs)
Deep Water Marsh	Pond	0

Mud Pond is considered a deep water marsh as it is relatively shallow and vegetated throughout. Deciduous swamps also fringe the pond and its outlet stream. Halfway Creek also has floodplain wetlands.

Ref. Nos. 1, p. R-65; 12

19. **If a release to surface water is observed or suspected, identify any intakes, fisheries, and sensitive environments from question Nos. 16-18 that are or may be located within the contamination boundary of the release.**

Intake	Fishery	Environment
None	Halfway Creek	Deep Water Marsh (Mud Pond)

A release to Mud Pond is suspected via discharge of contaminated groundwater.

Ref. Nos. 1, p. R-65; 8; 12; 33

SOIL EXPOSURE PATHWAY

20. **Determine the number of people that occupy residences or attend school or day care on or within 200 feet of the site property.**

There are no people that occupy residences or attend school or day care on or within 200 feet of the site property.

Ref. No. 31, p. 10

21. **Determine the number of people that work on or within 200 feet of the site property.**

Approximately 10 people work on the site property.

Ref. No. 31, p. 10

22. **Identify terrestrial sensitive environments on or within 200 feet of the site property.**

There are no known terrestrial sensitive environments on or within 200 feet of the site property. The site is located within the southern boundary of the Adirondack State Park.

Ref. Nos. 12, 26

AIR ROUTE

23. **Describe the likelihood of release of contaminants to air as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For observed release define the supporting analytical evidence.**

There is no potential for a release of contaminants to the air. No readings above background were detected in the ambient air on the Organic Vapor Analyzer (OVA) or the HNu photoionization detector, prior to the opening of the monitoring wells or the disturbance of the surface soil during the sampling site inspection conducted by NUS Corporation Region 2 FIT on October 18, 1990. Readings were observed on the OVA after the monitoring wells (1-400 ppm) were opened and at one sampling location where the soil (100-150 ppm) was disturbed.

There have been no known documented incidents of a release of contaminants to the air.

Ref. Nos. 1, 31

24. **Determine populations that reside within 4 miles of the site.**

Distance	Population
0 - ¼ mi	11
> ¼ - ½ mi	23
> ½ - 1 mi	70
> 1 - 2 mi	865
> 2 - 3 mi	3,699
> 3 - 4 mi	1,279

Ref. No. 13

25. **Identify sensitive environments and wetlands acreage within ½ mile of the site.**

Sensitive Environment Type	Distance
Deep Water Marsh	400 Feet

Ref. Nos. 1 p. R-65; 12

26. **If a release to air is observed or suspected, determine the number of people that reside or are suspected to reside within the area of air contamination from the release.**

A release of contaminants to air is not suspected.

Ref. Nos. 1, 31

27. **If a release to air is observed or suspected, identify any sensitive environments, listed in question No. 25, that are or may be located within the area of air contamination from the release.**

A release of contaminants to air is not suspected.

Ref. Nos. 1, 31

ATTACHMENT 1

EXHIBIT A

PHOTOGRAPH LOG

FINCH PRUYN
QUEENSBURY, NEW YORK

SITE INSPECION: OCTOBER 16, 1990

FINCH PRUYN
QUEENSBURY, NEW YORK
OCTOBER 18, 1990

PHOTOGRAPH INDEX

ALL PHOTOGRAPHS WERE TAKEN BY DAVE GRUPP AND ED KNYFD

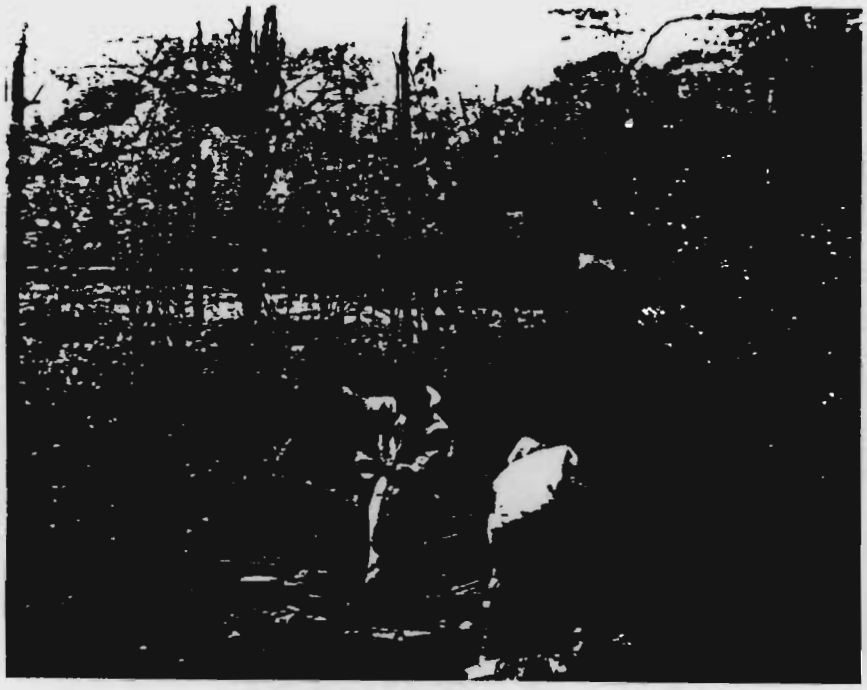
Photo Number	Description	Time
1P-1	Monitoring Well A location. Viewing south towards Mud Pond.	1149
1P-2	Bob Cantagallo and Dennis Foerter collecting groundwater samples NYML-GW3 and duplicate NYML-GW4.	1200
1P-3	Photograph of Monitoring Well B location.	1245
1P-4	Photograph of Bob Cantagallo and Dennis Foerter collecting NYML-GW2.	1415
1P-5	Bob Cantagallo collecting NYML-GW1 sample from kitchen tap in landfill office.	1515
1P-7	Ed Knyfd collecting tap water sample from downgradient private well (Bemis House).	1630
1P-8	Ed Knyfd collecting tap water sample from downgradient private well (Creeden Residence).	1708
2P-1	Tim Beauregard collecting subsurface soil sample NYML-S1.	1125
2P-2	Tim Beauregard collecting surface soil sample NYML-S2.	1210
2P-3	Tim Beauregard collecting duplicate soil samples NYML-S3 and NYML-S4.	1245
2P-4	Photograph looking northeast along access road at location of soil samples NYML-S3 and NYML-S4 collected from leachate in drainage ditch.	1250
2P-5	Photograph looking north at leachate in drainage ditch by sample locations NYML-S3 and NYML-S4.	1305
2P-6	Photograph looking southwest at drainpipe opening, directing leachate southeast under access road.	1305
2P-7	Photograph looking north at drainpipe opening on southeast side of access road which directs leachate into drainage ditch.	1310
2P-8	Photograph looking southeast at boulder lined drainage ditch on southeast side of access road.	1310
2P-9,10,11	Tim Beauregard compositing sample NYML-S5 from three leachate streams.	1355

FINCH PRUYN
QUEENSBURY, NEW YORK
OCTOBER 18, 1990

PHOTOGRAPH INDEX
(cont'd)

Photo Number	Description	Time
2P-12	Tim Beauregard collecting composited soil sample NYML-S5 composited from three leachate streams.	1405
2P-13	Photograph looking south at slope of landfill and leachate near sample location NYML-S5.	1415
2P-14	Photograph looking southwest and across the access road from sample location NYML-S5 at installation of two monitoring wells.	1415
2P-15	Tim Beauregard collecting soil sample NYML-S6.	1445
1P-6	Ed Knyfd, Tim Beauregard and Dennis Foerter at NYML-S7 soil location.	1527
2P-16	Tim Beauregard collecting soil sample NYML-S7.	1530
2P-17	Photograph of bubbling leachate in a drainage ditch located along the southern slope of the northern portion of the landfill.	1545
2P-13	Photograph looking east along the drainage ditch showing leachate streams from the south facing landfill slope; located approximately 500 feet east of the landfill office.	1550
2P-19	Photograph looking west along the drainage ditch showing leachate streams from the south facing landfill slope; located approximately 500 feet east of the landfill office.	1550

FINCH PRUYN, QUEENSBURY, NEW YORK



1P-1 October 18, 1990 1149
Monitoring Well A location. Viewing south towards Mud Pond.



1P-2 October 18, 1990 1200
Bob Cantagallo and Dennis Foerter collecting groundwater samples NYML-S3 and duplicate NYML-S4.
Photographs taken by Dave Crupp.

FINCH PRUYN, QUEENSBURY, NEW YORK



1P-3

October 18, 1990 1245
Photograph of Monitoring Well B location.



1P-4

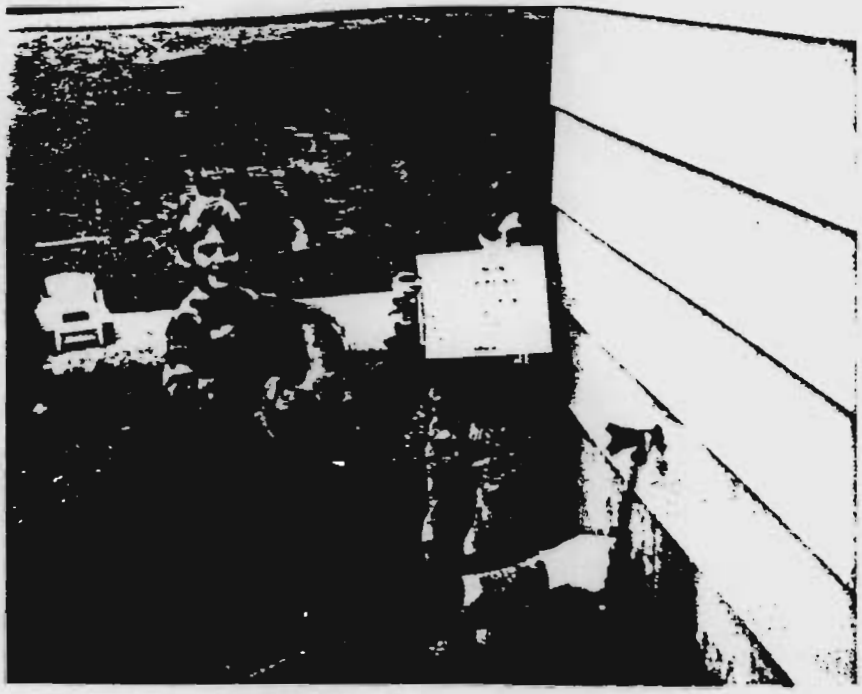
October 18, 1990 1415
Photograph of Bob Cantagallo and Dennis Foerter collecting NYML-S2.

Photographs taken by Dave Grupp.



1P-5 October 18, 1990 1515
Bob Cantagallo collecting NYML-GW1 sample from kitchen tap in landfill office.

Photograph taken by Dave Grupp.



1P-7

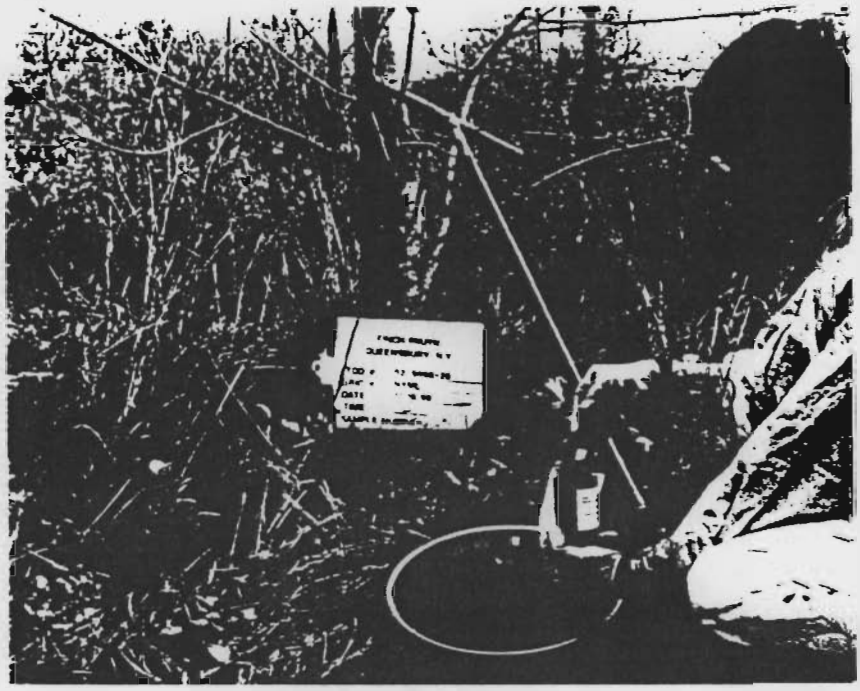
October 18, 1990 1630
Ed Knyfd collecting tap water sample from downgradient private well (Bemis House).



1P-8

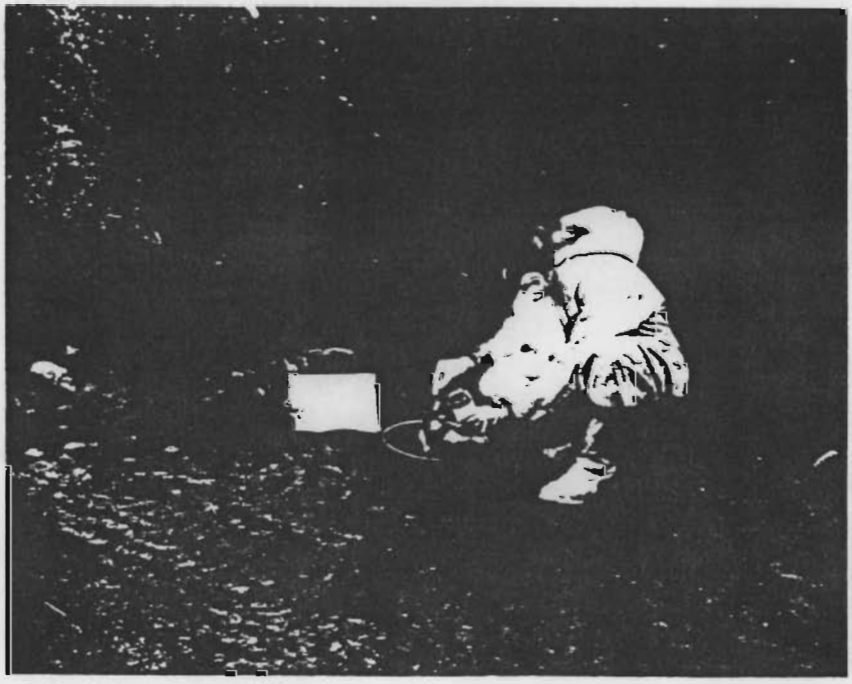
October 18, 1990 1708
Ed Knyfd collecting tap water sample from downgradient private well (Creeden Residence).
Photographs taken by Dave Grupp.

FINCH PRUYN, QUEENSBURY, NEW YORK



2P-1

October 18, 1990 1125
Tim Beauregard collecting subsurface soil sample NYML-S1.



2P-2

October 18, 1990 1210
Tim Beauregard collecting surface soil sample NYML-S2.

Photographs taken by Ed Knyfd.

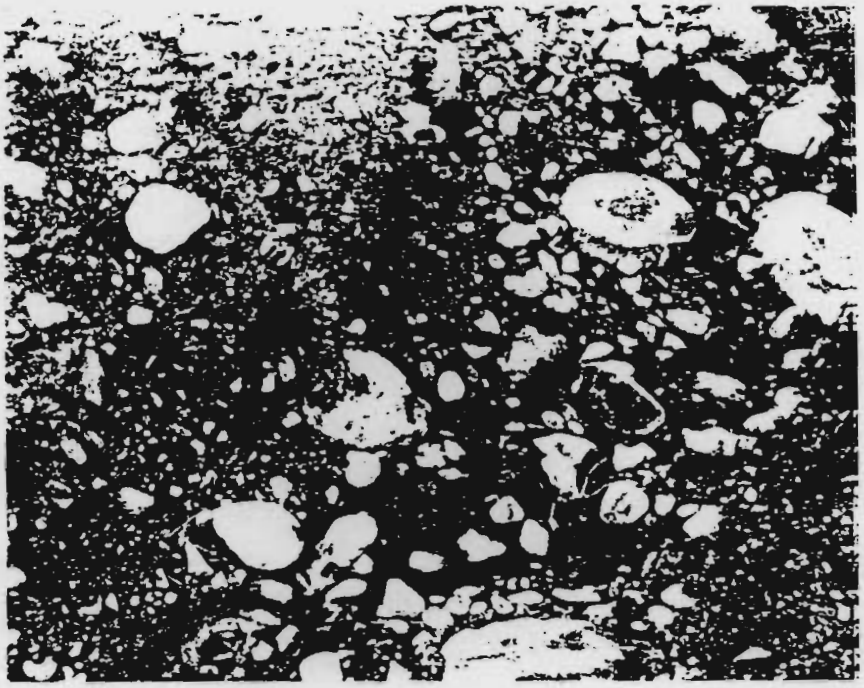


2P-3 October 18, 1990 1245
Tim Beauregard collecting duplicate soil samples NYML-S3 and NYML-S4.

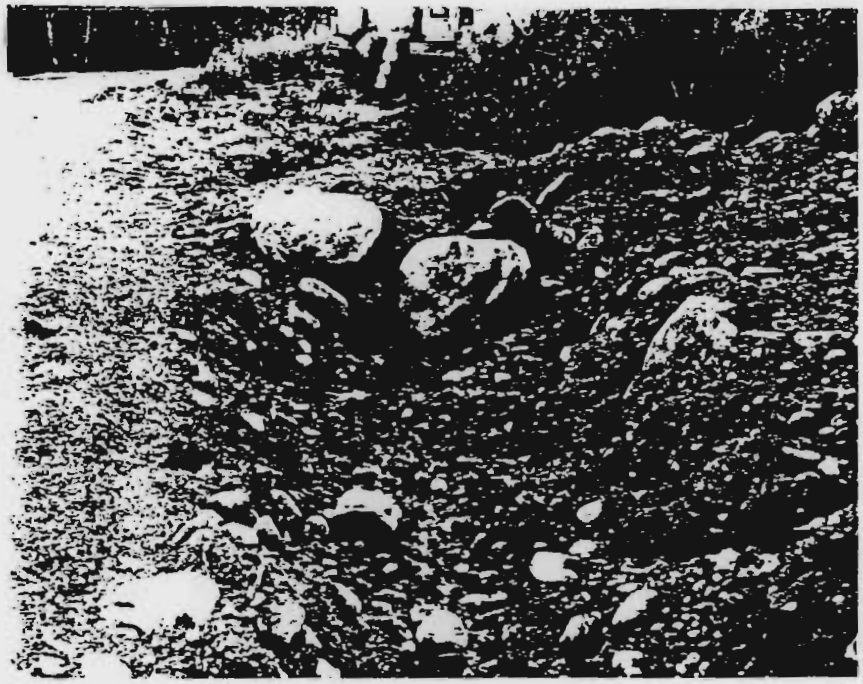


2P-4 October 18, 1990 1250
Photograph looking northeast along access road at location of soil samples NYML-S3 and NYML-S4 collected from leachate in drainage ditch.
Photographs taken by Ed Knyfd.

FINCH PRUYN, QUEENSBURY, NEW YORK



2P-5 October 18, 1990 1305
Photograph looking north at leachate in drainage ditch by sample locations NYML-S3 and NYML-S4.



2P-6 October 18, 1990 1305
Photograph looking southwest at drainpipe opening, directing leachate southeast under access road.
Photographs taken by Ed Knyfd.



2P-7 October 18, 1990 1310
Photograph looking north at drainpipe opening on southeast side of access road which directs leachate into drainage ditch.



2P-8 October 18, 1990 1310
Photograph looking southeast at boulder lined drainage ditch on southeast side of access road.
Photographs taken by Ed Knyfd.



2P-9 October 18, 1990 1355
Tim Beauregard compositing sample NYML-S5 from three leachate streams.

Photograph taken by Ed Knyfd.



2P-10 October 18, 1990 1355
Tim Beauregard compositing sample NYML-S5 from three leachate streams.

Photograph taken by Ed Knyfd.



1P-6 October 18, 1990 1527
Ed Knyfd, Tim Beauregard and Dennis Foerter at NYML-S7 soil location.

Photograph taken by Dave Grupp.

FINCH PRUYN, QUEENSBURY, NEW YORK



2P-14

October 18, 1990 1415
Photograph looking southwest and across the access road from sample location NYML-S5 at installation of two monitoring wells.

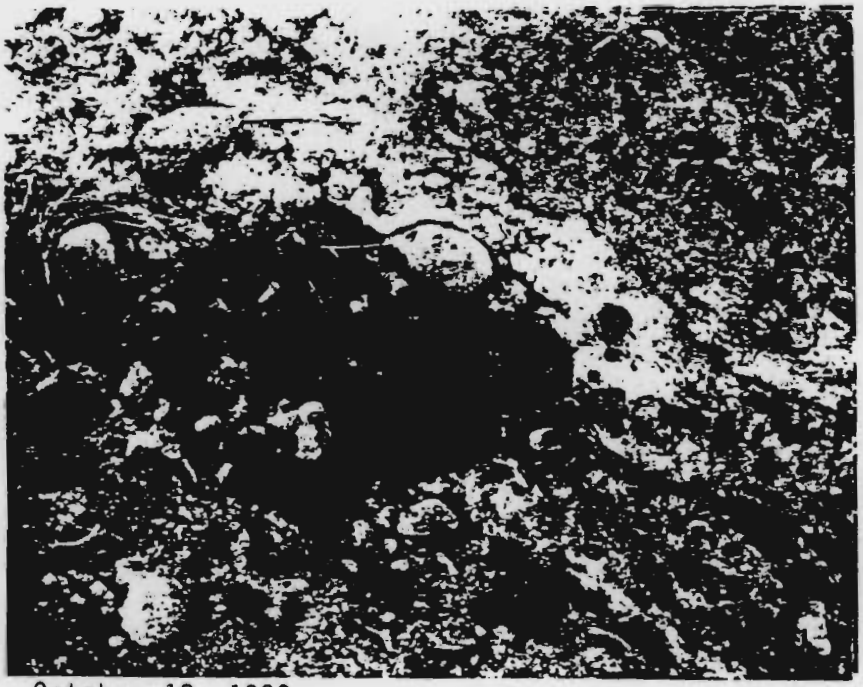


2P-15

October 18, 1990 1445
Tim Beauregard collecting soil sample NYML-S6.
Photographs taken by Ed Knyfd.



2P-16 October 18, 1990 1530
Tim Beauregard collecting soil sample NYML-S7.



2P-17 October 18, 1990 1545
Photograph of bubbling leachate in a drainage ditch located along the southern slope of the northern portion of the landfill.
Photographs taken by Ed Knyfd.

FINCH PRUYN, QUEENSBURY, NEW YORK



2P-18 October 18, 1990 1550
Photograph looking east along the drainage ditch showing leachate streams from the south facing landfill slope; located approximately 500 feet east of the landfill office.



2P-19 October 18, 1990 1550
Photograph looking west along the drainage ditch showing leachate streams from the south facing landfill slope; located approximately 500 feet east of the landfill office.
Photographs taken by Ed Knyfd.

ATTACHMENT 2

REFERENCES

1. New York State Department of Environmental Conservation (NYSDEC), Engineering Investigations at Inactive Hazardous Waste Sites in the State of New York, Phase I Investigations, Finch Pruyn and Company, prepared by Wehran Engineering, P.C., January 1987.

2. Memorandum from Carl Hoffman, Bureau of Hazardous Site Control to Bud Colden, Region 5 (both of NYSDEC), Subject: Finch, Pruyn and Company, December 31, 1986.

3. Division of Solid and Hazardous Waste, NYSDEC, Potential Hazardous Waste Site, Site Inspection Summary Report, prepared by Daniel L. Steenberge, P.E., November 21, 1986.

4. Letter from Roger S. Hague, Vice President and Secretary, Finch, Pruyn and Company, Inc., to William Colden, P.C., NYSDEC, August 22, 1986.

5. Memorandum from RGN, to RSH (both of Finch Pruyn), Subject: Operating Procedure 1985, 1986 Land Reclamation Site, July 25, 1986.

6. Hazardous Waste Site Investigation, Finch Pruyn, Land Reclamation, Queensbury, New York, Prepared by Edward L. Moore, P.E., Sr. Geotechnical Engineer, Fred C. Hart Associates, Inc., February 6, 1981.

7. Letter from George K. Hansen, P.E., Chief, P.D.E.S. Permit Section, Division of Water, NYSDEC to Roger S. Hague, Secretary, Finch Pruyn and Company, Inc., February 6, 1981. Re: Modification of Pollutant Discharge Elimination System Permit.

8. Record of Communication from Edward L. Moore, Sr. Geotechnical Engineer, Fred C. Hart Associates, to Dr. Richard Spear, U.S. Environmental Protection Agency, January 12, 1981.

9. Hazardous Waste Site Dossier, Finch Pruyn, Land Reclamation Area, prepared by Ernie Schmalz, May 21, 1980.

10. Laboratory Report, General Testing Corporation, sludge and groundwater analysis, Finch, Pruyn and Co., July 2, 1979 and September 17, 1979.

11. U.S. Environmental Protection Agency, Potential Hazardous Waste Site, Identification and Preliminary Assessment, Finch Pruyn, Land Reclamation Area, prepared by Ernest Schmalz, May 1, 1980.

12. Three-Mile Vicinity Map for Finch Pruyn, based on U.S. Department of the Interior, Geological Survey Maps, 7.5 minute series "Putnam Mountain, N.Y. Quadrangle", 1966, "Glens Falls, N.Y. Quadrangle", 1966, "Hudson Falls, N.Y., Quadrangle", 1966, and "Lake George, N.Y. Quadrangle", 1966.

13. Project Note to Finch Pruyn File, from Susan Anderson, NUS Corporation, March 11, 1991. Subject: Population Count.

14. New York State Atlas of Community Water System Sources, NYS Department of Health, Division on Environmental Protection, Bureau of Public Water Supply Protection, 1982.

15. Selected information from wells in groundwater site inventory data base, Water Resources Division, USGS, Request 1186, October 2, 1990.

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16. Telecon Notes: Conversations between David Florin, NUS Corporation FIT 2, Edison, NJ, and Kevin Roberts, Water Quality, NYSDEC, Central Office; Dore LaPosta, Acting Chief, Groundwater Management, U. S. EPA, Region 2, November 6, 1990.

17. Telecon Note: Conversation between Ralph VanDussen, Queensbury Town Water Department, and T.J. Mulder, NUS Corporation FIT 2, Edison, NJ, October 19, 1990.

18. Telecon Note: Conversation between Richard Foran, Village of Fort Ann, and Susan Anderson, NUS Corporation FIT 2, Edison, NJ, January 3, 1991.

19. Telecon Note: Conversation between Ms. Lafay, Kingsbury Tax Assessors Office, and Susan Anderson, NUS Corporation FIT 2, Edison, NJ, January 7, 1991.

20. Telecon Note: Conversation between Terry Crannell, NYSDEC, Warrensburg Office, and Susan Anderson, NUS Corporation FIT 2, Edison, NJ, January 4, 1991.

21. Telecon Note: Conversation between Don Machell, New York State Department of Health, and Susan Anderson, NUS Corporation FIT 2, Edison, NJ, January 4, 1991.

22. Telecon Note: Conversation between Mary Touart, New York State Department of Transportation, Canal Division, and Susan Anderson, NUS Corporation FIT 2, Edison, New Jersey, January 14, 1991.

23. National Flood Insurance Program, Flood Insurance Rate Map, Town of Queensbury, New York. Warren County, Community-Panel Number 360879 0020B, Panel 20 of 35. Effective date: July 16, 1984.

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28. Telecon Note: Conversation Between Bob Swinborne, Warren County Tax Assessor, and Lois Adams, NUS Corporation 2 FIT, Edison, NJ, September 28, 1990.

29. New York State Board of Elections, New York State Legislative Task Force on Demographic Research and Reapportionment, New York Congressional Districts, 1984.

30. U.S. EPA Superfund Program, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), p. 263, August 9, 1990.

31. Field Notebooks Nos. 0646 and 0665, Finch Pruyn, TDD 02-9008-26, On-Site Reconnaissance, and Site Inspection, NUS Corp. Region 2 FIT, Edison, N.J., September 18, 1990 and October 18, 1990.

REFERENCES (CONTD)

32. State of New York, Department of Conservation, Water Power and Control Commission, The Groundwater Resources of Washington County, New York, prepared by U.S. Geological Society, Bulletin GW-33, 1953.

33. U.S. EPA Contract Laboratory Program, Anametrix, Inc. (organics) and Skinner & Sherman, Inc. (inorganics), Case No. 15130, Laboratory analysis from NUS Corporation Region 2 FIT Site Inspection conducted on October 18, 1990.

34. Rainfall Frequency Atlas of the United States, U.S. Department of Commerce, U.S. Government Printing Office, Washington, D.C..

35. Letter from Andrew M. Platt, Group Leader, Hazardous Waste Systems, The Mitre Corporation, to Ms. Lucy Sibold, U.S. Environmental Protection Agency, May 26, 1988. Subject: Revised HRS Net Precipitation.

REFERENCE NO. 1

EPA

needs rev.

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES IN THE STATE OF NEW YORK
PHASE I INVESTIGATIONS

FILE COPY

FINCH PRUYN AND COMPANY
QUEENSBURY, WARREN COUNTY, NEW YORK
Site Code: 557002

COMPLETED

JANUARY 1987



Prepared for:

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD, ALBANY, NEW YORK 12233
HENRY G. WILLIAMS, COMMISSIONER

Division of Solid and Hazardous Waste
NORMAN H. NOSENCHUCK, P.E. DIRECTOR

WEHRAN ENGINEERING, P.C.
Middletown & Grand Island, New York

53

ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES IN THE STATE OF NEW YORK PHASE I INVESTIGATIONS

FINCH PRUYN AND CO.
TOWN OF QUEENSBURY, WARREN COUNTY, NEW YORK
SITE CODE: 557002

Prepared for

DIVISION OF SOLID AND HAZARDOUS WASTE
YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD
ALBANY, NEW YORK 12233-0001

Prepared by

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666 EAST MAIN STREET
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01726281

January 1987

FINCH PRUYN AND CO.

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1.0 EXECUTIVE SUMMARY

The Finch Pruyn and Co. Landfill (NY: 557002) is located within the southern boundary of the Adirondack Park, south of Route 149 in the Town of Queensbury, Warren County, New York. The site is a landfill for papermill sludge from Finch Pruyn's primary and secondary activated wastewater treatment plant. The dewatered sludge is hauled from the firm's manufacturing plant in Glens Falls to a 186-acre tract of land located 6 miles northeast in the Towns of Queensbury and Fort Anne (Washington County). Access to the disposal area is obtained by way of a private road heading south off Route 149.

Only papermill sludge is deposited at the landfill. Total sludge volume for 1985 was reported as 142,172 cubic yards. Chemical analysis of the sludge indicates the presence of heavy metals and phenolics in low concentrations.

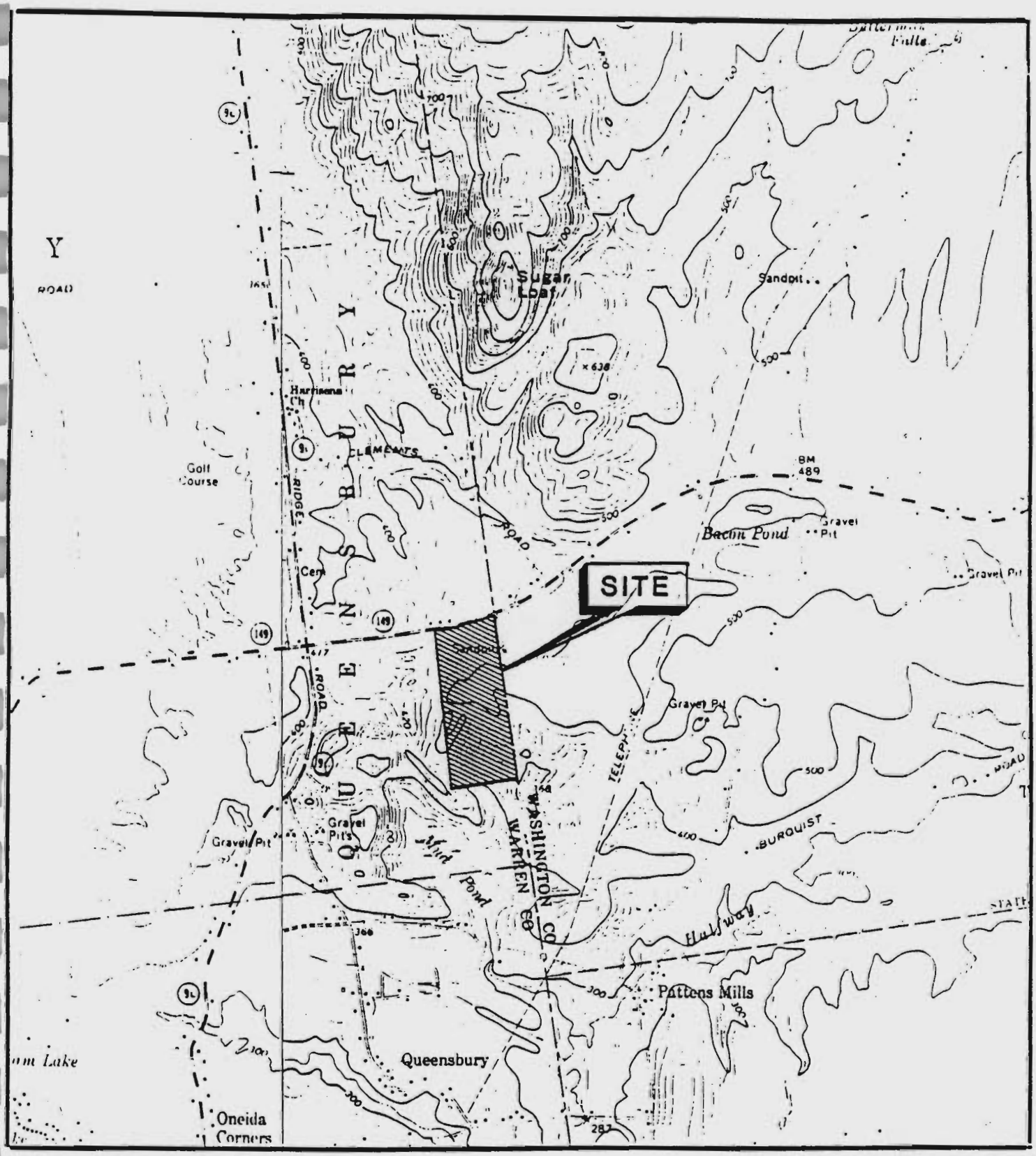
Groundwater analysis at the site has detected iron, cadmium, lead, and phenols at elevated levels concentrations in the downgradient wells. A release to the groundwater route has been scored based on the reported concentration of phenols. No analysis of surface water has occurred.

Environmental concerns at the site include the potential for surface and groundwater contamination. Soils are characterized by high permeability and rapid leachate absorption. Localized groundwater discharge and overland flow would ultimately be released into Mud Pond, a surface water body located 400 feet south of the site.

A USGS house count indicates a population of 2,500 people within 3 miles. This population is assumed to be using groundwater for drinking water purposes. There are no known municipal or non-municipal community water systems within three miles of the site. The closest residence is located 2,000 feet north of the site.

The release of phenol to groundwater is documented by the existing monitoring well data. A preliminary Hazard Ranking System (HRS) Score of $S_m = 35.65$ has been assigned to the site. However, the observed release is based on data collected previously in 1981 and 1982. Data for subsequent years and recent data does not show an observed release at present. Limited

surface water sampling is recommended to determine if a release for the surface water route has occurred. Further investigation is also needed to determine whether a significant plume is present outside the boundary of monitoring wells. Closure of this landfill is being handled under a Part 360 enforcement action.



SCALE: 1" = 2000'
TOPOGRAPHY TAKEN FROM
1966 LAKE GEORGE, N.Y.
1966 PUTNAM MOUNTAIN, N.Y./
U.S.G.S. QUADRANGLE
7.5 MIN. SERIES



MAP LOCATION

FIGURE 1

SITE LOCATION MAP
FINCH PRUYN & COMPANY
TOWN OF QUEENSBURY, N.Y.
LAT. 43° 23' 50" N. LONG. 73° 36' 45" W

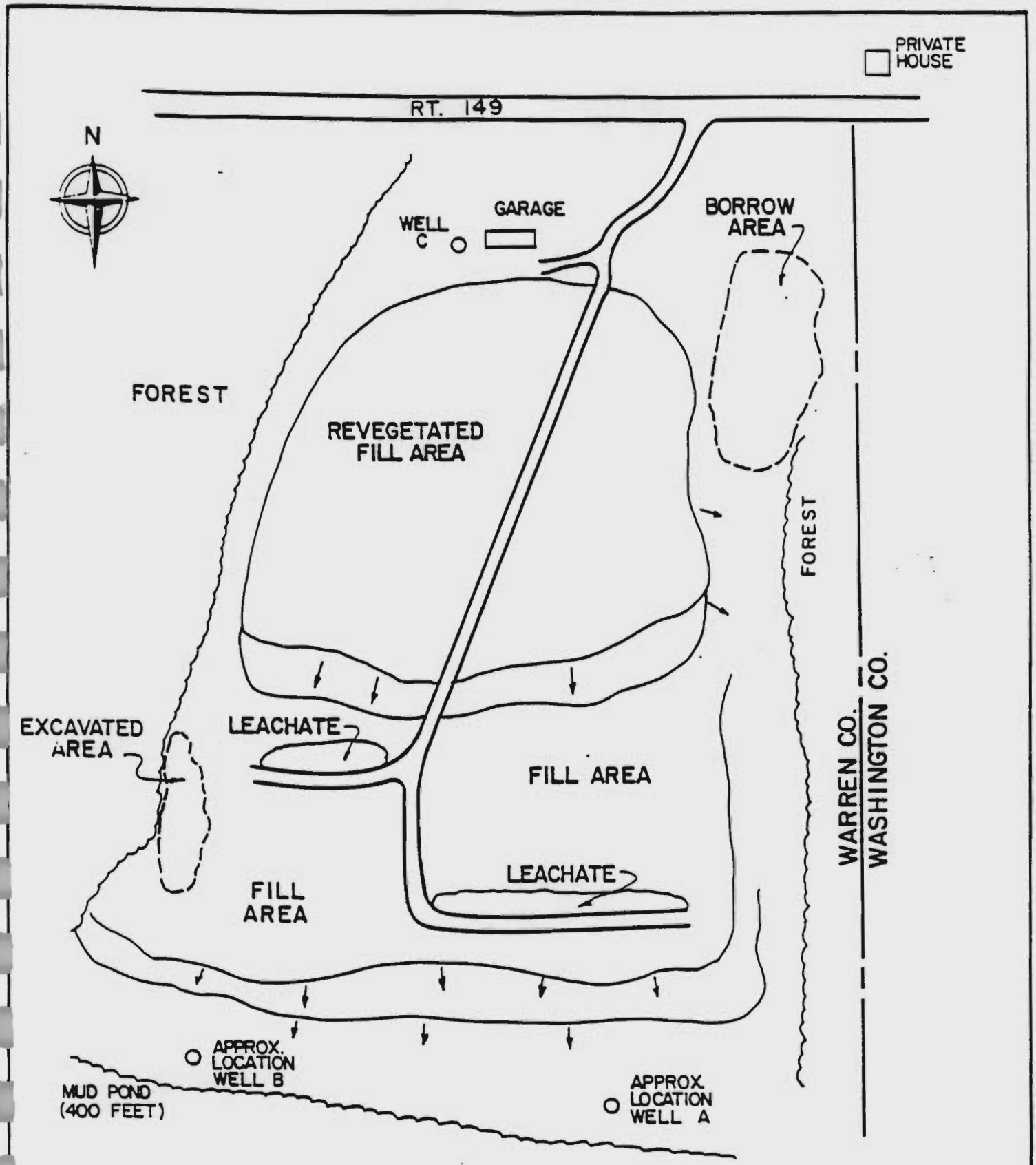


FIGURE-2

SITE SKETCH

FINCH PRUYN & CO.

N.T.S.

2.0 PURPOSE

This Phase I investigation was conducted under contract to the New York State Department of Environmental Conservation Superfund Program to evaluate the potential environmental or public health hazard associated with past disposal activities at the Finch Pruyn and Co. sludge landfill. Divided into two parts, this initial investigation consisted of a detailed file review of available information and an initial site investigation. The culmination of this phase is the development of a preliminary Hazard Ranking System (HRS) score.

Where information is lacking and a final score cannot be computed, recommendations will be made for a Phase II investigation designed to verify the assumptions made in the preliminary scoring and to collect the additional data needed to complete the site assessment.

3.0 SCOPE OF WORK

To complete the preliminary HRS score for Finch Pruyn and Co. site, the following scope of work was conducted:

- A search of the following:
  - Available file information from federal, state, and municipal agencies
  - Published documents and maps from the U. . Geological Survey, Soil Conservation Service and state agencies for geological, hydrological and topographical data
  - Available files, reports and drawings provided by site owners, operators and other knowledgeable parties.
- Interviews with individuals having knowledge of the site

Information searched includes well logs, land use data, water usage patterns, critical habitats and endangered species data, meteorological data, hydrological, geological and topographical data, waste characteristics and demographic information.

Following the initial record search, a site inspection was conducted. The intent of the inspection is to verify existing file information and to conduct an HNU survey to screen for potential air releases. Items of specific interest in the site investigation include:

- Overall site environmental conditions
- The presence of disturbed areas
- Visual signs of waste materials (drums, sludges, etc.)
- The occurrence of leachate
- Site topography

A detailed analysis was performed on all data collected in preparation of a preliminary HRS score. Where information was lacking and a final HRS

score could not be computed, recommendations were made for a Phase II investigation. This investigation was designed to verify the assumptions made in the preliminary scoring and to collect the additional data needed to complete the site assessment. A summary of agencies contacted, contact person, address and information obtained follows.

SOURCES — FINCH PRUYN AND CO.
(Page 1)

Name/Address/Phone	Type of Contact	Date	Information Provided
Mr. John Czapor, Environmental Engineer USEPA, Region II 26 Federal Plaza New York, New York 10278 (212) 264-1573	Letter Office Visit	1/3/86 1/14/86 1/24/86	USEPA file information
Mr. Richard D. Spear, Chief Surveillance & Monitoring Branch USEPA, Region II Woodbridge Avenue Edison, New Jersey 08817 (201) 321-6685	Letter	1/3/86	None available
Mr. Lawrence A. Martens, District Chief U.S. Department of the Interior U.S. Geological Survey Albany District Office P.O. Box 1669 U.S. Post Office and Court House Albany, New York 12201 (518) 472-3107	Letter Telephone Call	1/3/86	Roger Waller responded - list of available county groundwater reports
Mr. Paul Dodd, State Conservationist U.S. Department of Agriculture Soil Conservation Service 771 James M. Hanley Federal Building 100 South Clinton Street Syracuse, New York 13260 (315) 423-5521	Letter Telephone Call	1/3/86 1/13/86	Fred Gilbert responded - list of available county soil surveys
Mr. Carl B. Sciple, Division Engineer Army Corps of Engineers New England Division 424 Trapelo Road Waltham, Massachusetts 02154 (617) 894-2400	Letter	1/3/86	None available
Mr. Frederick J. Scullin, Jr. U.S. Department of Justice U.S. Attorney, Northern District of New York 369 Federal Building 100 South Clinton Street Syracuse, New York 13260 (315) 423-5165	Letter	1/3/86	Craig Benedict responded - No information available

SOURCES — FINCH PRUYN AND CO.
(Page 2)

Name/Address/Phone	Type of Contact	Date	Information Provided
Mr. Conrad Simon, Director Air and Waste Management Division United States Environmental Protection Agency Region 2 26 Federal Plaza New York, New York 10278	Letter	1/24/86	None available
Mr. Marsden Chen, Supervisor Division of Solid and Hazardous Waste New York State Department of Environmental Conservation 50 Wolf Road Albany, New York 12233 (518) 457-0639	Office Visit	12/4/85	NYSDEC file information
Mr. Ronald Tramontano, P.E. Chief, Surveillance and Investigation Division Bureau of Toxic Substance Assessment Surveillance and Investigation Section Empire State Plaza Corning Tower, Room 372 Albany, New York 12237	Letter Office Visit	1/3/86 1/9/86	File information; Site history
Robert H. Fakundiny, State Geologist Geological Survey of New York State State Education Department Division of Museum Services Albany, New York 12230 (518) 474-5816	Letter	1/3/86	County Groundwater Reports
Mr. Robert Abrams, Attorney General New York State Attorney General Department of Law State Capitol, Room 221 Albany, New York 12224 (581) 474-7330	Letter	1/3/86	No information
Mr. Geoff Bornemann, Principal Planner Capital District Regional Planning Commission 251 River Street, Monument Square Troy, New York 12180 (518) 272-1414	Letter	1/3/86	Rocco Ferraro responded with list of contact persons for sites

SOURCES -- FINCH PRUYN AND CO.
(Page 3)

Name/Address/Phone	Type of Contact	Date	Information Provided
Dr. Ian Loudon, Regional Health Director New York State Northern Regional Office New York State Department of Health 9 Market Street Amsterdam, New York 12010 (518) 843-3520	Letter	1/3/86	No response
Mr. Bud Colden New York State Department of Environmental Conservation Hudson Street Warrensburg, New York 12885 (518) 623-3671	Office Visit Telephone Call	12/4/85 7/29/86	Region 5 file documents; Recent sampling data
Mr. Hammond Robertson Board of Supervisors Warren County County Municipal Center Lake George, New York 12845 (518) 761-6535	Letter	1/3/86 1/9/86	Potential contacts
Mr. John L. Bowman County Clerk Warren County County Municipal Center Lake George, New York 12845 (518) 761-6429	Letter	1/3/86	No response
Mr. Thomas Lawson County Attorney Warren County County Municipal Center Lake George, New York 12845 (518) 761-6535	Letter	1/3/86 1/9/86	No information available
Mr. Roger E. Langworth Planning Board Chairman Warren County 8 Milton Street Warrensburg, New York 12885 (518) 623-2008	Letter	1/3/86	No response
Mr. Austin Smith Real Property Tax Director Warren County County Municipal Center Lake George, New York 12845 (518) 761-664	Letter	1/3/86 1/22/86 2/7/86	Information on availability of tax maps

SOURCES — FINCH PRUYN AND CO.
(Page 4)

Name/Address/Phone	Type of Contact	Date	Information Provided
Chairman Environmental Management Council Warren County County Municipal Center Lake George, New York 12845 (518) 761-6410	Letter	1/3/86	No response
Marilyn E. Stephenson District Conservationist Soil and Water Conservation District Quaker Village Quaker and Bay Roads Glens Falls, New York 12801 (518) 793-6883	Letter	1/3/86	Irrigation information;
Mr. Fred Austin Public Works Superintendent Warren County County Municipal Center Lake George, New York 12845 (518) 761-4141	Letter	1/3/86 1/15/86	Additional contacts
Mr. Roger Hague Vice President-Sec Finch Pruyn and Co. 1 Glen Street Glens Falls, New York 12801 (518) 793-2541	Telephone Call Letter Site Visit	2/27/86 7/31/86 7/15/86	Site history; 1985 annual report; Site tour
District Conservationist Soil and Water Conservation District Washington County County Annex Building Lower Main Street Hudson Falls, New York 12839 (518) 747-2154	Letter	1/3/86	Soil data; Soil survey
Mr. Robert Page Solid Waste Management Washington County Planning Dept. Upper Broadway Fort Edward, New York 12828 (518) 747-4687	Letter	1/13/86	Responded with list of potential contacts

4.0 SITE ASSESSMENT

4.1 SITE HISTORY

Finch Pruyn and Co. owns a 186-acre tract of land located south of Route 149 in the Towns of Queensbury (Warren Co.) and Fort Ann (Washington Co.), New York. The property in Warren Co. is utilized for a land reclamation project, specifically landfill disposal of papermill sludge. Sludge volume is reported at 142,172 cubic yards in 1985. No other waste types are disposed of at the site.

Some sludge is also utilized at the Town of Queensbury landfill where the sludge is compacted and used as a baseliner for the municipal landfill. This landfill is located approximately 1/2 mile east of the Finch Pruyn site. The Town of Fort Ann owns and operates a municipal landfill east of Finch Pruyn site. Numerous sand and gravel operations are located in the surrounding area.

Currently the property in Washington Co. is not utilized for any disposal practices. Zoning regulations in Washington Co. prohibit this activity. This land may be utilized to obtain borrow material.

Further restrictions are imposed on landfill operation by the Adirondack Park Agency. The landfill is located within the Adirondack Park Preserve and is classified for moderate intensity use.

4.2 SITE TOPOGRAPHY

The Finch Pruyn Landfill is located off Route 149 approximately six miles northeast of Glens Falls and two miles west of West Fort Ann. Surrounding the site, land uses include agriculture, forest, quarry operations, private residence, and other landfill operations.

Originally the site was characterized by numerous knolls and depressions resulting in irregular sloping topography. Deposition and regrading has modified these slopes to a relatively flat bench area which slopes gradually to the south.

The nearest surface water is Mud Pond, a NYS Class A waterbody. Mud Pond is approximately 10-12 acres in size and drains into a tributary of Halfway Creek.

The nearest homes are located approximately 2,000 feet north of the site along Route 149. Total population within three miles is estimated at 2,713 people.

4.3 SITE HYDROGEOLOGY

The area surrounding the Finch Pruyn Landfill is characterized by soils belonging to the Hinckley Cobbey group. These soils are deep, well to excessively drained, acid cobbley soils that have developed on outwash material derived mainly from gneiss and granite, with some crystalline limestone. They occur on level to steep rolling outwash terraces consisting of deep bowl-like depressions and numerous knolls and high spots. Permeability is rapid to very rapid and available moisture capacity is very low.

Presently at the site, there are two 2-inch diameter monitoring wells located near Mud Pond, a 6-inch diameter monitoring well upgradient of the sludge disposal area, and a 6-inch diameter observation well drilled into the middle of the disposal area. Boring logs for these wells indicate that the site is underlain by brown to gray, fine to coarse sand and gravel and boulders to a depth of 228 feet. The borings did not encounter bedrock. These wells were extended approximately 15 feet below the groundwater table encountered at the time of drilling. The groundwater gradient was determined as being south toward Mud Pond.

Due to the extensive depth and the unconfined conditions of the sand and gravel deposits, the sand and gravel is considered the aquifer of concern. No additional information on other potential aquifers is available for the site. There is also no indication of any confining layers which might restrict infiltration.

The following data was obtained from the well boring logs:

Location	Elevation Top of Casing	Depth to Groundwater Table 7/13/78	Depth to Groundwater Table 7/20/78	Elevation 7/13/78	Elevation 7/20/78
Monitoring Well A	114.68	11.68'	11.70'	103.00	102.98
Monitoring Well B	111.81	9.96'	9.90'	101.85	101.91
Monitoring Well C	285.58	N/A*	178.30'	N/A*	107.28
Observation Well 3A	176.34	71.74'	71.78'	104.60	104.56

N/A - Not Available, well not installed.

C8

4.4 SITE CONTAMINATION

Finch Pruyn and Co. operates a disposal landfill for sludge produced in their primary and secondary clarifiers of an activated sludge wastewater treatment plant. The sludge is mixed with sludge thickeners and dewatered on vacuum filters. Further dewatering occurs on a Rietz V-Press.

Sludge from the Glens Falls Finch Pruyn plant is the only waste deposited at the site. The reported volume of sludge landfilled in 1985 was 142,172 cubic yards. Cover material consisting of predominantly sand and gravel are obtained on site.

Chemical analysis of the Finch Pruyn sludges indicates no obvious contamination within the sludges. However, some variation has been indicated. Parameters which indicate the greatest variability appear to be zinc, iron, chromium, and phenols. Sludge data obtained during the Phase I record search are presented in Ref. 2.1.

Phenolics and their potential release to the groundwater reserves are a potential problem at the Finch Pruynm site. Sludge analysis indicate that phenols are present in the sludge in concentrations exceeding 50 ppm (Reference 2.15). Phenols are a natural constituent in various wood species and are bound to the wood fibers. Usually high temperatures and/or chemical treatments are required to extract these phenols. Ref. 3.1 presents information which indicates that these phenolics should be fairly immobile once compacted into the landfill area. Presently, monitoring well data is inconclusive in determining if phenol concentrations are posing an environmental threat.

Three groundwater monitoring wells are present at the Finch Pruyn Landfill site. Only zinc and iron appear to have consistent patterns of detection. Generallly, zinc is higher in the upgradient well and iron is higher in the downgradient well.

Recent groundwater data (July 8, 1985) indicated a violation of NYS groundwater standards by the reported concentration of iron (35 mg/l). At that time, this was the only noted violation of groundwater standards. However, documents from NYSDEC Region 5 (Reference 2.12) indicate groundwater standards are violated by concentrations of iron, lead, and phenols (Reference 2).

To date, no analytical data indicating contamination of surface water has been obtained. Leachate was noted on the landfill surface during the site inspection. - However, the highly permeable soils absorb the leachate quickly preventing runoff. In addition a gravel-filled drainage system has been installed in the southern portion of the site to prevent runoff from potentially entering Mud Pond.

5.0 PRELIMINARY APPLICATION OF THE HAZARD RANKING SYSTEM

5.1 NARRATIVE SUMMARY

The Finch Pruyn and Co. land reclamation project is a papermill sludge disposal area located on Route 149 in the Town of Queensbury, Warren County, New York. The landfill is for papermill sludge from Finch Pruyn's primary and secondary activated wastewater treatment plant located in Glens Falls, New York.

The area surrounding the site consists primarily of forested land, agricultural land, and residential properties. Several other landfills are located within a short distance of the site. These include both the Town of Queensbury and Town of Fort Ann municipal landfills.

Chemical analysis of sludge samples indicates the presence of heavy metals and phenols. The phenolic compounds are bound to the wood fibers in the sludge and are reported as being fairly immobile in the sludge/soil compacted layer.

Groundwater analysis has indicated iron, lead, cadmium, and phenols to be higher in downgradient wells. No analysis of surface water samples has been obtained.

During the Wehran Engineering site inspection, leachate was observed in the active fill areas. However, due to the highly permeable nature of the soils, this leachate is quickly absorbed into soil and does not appear to threaten off-site surface waters.

Approximately 2,713 people rely on surface water within 3 miles of the site. The closest residence is 2,000 feet north of the site. Mud Pond is the closest surface water (400 feet south) and is believed to be fed by groundwater discharge.

The preliminary HRS score (S_M) is 35.65 for the Finch Pruyn Landfill.

GROUND WATER ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 (45)	1	45	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 (2) 3	2	4	6	
Net Precipitation	0 1 (2) 3	1	2	3	
Permeability of the Unsaturated Zone	0 1 (2) 3	1	2	3	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			11	15	
3 Containment	0 1 2 3	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 (8)	1	8	8	
Total Waste Characteristics Score			20	26	
5 Targets					3.5
Ground Water Use	0 1 2 (3)	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 (30) 32 35 40	1	30	40	
Total Targets Score			39	49	
6 If line 1 is 45, multiply 1 x 4 x 5. If line 1 is 0, multiply 2 x 3 x 4 x 5			35,100	57,330	
7 Divide line 6 by 57,330 and multiply by 100	S_{gw} = 61.22				

SURFACE WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	Observed Release	(0) 45	1	0	45	4.1
	If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2	Route Characteristics					4.2
	Facility Slope and Intervening Terrain	0 1 2 (3)	1	3	3	
	1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
	Distance to Nearest Surface Water	0 1 (2) 3	2	4	6	
	Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score			12	15	
3	Containment	0 1 (2) 3	1	2	3	4.3
4	Waste Characteristics					4.4
	Toxicity/Persistence	0 3 6 9 (12) 15 18	1	12	18	
	Hazardous Waste Quantity	0 1 2 3 4 5 6 7 (8)	1	8	8	
	Total Waste Characteristics Score			20	26	
5	Targets					4.5
	Surface Water Use	0 1 (2) 3	3	6	9	
	Distance to a Sensitive Environment	0 1 (2) 3	2	4	6	
	Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
	Total Targets Score			10	55	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			4,800	64,350	
7	Divide line 6 by 64,350 and multiply by 100 S_{sw} = 7.46					

AIR ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, the S = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2 Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
3 Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Targets Score			39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100 S_a = 0.00					

	S	S^2
Groundwater Route Score (S_{gw})	61.22	3747.89
Surface Water Route Score (S_{sw})	7.46	55.65
Air Route Score (S_a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		3803.54
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		61.67
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \; / \; 1.73$		$S_M = 35.65$

WORKSHEET FOR COMPUTING S_M

FIRE AND EXPLOSION WORK SHEET N/A

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 4 by 1,440 and multiply by 100	S_{FE} = N/A				

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

The landfill has no liner underlying the site.

Score = 3

Source: References 1.1-1.11, 4

Method with highest score:

No liner

Score = 3

Source: References 1.1-1.11, 4

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Phenolic compounds and heavy metals are present in various concentrations in the papermill sludges. These compounds and metals include arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, zinc, cobalt, cyanide, phenols, and nitrogen compounds.

Source: References 2.1-2.24, 11.1-11.5

Compound with highest score:

Detected in downgradient groundwater samples:
Iron, Cadmium, Lead = 18
Sludge analysis did not show significant concentrations of iron, lead, and cadmium. Subsequently, phenol will be used in scoring.
Phenol = 12

Score = 12

Source: References 2.1-2.24, 11.1-11.5

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

The total reported volume of sludge for 1985 was 142,172 cubic yards. Sludge analysis has indicated the presence of phenol.

Score = 8

Source: References 2.1-2.6

Basis of estimating and/or computing waste quantity:

See above.

E 2

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Groundwater supplies provide drinking water for private wells within three miles of the site.

Score = 3

Source: References 8.1-8.3

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

The nearest well is located north of the disposal area along Route 149.

Source: Reference 10.1

Distance to above well or building:

2,000 feet

Value = 4

Source: Reference 10.1

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

No municipal water supplies are located within 3 miles of the site.

Value = 3

Source: References 8.1-8.3

714 private homes are within 3 miles (population = 2,713)

Source: References 9.1-9.2

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

No known irrigation is occurring within 3 miles of the site.

Score = 0

Source: Reference 12.1

Total population served by ground water within a 3-mile radius:

The total population served by groundwater is estimated at 2,713 people.

Score = 30

Source: References 8.1-8.2, 9.1-9.2, 10.1

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SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

No analytical testing of surface water has occurred.

Source: References 1.1-1.11, 2.1-2.24

Rationale for attributing the contaminants to the facility:

Not applicable

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Slope readings on the bench area ranged from 1% to 5%. Outslope readings ranged from 14% to 21%. Assume average slope = 10%.

Source: References 1.1-1.11

Name/description of nearest downslope surface water:

Mud Pond - an estimated 12-acre surface water (wetland area drains into an unnamed tributary of Halfway Creek). Both these waters are NYS Class A waters.

Source: References 13.1-13.2

Average slope of terrain between facility and above-cited surface water body in percent:

Intervening slope could not be determined during the site inspection due to vegetation cover.

USGS topographic map (Putnam Mt.) indicates the slope is greater than 10%.

Score = 3

Source: Reference 10.1

Is the facility located either totally or partially in surface water?

No, the facility is located 1,000-1,500 feet away from the nearest surface water.

Source: Reference 10.1

Is the facility completely surrounded by areas of higher elevation?

No, areas of lower elevation are to the south.

Source: Reference 10.1

1-Year 24-Hour Rainfall in Inches

2.5 inches

Score = 2

Source: Reference 5.4

Distance to Nearest Downslope Surface Water

Mud Pond - 1,000 to 1,500 feet
Unnamed tributary of Halfway Creek - 2,000 to 2,500 feet

Score = 2

Source: Reference 10.1

Physical State of Waste

Sludge

Score = 3

Source: Reference 6.1

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

Cover material very permeable and diversion structures are present.

Source: References 1.1-1.11

Method with highest score:

Landfill covered with highly permeable material and adequacy of diversion structures unknown.

Score = 2

Source: References 1.1-1.11

85

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Phenolic compounds and heavy metals are present in various concentrations in the papermill sludges. These compounds and metals include arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, zinc, cobalt, cyanide, phenols, and nitrogen compounds.

Source: References 2.1-2.24, 11.1-11.5

Compound with highest score:

Detected in downgradient groundwater samples:
Iron, Cadmium, Lead = 18
Sludge analysis did not show significant concentrations of iron, lead, and cadmium. Subsequently, phenol will be used in scoring.
Phenol = 12

Score = 12

Source: References 2.1-2.24, 11.1-11.5

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

The total reported volume of sludge for 1985 was 142,172 cubic yards. Sludge analysis has indicated the presence of phenol.

Score = 8

Source: References 2.1-2.6

Basis of estimating and/or computing waste quantity:

See above.

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Surface waters downgradient of the site are NYS Class A waters, however, no use as a drinking water source has been identified. Subsequently, usage will be scored based upon recreational activities (primarily fishing).

Score = 2

Source: References 13.1-13.2

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Is there tidal influence?

Not Applicable

Source: Reference 10.1

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Not Applicable

Source: Reference 10.1

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Mud Pond is the closest wetland area (distance = 400 feet)
Source: References 1.1-1.11, 10.1

Score = 2

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

There are no critical habitats within 1 mile

Score = 0

Source: References 14.1-14.2

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

No intakes utilizing surface water have been identified.

Score = 0

Source: Reference 8.1-8.4

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Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

No irrigation utilizing surface water is located within 3 miles.

Score = 0

Source: Reference 12.1

Total population served:

No intakes of surface water have been identified.

Source: References 8.1-8.4; 12.1

Name/description of nearest of above water bodies:

Mud Pond and an unnamed tributary of Halfway Creek. Both are NYS Class A surface water suitable for drinking water purposes.

Source: References 13.1-13.2

Distance to above-cited intakes, measured in stream miles:

No intakes of surface water have been identified.

Source: References 8.1-8.4; 12.1

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

To score an air release, qualitative air sampling is required along with details on the sampling protocol and the meteorological conditions during the time of sampling. No qualitative air sampling has been performed.

Score = 0

Source: File Review and Reference

Date and location of detection of contaminants:

Not applicable

Methods used to detect the contaminants:

Not applicable

Rationale for attributing the contaminants to the site:

Not applicable

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Not applicable

Most incompatible pair of compounds:

Not applicable

Toxicity

Most toxic compound:

Not applicable

Hazardous Waste Quantity

Total quantity of hazardous waste:

Not applicable

Basis of estimating and/or computing waste quantity:

Not applicable

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi 0 to 1 mi 0 to 1/2 mi 0 to 1/4 mi

Not applicable

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Not applicable

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Not applicable

Distance to critical habitat of an endangered species, if 1 mile or less:

Not applicable

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Not applicable

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Not applicable

Distance to residential area, if 2 miles or less:

Not applicable

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Not applicable

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Not applicable

Is a historic or landmark site (National Register of Historic Places and National Natural Landmarks) within the view of the site?

Not applicable

FIRE AND EXPLOSION

1 CONTAINMENT

Hazardous substances present:

To score the fire and explosion hazard mode either a state or local fire marshall must have certified that the facility presents a significant fire or explosion threat to the public or to a sensitive environment, or there must be a demonstrated threat based on field observations (e.g. combustible gas indicator readings). The available records give no indication that either one of these tasks has been done. Further, the available data do not suggest any imminent threat of fire and explosion at this site. Therefore the route score cannot be completed.

Type of containment, if applicable:

Not applicable

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

Not applicable

Ignitability

Compound used:

Not applicable

Reactivity

Most reactive compound:

Not applicable

Incompatibility

Most incompatible pair of compounds:

Not applicable

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Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

Not applicable

Basis of estimating and/or computing waste quantity:

Not applicable

3 TARGETS

Distance to Nearest Population

Not applicable

Distance to Nearest Building

Not applicable

Distance to Sensitive Environment

Distance to wetlands:

Not applicable

Distance to critical habitat

Not applicable

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Not applicable

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Not applicable

Distance to residential area, if 2 miles or less:

Not applicable

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Not applicable

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Not applicable

Is a historic or landmark site (National Register of Historic Places and National Natural Landmarks) within the view of the site?

Not applicable

Population Within 2-Mile Radius

Not applicable

Buildings Within 2-Mile Radius

Not applicable

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

No documentation of an incident of direct contact has been obtained.

Score = 0

Source: References 1.1-1.11

2 ACCESSIBILITY

Describe type of barrier(s):

A fence does not surround the entire site.

Score = 3

Source: References 1.1-1.11

3 CONTAINMENT

Type of containment, if applicable:

Revegetation and cover on older area is good. Leachate visible in new fill area and ponding is occurring in shallow depression. Sludge visible during site inspection.

Score = 15

Source: References 1.1-1.11

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

Papermill sludge contains heavy metals and phenols.

Source: References 2.1-2.4

Compound with highest score:

Phenol = 2

Score = 2

Source: References 11.1-11.5

5 TARGETS

Population within one-mile radius

A USGS house count indicates 327 people are within 1 mile.

Score = 2

Source: References 9.1-9.2

Distance to critical habitat (of endangered species)

No critical habitats are within one mile.

Score = 0

Source: References 14.1-14.4

WEHRAN
ENGINEERS
& SCIENTISTS
[illegible] EAST MAIN STREET
P.O. BOX 2006
MIDDLETOWN, NY 10940

Reference 1.1

WEHRAN ENGINEERING - SITE INSPECTION FORM

1. IDENTIFICATION

Finch Pruyn and Company	Warren/ Washington
Site Name	County
557002	5
NY Number	NYSDEC Region

2. LOCATION

Route 149	Queensbury
Street/Route No.	Town
City	Village

Putnam Mt.
USGS Quadrangle

3. INSPECTION

7/15/86	12:00 P.M.
Date of Inspection	Time of Inspection

Warm, clear
Weather Conditions and Snow Cover

WE Inspectors (Name)	Title	Phone Number
David B. Tompkins	Environmental Scientists	(914) 343-0660
Karen E. Malov	Environmental Scientist	(914) 343-0660

Other Inspectors (Name)	Affiliation	Phone Number

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(R-1)

Reference 1.2

Site Reps. Interviewed	Affiliation	Phone Number
Mr. Roger Hague	VP-Sec	(518) 793-2541

4. SITE DESCRIPTION

4.1 Site History Active x Inactive ___

Years of Operation: _____

Owner(s): Finch Pruyn and Company
1 Glens Street
Glen Falls, NY

4.2 Storage/Disposal (Check all that apply)

		Size/Amount	Unit of Measure
__	A. Surface Impoundment		
__	B. Piles		
__	C. Drums, Above Ground		
__	D. Tank, Above Ground		
__	E. Tank, Below Ground		
x	F. Landfill	60+	acre
__	G. Landfarm		
__	H. Open Dump		
__	I. Spill		
__	J. Well Field		
__	K. Other (_____)		

4.3 Treatment (Check all that apply)

__	A. Burning	__	E. Waste Oil Processing
__	B. Incineration	__	F. Solvent Recovery
__	C. Underground Injection	__	G. Other Recycling/Recovery
__	D. Chemical/Physical/Biological	__	H. Other (_____)

4.4 Waste Substances Observed (include hazardous)

Papermill sludge

4.5 Containment of Wastes (describe)

None:

No liner

No leachate control

Soil very permeable

Diversion structure present (French Drain)

(R-3)

FINCH, PRUYN AND COMPANY, INCORPORATED

Rec. 3/3/86 9:00am

AL 2.1

February 27, 1986

Wehran Engineering
666 East Main Street
Middletown, New York 10940

Attention: Mr. David Tompkins

Dear David:

In reference to our phone conversation of today, enclosed please find a copy of the latest report to ENCON describing the operations of our landfill for the twelve month period beginning August 1, 1984, through July 31, 1985.

Should you have any further questions, please do not hesitate to contact me.

Very truly yours,

Roger S. Hague
Vice President & Secretary

RSH/blc
Enc.

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1 GLEN STREET GLENS FALLS, NEW YORK 12801 (518) 793-2541

(2-4)

1422

September 3, 1985

Mr. William Colden, P.C.
New York State Department of
Environmental Conservation
Hudson Street
Warrensburg, New York 12885

Dear Mr. Colden:

As required under our Land Reclamation Plan Area Permit, we hereby submit the annual report covering the operation of our facility for the period August 1, 1984 to July 31, 1985.

Item B-1
The total volume of paper mill sludge placed in the land reclamation area during the period was approximately 142,172 cubic yards.

Item B-2
The analysis of the paper mill sludge sample (taken on 7/1/85) analyzed by the independent laboratory of Malcom Pirnie, along with the quarterly monitoring results of the three sample wells taken on 10/8/84, 1/14/85, 4/8/85, 7/8/85 are enclosed.

Item B-3
Topographical map sections indicating the approximate contours of the areas as of August 1, 1985.

Item B-4
An internal memo to me from the individual in our corporation responsible for the land operation of the reclamation area is included, which describes the operation since the last report.

The trees that were planted on the finished area of Phase 1 by our Woodlands Department continue to thrive having reached a height of 15 to 20 feet, while those that were planted in the lower cornfield at the same time appear to be growing at a slightly faster rate.

Should you require additional information, do not hesitate to contact me.

Very truly yours,

Roger S. Hague
Vice President & Secretary

RSH/jb
Enclosure

bcc: RJC, PJB, DJG, JPP, WCS

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MALCOLM PIRNIE

Taken 7/1/85

Lf 2.3

Parameter	Results mg/L
Chlorine Demand	5,000
Chemical Oxygen Demand	150,000
Cyanide	.07
Oil and Grease	200
Ammonia Nitrogen	2015
Kjeldahl Nitrogen	3515
Nitrate Nitrogen	8.2
Nitrite Nitrogen	0.8
Phenols	4.8
Ortho Phosphate	---
Total Phosphate	14.8
Percent Moisture	79.8
Percent Solids	20.2
Percent Volatile Solids (dry wt. basis)	75.0
Arsenic	< .2
Cadmium	< .5
Chromium	< 2.0
Copper	5.3
Iron	115
Lead	< 2.0
Mercury	0.83
Nickel	1.7
Selenium	< .2
Zinc	13.0
Cobalt	---

Well A — Results in Mg/L Except where Noted — MP - Malcolm Pirnie — EO - Environment One — PT - Princeton Test. Lab.

Testing Lab.	Date of Sampling	pH Units	TOC	Specific Conduc. µmhos/cm	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	10/08/84	6.9	6	417	3	<.01	0.03	4.16	<.1	0.05	0.50	<.10	0.38	0.01	<.005	<.001	<.05	<.05	<1	<.01	<.001	0.06	<.01
MP	01/14/85	7.8	<1	335	9	<.01	<.02	2.98	<.1	0.03	0.61	0.11	0.11	<.01	<.005	<.001	<.05	<.05	24	<.01	<.001	0.04	<.01
MP	04/08/85	7.49	42.5	410	0.5	<.05	<.01	0.05	<.05	<.01	0.95	0.25	0.46	<.01	<.01	(1)	<.05	0.12	5.2	<.01	<.0002	<.01	<.005
MP	07/08/85	6.8	35.2	447	5	<.05	<.01	7.6	<.05	0.11	0.74	<.1	0.72	0.03	0.008	(1)	<.01	0.03	<1.0	<.01	<.0002	<.05	<.005

(1) - PCB's not detected

Rel 2.5

Well B — Results in Mg/L Except Where Noted — MP - Malcolm Pirnie — EO - Environment One — PT - Princeton Test. Lab.

Testing Lab.	Date of Sampling	pH Units	TOC	Specific Condys. Mmhos/cm	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	10/08/84	6.4	23	1023	10	<.01	0.03	2.39	< .1	0.04	1.05	< .10	0.38	0.01	<.005	<.001	< .05	<.05	<1	<.01	<.001	0.09	<.01
MP	01/14/85	7.0	<1	849	10	<.01	<.02	2.68	< .1	0.02	0.56	0.11	0.16	< .01	<.005	<.001	< .05	< .05	9	<.01	.001	0.11	<.01
MP	04/08/85	6.81	95.0	806	9.1	<.05	<.01	5.0	<.05	<.01	0.70	0.28	0.32	<.01	<.01	(1)	<.05	.02	4.9	<.01	<.0002	<.01	<.005
MP	07/08/85	6.5	79.0	932	10	< .05	<.01	35.0	<.05	0.07	0.60	<.1	0.21	<.005	0.015	(1)	<.01	0.02	<1.0	<.01	<.0002	<.05	<.005

(1) - PCB's not detected

4/K 2.6

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Well C

Results in Mg/L Except Where Noted

MP - Malcolm Pirnie

EO - Environment One

PT - Princeton Test. Lab.

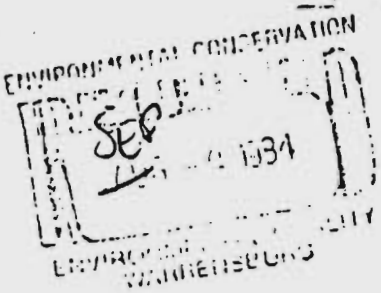
Testing Lab.	Date of Sampling	pH Units	TOC	Specific Condyc. umhos/cm	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	10/08/84	7.8	5.2	271	8	<.01	<.02	0.08	< .1	0.32	<.10	0.15	3.4	<.01	<.005	<.001	<.05	<.05	< 1	< .01	<.001	<.04	< .01
MP	01/14/85	7.9	2	303	10	<.01	<.02	0.16	< .1	0.19	.20	<.10	3.3	<.01	<.005	<.001	<.05	<.05	< 2	< .01	<.001	<.04	< .01
MP	04/08/85	7.74	27.8	332	4.6	<.05	<.01	0.05	<.05	0.22	0.61	0.22	1.72	<.01	<.01	(1)	<.05	0.03	11.3	< .01	.0002	<.01	<.005
MP	07/08/85	7.3	20.1	318	10	<.05	<.01	0.17	<.05	1.2	0.18	<.1	5.44	<.005	0.005	(1)	<.01	0.03	1.5	< .01	.0002	<.05	<.005

(1) - PCB's not detected

FINCH, PRUYN AND COMPANY, INCORPORATED

file Finch Pruyn
Ref 2.7

August 30, 1984



Mr. William Colden, P.C.
New York State Department of
Environmental Conservation
Hudson Street
Warrensburg, New York 12885

Dear Mr. Colden:

As required under our Land Reclamation Plan Area Permit, we hereby submit the annual report covering the operation of our facility for the period August 1, 1983 to July 31, 1984.

Item B-1
The total volume of paper mill sludge placed in the land reclamation area during the period was approximately 130,000 cubic yards.

Item B-2
The analysis of the paper mill sludge sample analyzed by the independent laboratory of Malcom Pirnie (units of analysis unless otherwise are micrograms per gram, wet weight basis, for all parameters, except metals, which are micrograms per gram, dry weight basis), along with the quarterly monitoring results of the three sample wells taken on 10/3/83, 1/17/84, 4/2/84 and 7/2/84, are enclosed.

Item B-3
Topographical map sections indicating the approximate contours of the areas as of August 1, 1984.

Item B-4
An internal memo to me from the individual in our corporation responsible for the land operation of the reclamation is included, which describes the operation since the last report.

The trees that were planted on the finished area of Phase 1 by our Woodlands Department continue to thrive having reached a height of 15 to 20 feet, while those that were planted in the lower cornfield at the same time appear to be growing at a slightly faster pace.

Should you require additional information, do not hesitate to contact me.

Very truly yours,

Roger S. Hague

Roger S. Hague
Vice President & Secretary

RSH/jb
Enclosure

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1 GLEN STREET GLENS FALLS, NEW YORK 12801 (518) 793-2541

MALCOLM PIRNIE

MALCOLM PIRNIE, INC.
ENVIRONMENTAL ENGINEERS, SCIENTISTS & PLANNERS

August 17, 1984

Rel 2.8

Mr. Phillip J. Arthur
Superintendent, Waste Treatment
Finch, Pruyn & Co., Inc.
Glens Falls, New York 12801

Dear Phil:

Attached are the results of analyses of the July 17, 1984 sludge sample; the sample was received by Malcolm Pirnie, Inc. on July 20, 1984. The three grab samples we received were composited and the composite analyzed.

Units used are milligrams per kilogram (parts per million) on an as received basis, except for the metals, which are on a dry weight basis.

Very truly yours,

MALCOLM PIRNIE, INC.

Brian W. Wood

Brian W. Wood
Laboratory Manager

BWW:vm

cc: Mr. Roger Hague

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2 CORPORATE PARK DR. BOX 751 WHITE PLAINS, NY 10602 914-694-2100 TELEX 137364

MALCOLM PIRNIE

2.9

July 17, 1984 Sludge Sample (mg/kg unless noted)

Parameter	Concentration
Chlorine Demand, (ug chlorine/gram sludge)	4526
Chemical Oxygen Demand	190109
Cyanide	<0.4
Oil and Grease	1483
Ammonia Nitrogen	140
Kjeldahl Nitrogen	325
Nitrate Nitrogen	58.2
Nitrite Nitrogen	1.7
Phenols	10.4
Total Phosphate	825
Moisture, %	66.0
Total Solids, %	34.0
Total Volatile Solids, % Dry Wt.	55.4
Arsenic	<1.0
Cadmium	<1.0
Chromium	25.4
Copper	15.2
Iron	6518
Lead	15.3
Mercury	<0.5
Nickel	19.0
Selenium	<1.0
Zinc	52.0

Office Memorandum

FINCH PAPER

To RSH cc: JPP Date August 7, 1984 Kit 2.10

From R.G. Nason

Subject Operating Procedures 1983, 1984 - Land Reclamation Site

The disposal of pulp and paper mill sludge during the period August 1983 to August 1984 has been accomplished in an orderly, sequential manner to maximize the life of the land reclamation site and to minimize operating costs.

During the winter months operations were carried out in the Phase 1 area. This allowed for minimum sanding and snow removal. The balance of the year sludge was deposited in the Phase 2 area. The method of operation was the same as in previous years. Sludge deliveries to the site by tandem dump truck was dumped in confined areas, compacted and covered with gravel on building blocks or cells. A series of cells, approximately 5 to 7' in height on the lift. The ratio of sludge to gravel is approximately 3 to 1, depending on the moisture content of the sludge. Lifts were built using an International H-100 Wheel Loader. The final surface was graded with a Caterpillar D-6 Dozer.

Attached is a contour map as of August 1, 1984.

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Office Memorandum

FINCH PAPER

To RSH cc: RGN Date August 19, 1983

From H.W. Millikin

Ref 2.11

Subject Operating Procedures 1982-83 - Land Reclamation Site

The disposal of pulp and paper mill sludge during the period August 1982 to August 1983 has been accomplished in an orderly, sequential manner so that to maximize the life of the land reclamation site and to minimize operating costs.

During the winter months operations were carried out in the Phase I area. This allowed for minimum sanding and snow removal. The balance of the year sludge was deposited in the Phase II area. This method of operation was the same as previous years. Sludge delivered to the site by tamden dump trucks was dumped in confined areas, compacted and covered with gravel, forming building blocks or 'cells.' A series of cells, approximately five to seven feet in height, formed a lift. The ratio of sludge to gravel varied from 1 to 1 to 3 to 1, depending on moisture content of sludge. Sludge was generally drier, requiring less gravel than in previous years. Lifts were built using an International H-100 wheeled loader. The final surface was periodically graded with a caterpillar D-6 bulldozer.

Attached is a contour map as of August 1, 1983.

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15 (12/75)

New York State Department of Environmental Conservation

MEMORANDUM

TO: William C. Colden, P.E., Regional Solid Waste Engineer - Region 5
FROM: Kenneth J. Treiling, Assistant Sanitary Engineer
SUBJECT: Finch Pruyn, Ciba-Geigy and Town of Queensbury Landfill Groundwater Monitoring

DATE: December 28, 1982

Ref 212

Finch Pruyn Landfill

There are three wells at this facility with well #C as the background well. Attached are the tabulations and graphs for the groundwater parameters. The following is an analysis of the "indicator" parameters:

pH - all values were in range of the groundwater standards. The upgradient well (#C) is generally higher with a range of 7.5-8.0. Wells #A & B fluctuate similarly.

Chlorides - generally all wells fluctuate similarly. All wells are well below the groundwater standard of 250 mg/l. There is no seasonal pattern. The background well #C has generally higher values than that of well A. Well B has the highest values.

Iron - Wells #A and B fluctuate similarly. Well #B has the highest values of 10-20 mg/l with peaks occurring September, January, October and April. There is no correlation with the upgradient background well.

TOC - Wells A & C fluctuate somewhat similar. Well B has the highest value of 153 mg/l. 1982 values declining from less than 20 mg/l to less than 5 mg/l.

Specific Conductivity - Well B generally ranges from 550 to 775 umho/cm. Wells A & B are approximately 300 umho/cm.

In the downgradient wells A & B, iron and lead have exceeded the groundwater standards. Phenols have also been exceeded although levels in the upgradient well were also high during the same sampling dates.

Ciba-Geigy Secure Landfill

There are four wells at this facility that are reported for analyses. The leachate collection/runoff basin is also analyzed; however, it will not be included as the groundwater analysis.

COD - Chemical oxygen demand is generally increasing with well #3 revealing the greatest concentrations in the range of 20 - 30 mg/l.

111

2.13

Iron - Iron is the only metal reported which exceeds the groundwater quality standards. Higher concentrations are found in wells # 2, 3 and 4, with well #3 having the highest values; however, most recent results show declining levels.

Queensbury Landfill

See previous report.

Conclusions

1. As expected, each landfill lies over a different groundwater regime and thus there is no interrelationship between each landfill having an effect on one another, or independently with respect to the general background water quality. In other words, each landfill will have its own distinct impact on the groundwater quality.

2. There is limited data available for the Queensbury and Finch Pruyn landfills and thus difficult to speculate on any "trends" or seasonal variations.

3. No well depths or water elevations were taken from any of the wells during sampling. Thus seasonal high water tables and groundwater gradients could not be determined with respect to the analyses. Since the underlying soils are sand and gravel, the groundwater velocity would be relatively high and thus in effect, "diluting" any contaminants that are leaching from the landfills. It is also not known whether the downgradient monitoring wells actually sample that cross section of the groundwater where the plume exists.

4. At the Queensbury landfill, the parameters for the downgradient wells #2 and 3 generally fluctuate similarly, most likely due to their close proximity. Mercury, lead, phenols and iron have exceeded the groundwater quality standards.

5. At the Ciba-Geigy secure landfill, the metals iron and lead have exceeded groundwater quality standards. Although the standard for lead is 0.025 mg/l, most results are reported as less than 0.05 mg/l or less than 0.1 mg/l. Lead has reached a concentration of 0.067 in wells #2 and 3, however, most results are less than 0.05 mg/l.

* 6. At the Finch Pruyn landfill, iron, lead, cadmium, and phenols have exceeded groundwater quality standards.

Ken Treiling

Kenneth J. Treiling
Assistant Sanitary Engineer

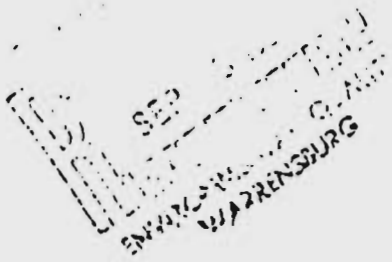
KJT:isb
Attachments

File

FINCH, PRUYN AND COMPANY, INCORPORATED

E-214

September 6, 1983



Mr. William Colden, P.C.
New York State Department of
Environmental Conservation
Hudson Street
Warrensburg, New York 12885

Dear Mr. Colden:

As required under our Land Reclamation Plan Area Permit, we hereby submit the annual report covering the operation of our facility for the period August 1, 1982 to July 31, 1983.

Item B-1
The total volume of paper mill sludge placed in the land reclamation area during the period was approximately 130,882 cubic yards.

Item B-2
The analysis of the paper mill sludge sample analyzed by the independent laboratory of Malcom Pirnie (units of analysis unless otherwise are micrograms per gram, wet weight basis, for all parameters, except metals, which are micrograms per gram, dry weight basis), along with the quarterly monitoring results of the three sample wells taken on 10/4/82, 1/3/83, 3/28/83 and 7/11/83, are enclosed.

Item B-3
Topographical map sections indicating the approximate contours of the areas as of August 1, 1983.

Item B-4
An internal memo to me from the individual in our corporation responsible for the land operation of the reclamation is included, which describes the operation since the last report.

The trees that were planted on the finished area of Phase 1 by our Woodlands Department continue to thrive having reached a height of 10 to 15 feet, while those that were planted in the lower cornfield at the same time appear to be growing at about the same rate.

Should you require additional information, do not hesitate to contact me.

Very truly yours,

Roger S. Hague
Secretary

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RSH/jb
Encl.

1 GLEN STREET GLENS FALLS, NEW YORK 12801 (518) 793-2541

MALCOLM PIRNIE

Ref 2.15

July 21, 1983 Sludge Sample

Parameter	Concentration
Chlorine Demand, (ug chlorine/gram sludge)	10,799
Chemical Oxygen Demand	287,122
Cyanide	<0.1
Oil and Grease	1,640
Ammonia Nitrogen	455
Kjeldahl Nitrogen	875
Nitrate Nitrogen	48.8
Nitrite Nitrogen	5.0
Phenols	59.4
Total Phosphate	1,054
Moisture, %	66.6
Total Solids, %	33.4
Total Volatile Solids, % Dry Wt.	66.1
Arsenic	<1.0
Cadmium	<2.0
Chromium	6.53
Copper	19.6
Iron	2,177
Lead	<25
Mercury	0.82
Nickel	10.4
Selenium	<1.0
Zinc	47.0

Well # 2.16

Results in Mg/L

GT - General Testing EO - Environment One PT - Princeton T

Testing Lab.	Date of Sampling	pH	TOC	Specific Conduc.	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	01/06/81	7.2	11	219	5	<.005	<.02	1.75	<.1	.05	.74	.37	.6	<.01	.052	<.001	<.05	.20	12.5	<.002	<.001	.06	<.002
MP	03/31/81	7.0	23	263	1	<.005	<.02	0.30	<.01	.08	4.1	.3	.04	.01	<.005	<.001	<.05	.04	10.8	<.001	<.001	<.04	<.002
MP	07/07/81	7.4	5	251	8	<.01	<.02	2.50	<.01	.08	3.5	1.9	.75	.03	<.005	<.001	<.05	.82	4.0	<.001	<.001	<.04	<.002
MP	10/13/81	6.8	18	262	2	<.01	<.02	5.50	<.1	.13	1.1	<.1	.17	<.01	<.005	<.001	<.05	<.05	12.0	<.005	<.001	<.04	<.01
MP	01/05/82	7.4	7	270	2	<.01	<.02	.63	<.1	.02	1.4	.23	<.05	<.01	<.005	<.001	<.05	<.05	5.0	<.005	<.001	<.04	<.01
MP	04/05/82	7.1	6	413	8	<.01	.06	.55	<.1	.06	11.0	<.1	.41	0.03	<.005	<.001	<.05	.34	4	<.005	<.001	.06	<.01
MP	06/28/82	7.4	3	397	10	0.02	.05	0.35	0.25	.10	4.3	0.61	0.33	0.05	<.005	<.001	<0.05	<.05	3	<.005	<.001	.19	<.01

SAMPLE

SAMPLE

Testing Lab.	Date of Sampling	pH	TOC	Specific Conduc.	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
HP	01/06/81	7.5	20	442	10	<.005	<.02	13.79	<.1	.21	2.16	.67	.4	<.01	.019	<.001	<.05	.09	7.5	<.002	<.001	<.04	.002
HP	03/31/81	7.3	18	233	5	<.005	<.02	0.08	<.1	.11	6.5	.8	.8	<.01	<.005	<.001	<.05	.03	6.4	<.001	<.001	<.04	.002
HP	07/07/81	7.4	18	663	11	<.01	<.02	7.1	<.1	.14	5.8	1.2	.75	<.01	.005	<.001	<.05	.17	10.0	<.001	<.001	<.04	.002
HP	10/13/81	6.8	12	687	8	<.01	.03	18.1	<.1	.17	4.3	<.1	.28	<.01	<.005	<.001	<.05	<.05	4.0	<.005	<.001	.09	.01
HP	01/05/82	7.1	18	701	8	<.01	<.02	2.79	<.1	.04	1.72	.79	.12	<.01	<.005	<.001	<.05	<.05	10.0	<.005	<.001	.05	.01
HP	04/05/82	6.9	12	775	20	<.01	0.06	15.6	<.1	.19	11.0	<.1	1.01	0.04	<.005	<.001	<.05	.66	9	<.005	<.001	<.04	<.01
HP	06/28/82	7.2	1	712	13	<.01	0.11	17.3	0.1	.13	3.7	0.93	0.12	0.03	<.005	<.001	<.05	<.05	2	<.005	<.001	0.14	<.01

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EO - Environment One PT - Princeton T

Well C

Results in Mg/L

Testing Lab.	Date of Sampling	pH	TOC	Specific Conduc.	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
NP	01/06/81	7.4	6	242	5	<.005	<.02	.11	<.1	.53	.14	.05	1.5	<.01	<.005	<.001	<.05	.07	5.8	<.002	<.001	<.04	<.002
NP	03/31/81	7.8	17	243	3	<.005	<.02	.32	<.1	.23	.6	<.05	.05	<.01	<.005	<.001	<.05	.04	4.4	<.001	<.001	<.04	<.002
NP	07/07/81	7.8	2	301	11	<.01	<.02	.2	<.1	.52	1.9	.8	1.17	<.01	.005	<.001	<.05	.04	1.0	<.001	<.001	<.04	<.002
NP	10/13/81	7.6	9	286	4	<.01	<.02	.1	<.1	.35	.1	<.1	1.22	<.01	<.005	<.001	<.05	<.05	5.0	<.005	<.001	<.04	<.01
NP	01/05/82	7.7	12	370	4	<.01	.14	<.04	<.1	.88	.46	.23	1.0	<.01	<.005	<.001	<.05	<.05	4.0	<.005	<.001	<.04	<.01
NP	04/05/82	7.4	2	313	20	<.005	.19	.11	<.1	.23	1.0	0.2	1.98	<.01	<.005	<.001	<.05	.02	2	<.005	<.001	<.04	<.01
NP	06/28/82	7.9	<1	281	11	<.01	.11	.29	<.1	.70	1.1	0.28	1.6	<.01	<.005	<.001	<.05	<.05	2	<.005	<.001	<.04	<.01

SAMPLE

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WELL A

Results in Mg/L Except Where Noted

GT - General Testing
EO - Environment One
MP - Malcolm Pirnie
PT - Princeton Test. Lab.

Testing Lab.	Date of Sampling	pH	TOC	Specific Conduc.	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	10/03/83	7.6	10	459	3	<.01	.04	1.3	<.1	0.04	4.2	3.9	0.41	0.01	<.005	<.001	<.05	<.05	<1	<.01	<.001	0.05	<.01
MP	01/17/84	7.0	5	467	6	<.01	<.02	0.25	<.1	0.02	0.65	0.09	0.66	0.01	0.008	<.001	<.05	<.05	2	<.01	<.001	<.04	<.01
MP	04/02/84	7.1	7	487	2	<.01	0.03	.73	<.1	0.04	.60	<.05	0.55	<0.01	<.005	<.001	<.05	1.02	1	<.01	<.001	0.04	<.01
MP	07/02/84	7.1	1	440	1	<.01	0.03	1.54	<.1	0.08	0.73	0.28	0.51	0.01	<.005	<.001	<.05	<.05	<1	<.01	<.001	0.04	<.01
N.Y State Groun Water Standards		6.5-8.5	-	-	<-250	<-.01	<-1.0	<-.3	<-.025	<-5.0	-	-	<-10.0	-	<-.001	-	-	-	-	<.2	<.002	-	<.02

SAMPLE

2.20

GT - General Testing MP - ' 'colm Pirnie
EO - Environment One PT - ı. inceton Test. Lab.

Well B

Testing Lab.	Date of Sampling	pH	TOC	Specific Conduc.	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	10/03/83	7.0	10	1138	7	<.01	<.02	0.14	<.1	0.01	0.84	0.37	0.55	0.01	<.005	<.001	<.05	<.05	<1	<.01	<.001	0.08	<.01
MP	01/17/84	6.6	20	1013	8	<.01	<.02	0.27	<.1	<.02	0.93	<.05	0.72	0.01	0.012	<.001	<.05	<.05	3	<.01	<.001	0.04	<.01
MP	04/02/84	6.7	13	658	5	<.01	0.02	1.11	<.1	.04	0.60	<.05	.70	<.01	<.005	<.001	<.05	.18	5	<.01	<.001	0.06	<.01
MP	07/02/84	6.5	18	814	7	<.01	<.02	0.21	<.1	.02	0.68	0.34	0.58	0.01	<.005	<.001	<.05	<.05	<1	<.01	<.001	0.04	<.01
N.Y. State Ground Water Standards		6.5-8.5	-	-	<-250	<-.01	<-1.0	<-.3	<-.025	<-5.0	-	-	<-10.0	-	<-.001	-	-	-	-	<-.2	<.002	-	<.02

SAMPLE

2.21

WELL C

GT - General Testing MP - Mr ɔlm Pirnie
EO - Environment One PT - Prɹnceton Test. Lab.

Testing Lab.	Date of Sampling	pH	TOC	Specific Conduc.	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	10/03/83	8.1	<1	275	5	<.01	<.02	0.27	<.1	0.51	0.75	<0.10	2.37	<.01	<.005	<.001	<.05	<.05	<1	<.01	<.001	<.04	<.01
MP	01/17/84	7.7	1	304	6	<.01	<.02	0.15	<.1	0.15	<.05	<.05	2.23	<.01	<.005	<.001	<.05	<.05	<1	<.01	<.001	<.04	<.01
MP	04/02/84	7.6	<1	270	6	<.01	<.02	0.10	<.1	0.12	0.80	0.40	2.26	<.01	<.005	<.001	<.05	<.05	2	<.01	<.001	<.04	<.01
MP	07/02/84	7.5	1	246	4	<.01	<.02	0.16	<.1	0.62	0.28	0.11	2.1	<.01	<.005	<.001	<.05	<.05	<1	<.01	<.001	<.04	<.01
N.Y. State Ground Water	Standards	6.5-8.5	-	-	<-250	<-.01	<-1.0	<-.3	<-0.25	<-5.0	-	-	<-10.0	-	<-.00	-	-	-	-	<-.2	<.002	-	<.02

SAMPLE

2.22

Well A

Results in Mg/L Except Where Noted

GT - General Testing MP - Malcolm Pir
EO - Environment One PT - Princeton T

Testing Lab.	Date of Sampling	pH	TOC	Specific Conduc.	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	10/04/82	7.5	37	325	9	<.01	.05	0.59	0.1	.09	0.84	0.19	0.90	0.02	0.012	<.001	<0.05	<.05	22	<.005	<.001	0.16	<.01
MP	01/03/83	7.2	12	349	6	<.01	<.02	0.25	<.1	0.10	0.30	<.10	0.19	0.02	0.014	<.001	<0.05	<.05	<1	<.005	<.001	0.12	<.01
MP	03/28/83	7.3	9	316	6	<.01	<.02	0.86	<.1	0.05	2.24	0.37	0.20	0.03	<.005	<.001	<.05	<.05	<1	<.01	<.001	<.04	<.01
MP	07/11/83	7.8	17	437	5	<.01	<.02	0.11	<.1	0.02	0.93	0.37	0.28	0.01	<.005	<.001	<.05	<.05	<1	<.01	<.001	0.05	<.01
N.Y. State Ground Water Standards		6.5 - 8.5	-	-	< -250	< -.01	<-1.0	<-.3	<-.025	<-5.0	-	-	<-10.0	-	<-.001	-	-	-	-	<-.2	<.002	-	<.02

SAMPLE

Well 5 — Results in mg/L Except Where Noted — EO - Environment One PT - Princeton Test Lab

Testing Lab.	Date of Sampling	pH	TOC	Specific Conduc.	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
HP	10/04/82	7.1	16	850	8	<.01	0.03	16.7	< .1	0.18	0.42	0.14	1.20	0.02	<.005	<.001	<.05	<.05	3	<.005	<.001	0.16	<.01
HP	01/03/83	7.8	20	874	3	.01	0.05	20.9	< .1	0.08	0.20	<.10	0.27	0.02	<.005	<.001	<.05	<.05	<1	<.005	<.001	0.14	<.01
HP	03/28/83	7.4	7	762	3	<.01	.02	8.60	< .1	0.03	3.16	1.03	0.34	0.03	<.005	<.001	<.05	0.08	1	<.01	<.001	<.04	<.01
HP	07/11/83	7.4	25	804	6	<.01	<.02	1.30	< .1	0.05	1.12	0.56	0.48	0.02	0.006	<.001	<.05	0.10	<1	<.01	<.001	0.06	<.01
N.Y. State Ground Water Standards		6.5 - 8.5	-	-	<-250	<-.01	<-1.0	<-.3	<-.025	<-5.0	-	-	<-10.0	-	<-.001	-	-	-	-	<-.2	<.002	-	<.02

2.24

Well C

Results in Mg/L Except Where Noted

GT - General Testing MP - Malcolm Pirn
EO - Environment One PT - Princeton Te

Testing Lab.	Date of Sampling	pH	TOC	Specific Conduc.	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Trivalent Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	10/04/82	7.7	1	283	9	<.01	.02	0.17	<.1	0.80	0.28	0.19	1.73	<.01	<.005	<.001	<.05	<.05	<1	<.005	<.001	<.04	<.01
MP	01/03/83	8.0	<1	257	4	<.01	<.02	0.40	<.1	0.67	0.15	<.10	1.43	<.01	<.005	<.001	<.05	<.05	1	<.005	<.001	<.04	<.01
MP	03/28/83	7.6	1	237	7	<.01	<.02	0.25	<.1	0.59	0.56	0.19	1.90	0.01	<.005	<.001	<.05	<.05	<1	<.01	<.001	<.04	<.01
MP	07/11/83	7.3	<1	289	9	<.01	<.02	<.04	<.1	0.01	0.56	0.28	2.31	<.01	<.005	<.001	<.05	<.05	2	<.01	<.001	<.04	<.01
N.Y. State Ground Water Standards		6.5 - 8.5	-	-	<-250	<-.01	<-1.0	<-.3	<-.025	<-5.0	-	-	<-10.0	-	<.001	-	-	-	-	<-.2	<.002	-	<.02

sting ...oration gtc
Rochester, NY 14623 (716) 424-1970

August 10, 1978 Dave Johnson

Water and Wastewater Testing Specialists

LABORATORY REPORT

Job No. 10139 (Addendum) Page 1

Sample(s) Reference 2.25

. Arthur
Pruyn & Co.
Street
Falls, N.Y. 12801

Combined Sludge

...les (x) received ( ) collected by General Testing 7/19/78

ANALYTICAL RESULTS

~~xxxxxxxxxxxxxxxx~~ ug/g wet wt.

Sample Description	Sludge Sample	Sludge Sample	Sludge Sample
Date(s) Time(s)	7/17/78	8/16/78	8/17/78
Chlorine Demand	2140		
COD, Dichromate	245,823		
Cyanides, Total	<0.2		
Grease/Oil	2245		
Nitrogen, Ammonia N	223.7		
Nitrogen, Kjeldahl N	2,619		
Nitrogen, Nitrate N	429.0		
Nitrogen, Nitrite N	2.6		
Phenolics	0.46		
Phosphate, Total as P	306.1		
Moisture %	74.5		
Solids, Total %	25.5		
Solids, Total Volatile %	72.1		
Arsenic	.087	<.16	<.14
Cadmium	174	<.78	<.80
Chromium, Total	2.98	<3.8	<4.0
Copper	7.53	6.21	8.06
Iron	274	248	274
Lead	3.80	4.66	8.06
Mercury	.048	<.04	<.06
Nickel	3.79	<3.8	<4.0
Selenium	.002	<.16	<.14
Zinc	17.4	10.9	12.9

ADIRONDACK PARK AGENCY

RECEIVED
SEP 5 1978

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 14th Edition and Methods for Chemical Analysis of Water and Wastes, EPA.
(<) indicates lowest detectable concentration with procedure used

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R-28

R J Scheible

Richard J. Scheible

Finch, Pruyn & Co., Inc./Glens Falls, New York, 12801 Tel. 518/793-2541

Ltr 3.1

August 2, 1977



New York State Department of
Environmental Conservation
Region 5 Headquarters
Ray Brook, New York 12977

Attention: Mr. Bud Colden

Dear Mr. Colden:

Confirming our telephone discussion on Monday, August 1, 1977 relating to your question "will the phenolics in our Waste Treatment Plant sludge rapidly leach out or will they remain bound up in the solids material; if they don't leach out rapidly, why?" Phenols are a natural constituent in the various wood species used in our pulping operation and our investigations indicate that the phenols are bound in the wood fibers; in both the pulping and bleaching operation, high temperatures and/or chemicals are necessary to extract the phenols from the fibers. The phenolics in our Waste Treatment Plant sludge are, in our opinion, associated with the fibers in the sludge and will essentially remain bound to the fibers in a compacted landfill.

This subject was reviewed with Engineers associated with Malcolm Pirnie, Inc., White Plains, New York who stated that at the Hollingsworth and Vose Mill in Easton, New York where phenol concentration in the waste are significantly higher and where test wells were installed in the vicinity of the sludge disposal site; to the best of their knowledge no indication of contaminates is evident after four years of operation.

Hydroscience, Inc. of Westbrook, New Jersey was consulted and they stated that they would expect only a small amount of phenols in any leachate that could develop from the sludge. They further stated that with the low levels of phenolics indicated, approximately 1 part per million, the phenols would probably be absorbed in the soil.

Very truly yours,

John Shema

John Shema,
Chief Engineer

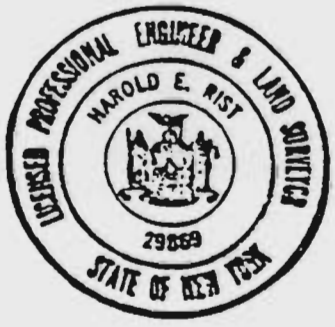
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ALL 4.1

FINCH PRUYN & CO., INC.
GLENS FALLS, NEW YORK

SLUDGE DISPOSAL & LAND RECLAMATION
PHASE NO. 2 DEVELOPMENT PLAN

AUGUST 2, 1978



Rist-Frost Associates
Consulting Engineers
21 Bay Street
Glens Falls, New York

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I. GENERAL

A. PURPOSE AND BACKGROUND

The purpose of this report is to present a sludge disposal and land reclamation plan to be implemented by Finch-Pruyn & Co., Inc. in conformance with the requirements of 6 NYCRR Part 360 describing the second phase of operation at its Queensbury site. It provides direction for the proper development of this area and promotes the protection of environmental resources including surface waters, groundwater and air quality.

With the recent construction of a new activated sludge wastewater treatment plant at its mill site on the Hudson River in Glens Falls, Finch-Pruyn has experienced the need to provide for the proper disposal of the sludge generated therefrom. The company has been successfully operating a sludge disposal landfill facility on a large tract of land located south of New York Route 149 in Queensbury during the past 12 months. As the capacity of the first phase area is becoming depleted, Finch-Pruyn desires to expand its current operation to an adjacent portion of the site.

B. SLUDGE QUANTITIES AND CHARACTERISTICS

The sludge is produced in the primary and secondary clarifiers of the activated sludge wastewater treatment plant, mixed together in sludge thickeners, and dewatered on vacuum filters. The sludge is then dewatered further on a Rietz V-Press. The

4.12

sludge is conveyed to a covered loading floor and is loaded onto a 12 cubic yard dump trucks with a wheel loader.

Sludge quantities and solids concentrations are presented below(1). complete chemical analysis of the sludge is presented in the Appendix.

Month	Tons/Day(2) (Dry Wt.)	Average Solids Concentration(3)
April 1978	112	22.2%
May 1978	109	23.6%
June 1978	97	23.8%

Finch-Pruyn is modifying this process to add a second Rietz press. This unit is scheduled to be on line in October and should result in an overall sludge solids concentration of 26-30 percent.

---

(1) Provided by Finch-Pruyn & Co., Inc.
(2) 7 days per week operation
(3) average of one grab sample each day

II. SITE CHARACTERISTICS

A. GENERAL

Finch-Pruyn & Co., Inc. owns a 186 acre tract of land located 6 miles north of downtown Glens Falls in the towns of Queensbury and Fort Ann south of N.Y. Route 149 and north of Mud Pond Road. Access to the sludge disposal site is obtained by way of a private road from Route 149.

The company proposes the utilization of some twelve acres of land within its holdings in the Town of Queensbury for the Phase 2 disposal operation. This area encompasses a large chasm located immediately south of the present disposal site. It is more than 400 feet from the shore of Mud Pond. (See Drawing No. 2 - Site Plan.)

B. LAND USE AND ZONING

Land within a one mile radius of the Finch-Pruyn site is primarily forest land, used for agricultural purposes or for low density residential development. In the Town of Queensbury the majority of the land within one mile of the site is zoned R-3. In Kingsbury, all the land within a mile of the site is zoned "R-15". (See Drawing No. 1 of the Plans.) A detailed explanation of these zoning classifications appears in the Appendix. Queensbury also has an ordinance regulating landfill operations. The sludge disposal site is located within the Adirondack Park and is classified for "moderate intensity" use.

Land adjacent to the site on the west is owned by the Town of Queensbury which operates a sanitary landfill there. The Town of Fort Ann owns and operates a municipal landfill on a nearby parcel east of

the Finch-Pruyn site. Numerous sand and gravel extraction operations surround the site.

C. SOIL CHARACTERISTICS

According to the Soil Conservation Service(1), soils to be found in the area proposed for the disposal site expansion belongs to the Hinckley Cobbley group. These are deep, well to excessively drained, acid cobbly soils that have developed on outwash material derived mainly from gneiss and granite, but may contain some crystalline limestone. They are level to steep or rolling soil on outwash terraces. Run-off is slow on gentle slopes and rapid on steep slopes. Permeability is rapid to very rapid. Available moisture capacity is very low.

More specific information concerning soil characteristics was obtained at five points on the site. (See Drawing No. 2 of the Plans.) These reveal that the soils are mostly sand and gravel with some silt and cobbles. Boring logs appear in the Appendix of this report.

D. GROUNDWATER CONDITIONS

Two 2-inch diameter monitoring wells were put down near the pond and a 6-inch diameter monitoring well up-gradient of the sludge disposal areas was drilled. In addition, a 6-inch diameter observation well was drilled at the middle of the proposed Phase 2 disposal area. (See Drawing No. 2 of the Plans.) These wells

---

(1) "Warren County Soil Interpretation Report", December 1975.

extend approximately fifteen feet below the level of the groundwater table encountered at the time of installation. Careful measurement of groundwater elevations reveal a slight gradient in the table sloping toward Mud Pond. Specific data obtained defining the groundwater conditions are presented below.

Location	Elevation Top of Casing	Depth to G.W. Table 7/13/78	Depth to G.W. Table 7/20/78	G.W. Elevation 7/13/78	G.W. Elevation 7/20/78
Monitoring Well A	114.68	11.68'	11.70'	103.00	102.98
Monitoring Well B	111.81	9.96'	9.90'	101.85	101.91
Monitoring Well C	285.58	N/A*	178.30'	N/A*	107.28
Observation Well 3A	176.34	71.74'	71.78'	104.60	104.56

* N/A - Not available, well not installed.

E. ESTIMATED SITE CAPACITY

The capacity of the Phase No. 2 disposal area is dependent upon the amount of sludge received and the degree of compaction obtained when in place. The useful life of this area has been calculated based on estimated quantities of 500-700 cubic yards per day on a seven day per week basis. The estimate assumes that the site will be prepared in the manner described on the Plans and presented herein and that cover material utilized will be obtained from the excavation of the chasm walls thereby causing no net change in available capacity. As such, the Phase 2 area should provide for the sludge disposal needs of Finch-Pruyn for 3-5 years.

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F. POTENTIAL LEACHATE PRODUCTION

Leachate forms as water passes through a landfill dissolving out chemicals. Leachate composition and quality varies depending on the characteristics and age of the landfill and on the amount of water entering and leaving the fill area. The amount of leachate produced at any given landfill site is a function of water balance. (See Figure No. 1.) The potential leachate quantity is equal to the flow of groundwater through the landfill, plus surface water runoff entering the site, plus precipitation falling onto the landfill area. The above potential leachate production is reduced by the amount of surface water runoff from the site, evapotranspiration of water from the fill area and the ability of the landfill to store water.

The potential for the production of leachate at the proposed Phase No. 2 disposal area can be mitigated by taking the following steps during site preparation and landfill operation.

(1) By keeping landfilled sludge above the seasonal high groundwater table, the flow of groundwater through the solid waste will be zero. Separation distances between sludge and groundwater is some sixty feet.

(2) Minimize the flow into the site of surface water runoff from outside the area. This outside tributary area is small at the proposed site, only about seven acres.

(3) Minimize the effect of precipitation falling directly on

Soils of this type are easily handled, stockpiled and due to its low moisture content is most satisfactory during cold or wet weather operation.

The site, due to its topography possesses an abundant supply of cover material. It can be excavated from a nearby sidewall which through the life of the facility would be no more than 400 feet away from the active area.

III. SITE PREPARATION

A. EXCAVATION AND GRADING

Preparatory grading of the proposed Phase 2 disposal area in the manner shown on Drawing No. 3 of the Plans is essential to maximize its capacity for sludge disposal and provide proper site drainage. The excavation of the greater part of the existing floor of the site will increase the volume of the depression and create a smooth base upon which lifts of sludge will be built. It must be sloped from the front to the north wall at a two percent grade to provide adequate drainage. The minimum elevation of the floor of the depression will be 160. This will provide more than fifty-six feet of separation between sludge and the groundwater table. Three bench marks have been established in the area to set elevations.

Excavated soil will be utilized to build up areas for the embankment and roadway construction. Excess soil will be stockpiled at convenient locations for use in the future as cover material.

B. ACCESS ROAD

An unpaved road will be constructed to allow access of sludge transport vehicles down into the proposed landfill area. The road shall be ditched to allow drainage of surface water away from the landfill area. The slopes above and below the roadway shall be one on two. These shall be fertilized, seeded, and mulched to establish a vegetative cover to protect against erosion.

C. SITE DRAINAGE AND EROSION CONTROL

Excavation and landfilling activity during the operation of the facility will be conducted so as to provide for the free drainage of surface water out from the site.

Vegetative cover will be established and maintained on critical areas to reduce erosion.

D. BUFFER AREAS

Minimum fifty foot wide strips of land along property lines will remain in their existing (natural) condition to provide a buffer around the disposal site. These will serve to screen the operation from view from adjacent properties and to minimize the travel of noise into outside areas.

In addition, a 400 foot distance will be maintained between the Phase 2 area and Mud Pond.

E. MAINTENANCE BUILDING

A 25' x 50' building of concrete block has been constructed to provide shelter for the staff and machinery. The building has been provided with electricity, telephone service, heat, lights and hot water. Two bays for the landfill equipment has been provided as well as space for routine maintenance on the machinery. Area is included for a small office for the chief operator and sanitary facilities for personnel.

IV. FACILITY OPERATION

A. SITE DEVELOPMENT

The landfilling of sludge must be conducted in an orderly, progressive manner to maximize site life and avoid difficult operating conditions. The proposed Finch-Pruyn facility will be developed utilizing the "area method" of operation. Sludge will be dumped in a confined area and covered with soil to form a building block called a "cell". A series of adjoining cells of the same height will be constructed to form a "lift". New lifts will then be placed on completed ones in this progressive manner until the depression is filled.

Trucks entering the disposal area will dump sludge at the working face as directed by the chief operator. This area, where sludge is deposited and covered, should be wide enough to prevent a backlog of vehicles waiting to dump, but not so wide that it becomes impractical to manage properly. A width of 30 to 40 feet should be sufficient. Cells will be constructed of layers of sludge reaching a height of 3 to 4 feet.

Cover material will then be placed on top of the sludge using a wheel loader and then thoroughly compacted to provide a stable surface. Periodically the top of the lift will be graded with a dozer providing an area, sloping to drain, for the next lift. (See Drawing No. 5 in the Plans.)

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V. CLOSING PLAN

Upon completion of the final lift of sludge in the Phase No. 2 development area, the entirety of the filled area will be covered with a minimum 36 inch layer of soil. All cracks due to settlement or erosion will be filled in and the top level graded as shown on the Plans. (See Drawing No. 4.) The final three feet of cover material should incorporate some topsoil or other material to increase the fertility of the existing soil.

Finally the area should be fertilized, seeded and mulched to establish a permanent vegetative cover. Rye grass, oats, or lucern grass could be used. In addition, this land, now relatively smooth in contour will be planted with hardwood or coniferous trees.

4 C

VI. GROUNDWATER MONITORING

Three groundwater monitoring wells have been installed at the locations shown on Drawing No. 2.

At least two samples from each well shall be taken prior to the deposition of sludge. Parameters to be analyzed will be as determined by the Department of Environmental Conservation.

Routine sampling and analyses of groundwater will be required. A program including parameters for analysis and frequency of sampling will be established by the Department.

MONITORING WELL A

A-1

DATE STARTED 6/21/78 FINISHED 6/22/78 SHEET 1 OF 1

EMPIRE SOILS INVESTIGATIONS, INC.

SUBSURFACE LOG

HOLE NO MWA SURF ELEV G. W. DEPTH See Note #1

PROJECT Observation Wells: Finch Pruyn Landfill LOCATION Queensbury,

4.19

DEPTH-FT	SAMPLES	SAMPLE NO	BLOWS ON SAMPLER 0/6 6/12 12/18 N	BLOW ON CASING C	SOIL OR ROCK CLASSIFICATION
0					
5		1			Brown fine SAND, little silt
10		2	4 5 7 12		
15		3	11 14 17 31		
20		4	5 14 20 34		-grades some Silt, trace fine gravel
25		5	36 21 22 43		-grades little fine gravel, little silt
30		6	20 14 14 28		(Moist to Wet-Firm to Compact) Brown fine to coarse SAND, some Silt, some fine to coarse Gravel (Moist-Firm)
35					END OF BORING @ 31.5'

Note #1
Upon completion of boring, a permanent water observation well was installed to 30.0'.
24 hours after installation, groundwater @ 8.9'.

Note #2
Driller reports "hard" auger from 24.5'.

144

(R-48)

N = No. blows to drive 2 "spoon 12 "with 140 lb. pin wt. falling 30 "per blow.

C = No blows to drive ____ "casing ____ "with ____ lb. weight falling ____ "per blow.

METHOD OF INVESTIGATION 3¼" I.D. Hollow Stem Auger Casing

CLASSIFICATION Visual by Geologist

DATE STARTED 6/22/78
FINISHED 6/22/78
SHEET 1 OF 1

EMPIRE SOILS INVESTIGATIONS, INC.

SUBSURFACE LOG

HOLE NO MWB
SURF. ELEV
G. W. DEPTH See Note #1

PROJECT Observation Well: Finch Pruyn Landfill
LOCATION Queensbu

4.20

DEPTH-FT	SAMPLES	SAMPLE NO	BLOWS ON SAMPLER 0/6	6/12	12/18	N	BLOW ON CASING C	SOIL OR ROCK CLASSIFICATION
0								
5		1	8	13	15	28		Brown fine to coarse SAND, little fine gravel, little silt (Moist-Firm)
10		2	13	38	33	71		Brown fine SAND, some Silt, some fine to coarse Gravel
5		3	45	15	18	33		-grades fine to coarse "AND" fine to coarse GRAVEL, little silt
20		4	14	15	18	33		-grades some fine Gravel
25		5	38	43	38	81		-grades little fine gravel (Moist to Wet-Compact to Very Compact)
								END OF BORING @ 26.5'
30								

Note #1
Upon completion of boring, a permanent water observation well was installed to 25.0'.
After installation, groundwater level @ 7.1'.

Note #2
Driller reports "hard" auger 0-25'.

145

R-49

N = No. blows to drive 2 "spoon 12 "with 140 lb. pen wt. falling 30 "per blow.
C = No. blows to drive "casing "with lb. weight falling "per blow.

CLASSIFICATION Visual by Geologist

DATE
STARTED 5/31/78
FINISHED 5/31/78
SHEET 1 OF 1

EMPIRE SOILS INVESTIGATIONS, INC.

SUBSURFACE LOG

HOLE NO. B-3
SURF ELEV.
G. W. DEPTH See Note #1

PROJECT Observation Well: Finch Pruyn Landfill
LOCATION Queensbury

4.21

DEPTH FT	SAMPLES	SAMPLE NO	BLOWS ON SAMPLER (0"/6" / 6"/12" / 12"/18" / N)	BLOW ON CASING C	SOIL OR ROCK CLASSIFICATION
0		1	4 / 4 / 4 / 8		Brown fine SAND, little silt
5		2	2 / 4 / 3 / 7		
10		3	2 / 2 / 2 / 4		(Moist to Wet-Loose)
15		4	3 / 8 / 56 / 64		Brown fine to coarse SAND, some Silt, little fine gravel, with thin seam of brown CLAY, some Silt noted
20		5	27 / 33 / 31 / 64		-grades "AND" fine GRAVEL
25			75/.1		-no recovery
30		6	106		-grades some fine Gravel (Wet-Very Compact)
					END OF BORING @ 30.0'

Note #1
Upon completion boring dry.

Note #2
Driller reports "Hard" auger to 30.0'

146

N = No. blows to drive 2 "spoon 12 "with 140 lb. pin wt. falling 30 "per blow.
C = No. blows to drive "casing "with lb. weight falling "per blow.
METHOD OF INVESTIGATION: 3¼" I.D. Holl...

CLASSIFICATION Visual by Geologist

R-50

FINCH PRUYN LANDFILL

SOIL SAMPLE LOG:

	DEPTH	DESCRIPTION*
OBSERVATION WELL 3A		
	0-45'	Brown fine sand
	45-75'	Coarse gravel & boulders
	75-84'	Brown to gray fine to coarse sand & gravel
MONITORING WELL C		
	0-135'	Brown to gray fine to coarse sand & gravel
	135-185'	Gray fine sand
	185-228'	Fine to coarse gravel, some fine to coarse sand

* *By Rist-Frost, Associates*

general testing corporation

A-5

specialists in environmental and food testing

July 28, 1977

2855

REPORT OF ANALYTICAL TESTING AND MEASUREMENTS

Source:
Finch, Pruyn
Industrial Waste

Requested by:
Mr. Phil Arthur
Finch, Pruyn and Company
1 Glen St.
Glens Falls, N.Y. 12801

Date sample received by General Testing Laboratory	7/19/77
Customer Number	8105 A

ANALYTICAL RESULTS *
(~~mg/l~~ unless stated otherwise)
ug/gm = ppm
Sludge Sample

Date Collected	7/18/77
Time Collected	-
Chlorine Demand	1500
COD, Dichromate	211,870
Cyanides, Total	<3
Grease/Oil	2105
Nitrogen, Ammonia N	72
Nitrogen, Kjeldahl N	2609
Nitrogen, Nitrate N	7.2
Nitrogen, Nitrite N	<1
Phenolics	1.43
Phosphate, Total as P	550
Moisture	74.3%
Solids, Total %	25.7
Solids, Total Volatile, %	17.8

RECEIVED
JUL 25 1978
FIST-FROST ASSOCIATES

* Wet Weight Basis

Analytical procedures in accordance with "Standard Methods for the Examination of Water and Wastewater, 14th Edition" and "Methods for Chemical Analysis of Water and Wastes, EPA". (<) indicates lowest concentration detectable with procedures used.

Richard J. Scheible
Laboratory Director

RJS:hc

148

(R-52)

eneral testing
corporation

specialists in environmental and food testing

A-6

July 28, 1977

REPORT OF ANALYTICAL TESTING AND MEASUREMENTS

Source:
Finch, Pruyn
Industrial Waste

Requested by:
Mr. Phil Arthur
Finch, Pruyn and Company
1 Glen St.
Glens Falls, N. Y. 12801

Date sample received by General Testing Laboratory: 7/19/77

Customer Number: 8105 B

ANALYTICAL RESULTS *
(~~mg/kg~~ unless stated otherwise)
ug/gm
Metals

Date Collected	7/18/
Time Collected	-
Arsenic	<1
Cadmium	.84
Chromium, Total	.63
Copper	8.46
Iron	150
Lead	1.40
Mercury	<.03
Nickel	1.02
Selenium	<1
Zinc	14.45

* Wet weight basis

Analytical procedures in accordance with "Standard Methods for the Examination of Water and Wastewater, 14th Edition" and "Methods for Chemical Analysis of Water and Wastes, EPA". (<) indicates lowest concentration detectable with procedures used.

Richard J. Scheible
Laboratory Director

RJS:hc

149

326 John Street Rochester, N.Y. 14623 (716) 436-0545

R-53

EXCERPT FROM
SCHEDULE OF ZONING REGULATIONS
TOWN OF QUEENSBURY, WARREN COUNTY, NEW YORK

U S E S

	PERMITTED PRINCIPAL	PERMITTED ACCESSORY	PERMITTED SPECIAL
R-1	One Family detached dwelling; Residential	Office of a physician, dentist, architect, engineer, surveyor or lawyer when conducted in a dwelling by the inhabitant thereof; customary home occupation as defined by this ordinance. Private garages and parking areas; off-street parking and loading. Signs as regulated in Article 6.805. Any other accessory building or use customarily incidental to principal use.	None.
R-2	One Family detached dwelling; Farms, farm uses and customary farm occupations, provided that no unenclosed storage area for manure or other materials creating dust or odor shall be permitted within one hundred feet of any street or residential property line. Public building, public school; library; church or other place of worship and their related facilities; public parks, reservations and recreation facilities, but not including commercial recreation facilities. Public and private water supply and sewage disposal facilities; private and parochial schools, provided they meet the minimum standards set forth by the Planning Board, hospital, nursing or convalescent home.	Office of a physician, dentist, architect, engineer, surveyor or lawyer when conducted in a dwelling by the inhabitant thereof; customary home occupation as defined by this ordinance; customary farm buildings for the storage of products or equipment located on the same parcel as the principal use. Roadside stands, in connection with a farm operation, for the purpose of display and sale of farm products raised by the owner on the premises provided that stand is set back at least thirty feet from the street right-of-way line. Private garages and parking areas; off-street parking and loading. Signs as regulated in Article 6.805. Any other accessory building or use customarily incidental to principal use. Funeral homes.	Golf course, ski slopes, and lifts operated for profit, including refreshments & other incidental facilities for patrons only. Community buildings, golf clubs, social halls, clubs, lodges and fraternal organizations. Campsites. Cemeteries. Extraction of stone, sand and gravel. Essential services. Riding academies, livery stables, animal kennels. Mobile Home Court. Large scale residential development. Marina. Yacht club. Boat storage conducted for financial gain.
R-3	All uses permitted in R-2 district. Two family dwellings.	All accessory uses permitted in R-2 district. Private boat launching ramp. Boat storage for the storage of boats and equipment located on the same parcel, but not to include more than	All special uses as permitted in R-2 district, except extraction of stone, sand and gravel, mobile home courts, riding academies, livery stables animal ken-

150

4.2

EXCERPT FROM ZONING ORDINANCE
TOWN OF KINGSBURY, WASHINGTON COUNTY, NEW YORK

SECTION 62. PROVISIONS APPLICABLE IN R-15 RESIDENTIAL DISTRICTS.

SPECIFICATIONS. The minimum lot size shall be 15,000 square feet and the minimum lot width 100 feet. The building line shall be at least 75 feet back from the center of State and County roads and 65 feet back from the center of Town roads, or respectively 45 feet and 40 feet back from the respective rights-of-way, whichever is greater. On corner lots set back shall be 50 feet from side road. The minimum building area of the principal building shall be 700 square feet designed for dwelling use. Accessory buildings shall be at least 20 feet distant from the principal building.

PERMITTED USES.

a. One single-family dwelling per lot with such necessary buildings as may be associated with residential use.

b. Gardening pursuits for the benefit of the resident family.

c. Customary farming operations on land which is part of a farm included within the boundaries of the district.

d. Churches with associated activities.

e. Public schools and public buildings.

f. Public parks together with buildings and uses incidental to their operation.

g. Customary home occupations such as the practice of the professions, giving private instructions, and dressmaking.

USES REQUIRING A PERMIT.

a. Non-profit outdoor recreational enterprises.

b. Public utility unit substations necessary for the service of the area.

SIGNS. Signs are permitted in R-15 residential districts only as authorized under the provisions of Section 61 of this ordinance and under the following provisions:

a. Interior signs shall be limited to one per lot. Such signs may state only the name and business of resident

EXCERPT FROM ZONING ORDINANCE (cont'd)

occupants. The maximum surface area of such a sign shall be 6 inches by 30 inches.

b. Exterior signs shall be limited to one per lot. Such signs may state only the name and business of resident occupants together with the telephone number and hours of availability. The maximum surface area of such a sign shall be 2 square feet. The illumination shall be limited to plain white lighting.

c. Real estate signs shall be limited to one signifying sale or rent of the premises. The maximum allowable surface area shall be 3 feet by 4 feet. Illumination shall be limited to plain white lighting.

(47-15-11 (10/83)

RL 6.1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE
INACTIVE HAZARDOUS WASTE DISPOSAL SITE REPORT

PRIORITY CODE: 2a SITE CODE: 557002

NAME OF SITE: Finch, Pruyn and Company REGION: 5

STREET ADDRESS: Rte. 149 East of Ridge Road

TOWN/CITY: Queensbury COUNTY: Warren

NAME OF CURRENT OWNER OF SITE: Finch, Pruyn and Company

ADDRESS OF CURRENT OWNER OF SITE: Glens Falls, N.Y.

TYPE OF SITE: OPEN DUMP ☐ STRUCTURE ☐ LAGOON ☐
LANDFILL [X] TREATMENT POND ☐

ESTIMATED SIZE: 60 ACRES

SITE DESCRIPTION:

Only paper mill sludge is deposited at this active landfill. This same sludge is being used as a bottom liner at the Queensbury RDA and as a top cap at the Caputo PCB site in Moreau. Groundwater monitoring wells have been installed at this site.

HAZARDOUS WASTE DISPOSED: CONFIRMED ☐ SUSPECTED [X]

TYPE AND QUANTITY OF HAZARDOUS WASTES DISPOSED:

TYPE	QUANTITY (POUNDS, DRUMS, TONS, GALLONS)
Paper mill sludge	

TIME PERIOD SITE WAS USED FOR HAZARDOUS WASTE DISPOSAL:

_____, 19 ___ TO _____, 19 ___

OWNER(S) DURING PERIOD OF USE: Finch, Pruyn and Company

SITE OPERATOR DURING PERIOD OF USE: Finch, Pruyn and Company

ADDRESS OF SITE OPERATOR: Glens Falls, N.Y.

ANALYTICAL DATA AVAILABLE: AIR ☐ SURFACE WATER ☐ GROUNDWATER ☒
SOIL ☐ SEDIMENT ☐ NONE ☐

CONTRAVENTION OF STANDARDS: GROUNDWATER ☒ DRINKING WATER ☐
SURFACE WATER ☐ AIR ☐

SOIL TYPE: _____

DEPTH TO GROUNDWATER TABLE: exceeds 5 feet

LEGAL ACTION: TYPE: None - STATE ☐ FEDERAL ☐

STATUS: IN PROGRESS ☐ COMPLETED ☐

REMEDIAL ACTION: PROPOSED ☐ UNDER DESIGN ☐
IN PROGRESS ☐ COMPLETED ☐

NATURE OF ACTION: _____

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Monitoring of wells has shown a contravention of groundwater quality standards. No evidence exists that anything other than non-hazardous paper mill sludge has been disposed of at this site.

ASSESSMENT OF HEALTH PROBLEMS:

INSUFFICIENT INFORMATION

PERSON(S) COMPLETING THIS FORM:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NAME William C. Colden, P.E.
TITLE Assoc. Sanitary Engr.
NAME Robert A. Olazagasti
TITLE SWMS
DATE: November 1983

NEW YORK STATE DEPARTMENT OF HEALTH

NAME Ron Tramontano
TITLE Bur. Tox. Subst. Assess.
NAME _____
TITLE _____
DATE: December 1983

SCS-CONS-228 Rev. 6-71
(File Code CONS-14)

CONSERVATION PLAN MAP

SCS-CONS-15
OCTOBER 1974

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SOIL MAP

Owner Finch Pruyn and Co. ~~Operator~~ Queensbury

County WARREN Co State NY

Soil survey sheet(s) or code nos. _____ Approximate scale 1" = 1320'

N

Prepared by U.S. Department of Agriculture, Soil Conservation Service cooperating with WARREN Co. Soil + Water Conservation District



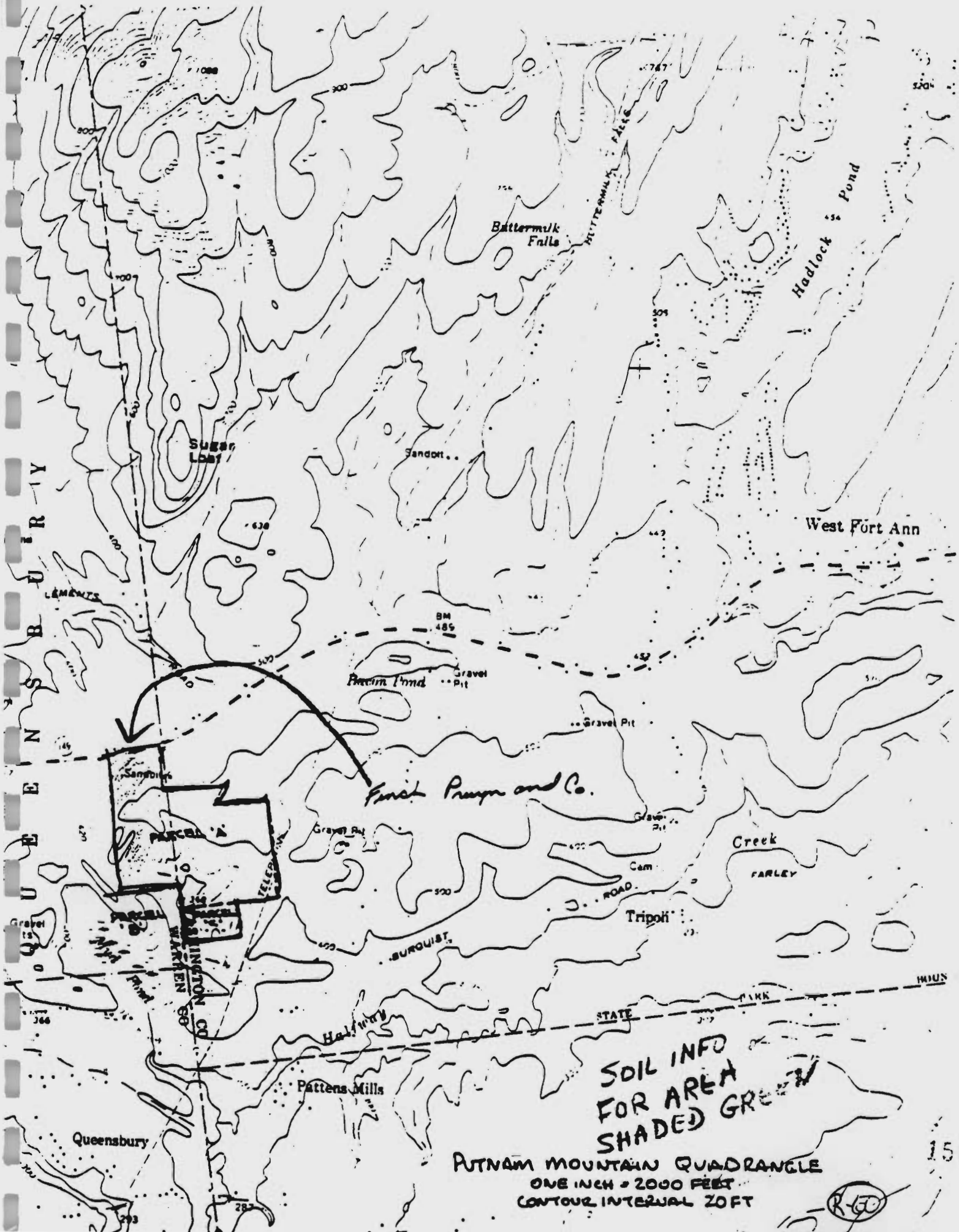


ADVANCE COPY-SUBJECT TO CHANGE. FIELD WORK BY USDA - SOIL CONSERVATION SERVICE IN COOPERATION WITH CORNELL UNIVERSITY EXPERIMENT STATION.

Boundary and field lines on this orthophoto were prepared for the purpose of conservation planning and should not be construed as legal boundaries in the use of land.

155

(R-59)


Buttermilk Falls
Hadlock Pond
West Fort Ann
Sugar Loaf
Sandon
Gravel Pit
Finch Pruyn and Co.
PARCEL "A"
PARCEL "B"
Creek
Tripoli
ROAD
STATE
PARK
Pattens Mills
Queensbury
SOIL INFO FOR AREA SHADED GREEN
PUTNAM MOUNTAIN QUADRANGLE
ONE INCH = 2000 FEET
CONTOUR INTERVAL 20 FT
R-60
156

LANDOWNER: Finch Pruyn & Co.

TOWN: Queensbury

SOIL INFORMATION

MAP UNIT SYMBOL	MAP UNIT NAME	SLOPE RANGE	DEPTH TO BEDROCK	DRAINAGE CLASS	ADDITIONAL INFORMATION
31C	Hinckley - cobbly sandy loam	Sloping 8-15%	Deep	Excessively drained	
145B	Oakville - loamy fine sand	Gently sloping 3-8%	Deep	Well drained	Prime farmland
145C	Oakville - loamy fine sand	Sloping 8-15%	Deep	Well drained	
41DE	Plainfield & Oakville soils	Steep 15-35%	Deep	Excessively drained	Sandy soil

DRAINAGE CLASSES: Excessively, Somewhat excessively, Well, Moderately well, Somewhat poorly, Poorly, and Very poorly

DEPTH TO BEDROCK: Deep – Bedrock is 40" or more below soil surface
Moderately deep - Bedrock is from 20-40" below the soil surface
Shallow - Bedrock is from 10"-20" below the soil surface
Rock Outcrop - Bedrock is at the surface

the soil series to which the mapping unit belongs. Other information is given in tables as follows:

Engineering, tables 5, 6, and 7, pages 80 through 115.
Town and country planning, table 8, page 120.

Map symbol	Mapping unit	Page	Capability unit: Symbol	Capability unit: Page	Woodland group: Number
HvB	Hudson silt loam, 2 to 6 percent slopes	34	IIe-2	56	3o2
HvC	Hudson silt loam, 6 to 12 percent slopes	34	IIIe-1	59	3r1
HvD	Hudson silt loam, 12 to 20 percent slopes	35	IVe-2	62	3r3
HWE	Hudson and Vergennes soils, steep and very steep	35	VIIe-1	65	------
	Hudson part	----	------	----	3r3
	Vergennes part	----	------	----	3c3
KbA	Kingsbury silty clay, 0 to 2 percent slopes	36	IIIw-1	60	3w1
KbB	Kingsbury silty clay, 2 to 6 percent slopes	36	IIIw-1	60	3w1
Lm	Limerick silt loam	37	IIIw-4	61	4w1
Ma	Madalin silty clay loam	38	IVw-1	63	5w1
NAC	Nassau shaly silt loam, undulating through hilly	39	IVe-3	62	5d1
NBC	Nassau-Rock outcrop association, undulating through hilly	39	------	----	------
	Nassau part	----	VIs-2	64	5x1
	Rock outcrop part	----	VIIIs-1	65	------
NBF	Nassau-Rock outcrop association, steep and very steep	40	------	----	------
	Nassau part	----	VIIs-2	65	5x2
	Rock outcrop part	----	VIIIs-1	65	------
OaB	Oakville loamy fine sand, 0 to 5 percent slopes	40	IIIs-1	61	4s1
OaC	Oakville loamy fine sand, 5 to 15 percent slopes	41	IVs-1	64	4s1
OKE	Oakville loamy fine sand, moderately steep and steep	41	VIIs-1	65	4s2
OP	Orthents and Psamments	41	------	----	------
OtA	Otisville gravelly sandy loam, 0 to 3 percent slopes	42	IVs-1	64	4s1
OtB	Otisville gravelly sandy loam, 3 to 8 percent slopes	42	IVs-1	64	4s1
OVDK	Otisville gravelly sandy loam, rolling and hilly	42	IVs-1	64	4s2
PaB	Palatine shaly silt loam, 3 to 8 percent slopes	43	IIe-3	56	3o2
PaC	Palatine shaly silt loam, 8 to 15 percent slopes	43	IIIe-4	59	3o2
Pm	Palms muck	43	IVw-3	63	5w1
PtB	Pittsfield stony fine sandy loam, 3 to 8 percent slopes	44	IIe-3	56	3o2
PtC	Pittsfield stony fine sandy loam, 8 to 15 percent slopes	44	IIIe-4	59	3o2
PVC	Pittsfield-Amenia association, very stony, gently sloping through moderately steep	44	VIs-1	64	3x2
RhA	Rhinebeck silt loam, 0 to 2 percent slopes	46	IIIw-1	60	3w1
RhB	Rhinebeck silt loam, 2 to 6 percent slopes	46	IIIw-1	60	3w1
ROF	Rock outcrop-Hollis association, moderately steep through very steep	46	------	----	------
	Rock outcrop part	----	VIIIs-1	65	------
	Hollis part	----	VIIs-2	65	5x2
RPC	Rock outcrop-Vergennes association, gently sloping through moderately steep	47	------	----	------
	Rock outcrop part	----	VIIIs-1	65	------
	Vergennes part	----	VIs-2	64	3x2
RPF	Rock outcrop-Vergennes association, steep and very steep	47	------	----	------
	Rock outcrop part	----	VIIIs-1	65	------
	Vergennes part	----	VIIs-2	65	3x2
Sa	Saco silt loam	48	VIw-1	64	5w1
SB	Saprists, Aquepts, and Aquents	48	VIIIw-1	65	------
ScA	Scriba gravelly silt loam, 0 to 3 percent slopes	49	IIIw-3	61	3w2
ScB	Scriba gravelly silt loam, 3 to 8 percent slopes	49	IIIw-3	61	3w2
SDC	Scriba very stony soils, nearly level through sloping	49	VIs-1	64	3w2
Su	Sun loam	50	IVw-2	63	4w1
SV	Sun very stony soils	50	VIIs-3	65	4w1
Te	Teel silt loam	51	IIw-4	57	2o1
VeB	Vergennes silty clay loam, 2 to 6 percent slopes	51	IIe-2	56	3o1
VeC	Vergennes silty clay loam, 6 to 12 percent slopes	52	IIIe-1	59	3o2
VeD	Vergennes silty clay loam, 12 to 20 percent slopes	52	IVe-2	62	3d3
Wa	Wallington silt loam, sandy substratum	53	IIIw-2	60	3w1

R-62

For a full description of a mapping unit, read both the description of the mapping unit and that

Acreage and extent, table 1, page 15.
Estimated yields, table 2, page 66.
Woodland, table 3, page 68.
Wildlife, table 4, page 76.

Map symbol	Mapping unit	Page	Capability unit		Woodland group
			Symbol	Page	Number
AmB	Amenia silt loam, 3 to 8 percent slopes	16	IIw-3	57	3o2
BeA	Belgrade silt loam, 0 to 2 percent slopes	17	IIw-1	57	3o1
BeB	Belgrade silt loam, 2 to 6 percent slopes	17	IIe-1	55	3o1
BnB	Bernardston gravelly silt loam, 3 to 8 percent slopes	18	IIe-4	56	3o1
BnC	Bernardston gravelly silt loam, 8 to 15 percent slopes	19	IIIe-5	60	3o1
BnD	Bernardston gravelly silt loam, 15 to 25 percent slopes	19	IVe-1	62	3r2
BrB	Bernardston-Nassau shaly silt loams, 3 to 8 percent slopes	19	IIe-5	56	------
	Bernardston part	----	------	----	3o1
	Nassau part	----	------	----	5d1
BrC	Bernardston-Nassau shaly silt loams, 8 to 15 percent slopes	19	IIIe-6	60	------
	Bernardston part	----	------	----	3o1
	Nassau part	----	------	----	5d1
BSCK	Bernardston-Nassau shaly silt loams, rolling and hilly	20	IVe-1	62	------
	Bernardston part	----	------	----	3r2
	Nassau part	----	------	----	5d1
BTC	Bernardston very stony soils, gently sloping through moderately steep	20	VIs-1	64	3r2
BUF	Bernardston soils, steep and very steep	20	VIIe-1	65	3r4
Ca	Carlisle muck	21	IIIw-5	61	5w1
CHC	Charlton association, very stony, gently sloping and sloping	22	VIs-1	64	4o1
CHE	Charlton association, very stony, moderately steep and steep	22	VIIs-1	65	4r1
ClA	Claverack loamy fine sand, 0 to 2 percent slopes	23	IIw-1	57	3s1
ClB	Claverack loamy fine sand, 2 to 6 percent slopes	23	IIw-2	57	3s1
Cs	Cosad fine sandy loam	24	IIIw-2	60	4w2
Cv	Covington silty clay loam	25	IVw-1	63	5w1
FaB	Farmington loam, 0 to 8 percent slopes	25	IIIs-2	62	5d1
FCC	Farmington-Rock outcrop association, nearly level through moderately steep	26	------	----	------
	Farmington part	----	VIs-2	64	5x1
	Rock outcrop part	----	VIIIs-1	65	------
FCF	Farmington-Rock outcrop association, steep and very steep	26	------	----	------
	Farmington part	----	VIIs-2	65	5x2
	Rock outcrop part	----	VIIIs-1	65	------
FL	Fluvaquents	26	------	----	------
Fr	Fredon silt loam	27	IIIw-2	60	3w3
Hs	Halsey mucky silt loam	28	IVw-2	63	5w1
Hb	Hamlin silt loam	28	I-2	55	2o1
HcA	Hartland very fine sandy loam, 0 to 2 percent slopes	29	I-1	55	3o1
HcB	Hartland very fine sandy loam, 2 to 6 percent slopes	29	IIe-1	55	3o1
HcC	Hartland very fine sandy loam, 6 to 12 percent slopes	29	IIIe-3	59	3r1
HcD	Hartland very fine sandy loam, 12 to 20 percent slopes	29	IVe-4	62	3r3
HeA	Herkimer gravelly silt loam, 0 to 3 percent slopes	30	IIw-1	57	3o1
HeB	Herkimer gravelly silt loam, 3 to 8 percent slopes	30	IIw-3	57	3o1
HLE	Hollis-Charlton association, moderately steep and steep	31	------	----	------
	Hollis part	----	VIIs-2	65	5x1
	Charlton part	----	VIIs-1	65	4r1
HNC	Hollis-Rock outcrop association, gently sloping and sloping	31	------	----	------
	Hollis part	----	VIs-2	64	5x1
	Rock outcrop part	----	VIIIs-1	65	------
HoA	Hoosic gravelly sandy loam, 0 to 3 percent slopes	33	IIs-1	58	3o1
HoB	Hoosic gravelly sandy loam, 3 to 8 percent slopes	33	IIs-1	58	3o1
HoC	Hoosic gravelly sandy loam, 8 to 15 percent slopes	33	IIIe-2	59	3o1
HSDK	Hoosic gravelly sandy loam, rolling and hilly	33	IVe-5	63	3r2
HTF	Hoosic and Otisville soils, steep and very steep	33	VIIs-1	65	------
	Hoosic part	----	------	----	3r4
	Otisville part	----	------	----	4s3

(R63)

POPULATION COUNT

Finch Pruyn Landfill

Population within a 3-mile radius of each Phase I site is determined using the coordinate system illustrated below. The number of residences for each quadrant and section is determined by overlaying this pattern onto a U.S.G.S. 7.5 minute topographic map. A multiplier of 3.8 persons per residence is used to determine population in accordance with Mitre Model 1985.

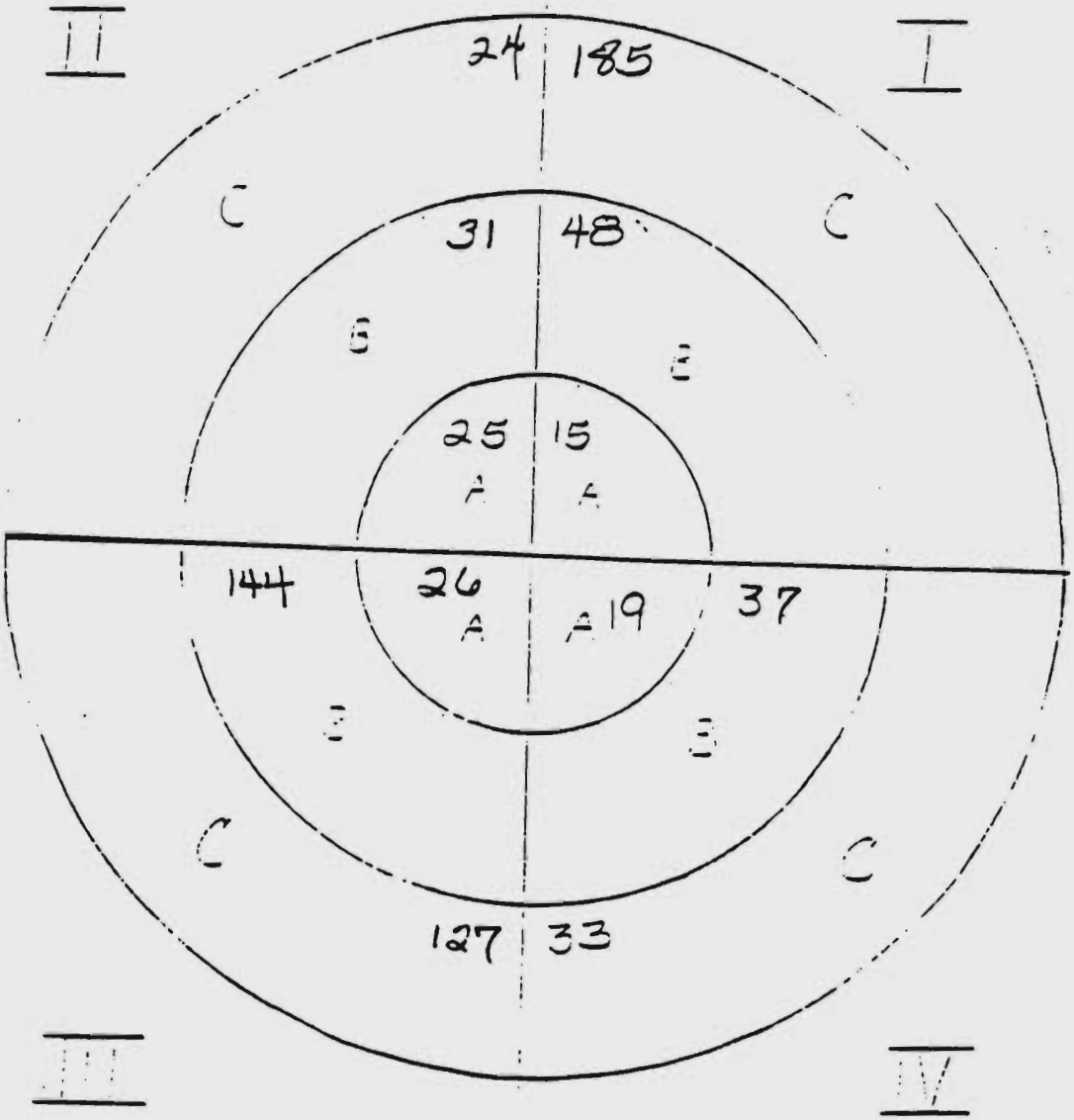
House Count
Unit ÷ 2

A = 1 mile radius

B = 2 mile radius

C = 3 mile radius

(Figure not To Scale)



A, 85
B 260
C 369
714

100

State of New York Executive Department
Adirondack Park Agency

Ref 10.1

Herman F. Cole, Jr.
Chairman

Thomas A. Ulasewicz
Executive Director

January 29, 1987

Mr. David Tompkins
Wehran Engineering, P.C.
666 East Main Street
P.O. Box 2006
Middletown, NY 10940

Dear Dave:

Enclosed is a copy of a portion of the Putnam Mountain Quadrangle on which I have delineated wetlands on or near your area of concern in red. I assume that your Phase I study is to determine loss of integrity of the landfill "liner" and possible contamination of the regional ground water table exposed in Mud Pond. Mud Pond itself is considered by us to be a deep water marsh as it is relatively shallow and vegetated throughout. There are also deciduous swamps fringing the pond and its outlet stream. Further, Halfway Creek also has flood plain wetlands. Please note that the Adirondack Park "blue-line" bisects Mud Pond.

We have no problem with your activities in the wetland especially to gather data to protect or possibly enhance the natural systems there. I am assuming that your encroachment (if any) will be minimal, without motorized vehicles and be temporary in nature. If otherwise, you may need a permit from this Agency. Please contact me with details. I am also very interested in data you may collect and be able to share. Specifically, hydrologic data would be especially useful to our understanding of wetland hydrology in other areas of the Park.

Please don't hesitate to contact me if you have other questions or require further information.

Sincerely,

Dan Spada

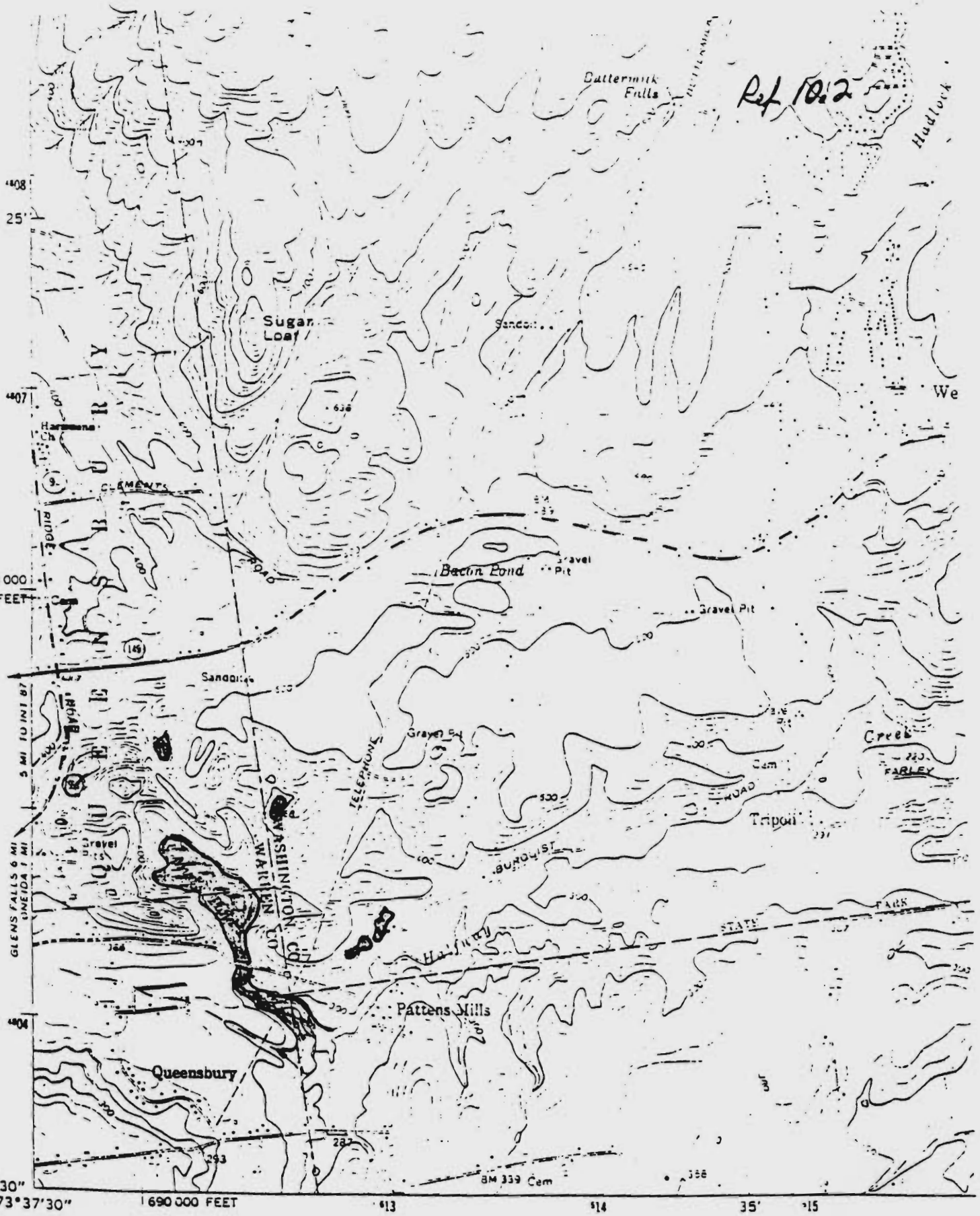
Daniel M. Spada
AP Project Analyst
Biological Resources

DS:lh

Enclosure

161

P.O. Box 99 Ray Brook, New York 12977
Telephone (518) 891-4050


Ref 10.2
Dattermilk Falls
Hudlock
Sugar Loaf
Sandon
We
Bacon Pond
Gravel Pit
Gravel Pit
Sandpit
Gravel Pit
Creek
FARLEY
Tripoli
Cem
ROAD
TELEPHONE
WASHINGTON CO
Pattens Mills
Queensbury
Cem
1 240 000 FEET
1 690 000 FEET
22'30"
73°37'30"
25'
35'
Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial photographs taken 1965 and 1966. Field checked 1966
Wetlands delineated in red
1/29/87
10.2

DRAFT
1/11/84

TABLE 4

Waste Characteristics Values

Chemical/Compound	Toxicity/ Persistence[1]	Toxicity[2]	Reactivity[2]
Acenapthene	9	3	0
Acetaldehyde	6	6	2
Acetic Acid	6	6	1
Acetone	6	6	0
2-Acetylaminoflourene	18	9	0
Aldrin	18	9	0
Ammonia	9	9	0
Aniline	12	9	0
Anthracene	15	9	0
Arsenic	18	9	0
Arsenic Acid	18	9	0
Arsenic Trioxide	18	9	0
Asbestos	15	9	0
Barium (Ba)	18	9	2
Benzene	12	9	0
Benzidine	18	9	0
Benzoapyrene	18	9	0
Benzopyrene, NOS	18	9	0
Beryllium & Compounds NOS (Be)	18	9	0
Beryllium Dust, NOS	18	9	0
Bis (2-Chloroethyl) Ether	15	9	0
Bis (2-Ethylhexyl Phthalate	12	3	0
Bromomethane	15	9	0
Cadmium (Cd)	18	9	0
Carbon Tetrachloride	18	9	0
Chlordane	18	9	0
Chlorobenzene	12	6	0
Chloroform	18	9	0
3-Chlorophenol	12	6	0
4-Chlorophenol	15	9	0
2-Chlorophenol	12	6	0
Chromium (Cr)	18	9	0
Chromium, Hexavalent (Cr^{+6})	18	9	0

Table 4 (cont.)

Chemical/Compound	Toxicity/ Persistence[1]	Toxicity[2]	Reactivity[2]
Chromium, Trivalent (Cr^{+3})	15	6	0
Copper & Compounds, NOS (Cu)	18	9	0
Creosote	15	6	0
Cresols	9	9	0
Cyanides (soluble salts), NOS	12	9	0
Cyclohexane	12	6	0
DDE	18	9	0
DDT	18	9	0
Diaminotoluene	18	6	0
1, 2-Dibromo 3 chloropropane	18	9	0
Di-N-Butyl-Phthalate	18	6	0
1, 4-Dichlorobenzene	15	6	0
Dichlorobenzene, NOS	18	6	0
1, 1-Dichloroethane	12	6	0
1, 2-Dichloroethane	12	9	1
1, 1-Dichloroethene	15	9	2
1, 2-trans-Dichloro-ethylene	12	3	2
Dichloroethylene, NOS	12	3	2
2, 4-Dichlorophenol	18	6	0
2, 4-Dichlorophenoxyacetic Acid	18	9	0
Dicyclopentadiene	18	9	1
Dieldrin	18	9	0
2, 4-Dinitrotoluene	15	9	3
Dioxin	18	9	0
Endosulfan	18	9	0
Endrin	18	9	0
Ethylbenzene	9	6	0
Ethylene dibromide	18	9	0
Ethylene Glycol	9	6	0
Ethyl Ether	18	6	1
Ethylmethacrylate	12	6	0
Fluorine (F)	18	9	4
Formaldehyde	9	9	0
Formic Acid	9	6	0

Table 4 (cont.)

DRAFT
1/11/84

Chemical/Compound	Toxicity/ Persistence[1]	Toxicity[2]	Reactivity[2]
Heavy Metals, NOS	18	9	0
Heptachlor	18	9	0
Hexachlorobenzene	18	6	0
Hexachlorobutadiene (C_{16})	18	9	1
Hexachlorocyclohexane, NOS	18	9	0
Hexachlorocyclopentadiene ($C_{5,6}$)	18	9	2
Hydrochloric Acid	9	6	2
Hydrogen Sulfide	18	9	0
Indene	12	6	2
Iron & Compounds, NOS (Fe)	18	9	0
Isophorone	12	6	0
Isopropyl Ether	9	3	1
Kelthane	15	6	0
Kepone	18	9	0
Lead (Pb)	18	9	0
Lindane	18	9	0
Magnesium & Compounds, NOS (Mg)	15	6	0
Manganese & Compounds, NOS (Mn)	18	9	0
Mercury (Hg)	18	9	0
Mercury Chloride	18	9	0
Methoxychlor	15	6	0
4, 4-Methylene-Bis-(2-Chloroaniline)	18	9	0
Methylene Chloride	12	6	1
Methyl Ethyl Ketone	6	6	0
Methyl Isobutyl Ketone	12	6	0
4-Methyl-2-Nitroaniline	12	9	3
Methyl Parathion	9	9	0
2-Methylpyridine	12	6	0
Mirex	18	9	0
Napthalene	9	6	0
Nickel & Compounds, NOS (Ni)	18	9	0

Table 4 (cont.)

DRAFT
1/11/84

Chemical/Compound	Toxicity/ Persistence[1]	Toxicity[2]	Reactivity[2]
Nitric Acid	9	9	2
Nitroaniline, NOS	18	9	3
Nitrogen Compounds, NOS	12	0	
Nitroguanidine	12	9	3
Nitrophenol, NOS	15	9	2
Parathion	9	9	0
Pentachlorophenol (PCP)	18	9	0
Pesticides, NOS	18	9	0
Phenanthrene	15	9	0
Phenol	12	9	2*
Phosgene	9	9	1
Polybrominated Biphenyl (PBB), NOS	18	9	0
Polychlorinated Biphenyls, NOS	18	9	0
Potassium Chromate	18	9	0
Radium & Compounds, NOS (Ra)	18	9	2
Radon & Compounds, NOS (Rn)	15	9	0
2, 4-D, Salts & Esters	18	9	0
Selenium (Se)	18	9	0
Sevin (Carbaryl)	18	9	0
Sodium Cyanide	12	9	0
Styrene	9	6	1
Sulfate	9	0	0
Sulfuric Acid	9	9	2
1, 1, 2, 2-Tetrachloroethane	18	9	0
Tetrachloroethane, NOS	18	9	0
1, 1, 2, 2-Tetrachloroethene	12	6	0
Tetraethyl Lead	18	9	0
Tetrahydrofuran (I)	~~18~~ 15	6	0
Thorium & Compounds, NOS (Th)	18	9	2
Toluene	9	6	0
Toxaphene	18	9	0
Tribromomethane	18	9	1
1, 2, 4-Trichlorobenzene	15	6	0
1, 1, 1-Trichloroethane	12	6	0

DRAFT
1/11/84

Table 4 (cont.)

Chemical/Compound	Toxicity/ Persistence[1]	Toxicity[2]	Reactivity[2]
1, 1, 2-Trichloroethane	15	6	0
Trichloroethane, NOS	15	6	0
Trichloroethene	~~18~~ 12	~~9~~ 6	0
1, 1, 1-Trichloropropane	12	6	0
1, 1, 2-Trichloropropane	12	6	0
1, 2, 2-Trichloropropane	12	6	0
1, 2, 3-Trichloropropane	18	9	0
Uranium & Compounds, NOS (U)	18	9	2
Varsol	12	6	0
Vinyl Chloride	15	9	1
Xylene	9	6	0
Zinc & Compounds, NOS (Zn)	18	9	1
Zinc Cyanide	18	9	0
2, 4, 5-T	18	9	0

1 Values for groundwater and surface water routes

2 Values for air route

* Only in pure form; otherwise, 0

WEHRAN ENGINEERS & SCIENTISTS

A-2 13

INTERVIEW ACKNOWLEDGEMENT FORM

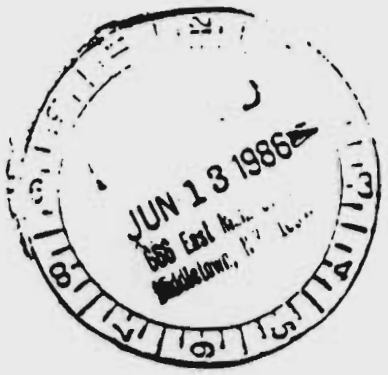
Site Name	Queensbury Landfill	**I.D. Number**	557005
Person Contacted	Marilyn Stephenson	**Date**	6/5/86
Title	District Conservationist		
Affiliation	Soil ~~& Water~~ Conserv. ~~District~~ Service	**Phone Number**	(518) 793-6883
Address	Quaker Village Quaker and Bay Roads Glens Falls, NY 12801		
Type of Contact	Telephone/Letter	**Contact Person(s)**	David Tompkins

Interview Summary

(Finch Pruyn Also -

The only irrigation within 3 miles of the Queensbury Landfill which utilizes groundwater is for irrigation of a golf course. Surface water is not used for any irrigation purpose.

To my best knowledge,



Acknowledgement

I have read the above transcript and I agree that it is an accurate summary of the information verbally conveyed to Wehran Engineering interviewer(s) (as revised below, if necessary).

Revisions (please write in any corrections needed to above transcript)

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Signature Marilyn Cassidy Stephenson Date 6/11/86

TABLE I (contd.)

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Stan
498	C-134-4-19-9 including P 437, 10 and tribs., 11,12,13,14,15,16, 17 and tribs., including P 438,18	Tributaries of Halfway Creek	Enter Halfway Creek in section beginning 0.3 mile upstream from trib. 8 and 1.7 miles southeast of West Fort Ann and extending upstream to a point 0.4 mile southwest of Pattens Mills and immediately east of Warren-Washington county line.	G-25	A	A
499	C-134-4-19-19 portion as described	Glen Lake Brook	Enters Halfway Creek from northwest 0.4 mile upstream from trib. 18 and 0.7 mile southwest of Pattens Mills. Mouth to crossing under Bay Road which is 1.8 miles upstream from mouth and 2.1 miles west of Pattens Mills.	G-25	AA	AA
500	C-134-4-19-19 portion as described	Glen Lake Brook	From Bay Road crossing upstream to crossing under U.S Route 9 which is 1.0 mile upstream from P 441 (Glen Lake) and 1.3 miles south of hamlet of French Mountain.	G-25	B	B(T
501	C-134-4-19-19 portion as described	Glen Lake Brook	From crossing of U.S. Route 9 upstream to source.	G-25	AA	AA

1551 CN 10-15-66

Table 1. Summary of Water Quality Classifications
(See 6 NYCRR Part 701 for detailed explanation)

Class		Best Usage	Conditions Related To Best Usage
Surface Water (Fresh)	D	Secondary contact recreation (only)	Fish survival
	C	Fishing, and D	Fish survival and propagation
	B	Primary contact recreation and C	
	A	Drinking water supply, food processing and B	Meets drinking water standards with treatment and disinfection
	AA	Drinking water supply, food processing and B	Meets drinking water standards with disinfection only
	A-S	Best usage same as in A Classification (Great Lakes Water Quality Agreement)	
	AA-S	Any use except disposal of sewage, industrial wastes or other wastes (Champlain Drainage Basin)	
Surface Water (Saline)	SD	Not for recreational purposes, shellfish culture, or development of fishlife due to natural or man-made conditions	
	SC	Fishing, except for shellfish for market purposes	
	SB	Primary and secondary contact recreation and SC	
	SA	Shellfishing for market purpose and SB	
	I	Secondary contact recreation and other uses except primary contact recreation and shellfishing for market purposes (Interstate Sanitary District)	
Groundwater (Fresh)	GA	Source of potable water supply	

K.L

15.1

(B)

eclamation area is located approximately 8/10 of a mile beyond the Town of Landfill (3/10 of a mile further along Route 9L; 5/10 of a mile east on). There are few residences along this 8/10 of a mile additional route. The impact on existing land uses will be negligible since this area is sparcely ted and both of these Routes (9L and 149) now carry a significant amount of rcial and passenger vehicle traffic.

ge 2 Item I (C)

See Exhibit "C" for all weather wind rose for the Warren County Airport in Queensbury.

Page 2 Item I (D)

We request a variance from the requirements for soil borings and installation of monitoring wells. On March 28, 1977, four (4) test pits were dug in the area to a depth of approximately 10 feet; three (3) of these pits were dug in the area of large depressions and the soil consisted entirely of dry, fine, brown sand, a fourth (4th) test pit dug in a ridge between two (2) depressions consisted of sand and cobble stones up to 10 inches in diameter. There are a number of sand pits and two landfill operation adjacent to this property (Town of Queensbury, Town of Fort Ann). The absence of water in any of these areas and the dry material uncovered in our test pits indicates that the need for soil borings and monitoring wells should not be required.

Page 2 Item I (E)

Average monthly and annual precipitation recorded at the Warren County Airport, 1953-1973.

January	2.09"	July	2.93"
February	2.43"	August	3.15"
March	2.73"	September	2.49"
April	3.05"	October	2.56"
May	2.90"	November	3.00"
June	2.80"	December	2.76"

August Annual = 32.89"

There are no streams or other water courses in or near the Stage No. 1 reclamation area. Mud Pond located some 1500 feet away is the nearest water body. We understand that it has been given a "D" classification by the State of New York.

The land reclamation operation will provide and maintain grades and contours to direct surface waters away from the active fill area and to avoid the ponding of precipitation falling on the site. Should runoff occur (spring thaw), this will be directed to the large blind natural depression located just southeast of the Stage No. 1 area. The Stage No. 1 operation when completed to the 250 foot elevation will not alter this drainage pattern.

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-0001

MAR 2 6 1986

Henry G. Williams
Commissioner

Ref 16.1

Mr. William Soukup
Wehran Engineering
666 East Main Street
P.O. Box 2006
Middletown, New York 10940

Dear Mr. Soukup:

Re: HRS Air Release Scoring Guideline

Please find enclosed a copy of a letter from Mr. Perry Katz, of the United States Environmental Protection Agency, on the above-referenced subject. The main gist of the letter is that an HRS air release cannot be scored based on a high HNU or OVA reading alone.

Any questions you may have should be directed to Mr. Katz.

Sincerely,

Marsden Chen

Marsden Chen, P.E.
Supervisor
Eastern Investigation Section
Division of Solid and Hazardous Waste

Enclosure

LA/MC:cl

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278

5 MAR 1986

Marsden Chen, P.E.
Bureau of Hazardous Site Control
Division of Solid & Hazardous Waste
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233-0001

12/16 ?
RECEIVED
MAR 11 1986
BUREAU OF HAZARDOUS SITE ...
DIVISION OF SOLID AND
HAZARDOUS WASTE

Dear Mr. Chen:

I am writing in response to your letter inquiry of January 23, 1986 concerning analytical instruments utilized to evaluate air releases for purposes of the Hazard Ranking System (HRS).

Your letter states that EPA requirements under the HRS preclude the use of monitoring instruments other than an HNu for site investigations which are undertaken to gather HRS information. As you should be aware from our previous conversations on this subject, EPA does not endorse any specific monitoring instrument for use in obtaining HRS information. In addition, HRS guidance does not recommend or endorse the use of specific brands of analytical instruments. Therefore, your reference to a change in EPA policy in this regard is incorrect.

We have verbally discussed the use of an OVA to evaluate air releases for purposes of the HRS. I have also discussed the use of the Photovac with your consultants who have called seeking guidance on this matter. In both instances, I have emphatically stated that EPA does not endorse or recommend specific brands of analytical instruments.

To mitigate the confusion you have concerning evaluating air releases for purposes of the HRS, please be advised of the following information:

For an air release to be counted, the sampling procedures/ protocol must be reported in detail. These procedures must include continuous monitoring of wind direction through-out the monitoring period. This approach is not valid if there is any significant change in wind direction. Upwind and downwind measurements must be taken. Procedures should also specify collection of air samples or measurement in the breathing zone. The measurements must be taken at a reasonable distances from sources (e.g. drums), and no disturbance of the site is allowed. It also must be clear that the

releases reported are not methane releases. Methane is specifically precluded from consideration under CERCLA. Therefore, monitoring instruments not sensitive to methane or procedures to evaluate whether the releasing compound(s) is methane should be used. For example, the OVA has a carbon filter diversion feature that can be used to determine if the substance being released is methane. Samples of the waste should be taken to show that it contains a specific hazardous volatilizing compound. This will further substantiate that the release of measure is a hazardous compound. This procedure for identifying a specific volatilizing hazardous compound in the source material is necessary because the portable instruments do not distinguish between volatile compounds; they merely tell the user that some volatile compound is present, not its identity or its absolute concentration. An appropriate analytical instrument that can fulfill the requirements of the aforementioned paragraph can be utilized.

EPA appreciates that DSHW wishes to conform with policies for the HRS. However, EPA has no list of approved analytical instruments for use in evaluating air releases for purposes of the HRS. As I stated previously, EPA does not endorse or recommend specific brands of analytic instruments.

I hope this information adequately answers your inquiry. Feel free to contact me at (212) 264-8678 if you have any further questions.

Sincerely yours,

Perry Katz, Environmental Scientist
Site Investigation & Compliance Branch

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 557002

II. SITE NAME AND LOCATION

01 SITE NAME	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Finch, Pruyn and Company	Rt. 149 (East of Ridge Road)

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 C
Queensbury	NY		Warren		

09 COORDINATES: LATITUDE 43° 23' 50".N | LONGITUDE 73° 36' 45".W

10 TYPE OF OWNERSHIP: ☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
7 , 15, 86 (MONTH DAY YEAR)	☒ ACTIVE ☐ INACTIVE	1977 (BEGINNING YEAR) , present (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION: ☐ A. EPA ☐ B. EPA CONTRACTOR ___ ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ___ ☐ E. STATE ☒ F. STATE CONTRACTOR Wehran Engineering ☐ G. OTHER ___

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
David B. Tompkins	Environmental Scientist	Wehran Engineering	(914) 343-066
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Karen E. Maloy	Environmental Scientist	Wehran Engineering	(914)343-066
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO.
Roger Hague	V.P.-Sec.	Finch, Pruyn & Company Glens Falls, NY 12801	(518) 793-25
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	12:00 p.m.	clear, warm 175

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF	03 TELEPHONE NO.
Dennis G. Fenn	Wehran Engineering, P.C.	(914) 343-06

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
David B.Tompkins		Wehran Engineering	(914) 343-0660	8 , 7, (MONTH DAY YE

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	557002

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

- TONS _____
- CUBIC YARDS 142,000+/yr.
- NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

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

CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

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

Finch, Pruyn & Company, Land Reclamation Plan Annual Report, Sept. 1985.

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 557002

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY	SURFACE	WELL	02 STATUS: ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ☐	B. ☐	A. ☐	B. ☐	C. ☐	A. _____ (mi)
NON-COMMUNITY	C. ☐	D. ☒	D. ☒	E. ☐	F. ☐	B. 2,000 ft. (mi)

III. GROUNDWATER

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

02 POPULATION SERVED BY GROUND WATER: 2,500 w/in 3 mile
03 DISTANCE TO NEAREST DRINKING WATER WELL: 2,000 ft. (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
9 to 178 (ft)	S-SW	9-178 (ft)	_____ (gpm)	☐ YES ☐ NO

09 DESCRIPTION OF WELLS (Inventory, analysis, status, and additional information on completion and construction)
On-site wells: 2-2inch monitoring wells, 1-6 inch monitoring well, 1-6 inch observation well.
No on-site use, wells located in sand and gravel aquifier..

10 RECHARGE AREA
☒ YES ☐ NO
COMMENTS: Soils are predominantly sand and gravel. (Rapid permeability and infiltration of precipitation supply groundwater seserves.

11 DISCHARGE AREA
☒ YES ☐ NO
COMMENTS: Potentially area discharges groundwater to Mud Pond.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)
☒ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Mud Pond	☐	0.1 (mi)
Trib. of Halfway Creek	☐	0.2 (mi)
	☐	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN
ONE (1) MILE OF SITE: A. 327 NO. OF PERSONS
TWO (2) MILES OF SITE: B. 1,330 NO. OF PERSONS
THREE (3) MILES OF SITE: C. 2,500 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 2,000 ft. (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: 350

04 DISTANCE TO NEAREST OFF-SITE BUILDING: 2,000 ft. (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)
USGS house count indicates a rural population, 2,500 people are within 3 miles. Most of this population is rural or occurs in small Villages or Hamlets. The closest residence to the site is 2,000 ft. off the site.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	557002

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE

☐ A. 10^{-6} – 10^{-4} cm/sec ☐ B. 10^{-4} – 10^{-3} cm/sec ☐ C. 10^{-4} – 10^{-3} cm/sec ☑ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK

Unknown

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE (10^{-6} – 10^{-4} cm/sec) ☐ C. RELATIVELY PERMEABLE (10^{-4} – 10^{-3} cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-3} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
Unknown (ft)	(ft)		

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOP
6 (in)	2.5 (in)	%	S-SW	>10

09 FLOOD POTENTIAL

SITE IS IN NA YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE	OTHER
A. (mi)	B. 0.1 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

None (mi)

ENDANGERED SPECIES:

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. (mi)	B. >1 (mi)	C. (mi)	D. >1 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The Finch Pruyn Landfill is located off Route 149 approximatley six miles northeast of Glens Falls and two miles west of West Fort AFnn. Surrounding the site, land uses include agriculture, forest, quarry operations, private residence, and other landfill operations.

Originally the site was characterized by numberous knolls and depressions resulting in irregular sloping topography. Deposition and regrading has modified these slopes to a relatively flat bench area which slopes gradually to the south.

The nearest surface water is Mud Pond, a NYS Class A waterbody. Mud Pond is approximatley 10 - 12 acres in size and drains into a tributary of Halfway Creek.

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

NYSDEC Reg. 5 and BHSC File Review

EPA

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

I. IDENTIFICATION
01 STATE: NY | 02 SITE NUMBER: 557002

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
Finch, Pruyn and Company		1 Glen Street		Glens Fall	NY	

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE

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

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE

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

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE

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

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE

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

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

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

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

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

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

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

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

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

NYSDEC Reg. 5 and BHSC File Information

B-07

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	557002

II. CURRENT OPERATOR

01 NAME	02 D+B NUMBER	04 SIC CODE
Finch, Pruyn and Company		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE
1 Glen Street	Glen Falls	NY	

08 YEARS OF OPERATION	09 NAME OF OWNER
9	

OPERATOR'S PARENT COMPANY

10 NAME	11 D+B NUMBER	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S)

01 NAME	02 D+B NUMBER	04 SIC CODE

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

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

PREVIOUS OPERATORS' PARENT COMPANIES

10 NAME	11 D+B NUMBER	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER	04 SIC CODE

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

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER	04 SIC CODE

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

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE

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

NYSDEC Reg. 5 and BHSC File Information

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EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NY	557002

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Finch, Pruyn and Company			

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Glen Falls	NY				

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

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

NYSDEC Reg. 5 and BHSC File Information

R-89

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	557002

II. PAST RESPONSE ACTIVITIES

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

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION: Unknown

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NY	557002

II PAST RESPONSE ACTIVITIES

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Unknown

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

III. SOURCES OF INFORMATION

NYSDEC Reg. 5 and BHSC File Information

6.0 ASSESSMENT OF DATA ADEQUACY AND RECOMMENDATIONS

6.1 GROUNDWATER ROUTE

Quarterly data from the Finch Pruyn Landfill indicates the presence of phenolics in the downgradient wells. The reported concentration of phenol violated New York State groundwater standards on several occasions. Lead, iron, and cadmium have also been detected above standard levels but on a less frequent basis and also in upgradient wells.

Approximately 2,500 people use groundwater within three miles of the site with no alternative sources presently available. Monitoring of the private wells closest to the site is recommended, particularly those locations downgradient of the site.

Potential groundwater discharge into Mud Pond may pose additional environmental hazards by releasing contaminants to the surface water route. These problems may be compounded by the presence of other municipal and industrial landfills within the vicinity of the site, all of which may be discharging to Mud Pond. The data analyzed in this Phase I investigation indicates that a release to groundwater has occurred. A groundwater route score of $S_{gw} = 61.22$ has been calculated for the Finch Pruyn Landfill, based on a direct release.

6.2 SURFACE WATER ROUTE

Presently, no analytical data documenting contamination of the surface water route has been obtained. Route characteristics produced a route migration score of $S_{sw} = 7.46$. This low route score is due to the lack of target populations utilizing Mud Pond and tributaries of Halfway Creek for drinking water purposes. These surface waters are suitable for drinking water, but presently can be scored for recreation only.

During the Wehran Engineering site inspection, leachate was noted at the site. The leachate appeared to be quickly absorbed into the soil and may potentially impact groundwater more than surface water.

6.3 AIR ROUTE

No measurable readings of organic vapors were detected with the HNU Photoionizer during the site inspection. To score an air release, qualitative air sampling is required along with details on the sampling protocol and the meteorological conditions during the sampling event.

6.4 FIRE AND EXPLOSION

To score the fire and explosion hazard mode either a state or local fire marshall must have certified that the facility presents a significant fire or explosion threat to the public or to a sensitive environment, or there must be a demonstrated threat based on field observations (e.g., combustible gas indicator readings). The available records give no indication that either one of these tasks has been done. Further, the available data do not suggest any imminent threat of fire and explosion at this site. Therefore, the route score cannot be completed.

6.5 DIRECT CONTACT

No incidents due to direct contact have occurred at the Finch Pruyn Landfill site. The site is not fenced and during the site inspection, dirt bikes were observed near the access road. Contamination of surface and groundwater by leachate may pose a threat to human health by extending the area of probable contact.

Older, revegetated fill areas have good cover with little or no erosion. A route score of $S_{BC} = 16.67$ has been assigned.

7.0 RECOMMENDATIONS

Documentation on waste disposal and route characteristics is considered adequate for development of the HRS score. Although dated, a sporadic, documentation of a release to groundwater is adequate and will not necessitate a Phase II study. However, further investigation is necessary to determine if a plume exists outside of the boundary of the monitoring wells. Limited surface water sampling is also recommended to determine if a release to surface water is/or has occurred.

47-15-11(2/80)

HAZARDOUS WASTE DISPOSAL SITES REPORT
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Code: 2a

Site Code: 557002

Name of Site: Finch Pruyn and Company Region: 5

County: Warren Town/City Queensbury

Street Address Route 149, east of Ridge Road

Status of Site Narrative:

Finch Pruyn and Company operates a papermill sludge landfill located south of Route 149 in the Town of Queensbury. Only papermill sludge is deposited at the site and 1985 estimates of volume are 142,176 cubic yards. Sludge analysis has indicated the presence of phenols and heavy metals. Groundwater monitoring has indicated groundwater contamination has occurred by iron and phenol. No analysis of surface water has been conducted.

Type of Site: Open Dump ☐ Treatment Pond(s) ☐ Number of Ponds ____
Landfill ☒ Lagoon(s) ☐ Number of Lagoons ____
Structure ☐

Estimated Size _____ Acres

Hazardous Wastes Disposed? Confirmed ☐ Suspected ☒

*Type and Quantity of Hazardous Wastes:

TYPE	QUANTITY (Pounds, drums, tons gallons)
Papermill sludge	Unknown
Heavy Metals	
Phenol	

* Use additional sheets if more space is needed.

47-15-11(C/3C)

Name of Current Owner of Site: Finch Pruyn and Company

Address of Current Owner of Site: Glens Falls, New York 12801

Time Period Site Was Used for Hazardous Waste Disposal:

_____, 19____ To _____, 19____

Is site Active [X] Inactive [ ]
(Site is inactive if hazardous wastes were disposed of at this site and site was closed prior to August 25, 1979)

Types of Samples: Air [ ] Groundwater [X] None [ ]
Surface Water [ ] Soil [ ]

Remedial Action: Proposed [ ] Under Design [ ]
In Progress [ ] Completed [ ]
Nature of Action:

Status of Legal Action: None State [ ] Federal [ ]

Permits Issued: Federal [ ] Local Government [ ] SPDES [ ]
Solid Waste [ ] Mined Land [ ] Wetlands [ ] Other [

Assessment of Environmental Problems:

Quarterly monitoring results have indicated groundwater contamination by iron, cadmium, lead, and phenols. Extent of contamination unknown. Groundwater assumed to discharge to Mud Pond.

Assessment of Health Problems:

Groundwater is used for drinking purposes within the area. Impact on private well unknown. Testing is recommended.

Persons Completing this Form:

David B. Tompkins	Wehran Engineering
New York State Department of Environmental Conservation	New York State Department of Health
Date August 7, 1986	

R-96

REFERENCE NO. 2

cc: DAN STEENBERG

15 (12-75)

orig to file

New York State Department of Environmental Conservation

ENVIRONMENTAL CONSERVATION
RECEIVED
JAN 9 1987
81-060
ENVIRONMENTAL QUALITY
WARRENSBURG

MEMORANDUM

TO: Bud Colden, Region 5
FROM: Carl Hoffman, Bureau of Hazardous Site Control CRH
SUBJECT: Finch, Pruyn and Company - Site ID #557002

DATE: December 31, 1986

Our telephone conversation on December 30, 1986 indicated we are in agreement that the Finch, Pruyn and Company site should be deleted from the current Fourth Round of Phase II list. Specifically, the company is seeking a consent order for closure, which will encompass a Phase II study effort.

This memo will confirm that indeed this site has been dropped from the Fourth Round of Phase II list. If any questions remain regarding this matter, please call me at (518) 457-9538.

cc: C. Goddard
W. Demick
C. Hoffman

Dept. of Env. Conservation
REGIONAL
RAY BROOK

REFERENCE NO. 3

Division of Solid and Hazardous Waste
New York State
Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-4015

POTENTIAL HAZARDOUS WASTE SITE

SITE INSPECTION SUMMARY REPORT

Finch Pruyn and Company — 557002
Name of Site — DEC Site ID Number

Rt. 149 East of Ridge Road
Street Address — Date of Visit

Warren
Town/City — County — Zip

SITE DESCRIPTION

Same as in current registry.

PRIORITY FOR FURTHER ACTION

High ____ Medium ____
Low ____ None X

ADD TO REGISTRY

Yes ____ No X Suggested Classification Delist

JUSTIFICATION

The material landfilled at this site is not a hazardous waste (see draft Phase I report). Closure of this landfill is being handled under a Part 360 enforcement action.

Prepared by: Daniel L. Steenberge, P.E. **Date:** 11/21/86

Representing: NYSDEC Region 5

196

cc: Region
Department of Health

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I IDENTIFICATION
01 STATE: XXXXX | 02 SITE NUMBER:

II SITE NAME AND LOCATION

01 SITE NAME: Finch Pruyn and Company
02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER: Rt. 149 East of Ridge Road
03 CITY: Town of Queensbury
04 STATE: NY
05 ZIP CODE:
06 COUNTY: Warren
07 COUNTY CODE:
08 CONG DIST:
09 COORDINATES: LATITUDE __ __ __ . __ | LONGITUDE __ __ __ __ __ . __
10 DIRECTIONS TO SITE: Rt. 149 East of Ridge Road

III RESPONSIBLE PARTIES

01 OWNER: Finch Pruyn and Company
02 STREET:
03 CITY: Glens Falls
04 STATE: NY
05 ZIP CODE:
06 TELEPHONE NUMBER: ( )
07 OPERATOR:
08 STREET:
09 CITY:
10 STATE:
11 ZIP CODE:
12 TELEPHONE NUMBER: ( )
13 TYPE OF OWNERSHIP: [X] A PRIVATE [ ] B FEDERAL _____ [ ] C STATE [ ] D COUNTY [ ] E MUNICIPAL [ ] F OTHER _____ [ ] G UNKNOWN

IV CHARACTERIZATION OF POTENTIAL HAZARD

01 ON-SITE INSPECTION: [X] YES [ ] NO DATE _____
02 BY: [ ] A EPA [ ] B EPA CONTRACTOR [ ] C STATE [ ] D OTHER CONTRACTOR [ ] E LOCAL HEALTH OFFICIAL [X] F OTHER DEC Contract Consultant
CONTRACTOR NAME(S):
03 SITE STATUS: [X] A ACTIVE [ ] B INACTIVE [ ] C UNKNOWN
04 YEARS OF OPERATION: Not Applidable [ ] UNKNOWN
05 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED: Paper mill sludge.
06 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION: None

V PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION: [ ] A HIGH [ ] B MEDIUM [ ] C LOW [X] D NONE

VI INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (AGENCY/ORGANIZATION)	03 TELEPHONE NUMBER
Daniel L. Steenberge, P.E.	NYSDEC Region 5	(518) 891-1370

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Daniel L. Steenberge, P.E.	NYSDEC	Region 5	518, 891-1370	11, 21, 86

EPA FORM 2070-12 (7-81)

Add _____
Modify _____
Reclassify _____
Delist X

ADDITIONS/CHANGES TO REGISTRY OF INACTIVE HAZARDOUS WASTE DISPOSAL SITES

Site Name Finch Pruyn and Company DEC ID Number 557002

Site Address Rt. 149, East of Ridge Road County Warren

X Delist:

Justification: The material landfilled at this site is not a hazardous waste (see draft Phase I report). Closure of this landfill is being handled under a Part 360 enforcement action.

Prepared by: Daniel L. Steenberge Date: 11/21/86

Approved by:

Regional Hazardous Waste Engineer: _____ Date: _____

Robert Olazagasti, Supervisor _____ Date: _____

Charles Goddard, Bureau Chief _____ Date: _____

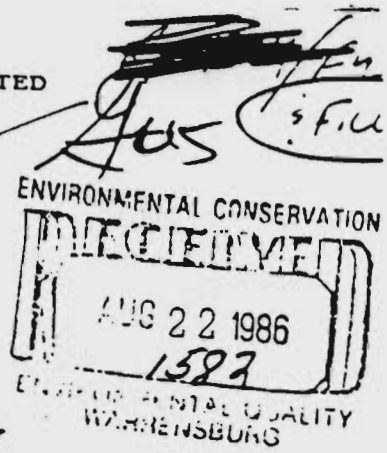
cc: Region
Department of Health

REFERENCE NO. 4

FINCH, PRUYN AND COMPANY, INCORPORATED

DAN GREENBERG

please send a draft consent order for Finch Pruyn w/compliance schedule



August 22, 1986

Mr. William Colden, P.C.
NYS Department of Environmental Conservation
Hudson Street
Warrensburg, New York 12885

Dear Mr. Colden:

As required under our Land Reclamation Plan Area Permit, we hereby submit the annual report covering the operation of our facility for the period August 1, 1985 to July 31, 1986.

Item B-1

The total volume of paper mill sludge placed in the land reclamation area during the period was approximately 119,900 cubic yards.

Item B-2

The analysis of the paper mill sludge sample (taken on 7/16/86) analyzed by the independent laboratory of Malcom Pirnie, along with the quarterly monitoring results of the three sample wells taken on 10/7/85, 1/20/86, 4/7/86, 7/7/86 also analyzed by Malcom Pirnie are enclosed.

Item B-3

Topographical map sections indicating the approximate contours of the areas as of August 1, 1986.

Item B-4

An internal memo to me from the individual in our corporation responsible for the land operation of the reclamation area is included, which describes the operation since the last report.

The trees that were planted on the finished area of Phase 1 in 1980 and 1981 by our Woodlands Department continue to thrive having reached a height of 20 to 25 feet, while those that they planted in the former fertilized cornfield at the same time, are 25 to 30 feet in height.

Should you require additional information, do not hesitate to contact me.

Very truly yours,

Roger S. Hague

Roger S. Hague
Vice President & Secretary

RSH:ecz

Enclosures

200

1 GLEN STREET GLENS FALLS, NEW YORK 12801 (518) 793-2541

MALCOLM PIRNIE

Should you have further questions, please contact me.

Very truly yours,

MALCOLM PIRNIE, INC.

William R. Drago

William R. Drago
Laboratory Manager

WRD/dmr

MALCOLM PIRNIE

MALCOLM PIRNIE, INC.
ENVIRONMENTAL ENGINEERS, SCIENTISTS & PLANNERS

August 12, 1986

Mr. Phillip Arthur
Finch, Pruyn & Co.
1 Glen Street
Glens Falls, NY 12801

Re: Sludge Analyses

Dear Mr. Arthur:

Summarized below is the data for the sludge sample that we received on July 18, 1986.

Laboratory I.D.	86-0787
Sample Description	Sludge
Date of Collection	7/16/86

Parameter	Results, (mg/kg)
Barium	18.31
Chlorine Demand	8000
COD	94089
Cyanide (total)	<.5
Oil & Grease	175
Ammonia (N)	1082
TKN	4280
Nitrate (N)	93
Nitrite (N)	3.3
Phenols	2.6
Ortho Phosphate	45
Total Phosphorus	83
Percent Moisture	64
Percent Solids	35.6
Total Volatile Solids	34
Arsenic	0.54
Cadmium	0.73
Chromium	3.4
Copper	14.3
Iron	932
Lead	14
Mercury	1.5
Nickel	2.91
Selenium	0.14
Zinc	27.7
Cobalt	<2.0

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2 CORPORATE PARK DRIVE., BOX 751 WHITE PLAINS NEW YORK 10602 914-694-2100 TELEX 137364

Test	Date of Sampling	pH	TOC	Specific Conductance umhos	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolic	PCBs	Total Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	10/07/85	7.56	41.0	388	1.5	0.0009	0.009	0.28	0.014	0.020	0.05	<.1	0.3	<.01	0.007	<.001	<.03	0.02	<1.0	<.01	<.0004	0.04	<.004
MP	01/20/86	7.61	<1.0	233	15	<.003	0.01	0.23	<.04	0.051	0.49	0.28	0.27	0.01	0.006	<.001	<.02	0.12	<1.0	<.005	<.0002	0.10	<.005
MP	04/07/86	7.70	2.26	217	19	0.007	0.04	0.96	0.017	0.068	0.50	0.18	0.2	0.01	<.005	<.001	<.04	0.10	<1.0	<.005	<.0005	0.08	<.005
MP	07/07/86	7.35	3.9	398	2.0	0.012	0.02	0.22	0.009	0.07	0.95	0.35	0.4	<.01	<.005	<.001	<.02	0.03	5.0	<.005	<0005	0.06	<.005

blc

Well B Summary of 4 Quarters Results in mg/l except where noted

GT - General Testing MP - Malcolm Pirnie
EO - Environment One PT - Princeton Test. Lab.

Testing Lab.	Date of Sampling	pH	TOC	Specific Conduc. umhos/cm	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Total Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	10/07/85	6.90	27.3	956	7.1	0.0005	0.005	4.40	0.014	0.032	0.4	<.1	0.5	<.01	0.006	<.001	<.03	0.02	1.6	<.01	<.0006	0.10	<.004
MP	01/20/86	6.96	<1.0	605	15	<.003	0.01	26.9	<.04	0.082	0.98	0.49	0.32	0.01	0.005	<.001	<.02	0.11	<1.0	<.005	<.0002	0.17	<.005
MP	04/07/86	6.97	14.01	781	29	0.004	0.03	*170	0.014	0.101	0.89	0.40	<.1	0.01	<.005	<.001	0.04	0.12	1.0	<.005	<.0005	0.22	<.005
MP	**07/07/86	7.21	17.9	685	13	0.010	0.02	1.28	0.010	0.09	1.0	0.52	<.1	0.01	<.005	<.001	<.02	0.03	5.0	<.005	<.0005	0.06	<.005

*04/07/86 Low water level, well filled with sediment

**07/07/86 New well drilled

Well C Summary of 4 Quarters Results in mg/l except where noted

GT - General Testing MP - Malcolm Pirnie
EO - Environment One PT - Princeton Test. Lab.

Testing Lab.	Date of Sampling	pH	TOC	Specific Conduc. umhos/cm	Chloride	Cadmium	Copper	Iron	Lead	Zinc	TKN	Ammonia Nitrogen	Nitrate Nitrogen	Nitrite Nitrogen	Phenolics	PCBs	Total Chromium	Phosphate	Grease & Oil	Cyanides	Mercury	Nickel	Selenium
MP	10/07/85	7.90	1.1	361	4.1	<.0002	.009	0.18	0.004	0.709	0.2	< .1	1.6	<.01	.006	<001	<.03	0.03	1.0	.01	<.0004	< .01	<.004
MP	01/20/86	7.85	<1.0	256	9	< .003	0.01	0.18	< .04	0.342	0.63	0.14	1.6	<.01	.005	<001	<.02	0.06	< 1.0	<.005	<.0002	< .02	<.005
MP	04/07/86	7.73	1.19	413	16	0.004	0.02	0.20	0.003	1.01	0.53	0.04	2.8	<.01	<.005	<001	<.04	0.07	3.3	<.005	<.0005	< .02	<.005
MP	07/07/86	7.95	1.8	360	4.8	< .005	0.02	0.12	<0.004	0.51	0.42	0.18	1.6	<.01	<.005	<001	<.02	0.03	5.0	<.005	<.0005	< .03	<.005

REFERENCE NO. 5

Office Memorandum

FINCH PAPER

To RSH cc: JPP Date July 25, 1986

From RGN

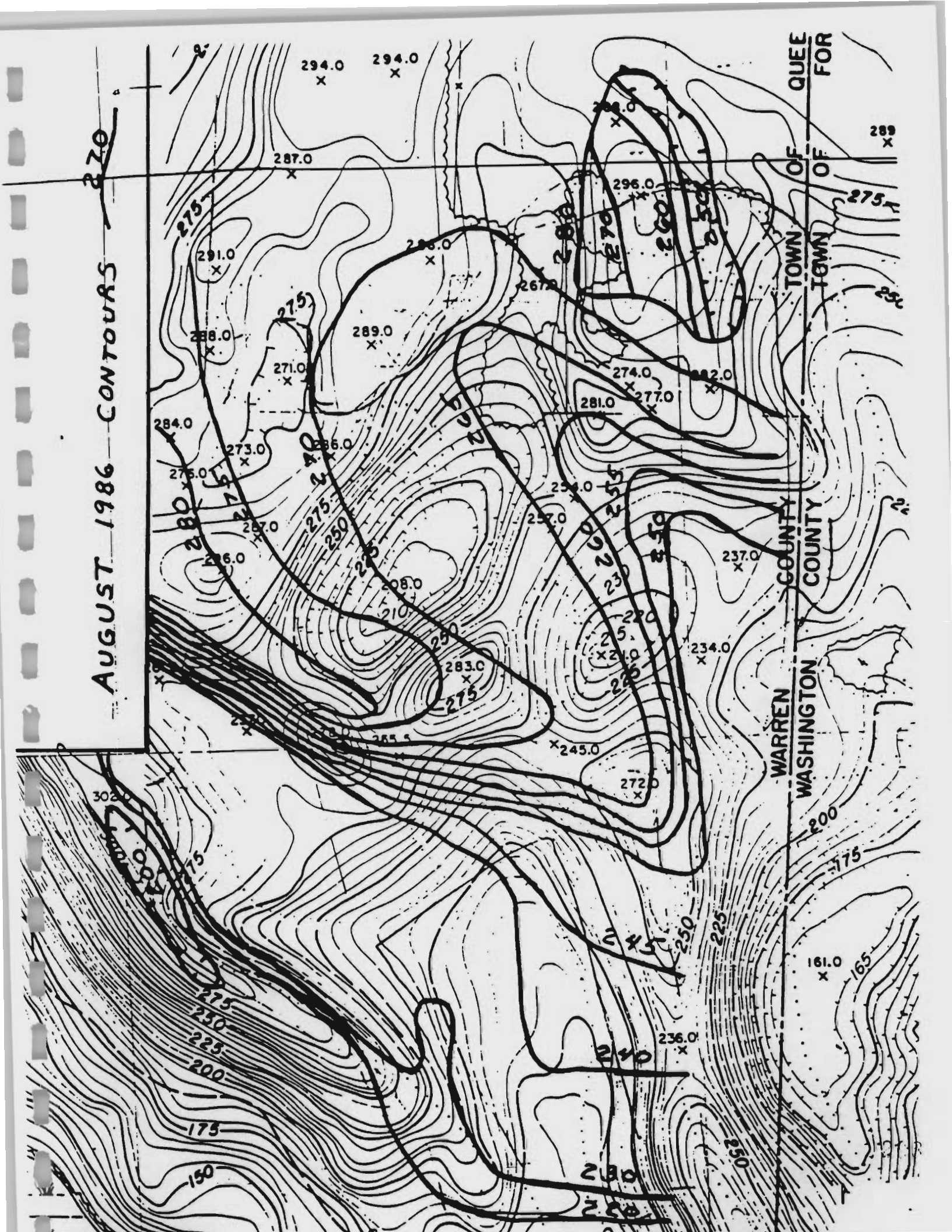
Subject Operating Procedure 1985, 1986 Land Reclamation Site

The disposal of pulp paper mill sludge during the period August 1985 to August 1986 has been accomplished in an orderly, sequential manner to maximize the life of the land reclamation site and to minimize operating costs.

During the winter months operations were carried out in the Phase 1 area. This allowed for minimum sanding and snow removal. The balance of the year sludge was deposited in the Phase 2 area. The method of operation was the same as in previous years. Sludge is delivered to the site by tandem dump truck, dumped in confined areas, compacted and covered with gravel in building blocks or lifts. The lifts are approximately 5' to 8' in height. The ratio of sludge to gravel is approximately 3 to 1, depending on the moisture content of the sludge. Lifts were built using an International H-100 Wheel Loader. Final surface was graded with a Caterpillar D-6 dozer.

Attached is a contour map as of August 1, 1986.

pl


AUGUST 1986 CONTOURS
TOWN OF QUEE
TOWN OF FOR
COUNTY
COUNTY
WARREN
WASHINGTON
294.0
294.0
287.0
291.0
289.0
271.0
284.0
273.0
276.0
267.0
286.0
283.0
245.0
272.0
237.0
234.0
161.0
236.0
275
250
225
200
175
150

REFERENCE NO. 6

HAZARDOUS WASTE SITE INVESTIGATION

Finch Pruyn Land Reclaimation
Queensbury, New York

February 6, 1981

Participating Personnel:

Fred C. Hart Associates, Inc.
Edward L. Moore, P.E., Sr. Geotechnical Engineer
Paresh Parekh, P.E., Sr. Environmental Engineer
Francis Barker, Field Technician

Report Prepared by:

Edward L. Moore

Edward L. Moore, P.E., Sr. Geotechnical Engineer

Typed: H. Postlewait

February 6, 1981

Edward L. Moore, P.E.
Sr. Geotechnical Engineer

BACKGROUND

Finch Pruyn Company has a land reclamation division that owns land in Queensbury, New York. This 12 acre site is being used to landfill the sludge from a paper mill waste treatment facility. There is 60 feet of sand with gravel below the landfill to the groundwater table. Four adequately situated monitoring wells have been installed. The sludge has been found to be so stable that it is in use as a bottom liner at a municipal landfill and as a cap for a PCB landfill.

STATUS OF STATE INVOLVEMENT

The Region 5 D.E.C. is receiving quarterly water analyses of monthly sampling of the monitoring wells. Phenols and PCB's have been undetectable to date. Permit number 1017 expires in June, 1982.

The DPO was briefed on this site on January 26, 1981. It was agreed that sampling is not necessary at this time.

REFERENCE NO. 7

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233 (Room 201)

Robert F. [illegible]
Commissioner

February 6, 1981

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Roger S. Hague, Secretary
[illegible]nch Pruyn & Company, Inc.
[illegible] Glen Street
Glens Falls, New York 12801

Re: MODIFICATION OF POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
NO. NY-0005525
Glens Falls (C), Warren County

Dear Mr. Hague:

This is to inform you that pursuant to Environmental Conservation Law ("ECL"), Article 17, Title 8 (McKinney's) and 6 NYCRR, Part 757, the New York State Department of Environmental Conservation has made a determination to modify your referenced Pollutant Discharge Elimination System Permit as indicated in the following enclosed revised permit page which supercedes the previous corresponding page. The remainder of the Permit continues in full force and effect.

Page 2 of 6 - Effluent limitation (Daily Average) of 1668 lbs/day for Sulfite (SO_3) has been added.

Unless otherwise specified, this modification will become effective immediately unless you petition, pursuant to ECL Section 17-0907, that you be given an opportunity to be heard in connection with this determination and where applicable, if no written objection is received by this office within 30 days after receipt of this modification by the Regional Administrator of EPA. Any such petition for a hearing shall contain specific evidence to support your contention that a hearing is necessary and that you were not previously given an opportunity to be heard.

Very truly yours,

George K. Hansen

George K. Hansen, P.E.
Chief, P.D.E.S. Permit Section
Division of Water

Enclosures
cc: Region #5
Mr. Crandall - BPC
Mr. Adamczyk - BIP
Dr. Baker - EPA Region II
Dr. Spear - EPA New Jersey

ENVIRONMENTAL CONSERVATION
RECEIVED
FEB 13 1981
ENVIRONMENTAL [illegible]

RECEIVED
FEB 10 1981
Dept. of Environmental Conservation
REGIONAL ENGINEER - REGION 5
RAY BROOK, NEW YORK 12977

213

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS MODIFIED DATE: February 6, 1981

During the period beginning effective date of permit (12/1/79) and lasting until March 31, 1981 the discharges from the permitted facility shall be limited and monitored by the Permittee as specified below:

Outfall Number	Effluent Parameter	Discharge Limitations kg/day (lbs/day) Daily Avg.	Discharge Limitations kg/day (lbs/day) Daily Max.	Discharge Limitations Other Units (Specify) Daily Avg.	Discharge Limitations Other Units (Specify) Daily Max.	Monitoring Requirements Measurement Frequency	Monitoring Requirements Sample Type
008	(Process Discharge)						
	Flow	No Limits - Monitoring Required				Continuous	N/A
	BOD_5	(20,995)	(40,335)			Daily	24-hr comp
	BOD_{28}*	No Limits - Monitoring Required				Monthly	"
	TSS	(32,030)	(59,635)			Daily	"
	Total Kjeldahl Nitrogen TKN(as N)	(5,000)	(10,000)			2/week	"
	Chemical Oxygen Demand, COD	No Limits - Monitoring Required				Weekly	"
	Sulfite (SO_3)	(1668)				Monthly	"
	Sulfate (SO_4)	No Limits - Monitoring Required				Monthly	"
	Temperature °C(°F)** Effluent				40.6°C(105°F)	2/week	Grab
	Receiving Water Surface				32.2°(90°)	None	N/A
	Xylene	No Limits - Monitoring Required***				See Compliance Sch.	
	3,5 dimethyltetrahydro-2H-1,3,5-Thiadiazine-2-thione	No Limits - Monitoring Required***				"	"
	Dithiocarbarmate	No Limits - Monitoring Required***				"	"

* See note on following page
** See note on following page
*** See note on following page

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored as follows: grab sample continuously recorded

Samples taken in compliance with the monitoring requirements specified above shall be take at the following location(s): at discharge serial 008

The daily average discharge is the total discharge by weight or in other appropriate units as specified herein, during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summati of all the measured daily discharges in appropriate units as specified herein divided by t number of days during the calendar month when the measurements were made.

The daily maximum discharge means the total discharge by weight or in other appropriate u as specified herein, during any calendar day.

Bob Davis

UPA TRANSMITTAL MEMO

PDES USE ONLY
Posted, copied and sent by: [illegible]
Date Sent: 5/24

MEMORANDUM

Deadline For Response to PDES Section: 7/16/79

TO: ☐ Mr. Stevens, Plant Operations Section, BSP
☒ Mr. Pagano , BIP
☐ Mr. Schlickenrieder, Small Systems Section, BSP

FROM: Mr. Hansen, PDES Section, By: Bill H (Tel. 7-4125)

RE: TRANSMITTAL OF SPDES APPLICATION FOR REVIEW AND PREPARATION OF A DRAFT PERMIT

DATE: 5/24/79

SPDES Application No. NY- 0005525 SCW

Permittee Name: Finch, Pruyn & Co. Inc.

Facility Name: " " "

Location: Glens Falls (C,T,V) Warren County

The subject application and related materials (copies attached) have been given a preliminary review by the PDES Section and found to be: ☒ "administratively" complete (i.e. correct fee, correct application form, etc.); or ☐ deficient as follows: _____

Please review the application to determine whether the application is sufficiently complete to draft a permit, then either draft a permit, or notify this Section of any deficiencies on or before the deadline above. If the applicant is not notified of any deficiencies within 60 days (15 days for minor modifications) of DEC's receipt of the application, the application is deemed complete by default.

The appropriate Regional office and county unit are each being provided a copy of the application and attachments with a copy of this memo, and they should send any comments directly to your office with a copy to this Section, and also notify this Section if any other DEC permits are required, or if an Environmental Impact Statement is necessary (proposed or expanded projects). Please contact (Mr.) ~~(Mrs.)~~ DAVIS in Region 5 Queensbury and discuss the significant conditions of draft permit with them before sending it to our office.

COMMENTS: Submittal of incomplete data as requested by Bill

3 2 #5

Attachments
cc: This Memo
Region 5
~~County~~ *
File
Tickler File

*If applicable

Attachments
Region 5
~~County~~ *
BIP (~~or BSP~~)

ENVIRONMENTAL CONSERVATION
RECEIVED
MAY 31 1979

RECEIVED
MAY 25 1979
Dept. of Environmental Conservation
REGIONAL ENGINEER - REGION 5
RAY BROOK, NEW YORK 12977

Finch, Pruyn & Co., Inc./Glens Falls, New York, 12801 Tel. 518/793-2541

May 21, 1979

Mr. George K. Hansen P.E., Chief
SPDES Permit Section
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, New York 12233

Re: SPDES Permit Renewal NY 0005525

Dear Mr. Hansen:

Enclosed please find updated information concerning all industrial chemicals presently in use in our plant with the amount, points of entry and reason for the application.

If you have any further questions, please do not hesitate to contact me.

Very truly yours,

Roger S. Hague
Secretary

RSH:lpl

Enclosure

RECEIVED
MAY 23 1979
DIVISION OF PURE WATERS
Bur. of Standards and Compliance
P. D. E. S. PERMIT SECTION

DEPARTMENT PAPER MILL DATE May 1, 1979

Description	Amount/ Year	Where Applied	Reason	Period of Use	Ingredients
Soda Ash	9,000#	Starch	pH Control	Cont.	Na_2CO_3
Parez 707 (American Cyanamid)	7,500#	Starch	Print Control	Cont.	Melamine-formaldehyde resin
Soluox 699 (Soluox)	12,000#	Starch	Foam Control	Cont.	Proprietary
Pluronic L-61 (Wyandotte)	6,750#	Starch	Foam Control	Intermittent	Proprietary
Latex 620 (Dow)	5,000#	Starch	Print Control	Cont.	Styrene-Butadiene Rubber
IP-15-LT (Dubois)	26,000#	Wet End	Cleaning	Intermittent	Proprietary (NaOH & ?)
Duocryp-P (Dubois)	6,000#	Wet End	Cleaning	Intermittent	Proprietary (Caustic Potash)
Oakite Brightener (Oakite)	2,000#	Alum. Hoods	Cleaning	Intermittent	Proprietary (phosphoric acid butyl cellosolve hydrofluoric acid)
Delcid (Oakite)	500#	Headbox	Cleaning	Intermittent	Proprietary (Inhibited Acid
Oakite 78 (Oakite)	1,000#	Machine Frames	Cleaning	Intermittent	Proprietary (Sodium Sulfate Inorganic Phosphate Salt
Dimalin (Oakite)	42,000#	Wet Felts	Cleaning	Intermittent	Sodium meta silicate
Mobilsol (Mobil)	175,000#	Wet Felts	Cleaning	Intermittent	Petroleum Solvent
Kerosene	190,000#	Calendar	Cleaning	Intermittent	Kerosene
D-65 (Betz)	44,000#	Wire Couch	Corrosion Contrd	Cont.	Proprietary (NaOH, thiazole derivative, non ionic surfactant
Magnusol 728 (Magnus)	8,000#	Dryer Gears	Cleaning	Intermittent	Proprietary (Xylene, cyclohexanol, butyl cellosolve)

INDUSTRIAL CHEMICALS

PARTMENT PAPER MILL DATE May 1, 1979

scription	Amount/ Year	Where Applied	Reason	Period of Use	Ingredients
ire (Dubois)	2,000#	Wet End	Cleaning	Inter-mittent	Proprietary
ime-trol RX-28 (Betz)	33,000#	Machine Chest	Slimicide	Cont.	Proprietary (thiadiazine)
ime-trol RX-34 (Betz)	22,000#	Machine Chest	Slimicide	Cont.	Proprietary (sod. dimethyl dithiocarbamate disodium ethyle bisdithiocarbar
ime-trol RX-36 (Betz)	2,000#	Broke Pulper Starch	Slimicide	Cont.	Proprietary (bis trichloro methyl sulfone, dimethyl benzyl ammonium chlori
san 881 (Buckman)	22,000#	Machine Chest	Slimicide	Cont.	Proprietary (Disodium cyanc thioimidocarbor Potassium N-met dithiocarbamat
san 52 (Buckman)	5,000#	Starch	Slimicide	Cont.	Proprietary (Potassium N-hy xymethyl-N-meth dithiocarbamate sodium 2-mercap benzothiazole)
ctropel (Calgon)	18,000#	Size Press	Anti-Static	Cont.	Polydimethyldia lylammonium chloride
amer 1619X Diamond-Shamrock)	13,000#	Wire Showers	Defoamer	Cont.	Esters in a hy carbon base
k Floc LS (Hamblet & Hayes)	325,000#	ABBS pulp	pH Control	Cont.	Sodium alumina
um	2,500 T	Pulp	Retention	Cont.	Aluminium sulf
tic Soda	25,000#	Wet End	Cleaning	Inter-mittent	NaOH
a Mase #1 Taberski)	3,000#	Starch	Starch Conver-sion	Cont.	Enzyme & Amyl
er 1260 (Betz)	80,000#	Headbox	Retention	Cont.	Proprietary

DEPARTMENT PAPER MILL DATE May 1, 1979

Description	Amount/ Year	Where Applied	Reason	Period of Use	Ingredients
Neonic 3785 (Dubinger)	50 T	Headbox	Paper Strength	Cont.	Proprietary (Cationic starc
Hersize CD-2 (Monsanto)	65 T	Machine Chest	Sizing	Cont.	Proprietary
Rosin Size	1,200 T	Machine Chest	Sizing	Cont.	Proprietary (abietic acid derivatives)
Clay	32,000 T	Machine Chest	Filler	Cont.	Kaolin, alumini silicate
Penford Gum 270 or 280 (Penick & Ford)	100 T	Size Press	Paper Strength	Cont.	Hydroxyethyl Starch Ether
Starch	10,000 T	Size Press	Paper Strength	Cont.	Pearl Starch $(C_2H_{10}O_5)_x$
Titanium	3,500 T	Machine Chest	Opacity	Cont.	TiO_2
Borax (Stauffer)	2,000#	Size Press	pH Control	Inter-mittent	Sodium Borate
Paper Aid (R.J. Reynolds)	65,000#	Machine Chest	Brightness Control	Inter-mittent	$Al(OH)_3$
Salt (Morton)	60T	Starch	Antistatic	Inter-mittent	NaCl
Filtron (Cypress)	3,500 T	Brown Stock	Pitch Control	Cont.	Magnesium Silicate
Direct Yellow G (Crompton & Knowles)	6,000#	Machine Chest	Color Control	Inter-mittent	Proprietary
Intralite Fast Red P-5B (Crompton & Knowles)	500#	Machine Chest	Color Control	Inter-mittent	Proprietary
Direct Brilliant Violet BC (Crompton & Knowles)	6,000#	Machine Chest	Color Control	Inter-mittent	Proprietary
Direct Blue D-2B (Crompton & Knowles)	8,500#	Machine Chest	Color Control	Cont.	Proprietary

E ARTMENT PAPER MILL DATE May 1, 1979

escription	Amount/ Year	Where Applied	Reason	Period of Use	Ingredients
grosene Crystals 02P (Crompton & Knowles)	1,250#	Machine Chest	Color Control	Cont.	Proprietary (Azine Dye)
Arctic White (Hilton-Davis)	375,000#	Machine Chest	Color Contol	Cont.	Proprietary (fluorescent dye)

INDUSTRIAL CHEMICALS

DEPARTMENT PULP MILL DATE May 1, 1979

Description	Amount/ Year	Where Applied	Reason	Period of Use	Ingredients
Chlorine	9,700 T	Pulp	Bleaching	Cont.	Cl_2
Caustic	10,000 T	Pulp	Bleaching	Cont.	NaOH
Sulfur Dioxide	100 T	Pulp	Cooking	Sporadic	SO_2
Defoamer - Colloids Houghton	216 T	Pulp	Deariate	Cont.	Proprietary
Sulfur	7,500 T	Burner	Produces SO_2 for cooking	Cont.	S_2
Xylene	2,600#	Washers	Clean Wire	Sporadic	Xylene
Acetone	4,500#	Piping	Cleaner	Sporadic	Acetone
Sodium Sulfide	400#	Sulfur Burner Filters	Cleaner	Sporadic	$Na_2 SO_3$
D - Oakite	700#	Sulfur Burner Filters	Cleaner	Sporadic	Proprietary

DEPARTMENT BOILER HOUSE DATE May 1, 1979

Description	Amount/ Year	Where Applied	Reason	Period of Use	Ingredients
Caustic	28,000#	Feedwater	pH control	Cont.	Sodium Hydroxi
Polysperse (Betz)	33,000#	Feedwater	Dispersant	Cont.	Proprietary
Neutrafilm 463 (Betz)	16,000#	Feedwater	Corrosion Control	Cont.	Proprietary
Chelant C-60 (Betz)	14,000#	Feedwater	Multivalent ion control	Cont.	EDTA
Corrogen (Betz)	20,000#	Feedwater	Dissolved O_2 Control	Cont.	Na_2SO_3 and Catalyst
7d-24 (Nutmeg)	40,000#	Oil Treatment	Slag Control	Cont.	Proprietary
Foamtrol (Betz)	18,000#	Evaporators	Foam Control	Cont.	Proprietary
Neutrameen NA9 (Betz)	4,000#	Steam	Corrosion Control	Cont.	Proprietary
Hydro T (Ashland)	1,200#	Condensate	Resin Cleaning	Cont.	Proprietary
Salt	110 T	Water	Ion replacement in softeners	Cont.	NaCl
Ammonia	15,500 T	Recovery Sulfur Burner	SO_2 absorb. SO_2 absorb.	Cont.	NH_3

INDUSTRIAL CHEMICALS

DEPARTMENT WASTE TREATMENT DATE May 1, 1979

Description	Amount/ Year	Where Applied	Reason	Period of Use	Ingredients
Defoamer -	54,000#	Neutralization Basin; Secondary Pump Building	Remove Foam	Cont.	Proprietary
Quaker 1518					
Houghton Dearex 791-98-06N 8004					
Polymer -					
Drew-Floc 2306	36,000#	Secondary Pump Building	Floc sludge	Inter-mittent	Proprietary
Lime	50,000 T	Neutralization Basin	Adjust pH	Cont.	Ca, Mg, Al, F Oxides and Carbonates
Phosphoric Acid -	290 T	Secondary Pump Building	Nutrient	Cont.	H_3PO_4
Hydrogen Peroxide -	22,000#	Sludge Recycle	Control Filamentous Bacteria	Inter-mittent	H_2O_2

REFERENCE NO. 8

RECORD OF COMMUNICATION	☐ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☐ CONFERENCE ☒ OTHER (SPECIFY) 10 page form (Record of item checked above)	
TO: Dr. Richard Spear	FROM: Edward L. Moore	DATE Jan. 12, 1981 TIME

SUBJECT

FINCH PRUYN Land Reclamation (TDD# 02-8011-52)

SUMMARY OF COMMUNICATION

Finch Pruyn Company has a land reclamation division that owns land in Queensbury, New York in Warren County. On this 12 acre site, they are landfilling the sludge from a paper mill waste treatment facility. There is 60 feet from the bottom of the fill to the groundwater. The virgin material is a high permeability sand with gravel. Monitoring wells have been installed: one upgradient; one within the fill area; and two down gradient intercepting the groundwater flow towards Mud Pond. Quarterly water analysis has shown no detectable phenols or PCB's. The Regional D.E.C. theorizes that any toxics perculating down is getting tied up in the immediately surrounding soil below the fill material. The sludge has been found to be so stable that it is in use as a bottom liner at Queensbury RDA and as a cap at the Caputo PCB site in Moreau, New York.

CONCLUSIONS, ACTION TAKEN OR REQUIRED

We do not recommend sampling or a site visit at this time. It appears that D.E.C. Region 5 has the situation well in hand.

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INFORMATION COPIES TO:

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

SITE NUMBER (To be assigned by EPA) NY 0000 2800

GENERAL INSTRUCTIONS: Complete Sections I and III through XV of this form as completely as possible. Then use the information on this form to develop a Tentative Disposition (Section II). File this form in its entirety in the regional Hazardous Waste Log File. Be sure to include all appropriate Supplemental Reports in the file. Submit a copy of the forms to: U.S. Environmental Protection Agency; Site Tracking System, Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET (or other identifier)		
Finch Pruyn Land Reclamation	Route 149 near Washington County		
C. CITY	**D. STATE**	**E. ZIP CODE**	**F. COUNTY NAME**
Queensbury	N.Y.	12801	Warren

G. SITE OPERATOR INFORMATION

1. NAME		2. TELEPHONE NUMBER	
Finch Pruyn & Co.		518-793-2541	
3. STREET	**4. CITY**	**5. STATE**	**6. ZIP CODE**
1 Glen Street	Glens Fall	N.Y.	12801

H. REALTY OWNER INFORMATION (if different from operator of site)

1. NAME		2. TELEPHONE NUMBER	
3. CITY		**4. STATE**	**5. ZIP CODE**

I. SITE DESCRIPTION

Sludge disposal from Paper Mill Plant

J. TYPE OF OWNERSHIP

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

II. TENTATIVE DISPOSITION (complete this section last)

A. ESTIMATE DATE OF TENTATIVE DISPOSITION (mo., day, & yr.)	B. APPARENT SERIOUSNESS OF PROBLEM
January 15, 1981	☐ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☒ 4. NONE

C. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE (mo., day, & yr.)
Edward L. Moore	201-621-6800	January 12, 1981

III. INSPECTION INFORMATION

A. PRINCIPAL INSPECTOR INFORMATION

1. NAME	2. TITLE	
Edward L. Moore	Sr. Geotechnical Engineer	
3. ORGANIZATION		**4. TELEPHONE NO. (area code & no.)**
Fred C. Hart Associates		201-621-6800

B. INSPECTION PARTICIPANTS

1. NAME	2. ORGANIZATION	3. TELEPHONE NO.
No site inspection made. Additional information obtained in interview with		
Ray Gowens, Region 5,	DEC (518-623-3671).	

C. SITE REPRESENTATIVES INTERVIEWED (corporate officials, workers, real. etc.)

1. NAME	2. TITLE & TELEPHONE NO.	3. ADDRESS
N/A		

2

III. INSPECTION INFORMATION (continued)

D. GENERATOR INFORMATION (complete if applicable)

1. NAME	2. TELEPHONE NO.	3. ADDRESS	4. WASTE TYPE GENERATED
Finch Pruyn			

E. TRANSPORTER/HAULER INFORMATION

1. NAME	2. TELEPHONE NO.	3. ADDRESS	4. WASTE TYPE TRANSPORTED

F. IF WASTE IS PROCESSED ON SITE AND ALSO SHIPPED TO OTHER SITES, IDENTIFY OFF-SITE FACILITIES USED FOR DISPOSAL.

1. NAME	2. TELEPHONE NO.	3. ADDRESS

G. DATE OF INSPECTION (Mo., Day, & Yr.): N/A

H. TIME OF INSPECTION:

I. ACCESS GAINED BY: (credentials must be shown in all cases)
☐ 1. PERMISSION ☐ 2. WARRANT

J. WEATHER (describe)
N/A

IV. SAMPLING INFORMATION

A. Mark 'X' for the types of samples taken and indicate where they have been sent e.g., regional lab, other EPA lab, contractor, etc. and estimate when the results will be available.

1. SAMPLE TYPE	2. SAMPLE TAKEN (Mark 'X')	3. SAMPLE SENT TO:	4. DATE RESULTS AVAILABLE
GROUNDWATER		N/A	
SURFACE WATER			
WASTE			
SOIL			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER (specify)			

B. FIELD MEASUREMENTS TAKEN (e.g., radioactivity, explosivity, PH, etc.)

1. TYPE	2. LOCATION OF MEASUREMENTS	3. RESULTS
N/A		

Continued From Page 2

IV. SAMPLING INFORMATION (continued)

C. PHOTOS
1. TYPE OF PHOTOS: [ ] a. GROUND [ ] b. AERIAL — N/A
2. PHOTOS IN CUSTODY OF:

D. SITE MAPPED?
[ ] YES. SPECIFY LOCATION OF MAPS.
N/A

E. COORDINATES
1. LATITUDE (deg.-min.-sec.): 43° 23' 40"
2. LONGITUDE (deg.-min.-sec.): 73° 36' 50"

V. SITE INFORMATION

A. SITE STATUS
[X] 1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)
[ ] 2. INACTIVE (Those sites which no longer receive wastes.)
[ ] 3. OTHER (specify): _____ (Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

B. IS GENERATOR ON SITE?
[ ] 1. NO [X] 2. YES (specify generator's four-digit SIC Code): 2621

C. AREA OF SITE (in acres): 12

D. ARE THERE BUILDINGS ON THE SITE?
[ ] 1. NO [X] 2. YES (specify):

VI. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

A. TRANSPORTER	X	B. STORER	X	C. TREATER	X	D. DISPOSER
1. RAIL		1. PILE		1. FILTRATION	X	1. LANDFILL
2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
4. TRUCK		4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS./TREATMENT		5. MIDNIGHT DUMPING
6. OTHER (specify):		6. OTHER (specify):		6. BIOLOGICAL TREATMENT		6. INCINERATION
				7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
				8. SOLVENT RECOVERY		8. OTHER (specify):
				9. OTHER (specify):		

E. SUPPLEMENTAL REPORTS: If the site falls within any of the categories listed below, Supplemental Reports must be completed. Indicate which Supplemental Reports you have filled out and attached to this for...

[ ] 1. STORAGE [ ] 2. INCINERATION [X] 3. LANDFILL [ ] 4. SURFACE IMPOUNDMENT [ ] 5. DEEP WELL
[ ] 6. CHEM/BIO/PHYS TREATMENT [ ] 7. LANDFARM [ ] 8. OPEN DUMP [ ] 9. TRANSPORTER [ ] 10. RECYCLER/RECLAIMER

VII. WASTE RELATED INFORMATION

A. WASTE TYPE
[ ] 1. LIQUID [ ] 2. SOLID [X] 3. SLUDGE [ ] 4. GAS

B. WASTE CHARACTERISTICS
[ ] 1. CORROSIVE [ ] 2. IGNITABLE [ ] 3. RADIOACTIVE [ ] 4. HIGHLY VOLATILE
[X] 5. TOXIC [ ] 6. REACTIVE [ ] 7. INERT [ ] 8. FLAMMABLE
[ ] 9. OTHER (specify):

C. WASTE CATEGORIES
(Give amounts of wastes available) Specify items such as manifests, invoices, etc. below.

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Continue On Reverse

VII. WASTE RELATED INFORMATION (continued)

2. Estimate the amount (specify unit of measure) of waste by category. Mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT 150,000	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
UNIT OF MEASURE cu. yds/yr	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
X (11) PAINT PIGMENTS	(1) OILY WASTES	(1) HALOGENATED SOLVENTS	(1) ACIDS	(1) FLYASH	(1) LABORATORY/PHARMACEUT.
(12) METALS SLUDGES	(2) OTHER (specify):	(2) NON-HALOGNTD. SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(13) POTW		(3) OTHER (specify):	(3) CAUSTICS	(3) MILLING/MINE TAILINGS	(3) RADIOACTIVE
(14) ALUMINUM SLUDGE			(4) PESTICIDES	(4) FERROUS SMELTING WASTES	(4) MUNICIPAL
X (15) OTHER (specify): Paper Mill Waste Trtmt			(5) DYES/INKS	(5) NON-FERROUS SMLTG. WASTES	(5) OTHER (specify):
			(6) CYANIDE	(6) OTHER (specify):	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER (specify):		

D. LIST SUBSTANCES OF GREATEST CONCERN WHICH ARE ON THE SITE (place in descending order of hazard)

1. SUBSTANCE	2. FORM (check 'X')			3. TOXICITY (check 'X')				4. CAS NUMBER	5. AMOUNT	6. UNIT
	a. SOLID	b. LIQ.	c. VAPOR	a. HIGH	b. MED.	c. LOW	d. NONE			

VIII. HAZARD DESCRIPTION

FIELD EVALUATION HAZARD DESCRIPTION: Place an 'X' in the box to indicate that the listed hazard exists. Describe the hazard in the space provided.

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☐ A. HUMAN HEALTH HAZARDS

VIII. HAZARD DESCRIPTION (continued)

☐ B. NON-WORKER INJURY/EXPOSURE

☐ C. WORKER INJURY/EXPOSURE

☐ D. CONTAMINATION OF WATER SUPPLY

☐ E. CONTAMINATION OF FOOD CHAIN

☒ F. CONTAMINATION OF GROUND WATER

Virgin material in the area is well compacted sand. However, Regional D.E.C. office says that the leachate is not entering ground water.

☒ G. CONTAMINATION OF SURFACE WATER

Citizens complaint letter (10/16/79) refers to sludge leaking into Mud Pond. The D.E.C. had allowed a variance that winter from daily coverage of sludge. Also leachate visible during inspection of Jan, 1980.

VIII. HAZARD DESCRIPTION (continued)

☐ H. DAMAGE TO FLORA/FAUNA

☐ I. FISH KILL

☐ J. CONTAMINATION OF AIR

☐ K. NOTICEABLE ODORS

☐ L. CONTAMINATION OF SOIL

☐ M. PROPERTY DAMAGE

Continued From Page 6

VIII. HAZARD DESCRIPTION (cont'd)

☐ M. FIRE OR EXPLOSION

☐ O. SPILLS/LEAKING CONTAINERS/RUNOFF/STANDING LIQUID

☐ P. SEWER, STORM DRAIN PROBLEMS

☐ Q. EROSION PROBLEMS

☐ R. INADEQUATE SECURITY

☐ S. INCOMPATIBLE WASTES

VIII. HAZARD DESCRIPTION (continued)

☐ T. MIDNIGHT DUMPING

☐ U. OTHER (specify):

IX. POPULATION DIRECTLY AFFECTED BY SITE

A. LOCATION OF POPULATION	B. APPROX. NO. OF PEOPLE AFFECTED	C. APPROX. NO. OF PEOPLE AFFECTED WITHIN UNIT AREA	D. APPROX. NO. OF BUILDINGS AFFECTED	E. DISTANCE TO SITE (specify units)
1. IN RESIDENTIAL AREAS	0		--	> 1/2 mile
2. IN COMMERCIAL OR INDUSTRIAL AREAS	0			
3. IN PUBLICLY TRAVELLED AREAS	0			1400 feet
4. PUBLIC USE AREAS (parks, schools, etc.)	0			

X. WATER AND HYDROLOGICAL DATA

A. DEPTH TO GROUNDWATER (specify unit)	B. DIRECTION OF FLOW	C. GROUNDWATER USE IN VICINITY
60 feet	South South West	none
D. POTENTIAL YIELD OF AQUIFER	**E. DISTANCE TO DRINKING WATER SUPPLY (specify unit of measure)**	**F. DIRECTION TO DRINKING WATER SUPPLY**

G. TYPE OF DRINKING WATER SUPPLY

☐ 1. NON-COMMUNITY < 15 CONNECTIONS

☒ 2. COMMUNITY (specify name): Town of Queensbury > 15 CONNECTIONS

☐ 3. SURFACE WATER

☐ 4. WELL

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Continue On Page 9

Continued From Page 8

X. WATER AND HYDROLOGICAL DATA (continued)

H. LIST ALL DRINKING WATER WELLS WITHIN A 1/4 MILE RADIUS OF SITE

1. WELL	2. DEPTH (specify unit)	3. LOCATION (proximity to population/buildings)	4. NON-COMMUNITY (mark 'X')	5. COMMUNITY (mark 'X')
None				

I. RECEIVING WATER

1. NAME: Mud Pond

☐ 2. SEWERS ☐ 3. STREAMS/RIVERS ☐ 4. LAKES/RESERVOIRS ☒ 5. OTHER (specify): Pond

6. SPECIFY USE AND CLASSIFICATION OF RECEIVING WATERS

XI. SOIL AND VEGITATION DATA

LOCATION OF SITE IS IN:

☐ A. KNOWN FAULT ZONE ☐ B. KARST ZONE ☐ C. 100 YEAR FLOOD PLAIN ☐ D. WETLAND

☐ E. A REGULATED FLOODWAY ☐ F. CRITICAL HABITAT ☐ G. RECHARGE ZONE OR SOLE SOURCE AQUIFER

XII. TYPE OF GEOLOGICAL MATERIAL OBSERVED

Mark 'X' to indicate the type(s) of geological materia observed and specify where necessary, the component parts.

	A. OVERBURDEN		B. BEDROCK (specify below)		C. OTHER (specify below)
X	1. SAND	X	Unknown		
	2. CLAY				
	3. GRAVEL				

XIII. SOIL PERMEABILITY

☒ A. UNKNOWN ☐ B. VERY HIGH (100,000 to 1000 cm/sec.) ☐ C. HIGH (1000 to 10 cm/sec.)

☐ D. MODERATE (10 to .1 cm/sec.) ☐ E. LOW (.1 to .001 cm/sec.) ☐ F. VERY LOW (.001 to .0000; cm/sec.)

G. RECHARGE AREA

☐ 1. YES ☐ 2. NO 3. COMMENTS

H. DISCHARGE AREA

☐ 1. YES ☐ 2. NO 3. COMMENTS.

I. SLOPE

1. ESTIMATE % OF SLOPE: 10

2. SPECIFY DIRECTION OF SLOPE, CONDITION OF SLOPE, ETC.: South

J. OTHER GEOLOGICAL DATA

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XIV. PERMIT INFORMATION

List all applicable permits held by the site and provide the related information.

A. PERMIT TYPE (e.g., RCRA, State, NPDES, etc.)	B. ISSUING AGENCY	C. PERMIT NUMBER	D. DATE ISSUED (mo., day, & yr.)	E. EXPIRATION DATE (mo., day, & yr.)	F. IN COMPLIANCE (mark 'X') 1. YES	2. NO	3. UNKNOWN
State	D.E.C.	1017	6/21/79	6/21/82	X		

XV. PAST REGULATORY OR ENFORCEMENT ACTIONS

☒ NONE ☐ YES (summarize in this space)

The D.E.C. recently denied variance to daily cover. There are 4 monitoring wells being sampled on a quarterly basis. Results show no phenols or PCB's. D.E.C. files also show that this sludge is being used as a bottom liner at Queensbury RDA and as a cap at the Caputo PCB site in Moreau, N.Y.

NOTE: Based on the information in Sections III through XV, fill out the Tentative Disposition *(Section II)* information on the first page of this form.

LANDFILLS SITE INSPECTION REPORT
(Supplemental Report)

INSTRUCTION
Answer and Explain as Necessary.

1. EVIDENCE OF SITE INSTABILITY *Erosion, Settling, Sink Holes, etc)*
☐ YES ☒ NO

2. EVIDENCE OF IMPROPER DISPOSAL OF BULK LIQUIDS, SEMI-SOLIDS AND SLUDGES INTO THE LANDFILL
☐ YES ☒ NO

3. CHECK RECORDS OF CELL LOCATION AND CONTENTS AND BENCHMARK
☐ YES ☒ NO

4. WASTES SURROUNDED BY SORBENT MATERIAL
☐ YES ☒ NO

5. DIVERSION STRUCTURES ARE EFFECTIVELY CONSTRUCTED AND PROPERLY MAINTAINED
☐ YES ☐ NO

6. EVIDENCE OF PONDING OF WATER ON SITE
☐ YES ☒ NO

7. EVIDENCE OF IMPROPER/INADEQUATE DRAINING
☐ YES ☒ NO

8. ADEQUATE LEACHATE COLLECTION SYSTEM *(If "Yes", specify Type)*
☐ YES ☐ NO

9. SURFACE LEACHATE SPRING
☐ YES ☒ NO

10. RECORDS OF LEACHATE ANALYSIS
☒ YES ☐ NO

11. GAS MONITORING
☐ YES ☒ NO

12. GROUNDWATER MONITORING WELLS
☐ YES ☐ NO

13. ARTIFICIAL MEMBRANE LINER INSTALLED
☐ YES ☒ NO

14. SPECIFIC CONTAINMENT MEASURES *(Clay Bottom, Sides, etc)*
☐ YES ☒ NO

15. FIXATION *(Stabilization)* OF WASTE
☐ YES ☐ NO

16. ADEQUATE CLOSURE OF INACTIVE PORTION OF FACILITY
☒ YES ☐ NO

16. COVER *(Type)*

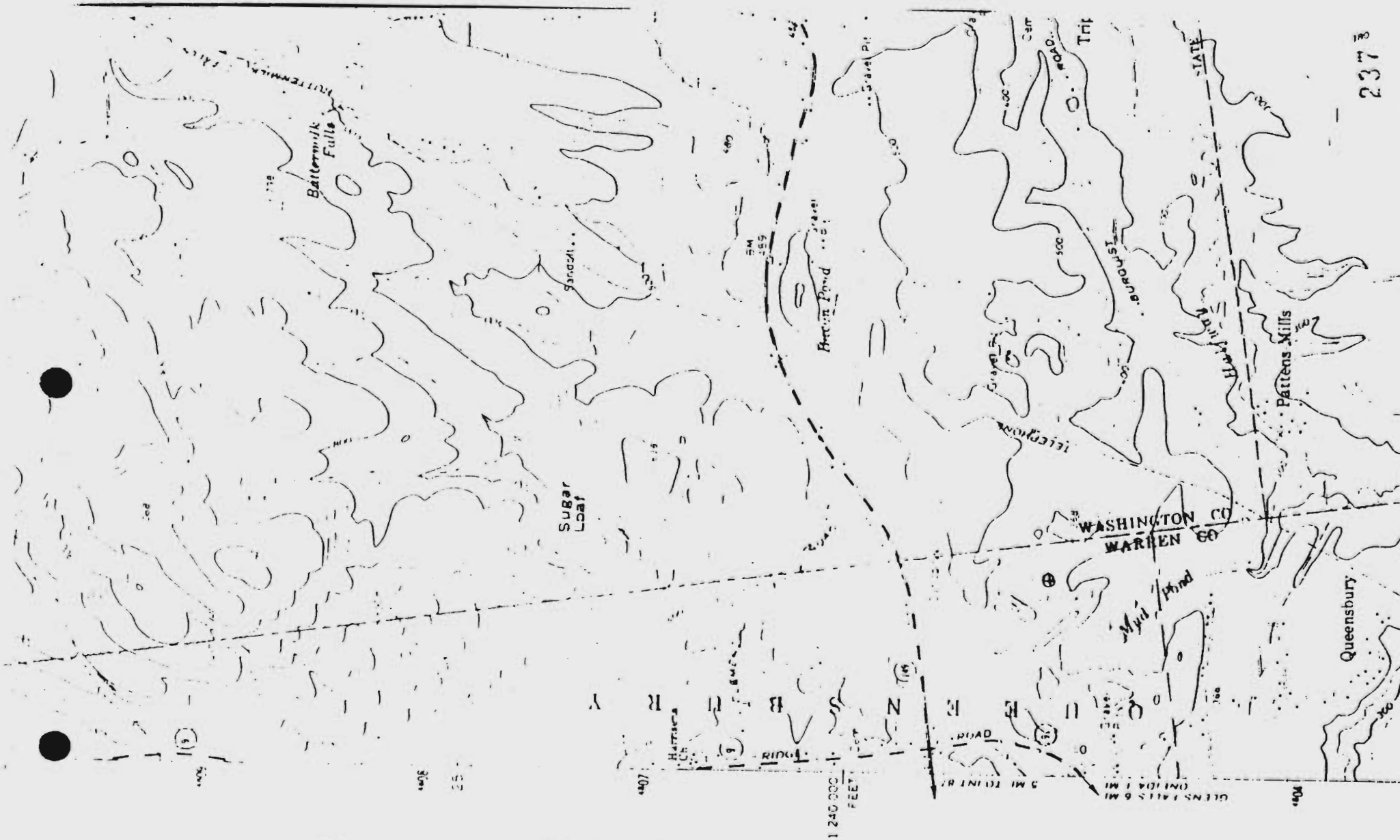
16a. THICKNESS

16b. PERMEABILITY

16c. DAILY APPLICATION
☐ YES ☐ NO

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Form T2070-3E (10-79)



FINCH - PRUYN TDD # 02-8011-52

FROM PUTNAM MTN. QUAD

REFERENCE NO. 9

Ernie Schmalz
May 21, 1980

HAZARDOUS WASTE SITE DOSSIER

I. Site Name:

Finch Pruyn Land Reclamation Area
Off Route 149
Queensbury, New York (Warren County)

II. Background to Investigation and Source of Initial Referral:

The site is listed in the April 15, 1979 New YOrk State Department of Environmental Conservation (DEC) compilation of potentially hazardous landfills.

III. Site Description:

This is a 60 acre tract of knolls and depressions which are being filled in with sludge from the treatment plant of a paper mill. The land will eventually be leveled, covered and seeded. The site is permitted by DEC. The site is considered a land reclamation project instead of the usual landfill.

The site produces very little leachate, which is not entering the groundwater, according to the Regional engineers. The site has 3 monitoring wells. (Copy of results attached).

There have been no phenols found in the testing up to now. Phenols were considered to be one of the hazardous materials usually found in paper mill sludge. A report in the files theorizes that these phenols are being bound up in the wood fibers and small amounts in the soil particles immediately surrounding the sludge.

There are no homes or wells in the immediate area.

IV. Allegations of "Imminent Hazard" Pollution:

There are no indications that this "land reclamation" project is contaminating any water supplies. There are no reports in the files to indicate that this site is causing any environmental problems.

V. Current Involvement:

The site is permitted by N.Y. D.E.C. and a copy of their schedule is attached. (2 pages).

The Task Force recommends a site visit on a medium priority basis.

SCHEDULE A

Finch, Pruyn & Company Inc.

Solid Waste Management Facility #57S16

Permit #1017

A. The permittee shall operate the facility in a manner which will not constitute:

1. a nuisance or hazard to the public health or the environment, or
2. a contravention of the classifications and standards of quality and purity of the waters of the State, established, adopted, and so assigned pursuant to section 17-0301 of the Environmental Conservation Law and derivative statutes relative thereto.

B. The facility shall only be used to dispose of sludge with characteristics as generated by Finch Pruyn and Company Incorporated, previously recognized by the Department in Appendix "A" of the approved "Phase 2 Development Plan" dated August 2, 1978. Changes in sludge characteristics or constituents subsequent to August 2, 1978 shall be reported to the Department (Region 5, Warrensburg).

C. Adequate equipment and personnel shall be provided to implement the method of operation as specified in the approved "Phase 2 Development Plan", dated August 2, 1978. This method of operation shall not be altered without the advance written approval of the Department of Environmental Conservation.

D. The permittee shall notify the Department of any proposed contiguous land use changes, including changes in ownership.

E. The permittee shall measure water elevations, and shall collect and analyze samples quarterly from each monitoring well for the following parameters:

1. pH
2. Iron (total)
3. Chlorides
4. Specific Conductivity
5. Total Organic Carbon (TOC)
6. Total Kjeldahl Nitrogen
7. Copper
8. Lead
9. Zinc
10. Cadmium

The results of these analyses shall be submitted to the Department on a quarterly basis. The first samples shall be collected on or about October 1, 1979, and at three month intervals thereafter.

F. The permittee shall collect and analyze samples annually from each monitoring well for the following parameters:

1. Phenolics
2. Phosphate, as Total P
3. Grease and Oils
4. Mercury
5. Selenium
6. Trivalent Chromium
7. Nickel
8. Nitrite
9. Nitrate as Ammonia

SCHEDULE A

(Continued)

The results of these analyses shall be submitted to the Department on an annual basis. The first samples shall be collected on or about July 1, 1980.

G. Finch, Pruyn and Company, Inc. shall submit to this Department an annual report on August 31, 1980 and on each succeeding August 31 until final contours as indicated on the approved plans are completed. This report shall contain as a minimum the following information:

1. Total Volume of sludge placed in the landfill.

2. A tabluation of quarterly and annual sampling program analysis.

3. An analysis of a sludge sample to be collected in July of each year. This analysis shall be for the parameters listed in Appendix "A" of the approved "Phase 2 Development Plan", dated August 2, 1978.

4. A topographic map showing the area filled as of August 1 of each year.

5. A narrative summary describing the operating procedures during the year, any operating problems encountered, any changes in operating procedures that may be warranted, etc..

H. Should the appearance of leachate represent a potential violation of 6NYCRR 360 in the opinion of the Department of Environmental Conservation, the permittee shall submit for approval within 30 calendar days of written notice from the Department, detailed drawings of a leachate collection system. Construction shall begin within 5 working days following approval.

I. Vegetative cover will be established and maintained on critical areas to reduce erosion.

J. If contravention of New York State ground water standards occurs as indicated by analysis of water observation wells or other monitoring, the operation of the sludge disposal facility will cease and the surface of the landfill will be capped with an impervious material acceptable to the Department of Environmental Conservation. The capping will be accompanied by appropriate provisions to exclude surface water runoff by ditching.

K. Any expansion of the waste disposal site beyond that proposed for"Phase 2" shall be subject to Department review and approval.

L. Should permittee elect or be required to terminate use of the facility before reaching its anticipated useful life, permittee will submit an approvable engineering report/plan within 30 days following termination of use. If use cessation is at permittee volition, the Department will receive telephone notification followed by written confirmation within five working days of permittee's decision to do same.

REFERENCE NO. 10

general testing corporation
326 John Street Rochester, NY 14623 (716) 424-1970

July 27, 1979

Water and Wastewater Testing Specialists

LABORATORY REPORT

Job No. 12066 Page 1 / 2

r. Phil Arthur
inch, Pruyn and Co.
len St.
ns Falls, N.Y. 12801

Sample(s) Reference

Sludge

samples (X) received ( ) collected by General Testing

7/2/79

O #

ANALYTICAL RESULTS

(ug/gm wet wt.

Sample Description	6/26
ite(s)	
me(s)	
hlorine Demand	13400
, Dichromate	232,803
yanides, Total	<10
ase/Oil	5225
rogen, Ammonia N	370
itrogen, Kjeldahl, N	3,890
rogen, Nitrate N	0.68
trogen, Nitrite N	1.28
nolics	2.125
sphate, Total as P	335.0
Moisture	73.3
lids, Total	26.7
Total Volatile	17.4

NOTE: Cyanides level determined to a sensitivity of <10 - 1978 test sensitivity level was <.1

Chromium test omitted by Laboratory - test to be performed on August sample.

J. Scheible 8/28/79

continued

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Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 14th Edition and Methods for Chemical Analysis of Water and Wastes, EPA.
(<) indicates lowest detectable concentration with procedure used

Richard J. Scheible
Laboratory Director

general testing corporation
326 John Street Rochester, NY 14623 (716) 424-1970

October 4, 1979

Water and Wastewater Testing Specialists

LABORATORY REPORT

Job No. 1308 Page 1

Mr. Phil Arthur
Finch, Pruyn and Co.
1 Glen St.
Glens Falls, N.Y. 12801

Sample(s) Reference

Monitoring Wells
Landfill Water Analysis

9/17/79

samples (X) received ( ) collected by General Testing

ANALYTICAL RESULTS

(mg/l unless stated otherwise)

C # 51652

Sample Description	Well A (Down)	Well B (Down)	Well C (Up)
Date(s)	9/5	9/5	9/5
Time(s)	14:00	14:00	14:00
pH	7.01 dec	6.61 dec	7.34
T C	11.5	46.5	3.5
Conductivity, Specific	305 ≈	570 ≈	282 ≈
Chlorides	5.00 ≈	2.50 ≈	3.00 ≈
Nitrogen, Kjeldahl N	17.4 dec	53.7 dec	5.3 dec
Cadmium	.05 inc.	.06 inc.	<.03
Copper	.08 ≈	<.04 inc	<.04
Iron	18.6 inc 10	80.0 inc 80	.15 dec.
Lead	.77 inc	.87 inc	<.30
Zinc	17 inc	.21 inc	.55 dec.

c:
Mr. John Shema
Mr. William C. Schultz
Mr. S. E. Sledziewski

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Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 14th Edition and Methods for Chemical Analysis of Water and Wastes, EPA.
(<) indicates lowest detectable concentration with procedure used

Richard J. Scheible
Laboratory Director

REFERENCE NO. 11

EPA

POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION | SITE NUMBER (To be assigned by HQ)

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II *(Preliminary Assessment)*. File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW, Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME | B. STREET

C. CITY | D. STATE | E. ZIP CODE | F. COUNTY NAME

G. OWNER/OPERATOR *(If known)*
1. NAME | 2. TELEPHONE NUMBER

H. TYPE OF OWNERSHIP
☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE

I. SITE DESCRIPTION

J. HOW IDENTIFIED *(e.g., citizen's complaints, OSHA citations, etc.)* | K. DATE IDENTIFIED

L. PRINCIPAL STATE CONTACT
1. NAME | 2. TELEPHONE NUMBER

II. PRELIMINARY ASSESSMENT *(complete this section last)*

A. APPARENT SERIOUSNESS OF PROBLEM
☐ 1. HIGH ☐ 2. MEDIUM ☑ 3. LOW ☐ 4. NONE ☐ 5. UNKNOWN

B. RECOMMENDATION
☐ 1. NO ACTION NEEDED *(no hazard)*
☐ 2. IMMEDIATE SITE INSPECTION NEEDED
☐ 3. SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR
b. WILL BE PERFORMED BY

C. PREPARER INFORMATION
1. NAME | 2. TITLE | 3. DATE *(mo. & yr.)*

III. SITE INFORMATION

A. SITE STATUS
☐ 1. ACTIVE *(Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if intermittently.)*
☐ 2. INACTIVE *(Those industrial or municipal sites which no longer are receiving wastes.)* *(Also, sites of "midnight dumping" where unauthorized waste disposal has occurred.)*

B. IS GENERATOR ON SITE?
☒ 1. NO ☐ 2. YES *(specify generator's name(s) in)*

C. AREA OF SITE *(In acres)*

D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES
1. LATITUDE *(deg.—min.—sec.)* | 2. LONGITUDE *(deg.—min.—sec.)*

E. ARE THERE BUILDINGS ON THE SITE?
☐ 1. NO ☐ 2. YES *(specify):*

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...ued from Front

IV. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activities and details relating to each activity by marking 'X' in the appropriate boxes.

A. TRANSPORTER	B. STORER	C. TREATER	D. DISPOSER
[X] 1. RAIL	[X] 1. PILE	[ ] 1. FILTRATION	[X] 1. LANDFILL
[ ] 2. SHIP	[ ] 2. SURFACE IMPOUNDMENT	[ ] 2. INCINERATION	[ ] 2. LANDFARM
[ ] 3. BARGE	[ ] 3. DRUMS	[ ] 3. VOLUME REDUCTION	[ ] 3. OPEN DUMP
[ ] 4. TRUCK	[ ] 4. TANK ABOVE GROUND	[ ] 4. RECYCLING/RECOVERY	[ ] 4. SURFACE IMPOUNDMENT
[ ] 5. PIPELINE	[ ] 5. TANK BELOW GROUND	[ ] 5. CHEMICAL/PHYSICAL TREATMENT	[ ] 5. MIDNIGHT DUMPING
[ ] 6. OTHER (specify)	[ ] 6. OTHER (specify)	[ ] 6. BIOLOGICAL TREATMENT	[ ] 6. INCINERATION
		[ ] 7. WASTE OIL REPROCESSING	[ ] 7. UNDERGROUND INJECTION
		[ ] 8. SOLVENT RECOVERY	[ ] 8. OTHER (specify):
		[ ] 9. OTHER (specify)	

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

V. WASTE RELATED INFORMATION

A. WASTE TYPE

[ ] 1. UNKNOWN [ ] 2. LIQUID [ ] 3. SOLID [X] 4. SLUDGE [ ] 5. GAS

B. WASTE CHARACTERISTICS

[ ] 1. UNKNOWN [ ] 2. CORROSIVE [ ] 3. IGNITABLE [ ] 4. RADIOACTIVE [ ] 5. HIGHLY VOLATILE
[X] 6. TOXIC [ ] 7. REACTIVE [ ] 8. INERT [ ] 9. FLAMMABLE

[ ] 10. OTHER (specify): _____

C. WASTE CATEGORIES

1. Are records of wastes available? Specify form name(s) and briefly describe content, etc. below.

2. Estimate the amount (specify unit of measure). Refer to codes listed below. Mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENT	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT [illegible]	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
UNIT OF MEASURE [illegible]	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
[X] (1) PAINT PIGMENTS	[X] (1) OILY WASTES	[X] 1. HALOGENATED SOLVENTS	[ ] 1. ACIDS	[X] 1. FLYASH	[X] (1) LABORATORY PHARMACEUT.
[ ] (2) METALS SLUDGES	[ ] (2) OTHER (specify)	[ ] 2. NON-HALOGENATED SOLVENTS	[ ] 2. PICKLING LIQUORS	[ ] 2. ASBESTOS	[ ] (2) HOSPITAL
[ ] (3) POTW		[ ] (3) OTHER (specify)	[ ] 3. CAUSTICS	[ ] 3. MINING/MINE TAILINGS	[ ] (3) RADIOACTIVE
[ ] (4) ALUMINUM SLUDGE			[ ] 4. ACIDS	[ ] 4. FERROUS SMLTG. WASTES	[ ] (4) MUNICIPAL
[X] (5) OTHER (specify): [illegible]			[ ] 5. DYES/INKS	[ ] 5. NON-FERROUS SMLTG. WASTES	[ ] (5) OTHER (specify)
			[ ] 6. CYANIDE	[ ] 6. OTHER (specify):	
			[ ] (7) PHENOLS		
			[ ] (8) HALOGENS		
			[ ] (9) PCB		
			[ ] (10) METALS		
			[ ] (11) OTHER (specify)		

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(Continued From Page 2)

V. WASTE RELATED INFORMATION (continued)

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard)

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

VI. HAZARD DESCRIPTION

A. TYPE OF HAZARD	B. POTENTIAL HAZARD (mark 'X')	C. ALLEGED INCIDENT (mark 'X')	D. DATE OF INCIDENT (mo., day, yr.)	E. REMARKS
1. NO HAZARD				
HUMAN HEALTH				
3. NON-WORKER INJURY/EXPOSURE				
WORKER INJURY				
CONTAMINATION OF WATER SUPPLY				
6. CONTAMINATION OF FOOD CHAIN				
CONTAMINATION OF GROUND WATER				
8. CONTAMINATION OF SURFACE WATER				
DAMAGE TO FLORA/FAUNA				
FISH KILL				
CONTAMINATION OF AIR				
NOTICEABLE ODORS				
13. CONTAMINATION OF SOIL				
PROPERTY DAMAGE				
15. FIRE OR EXPLOSION				
16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS				
SEWER, STORM DRAIN PROBLEMS				
18. EROSION PROBLEMS				
INADEQUATE SECURITY				
20. INCOMPATIBLE WASTES				
MIDNIGHT DUMPING				
22. OTHER (specify):				—

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ntinued From Front

VII. PERMIT INFORMATION

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE.

☐ 1. NPDES PERMIT ☐ 2. SPCC PLAN ☐ 3. STATE PERMIT (specify)

☐ 4. AIR PERMITS ☐ 5. LOCAL PERMIT ☐ 6. RCRA TRANSPORTER

☐ 7. RCRA STORER ☐ 8. RCRA TREATER ☐ 9. RCRA DISPOSER

☐ 10. OTHER (specify)

B. IN COMPLIANCE?

☐ 1. YES ☐ 2. NO ☐ 3. UNKNOWN

4. WITH RESPECT TO (list regulation name & number)

VIII. PAST REGULATORY ACTIONS

☐ A. NONE ☐ B. YES (summarize below)

IX. INSPECTION ACTIVITY (past or on-going)

☐ A. NONE ☒ B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY (EPA/State)	4. DESCRIPTION

X. REMEDIAL ACTIVITY (past or on-going)

☒ A. NONE ☐ B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY (EPA/State)	4. DESCRIPTION

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment *(Section II)* information on the first page of this form.

EPA

POTENTIAL HAZARDOUS WASTE SITE LOG

SITE NUMBER

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

NAME

STATE | ZIP CODE

SUMMARY OF POTENTIAL OR KNOWN PROBLEM

ITEM	STARTING OR COMPLETION DATE	DESCRIPTION OF ACTIVITY	DATA SOURCE	PERSON MAKING ENTRY TO LOG FORM	DATE ENTERED ON LOG (mo,day,yr)
1. IDENTIFICATION OF POTENTIAL PROBLEM					
2. PRELIMINARY ASSESSMENT					
APPARENT SERIOUSNESS OF PROBLEM					
3. SITE INSPECTION					
4. EPA TENTATIVE DISPOSITION (check appropriate item(s) below)					
a. NO ACTION NEEDED					
b. INVESTIGATIVE ACTION NEEDED					
c. REMEDIAL ACTION NEEDED					
d. ENFORCEMENT ACTION NEEDED					
5. EPA FINAL STRATEGY DETERMINATION (check appropriate item(s) below)					
a. NO ACTION NEEDED					
b. REMEDIAL ACTION NEEDED					
c. REMEDIAL ACTION NEEDED BUT, NO RESOURCES AVAILABLE					
d. ENFORCEMENT ACTION NEEDED					
(1) CASE DEVELOPMENT PLAN PREPARED					
(2) ENFORCEMENT CASE FILED OR ADMINISTRATIVE ORDER ISSUED					
6. STRATEGY COMPLETED					

EPA Form T2070-1 (10-79)

Current Location of File

X Assessment Staff

___ Case Development Staff

___ Enforcement Division

___ Other

File Holder

D. Schissel

HAZARDOUS WASTE SITE STATUS

Site Name

Site Number

Staff Responsible

E Schmaltz

County

Agency Responsible

___ EPA ___ State ___ None

Preliminary Assessment Rating

Low

Date of Assessment

5-1-80

Tentative Disposition

Date of Disposition

Site Inspection Requested	Date of Request	Date of Inspection	Date of Repor
X Yes ___ No	July 1 80		

Site Inspection Rating

JRB Rating

Sampling Requested	Date of Request	Date of Sampling	Date of Report
___ Yes ___ No			

Final Strategy Determination - (based on sampling results)

Date of Determination

Enforcement by EPA

___ Yes ___ No

Date of Case Development Plan

Enforcement Team Leader

Technical Staff -

Legal Staff -

S&A Field Staff -

FIT Staff -

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Enforcement Case Filed Date

Administrative Order Issued Date

02-9008-26-SI
REV. NO. 0

FINAL DRAFT
SITE INSPECTION REPORT
FINCH PRUYN
QUEENSBURY, NEW YORK
VOLUME 2 OF 2

PREPARED UNDER

TECHNICAL DIRECTIVE DOCUMENT NO. 02-9008-26
CONTRACT NO. 68-01-7346

FOR THE

ENVIRONMENTAL SERVICES DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

MARCH 15, 1991

NUS CORPORATION
SUPERFUND DIVISION

REFERENCE NO. 13

NUS CORPORATION
SUPERFUND DIVISION

PROJECT NOTES

TO: Finch Pruyn File

DATE: March 11, 1991

FROM: Susan Anderson

COPIES:

SUBJECT: Population Count

REFERENCE:

GEMS did not compute a house count OR a population count within 1/4 and 1/2 mile of the site. Therefore, a housecount was conducted using the Three-mile vicinity Map for Finch Pruyn. The population within 1/4 mile is 11 based on 3 houses x 3.8 residents. The population within 1/2 mile is 23 based on 6 houses x 3.8 residents.

NUS 443A 58 1182

GSC-TR8645

GRAPHICAL EXPOSURE MODELING SYSTEM

(GEMS)

USER'S GUIDE

VOLUME 2. MODELING

Prepared for:

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES AND TOXIC SUBSTANCES
EXPOSURE EVALUATION DIVISION
Task No. 3-2
Contract No. 68Ø23970
Project Officer: Russell Kinerson
Task Manager: Loren Hall

Prepared by:

GENERAL SCIENCES CORPORATION
8401 Corporate Drive
Landover, Maryland 20785

Submitted: December 1, 1986

I

FINCH PRUYN
LATITUDE 43:23:50 LONGITUDE 73:36:45 1980 POPULATION

KM	0.00-.400	.400-.810	.810-1.60	1.60-3.20	3.20-4.80	4.80-6.40	SECTOR TOTALS
S 1	11 ø	23ø	70	865	3699	1279	5913
RING TOTALS	11 ø	23ø	70	865	3699	1279	5913

> I

FINCH PRUYN
LATITUDE 43:23:50 LONGITUDE 73:36:45 1980 HOUSING

KM	0.00-.400	.400-.810	.810-1.60	1.60-3.20	3.20-4.80	4.80-6.40	SECTOR TOTALS
S 1	3 ø	6 ø	27	258	1226	460	1971
RING TOTALS	3 ø	6 ø	27	258	1226	460	1971

Distance	Population	Housing
1/4	11	3
1/2	34	9
1	104	36
2	969	294
3	4668	1520
4	5947	1980

REFERENCE NO. 14



New York State Atlas of Community Water System Sources 1982

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

New York State Atlas of
mmunity Water System Sources
1982

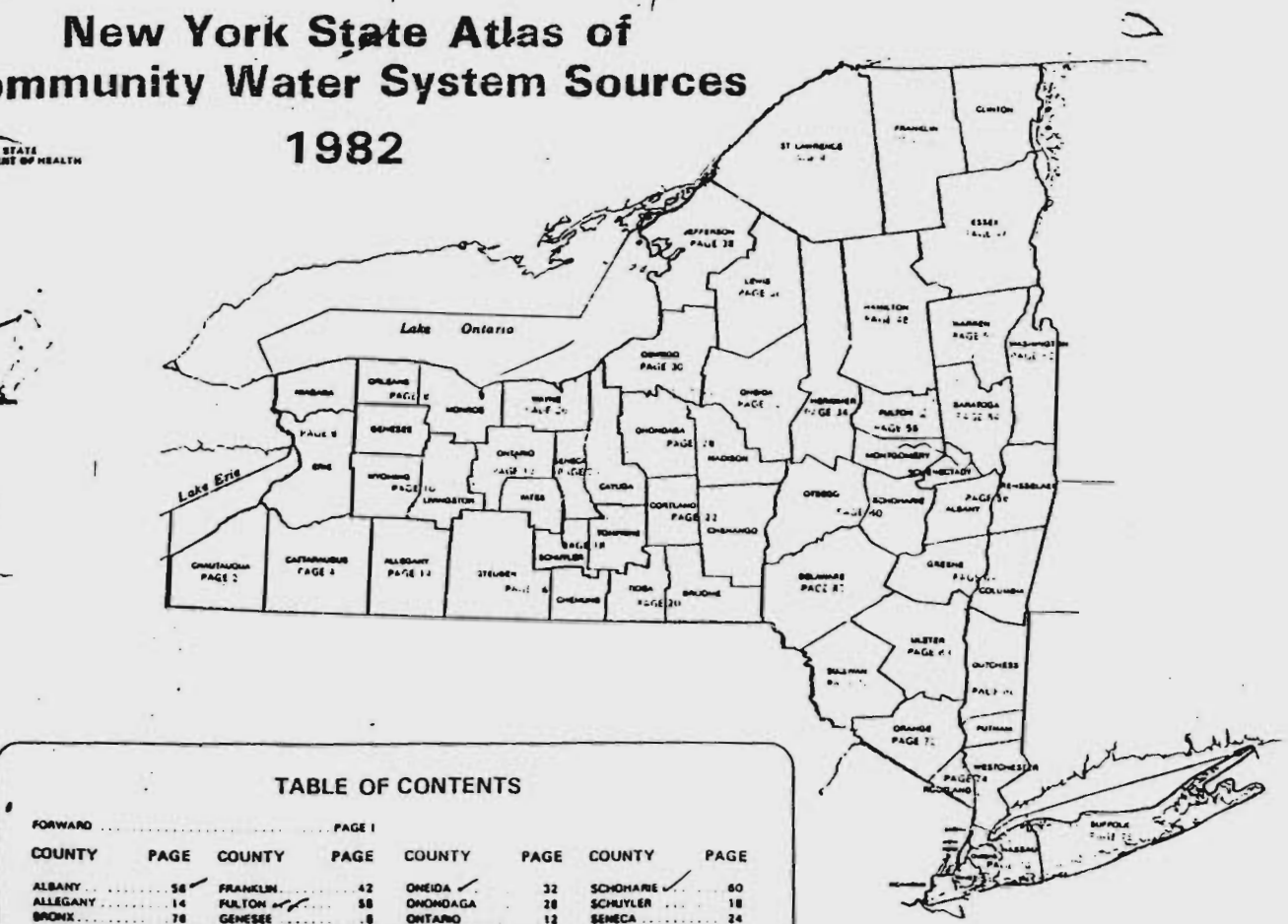


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DELAWARE	62	MONTGOMERY	58	ST LAWRENCE	40	WESTCHESTER	74
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ERIE	6	NEW YORK	76	SCHENECTADY	56	YATES	12
ESSEX	46	NIAGARA	6				

LEGEND

BOUNDARIES AND PLACES

International
State
County
Town
Indian Reservation
City
Village
Unincorporated Place
Federal Reservation
Built-up Area (Over 25,000 population including any contiguous city or village)

CLASSIFICATION OF POPULATED PLACES

100,000 or more — YONKERS
50,000 to 100,000 — Levittown
12,500 to 50,000 — Poughkeepsie
2,500 to 12,500 — Hampton Bays
250 to 2,500
250 or less

TRANSPORTATION

Highways
Divided Highways
Full Control of Access
Partial or No Control of Access
Undivided Highway
Interchange
Touring Route (State, U.S., Interstate) or State Parkway
Touring Route Markers
State, U.S., Interstate

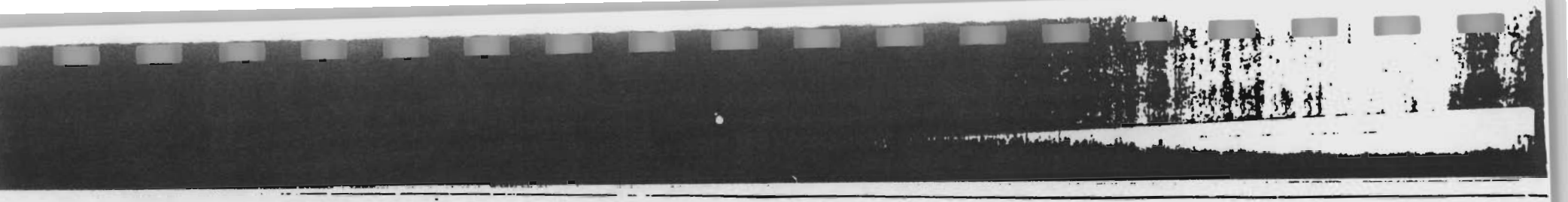
Railroads
Operating Line
Service Discontinued
Operator
Owner (If Other than Operator)
Company Having Trackage Rights

Airports (Open to the Public, Military)
Runway under 4000'
Runway over 4000'

Rest Areas
Food, Gas, Rest Rooms
Rest Rooms
Gas, Rest Rooms
Parking Only

RECREATION FACILITIES

State or National Recreation Area
State Campground
State Boat Launching Site
State Canal Park
State Fish Hatchery
Other State Recreation Site



FOREWARD

SOURCE LOCATIONS

county maps in this atlas show the locations of surface water intakes and groundwater rces for community water systems in New York State. A community water system is defin- n Part 5 of the New York State Sanitary Code as a public water system which serves at least service connections used by year round residents or regularly serves at least 25 year round dents. Many different types of water systems are therefore included. Community water tems which purchase 100 percent of their water and have no sources of their own are not wn.

h county map is accompanied by a list of the county's community water systems, popula- served, and source names. Systems are separated into MUNICIPAL COMMUNITY (program e 100) and NON-MUNICIPAL COMMUNITY (all other program codes) and listed abetically within each. MUNICIPAL COMMUNITY water systems are operated by a city, n, village, county or water authority or the water system may be a water district or privately ed. NON-MUNICIPAL COMMUNITY systems are primarily mobile home parks but also in- e apartments/condominiums, resident health care facilities, resident institutions, and ral facilities.

EXPLANATION OF SYMBOLS

Suface water intakes are designated on the county maps by a triangle (▲) accompanied by the corresponding water supply number.

Groundwater sources are designated by a dot (●) followed by the supply number. Multiple wells separated by less than 1000' and supplying the same water system are shown with one dot. Springs and infiltration galleries are shown as groundwater sources unless the local health unit has designated it a surface source. Therefore, springs and infiltration galleries are listed as wells (springs) or wells (infiltration galleries).

If a Community Water System has source(s) located outside the county, these sources are shown in the county list and show in parentheses the system number, county and page number. Conversely, when a county contains source(s) which supply community water systems located outside the county, the name of the system is also shown in that county's list of sources.

ACKNOWLEDGEMENT

Data compiled in this Atlas is based on location of community water system sources from visits, in 1979, to every county health unit in the State by technicians working for the Bureau of Public Water Supply Protection. This data was updated in 1982 through use of the Department of Health's SAFWATER computer inventory and through limited field review. The Bureau of Public Water Supply Protection wishes to acknowledge the following organizations who have made the Atlas possible.

To the United States Environmental Protection Agency for funding this Atlas as a part of the Underground Injection Control Program.

To the Cartography Section of the New York State Department of Transportation for providing the talent, time and effort in performing the necessary cartographic work to produce this Atlas.

To the engineers and technicians of the Bureau of Public Water Supply Protection of the New York State Department of Health for the painstaking work of gathering the basic data and cross checking it, and for leading this project through to completion.

WARREN COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
1	Arcady Bay Estates	80	Lake George
2	Blue Sky Estates	NA	Wells
3	Bolton Water District	500	Edgecomb Pond
4	Cape Cod	100	Jenkins Brook
5	Chestertown Water District	1000	Wells
6	Diamond Point Water District	500	Smith Brook
7	Fourth Lake Water District	400	Wells
8	Glens Falls City	21000	Halfway Creek, Keenan, and Wilkie Reservoirs, Butler Pond
9	Hague Water Works	60	Reservoirs (Springs)
10	Lake George Village	1000	Lake George
11	Lake Luzerne Water District	2800	Seymour Brook Reservoir, Wells
12	North Creek Water District	800	Wells
13	Pottersville Water District	350	Wells
14	Queensbury Water District	5800	Hudson River
15	Silver Bay	NA	Wells (Springs)
16	Warrensburg Water District	2400	Big Brook Reservoir, Wells
Non-Municipal Community			
17	Cannon Point Condominium 1 & 2	250	Lake George
18	Forest Park Mobile Home Court	NA	Wells
19	Four Acres Mobile Home Park	16	Wells
20	Glen Haven Trailer Court	NA	Wells
21	Gore Mountain Mobile Park	24	Wells
22	Grooms Trailer Park	25	Wells
23	Homestead Village Inc	NA	Wells
24	Magic Forest Mobile Home Park	40	Wells
25	McEnaneys Trailer Court	27	Wells
26	Mountain View Mobile Home Park	NA	Wells
27	Sunset Mobile Park	63	Wells

Site Location
MINERVA
SCHROON
CONDEROGA
ESSEX
WARREN
CHESTER
HAGUE
HORICON
JOHNSBURG
DRESDEN
BOLTON
THURMAN
WARRENSBURG
FORT ANNE
STONY CREEK
WARREN
SARATOGA
HADLEY MOUNTAIN
LAKE LUZERNE
KINGSBURY
HADLEY
DAY
OPE
SARATOGA
HAMILTON
FULTON
CORINTH
EDINBURG
MOREAU
FORT EDWARD
NORTHUMBERLAND
WILTON
GREENWICH
NORTHAMPTON
GREENFIELD
PROVINCE
Saratoga Springs
SARATOGA
MILTON
ALWAY
EASTON
WARREN COUNTY
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

WASHINGTON COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
1	Argyle Village	400	Summit Lake
2	Cambridge Water Works	1700	Reservoirs
3	Fort Ann Water Supply	550	Wells
	Fort Edward Village (See No 11 Saratoga Co, Page 54)		
4	Granville Village	3800	
5	Granville Water District	2900	Wells
6	Greenwich Village	1200	Wells, Well (Infiltration Gallery)
7	Hudson Falls Village	2200	Hay Reservoir, Wells
8	Scenic Mountain Estates Water System	8500	Reservoir, Wells
9	Schuylerville Village (Saratoga Co, Page 54)	180	Wells
10	Whitehall Village	3900	Reservoirs (Springs) Pine Lake
Non Municipal Community			
11	Copeland Pond Trailer Park	NA	Wells
12	Dix Trailer Court	9	Wells
13	Great Meadow Correctional Facility	1100	Dolph Pond
14	Homestead Court Apartments	40	Wells
15	Howard's Trailer Court	NA	Wells
16	Hudson River Villa	NA	Wells
17	Jeff-Glen Trailer Park	9	Wells
18	Jim's Trailer Park	20	Wells
19	M L Santerre Trailer Park	18	Wells
20	McMahon Mobile Court	25	Wells
21	Mountain View Mobile Estates	96	Wells
22	North Ridge Mobile Home Park	75	Wells
23	Owikill Mobile Estates	07	Wells
24	Pine's Trailer Park	22	Wells
25	Pleasant Valley Infirmary	128	Summit Lake
26	Scenic Mountain Estates	NA	Wells
27	Susan Marie Trailer Court	NA	Wells
28	Tamarack Valley Trailer Park	NA	Wells

LOCATION OF COMMUNITY WATER SYSTEM SOURCES-1982

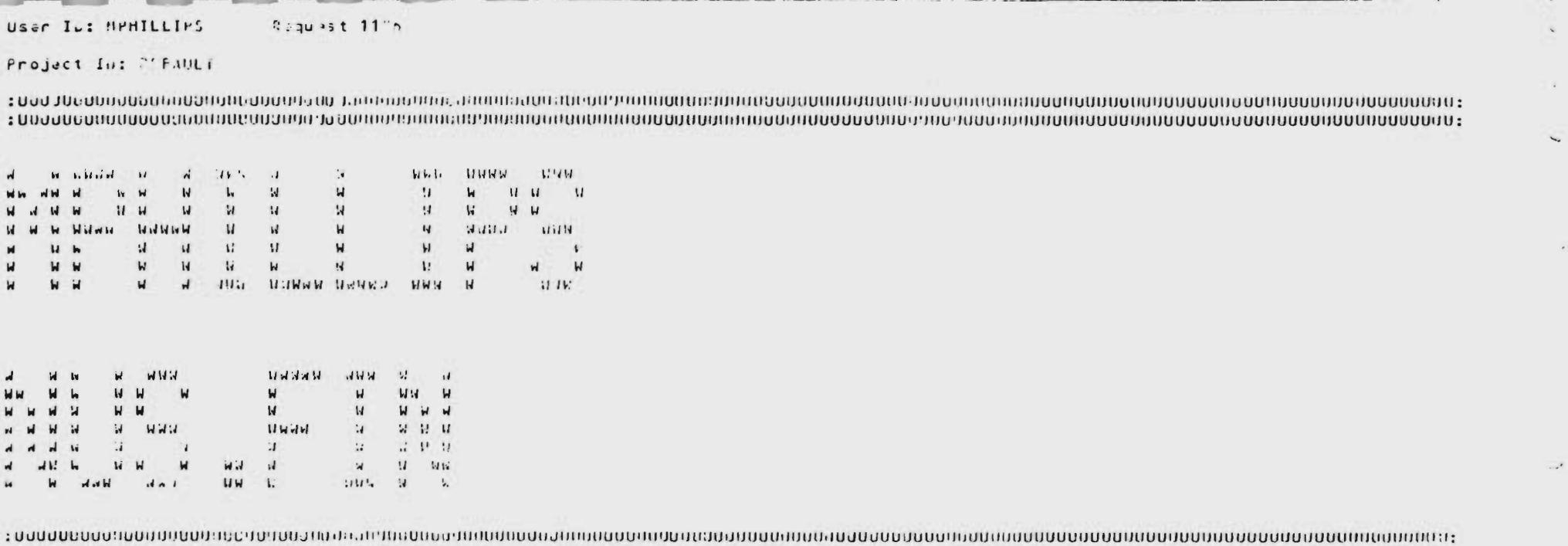
WASHINGTON COUNTY

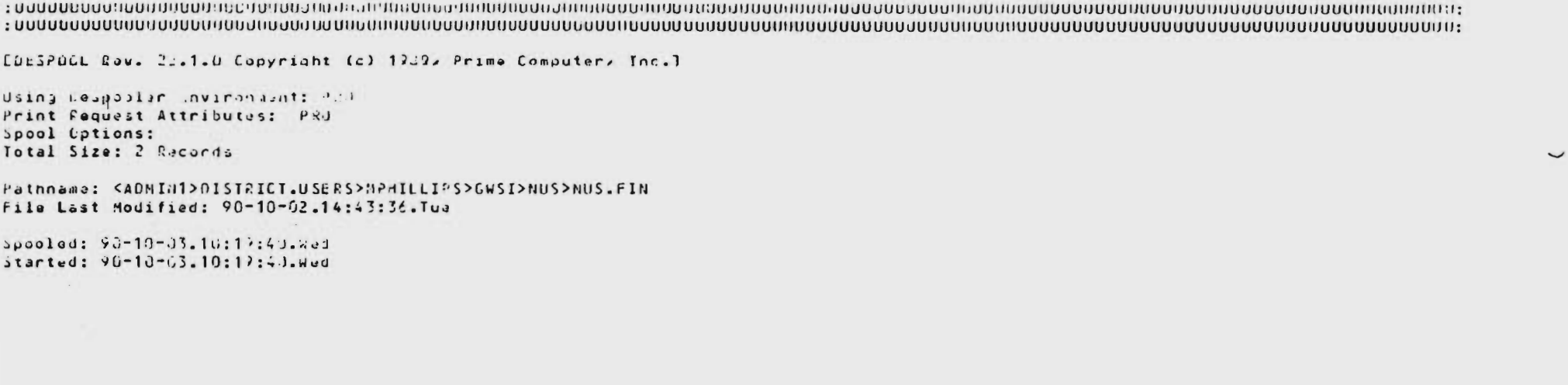
BUREAU OF PUBLIC WATER SUPPLY PROTECTION
DIVISION OF ENVIRONMENTAL PROTECTION

REFERENCE NO. 15

User Id: MPHILLIPS Request 11"

Project Id: DEFAULT





[DESPOOL Rev. 21.1.0 Copyright (c) 1989 Prime Computer, Inc.]

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Spooled: 90-10-03.10:17:40.Wed
Started: 90-10-03.10:17:40.Wed

	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	OWNER			DEPTH DRILLED (FEET)	STATIC WATER LEVEL (FEET)	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)	AQUIFER CODE	LITH-OLOGY CODE
	432052	0733904	QUEENSBURY WATER DISTRI			--	--	--	--	--	--
	432150	0733427	WRIGHT	, HARLAN		--	--	--	--	367BKMN	--
1	432221	0733850	SEELYE MARSHAL			--	--	--	--	112SDGV	SAND
2	432224	0733400	FRANZEN	, WILLIAM		--	--	--	--	367BKMN	--
3	432223	0733903	HARVEY WILLIAM			--	--	140	--	--	--
4	432229	0733754	SAWN RICHARD			--	--	25.0	--	--	--
5	432232	0733924	BOWMAN EARL			--	--	40.0	--	--	--
6	432234	0733511	HAMMOND	, O	D	--	--	--	--	112SDGV	SDGL
7	432236	0733428	PARANT	, HELEN		--	--	--	--	367BKMN	--
8	432237	0733704	WHITING EDWARD			--	--	60.0	--	--	--
9	432252	0733655	QUEENSBURY TOWN OF			--	--	--	--	112SAND	SAND
10	432310	0733704	LOVELAND F O			--	--	--	--	112SDGV	SAND
11	432322	0733843	INGRAHAM			--	--	--	--	--	--
12	432346	0733549	BOVEE MARCUS			--	--	--	--	112SDGV	SAND
			--				--	--	--	BEDROCK	--
13	432401	0733542	HARRIS DONALD			--	--	203	--	400BCPX	--
	432415	0733502	McMOORE			--	--	--	--	371PSDM	SNDS
	432424	0733353	J. H. COOLING			--	--	--	--	371PSDM	--
	432427	0733355	COOLING J H			--	--	--	--	BEDROCK	--
14	432430	0733241	ANN FORT			--	72.0	--	--	112SDGV	SAND
			--				--	--	--	BEDROCK	--
15	432430	0733407	GARAGE W FT ANN			--	--	--	--	112SDGV	SAND
16	432431	0733409	WEST FORT ANN GARAGE			--	--	--	--	112GRVL	GRVL
17	432435	0733353	EVANS	, J	A	--	--	--	--	371PSDM	--

	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	DISCHARGE (GPM)	PRIMARY USE OF WATER	OTHER IDENTIFIER
	432052	0733904	--	-	--
	432150	0733427	10	S	W 35
7	432221	0733850	--	H	--
2	432224	0733409	--	H	W 33
3	432228	0733903	5.00	H	--
4	432229	0733754	--	H	329 337 1
5	432232	0733924	4.00	H	--
6	432234	0733511	--	H	W 31
	432236	0733426	--	H	W 32
8	432237	0733704	6.00	H	--
9	432252	0733655	7.00	-	--
10	432310	0733704	5.00	H	--
11	432322	0733843	15.0	H	--
12	432346	0733549	25.0	H	327 335 1
			--		--
13	432401	0733542	2.00	H	324 335 1
	432415	0733502	4	S	W 448
	432424	0733353	2.5	N	W 27
	432427	0733355	2.00	N	--
14	432430	0733241	105	P	324 332 1
			--		--
15	432430	0733407	--	H	--
16	432431	0733409	--	H	W 29
	432435	0733353	1	H	W 26

GROUND-WATER SITE DATA

DATA RELIABILITY (C3) [T P M U]
field checked, poor location, minimal data, unchecked

SITE TYPE (C2) [C D E H I M O P T W X]
collector, drain, excavation, environmental hole, connector well, multiple wells, outcrop, pond, tunnel, well, test hole

DATE OF CONSTRUCTION (C21) [ ] - [ ] - [19]
month, day, year

USE OF SITE (C23) [A C D E F G H M O P R S T U W X Z]
anode, standby, emergency supply, drain, geothermal, seismic, heat reservoir, mine, observation, oil or gas, recharge, repressurize, test, unused, withdrawal, waste, destroyed.

SECONDARY USE OF SITE (C301) [ ] (SEE USE OF SITE)

TERTIARY USE OF SITE (C302) [ ] (SEE USE OF SITE)

USE OF WATER (C24) [A B C D E F H I J K M N P Q R S T U Y Z]
air cond., bottling, commercial, dewater, power, fire, domestic, irrigation, industrial (cooling), mining, medicinal, industrial, public supply, aquaculture, recreation, stock, institutional, unused, desalination, other

SECONDARY USE OF WATER (C25) [ ] (SEE USE OF WATER)

TERTIARY USE OF WATER (C26) [ ] (SEE USE OF WATER)

AQUIFER TYPE (C713) [U N C M X]
unconfined, single; unconfined, multiple; confined, single; confined, multiple; mixed

PRIMARY AQUIFER (C714) [ ]

HOLE DEPTH (C27) [ ] . [ ]

WELL DEPTH (C28) [ ] . [ ]

SOURCE OF DEPTH DATA (C29) [A D G L M O R S Z]
other gov't., driller, geologist, logs, memory, owner, other reported, reporting agency, other

WATER LEVEL (C30) [ ] . [ ]

DATE WATER LEVEL MEASURED (C31) (Mandatory if C30, water level, has a value) [ ] - [ ] - [19]
month, day, year

METHOD OF WATER-LEVEL MEASUREMENT (C34) [A B C E G H L M N R S T V Z]
airline, analog, calibrated airline, estimated, pressure gage, calibrated press. gage, geophysical logs, manometer, non-rec. gage, reported, steel tape, electric tape, calibrated elec. tape, other

SITE STATUS FOR WATER LEVEL (C37) [D E F G H I J N O P R S T V W X Z]
dry, recently flowing, flowing, nearby flowing, nearby recently flowing, injector site, injector site monitor, measurement discon., obstruction, pumping, recently pumped, nearby pumping, nearby recently pumped, foreign substance, well destroyed, surface water effects, other

SOURCE OF WATER-LEVEL DATA (C33) [A D G L M O R S Z]
other gov't., driller, geologist, logs, memory, owner, other reported, reporting agency, other

---

CONSTRUCTION DATA

RECORD TYPE (C754) [C]

RECORD SEQUENCE NO. (C723) [ ]

DATE OF CONSTRUCTION (C60) [ ] - [ ] - [19]
month, day, year

NAME OF CONTRACTOR (C63) [ ]

SOURCE OF DATA (C64) [A D G L M O R S Z]
other gov't., driller, geologist, logs, memory, owner, other reported, reporting agency, other

METHOD OF CONSTRUCTION (C65) [A B C D H J P R T V W Z]
air-rotary, bored or augered, cable tool, dug, hydraulic rotary, jetted, air percussion, reverse rotary, threshing, driven, drive wash, other

TYPE OF FINISH (C66) [C F G H O P S T W X Z]
porous concrete, gravel w/perf., gravel screen, horiz. gallery, open end, perf. or slotted, screen, sand point, welded, open hole, other

TYPE OF SEAL (C67) [B C G N Z]
bentonite, clay, cement grout, none, other

BOTTOM OF SEAL (C68) [ ]

METHOD OF DEVELOPMENT (C69) [A B C J N P S Z]
air-lift pump, bailed, compressed air, jetted, none, pumped, surged, other

HOURS OF DEVELOPMENT (C70) [ ]

SPECIAL TREATMENT (C71) [C D E F H M Z]
chemicals, dry ice, explosives, deflocculant, hydrofracturing, mechanical, other

C93 codes

NEW YORK

CENOZOIC

CENOZOIC ERATHEM..... 100CNZC

QUATERNARY

QUATERNARY SYSTEM..... 110QRNR

HOLOCENE

ALLUVIUM..... 111ALVM
BAY-BOTTOM DEPOSITS..... 111BBTM
BEACH (SHORE)DEPOSITS..... 111BECH
DUNE (AEOLIAN) DEPOSITS..... 111DUNE
FILL..... 111FILL
HOLOCENE SERIES..... 111HLCN
LAKE DEPOSITS..... 111LAKE
SALT-MARSH DEPOSITS..... 111SLMR
TERRACE DEPOSITS..... 111TRRC

PLEISTOCENE

GLACIAL DELTA DEPOSITS..... 112GLCD
GLACIAL AQUIFER,UPPER..... 112GLCLU
GARDINERS CLAY..... 112GRDR
HARBOR HILL DRIFT..... 112HBHD
HARBOR HILL OUTWASH..... 112HBHO
HARBOR HILL TILL..... 112HBHT
HARBOR HILL GROUND MORAINE..... 112HHGM
HARBOR HILL TERMINAL MORAINE..... 112HHTM
ICE-CONTACT DEPOSITS..... 112ICNC
JAMECO AQUIFER..... 112JMCO
KAME TERRACE DEPOSITS..... 112KMTC
LAKE DEPOSITS..... 112LAKE
OUTWASH..... 112OTSH
RONKONKOMA GROUND MORAINE..... 112RKGM
RONKONKOMA DRIFT..... 112RKKD
RONKONKOMA OUTWASH..... 112RKKO
RONKONKOMA TILL..... 112RKKT
RONKONKOMA TERMINAL MORAINE..... 112RKTM
SAND..... 112SAND
SAND AND GRAVEL..... 112SDGV
SMITHTOWN CLAY..... 112SMTN
TILL..... 112TILL
20-FOOT CLAY..... 11220CL

TERTIARY

PLIOCENE

MANNETTO GRAVEL..... 121MNNT

MESOZOIC

MESOZOIC ERATHEM..... 200MSZC

CRETACEOUS

CRETACEOUS SYSTEM..... 210CRCS

UPPER CRETACEOUS

UPPER CRETACEOUS SERIES..... 211CRCSU
LLOYD AQUIFER..... 211LLYD
MAGOTHY AQUIFER..... 211MGTY
MONMOUTH GREENSAND..... 211MMGD
MATAWAN GROUP-MAGOTHY FORMATION..... 211MNMG
MONMOUTH GROUP..... 211MNMT
MATAWAN FORMATION..... 211MTWN
RARITAN FORMATION..... 211RRTN

TRIASSIC

TRIASSIC SYSTEM..... 230TRSC

UPPER TRIASSIC

BRUNSWICK FORMATION..... 231BRCK
NEWARK GROUP..... 231NWRK
PALISADE DIABASE..... 231PLSD
STOCKTON FORMATION..... 231STCN
UPPER TRIASSIC SERIES..... 231TRSCU

PALEOZOIC

PALEOZOIC ERATHEM..... 300PLZC

PENNSYLVANIAN

PENNSYLVANIAN SYSTEM..... 320PSLV

MIDDLE PENNSYLVANIAN

SCOTTSVILLE FORMATION..... 324PSVL

MISSISSIPPIAN

MISSISSIPPIAN SYSTEM..... 330MSSP

LOWER MISSISSIPPIAN

POCONO GROUP..... 337POCN

DEVONIAN

DEVONIAN SYSTEM..... 340DVNN

UPPER DEVONIAN

CANADAWAY GROUP	341CNDY
CONEWANGO GROUP	341CNNG
CONNEAUT GROUP	341CNNT
UPPER DEVONIAN SERIES	341DVNNU
GENESEE FORMATION	341GENS
JAVA-WEST FALLS FORMATION	341JVWF
SONYEA FORMATION	341SONY

MIDDLE DEVONIAN

MIDDLE DEVONIAN SERIES	344DVNNM
ESOPUS SHALE	344ESPS
HAMILTON GROUP	344HMLN
ONONDAGA LIMESTONE	344ONDG
TULLY LIMESTONE	344TLLY

LOWER DEVONIAN

LOWER DEVONIAN SERIES	347DVNNL
HELDERBERG GROUP	347HDBG
ORISKANY SANDSTONE	347ORSK

SILURIAN

GREEN POND CONGLOMERATE	350GRPD
SILURIAN SYSTEM	350SLRN

UPPER SILURIAN

AKRON-COBLESVILLE-BERTIE FORMATIONS,UNDIFFERENTIATED	351AC8B
AKRON DOLOMITE	351AKRN
BINNEWATER SANDSTONE	351BNTR
BERTIE LIMESTONE	351BRTI
COBLESKILL LIMESTONE	351CBLK
CAMILLUS SHALE	351CMLS
LONGWOOD SHALE	351LNGD
SALINA GROUP	351SLIN
UPPER SILURIAN SERIES	351SLRNU
SYRACUSE SALT	351SRCS
VERNON SHALE	351VRNN

MIDDLE SILURIAN

CLINTON GROUP	354CLNN
MIDDLE SILURIAN SERIES	354SLRNM
SHAWANGUNK CONGLOMERATE	354SNGK

NIAGARAN

LOCKPORT DOLOMITE	355LCKP

LOWER SILURIAN

ALBION GROUP	357ALBN

LOWER SILURIAN SERIES..... 357SLRNL

ORDOVICIAN

ORDOVICIAN SYSTEM..... 3600DVC

UPPER ORDOVICIAN

LORRAINE SHALE..... 361LRRN
UPPER ORDOVICIAN SERIES..... 3610DVCU
OSWEGO SANDSTONE..... 3610SWG
QUEENSTON SHALE..... 361QNSN
UTICA SHALE..... 361UTIC

MIDDLE ORDOVICIAN

BERKSHIRE SCHIST..... 364BRKR
CAZY GROUP..... 364CHZY
CANAJOHARIE SHALE..... 364CNJR
NORMANSKILL FORMATION..... 364NMKL
MIDDLE ORDOVICIAN SERIES..... 3640DVCM
SNAKE HILL FORMATION..... 364SKHL
TRENTON-BLACK RIVER GROUP..... 364TBRV
TRENTON GROUP..... 364TRNN
WALLOOMSAC SLATE..... 364WLMC

LOWER ORDOVICIAN

BEEKMANTOWN GROUP..... 367BKMN
LOWER ORDOVICIAN SERIES..... 3670DVCL
POULTNEY SLATE..... 367PLTN
TRIBES HILL LIMESTONE..... 367TBHL

CAMBRIAN

CAMBRIAN SYSTEM..... 370CMBR

UPPER CAMBRIAN

MIDDLE CAMBRIAN SERIES..... 371CMBRM
UPPER CAMBRIAN SERIES..... 371CMBRU
LITTLE FALLS DOLOMITE..... 371LLFL
POTSDAM SANDSTONE..... 371PSDM
TACONIC SEQUENCE..... 371TCSQ
THERESA DOLOMITE..... 371THRS

MIDDLE CAMBRIAN

MIDDLE CAMBRIAN SERIES..... 374CMBRM
STOCKBRIDGE GROUP..... 374SKBG

LOWER CAMBRIAN

BULL SLATE..... 377BULL
LOWER CAMBRIAN SERIES..... 377CMBRL
DALTON FORMATION..... 377DLTN

ELIZAVILLE AND BERKSHIRE FORMATIONS..... 377EZVB
NASSAU FORMATION..... 377NSSU
POUGHQUAY QUARTZITE..... 377PGQY
SCHODACK FORMATION..... 377SCCK
STISSING DOLOMITE..... 377SSNG

PRECAMBRIAN

BASEMENT COMPLEX..... 400BCPX
PRECAMBRIAN ERATHEM..... 400PCMB

6.7.1.2 DEPTH TO BOTTOM OF UNIT
(LGBOT/C92 - CHAR X(8) in 47-54):

Enter the depth to the bottom of this lithologic unit, in feet below land surface. This field should be specified for all units except the last one in the hole.

6.7.1.3 UNIT IDENTIFIER
(LGAQFR/C93 - MANDATORY SECONDARY-KEY CHAR X(8) in 55-62):

Enter the eight-character code identifying the lithologic unit (see App. F in the WATSTORE User's Guide). (The terms BASEMENT and BEDROCK will be accepted as legal values.) The unit identifier is mandatory.

6.7.1.4 LITHOLOGY
(LGLITH/C96 - SECONDARY-KEY CHAR X(4) in 63-66):

Enter the code indicating the principal lithology of this unit. The codes are:

Rock Term	Abbreviation
Alluvium	ALVM
Anhydrite	ANDR
Anorthosite	ANRS
Arkose	ARKS
Basalt	BSLT
Bentonite	BNTN
Boulders	BLDR
Boulders and sand	BLSD
Boulders, silt, and clay	BLSC
Breccia	BRCC
Calcite	CLCT
Caliche (hard pan)	CLCH
Chalk	CHLK
Chert	CHRT
Clay	CLAY
Clay, some sand	CLSD
Claystone	CLSN
Coal	COAL
Cobbles	COBB

Cobbles and sand	COSD
Cobbles, silt, and clay	COSC
Colluvium	CLVM
Conglomerate	CGLM
Coquina	CQUN
Diabase	DIBS
Diorite	DORT
Dolomite	DLMT
Drift	DRFT
Evaporite	EVPR
Gabbro	GBBR
Glacial (undifferentiated)	GLCL
Gneiss	GNSS
Granite	GRNT
Granite, gneiss	GRGN
Gravel	GRVL
Gravel and clay	GRCL
Gravel, cemented	GRCM
Gravel, sand, and silt	GRDS
Gravel, silt and clay	GRSC
Graywacke	GRCK
Greenstone	GNST
Gypsum	GPSM
Hard pan	HRDP
Igneous (undifferentiated)	IGNS
Lignite	LGNT
Limestone	LMSN
Limestone and Dolomite	LMDM
Loam	LOAM
Loess	LOSS
Marble	MRBL
Marl	MARL
Marlstone	MRLS
Metamorphis (undifferentiated)	MMPC
Muck	MUCK
Mud	MUD
Mudstone	MDSN
Other	OTHR
Outwash	OTSH
Overburden	OBDN
Peat	PEAT
Quartzite	QRTZ
Residium	RSDM
Rhyolite	RYLT
Rock	ROCK
Rubble	RBBL
Sand	SAND
Sand and clay	SDCL

Sand and gravel	SDGL
Sand and silt	SDST
Sand, gravel, and clay	SGVC
Sand, some clay	SNCL
Sandstone	SNDS
Sandstone and shale	SDSL
Saprolite	SPRL
Schist	SCST
Sedimentary (undifferentiated)	SDMN
Serpentine	SRPN
Shale	SHLE
Silt	SILT
Silt and clay	STCL
Siltstone	SLSN
Slate	SLTE
Soil	SOIL
Syenite	SYNT
Till	TILL
Travertine	TRVR
Tuff	TUFF
Volcanic (undifferentiated)	VLCC

6.7.1.5 CONTRIBUTING UNIT (LGCONT/C304 - CHAR X in 67):

Enter the following code to indicate whether the unit is to be considered the principal aquifer. If this field is left blank, the edit program will value this component with a default of "U" and will print a warning message to that effect.

P - Principal contributing aquifer (only one per site)
S - Secondary contributing aquifer
N - Contributes no water
U - Unknown contribution

If C93 (aquifer code in geohydrology file) exists and C304 (contributing unit) is equal to "P", then C714 (aquifer code) is set equal to C93.

6.7.1.6 RESERVED FOR FUTURE USE (LGRESV - CHAR X(10) in 68-77):

REFERENCE NO. 16

NUS CORPORATION AND SUBSIDIARIES — **TELECON NOTE**

CONTROL NO.:	DATE:	TIME:
02-9008-52	11/6/90	1433

DISTRIBUTION: Orange County Sanitary Landfill

BETWEEN:	OF:	PHONE:
Kevin Roberts, Water Quality	NYSDEC Central Office	(518)474-2121
AND: David Florin		(NUS)

DISCUSSION:

Contacted Mr Roberts to obtain information on well head protection areas in Orange County, N.Y. Mr Roberts stated that one must locate all public water intakes into ground water system and then determine if the aquifer is unconsolidated or bedrock. If the aquifer is bedrock the zone of protection is 1500'; no distance for unconsolidated. Mr Roberts stated that there is probably no single source available that supplies well head protection areas of particular sites. Mr Roberts ended conversation by stating that the current NYS well head protection plan is State approved.

ACTION ITEMS:

NUS CORPORATION AND SUBSIDIARIES — **TELECON NOTE**

CONTROL NO.:	DATE:	TIME:
02-9008-52	11/6/90	1152

DISTRIBUTION: Orange County Sanitary Landfill

BETWEEN:	OF:	PHONE:
Dare LaPosta, Acting Chief Groundwater Management	USEPA, Region 2	212 264-5635
AND: David Florin (NUS)		

DISCUSSION:

Contacted the EPA in order to obtain information on well head protection areas in Orange County N.Y. Ms. LaPosta stated that there is presently a great deal of confusion surrounding this issue due to differences in Federal and State guidelines. It seems that the EPA had initially sanctioned the NYS guidelines for well head protection but then withdrew support in favor of Federal regulations. The plan proposed by NYS is to base protection on the aquifer while the EPA plans to issue protection guidelines on each ground water intake. The zone of well head protection under the proposed EPA plan will be dependent on the hydrogeology of the particular site in question. The NYS plan is presently state unapproved (New Jersey just approved a state plan). Ms LaPosta ended telephone conversation by stating that any request for information on well head protective zones in NYS should be directed to Kevin Roberts or Al Tidrow at the NYSDEC in Albany.

ACTION ITEMS:

REFERENCE NO. 17

NUS CORPORATION AND SUBSIDIARIES — **TELECON NOTE**

CONTROL NO.:	DATE:	TIME:
02-9008-24	10-19-90	1015

DISTRIBUTION:

Veldman Co Inc

BETWEEN:	OF:	PHONE:
Ralph VanDussen	Queensbury Town Water Dept	(518) 793-8866

AND:

T. J. Mulder, NUS (NUS)

DISCUSSION:

I called R. VanDussen to inquire about municipal supply wells for Queensbury and population served.

Details:

Queensbury had a well supply system from 1963-1975. Rapid growth necessitated their going to a system of drawing water from the Hudson River. Currently, all public supply water is drawn from the Hudson River at the Sherman Island Dam approximately 5 miles upstream of the Glens Falls civic area. ~20,000 served by system.

ACTION ITEMS:

T. Mulder
10-19-90

REFERENCE NO. 18

NUS CORPORATION AND SUBSIDIARIES — **TELECON NOTE**

CONTROL NO.:	DATE:	TIME:
02-9008-26	January 3, 1991	10:30

DISTRIBUTION:

Finch Pruyn File

BETWEEN:	OF:	PHONE:
Richard Foran	Village of Fort Ann	(518) 639-4416

AND: Susan Anderson (NUS)

DISCUSSION:

Mr Foran stated that there are two public supply wells at the same location in Fort Ann. The well depths for these two wells are 127 feet and 133 feet and serve 550 people.

ACTION ITEMS:

REFERENCE NO. 19

NUS CORPORATION AND SUBSIDIARIES — **TELECON NOTE**

CONTROL NO.:	DATE:	TIME:
02-9008-26	1/7/91	1015

DISTRIBUTION:

Finch Pruyn File

BETWEEN:	OF:	PHONE:
Ms. LaFay	Kingsbury Tax Assessor's office	(518) 747-2188

AND: Susan Anderson (NUS)

DISCUSSION:

She stated that the towns of Kingsbury and Hudson Falls are supplied by Queensbury (municipal supply from the Hudson River). She said that there are approximately 1100 houses served by private wells in Kingsbury and approximately 190 residences served by municipal water in Kingsbury. The population of Kingsbury is approximately 4000. She stated that Hudson Falls also has its own village water supply; however, she did not know the source.

ACTION ITEMS:

REFERENCE NO. 20

NUS CORPORATION AND SUBSIDIARIES — **TELECON NOTE**

CONTROL NO.:	DATE:	TIME:
02-9008-26	January 4, 1991	1400

DISTRIBUTION:

Finch Pruyn File

BETWEEN:	OF:	PHONE:
Terry Crannell	NYDEC Warrensburg Office.	(518)623-3671

AND: Susan Anderson (NUS)

DISCUSSION:

Mr. Crannell was not aware of any surface water intakes along Halfway Creek for drinking water purposes. He suggested I contact the NYS Department of Health in Glens Falls. He said that Halfway Creek was used for fishing and that Halfway Creek Reservoir is located at the intersection of Dixon and Adirondack Northway which is upstream of the site.

ACTION ITEMS:

REFERENCE NO. 21

NUS CORPORATION AND SUBSIDIARIES — **TELECON NOTE**

CONTROL NO.:	DATE:	TIME:
02-9008-26	1/4/91	1420

DISTRIBUTION:

Finch Pruyn File

BETWEEN:	OF:	PHONE:
Dan Machell	NYS Dept. of Health	(518) 793-3893

AND: Susan Anderson (NUS)

DISCUSSION:

Mr. Machell stated that the Halfway Creek Reservoir and the Wilkie Reservior both serve the population of Glens Falls for drinking water purposes the population served by these reservoirs is 17,000. He said that the Champlain Barge Canal is used for fishing; however, that it was unlikely there are any surface water intakes for drinking water or irrigation.

ACTION ITEMS:

REFERENCE NO. 22

NUS CORPORATION AND SUBSIDIARIES — **TELECON NOTE**

CONTROL NO.:	DATE:	TIME:
02 9008-26	January 14 1991	1145

DISTRIBUTION:

Finch Pruyn File

BETWEEN:	OF:	PHONE:
Mary Touart	NYSDOT Canal Division	(518) 747-4613

AND: Susan Anderson (NUS)

DISCUSSION:

Ms. Touart stated that there were no drinking water intakes or irrigation intakes from the Champlain Barge Canal I asked her if there were any fishing hatcheries or commercial fisheries on the Canal and she said no. She did not think that people fished from the canal and she did not know the flow rate.

ACTION ITEMS:

REFERENCE NO. 23



APPROXIMATE SCALE

800 0 800 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
QUEENSBURY,
NEW YORK
WARREN COUNTY

PANEL 20 OF 35
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
360879 0020 B

EFFECTIVE DATE:
JULY 16, 1984

Federal Emergency Management Agency

KEY TO MAP

500-Year Flood Boundary

100-Year Flood Boundary

Zone Designations*



100-Year Flood Boundary

500-Year Flood Boundary

Base Flood Elevation Line With Elevation In Feet** — 513

Base Flood Elevation in Feet Where Uniform Within Zone** — (EL 987)

Elevation Reference Mark — RM7×

Zone D Boundary

River Mile — •M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

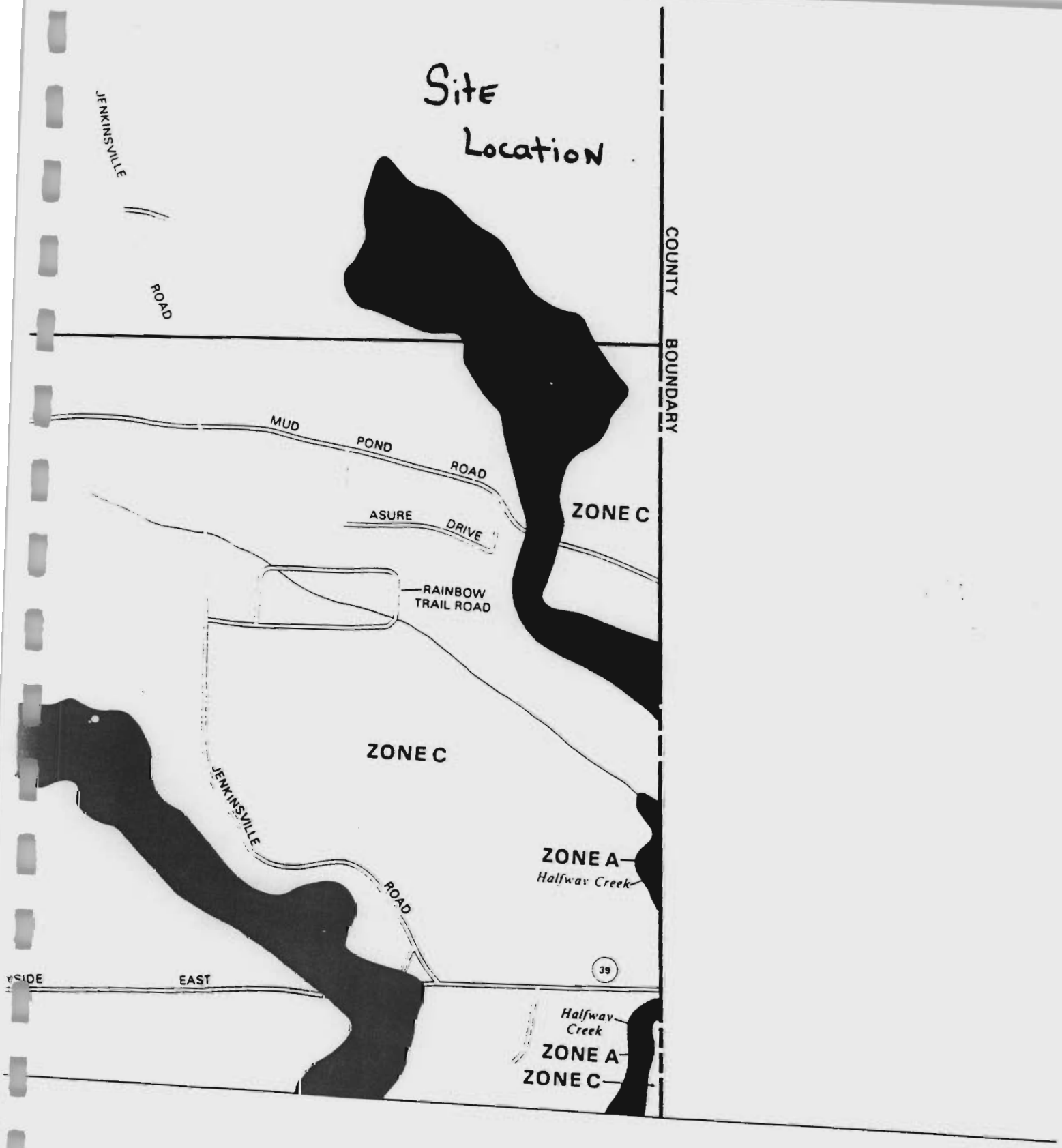
ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map


Site Location
JENKINSVILLE
ROAD
COUNTY BOUNDARY
MUD POND ROAD
ASURE DRIVE
RAINBOW TRAIL ROAD
ZONE C
ZONE C
JENKINSVILLE ROAD
ZONE A
Halfway Creek
39
EAST
Halfway Creek
ZONE A
ZONE C

REFERENCE NO. 24

Low-Flow Frequency Analysis of Streams in New York

Prepared by

UNITED STATES DEPARTMENT OF INTERIOR

GEOLOGICAL SURVEY

in cooperation with

NEW YORK STATE

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

BULLETIN 74
1979

300

LOW-FLOW DATA AND FREQUENCY ANALYSIS OF STREAMS IN NEW YORK EXCLUDING NEW YORK CITY AND LONG ISLAND

By

Benjamin B. Eissler

Prepared by

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY

in cooperation with

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

Albany, New York
1978

301

04273500	Saranac River at (near) Plattsburgh.....	44 40 54	73 28 18	019	608	1903-75	268	196		GR
04273700	Salmon River at South Plattsburgh.....	44 38 24	73 29 43	019	61.9	1961-68	7.0	4.5		G
	West Branch Ausable River:									
04274000	West Branch Ausable River near Lake Placid (Newman).....	44 18 40	73 55 00	031	116	1920-68	46	27		G
04274500	Black Brook at Black Brook.....	44 26 50	73 44 45	019	49.4	1925-61	8.6	4.7		GR
04274800	East Branch Ausable River at Keene Valley.....	44 11 31	73 47 08	031	49.2	1947 1957-61 1966	15	8.8		P
04275000	East Branch Ausable River at Ausable Forks.....	44 26 20	73 40 55	031	198	1925-75	40	29		GR
04275500	Ausable River near (at) AuSable Forks.....	44 27 05	73 38 35	019	448	1926-68	142	108		GR
04276500	Bouquet River at Willsboro.....	44 21 30	73 23 50	031	275	1924-68	51	30		GR
	Lake George:									
	West Brook:									
04276875	Butler Pond Outlet at Lake George.....	43 24 25	73 43 36	113	5.28	1971	0	0		P
04276900	English Brook at Lake George.....	43 26 23	73 43 25	091	5.03	1961-66 1973-74	.6	.4		P
04278300	Northwest Bay Brook near Bolton Landing.	43 39 48	73 36 14	113	23.4	1966-68‡	.3	.1		P
04279000	La Chute at Ticonderoga.....	43 50 38	73 25 57	031	234	1943-75	60	20		GR
04279010	Trout Brook at Ticonderoga.....	43 50 46	73 26 28	031	24.6	1962-66 1972-75	1.6	1.0		P
04280600	Big Creek at Smiths Basin.....	43 21 23	73 29 16	115	33.5	1961-64 1966 1973-74	.4	.2		P

[1] County code is as follows:

CODE	COUNTY NAME	CODE	COUNTY NAME	CODE	COUNTY NAME	CODE	COUNTY NAME	CODE	COUNTY NAME
001	Albany	011	Cayuga	021	Columbia	031	Essex	041	Hamilton
003	Allegany	013	Chautauqua	023	Cortland	033	Franklin	043	Herkimer
005	Bronx	015	Chemung	025	Delaware	035	Fulton	045	Jefferson
007	Broome	017	Chenango	027	Dutchess	037	Genesee	047	Kings
009	Cattaraugus	019	Clinton	029	Erie	039	Greene	049	Lewis
051	Livingston	061	New York	071	Orange	081	Queens	091	Saratoga
053	Madison	063	Niagara	073	Orleans	083	Rensselaer	093	Schenectady
055	Monroe	065	Oneida	075	Oswego	085	Richmond	095	Schoharie
057	Montgomery	067	Onondaga	077	Otsego	087	Rockland	097	Schuyler
059	Nassau	069	Ontario	079	Putnam	089	St. Lawrence	099	Seneca
101	Steuben	111	Ulster	121	Wyoming				
103	Suffolk	113	Warren	123	Yates				
105	Sullivan	115	Washington						
107	Tioga	117	Wayne						
109	Tompkins	119	Westchester						

G - full-time gaging station
R - regulated
P - partial-record station
E - Erie-Niagara report
‡ - Continuous-record gaging station

Table 2.--(Continued)

Station number	Station name	Latitude	Longitude	Co. code[1/]	Drainage area (mi^2)	Date	Discharge[2/] (ft^3/s)
04277350	Edmunds Brook near Bolton.....	43 29 22	73 40 56	113		10- 2-70	.30
						11- 3-70	.45
						2-19-71	1.85
						4-16-71	14.0
						8-12-71	.47
						8-13-71	.33
						8-20-71	.22
04277390	Butternut Brook at Pilot Knob.....	43 30 33	73 37 22	115		10- 9-70	.10
						11- 6-70	.23
						4-16-71	6.87
						8-12-71	.39
04277435	Trout Lake Outlet near Bolton.....	43 32 38	73 41 35	113		10- 2-70	.34
						11- 3-70	.66
						12-29-70	3.81
						2-22-71	4.36
						4-19-71	21.0
04277550	Indian Brook near Bolton Landing.....	43 35 13	73 38 21	113		10- 1-70	1.5
						11- 5-70	3.6
						1- 7-71	7.3
						2-18-71	17
						4-19-71	98
04278810	Split Rock Brook near Hague.....	43 43 46	73 30 04	113		10- 1-70	.35
						11- 5-70	1.7
						2-18-71	3.0
						4-16-71	23
						8-13-71	1.0
04279004	Trout Brook near Ticonderoga.....	43 48 40	73 29 34	031	13.6	7-26-66	*2.43
04279010	Trout Brook at Ticonderoga.....	43 50 46	73 26 28	031		10-24-74	3.7
04280400	Mettawee River at Granville.....	43 24 25	73 15 45	115		8-12-70	*31.1
						9-12-73	*19
04280500	Mettawee River near Whitehall.....	43 31 43	73 23 18	115		10-28-69	46.4
	Meadow Brook near Glens Falls.....	43 21 00	73 41 46	113	4.0	3-18-53	8.85
						6-16-53	4.40
						9-15-53	4.04
						10- 2-53	2.54
						10-15-53	4.74
						10-30-53	6.18
* 04280740	Halfway Creek at Kane Falls.....	43 25 36	73 29 51	115		7-13-66	*25.7
						10-29-69	*28.4
						8-11-70	*20.0
						8-25-71	30.7
04280750	Winchell Creek near Fort Ann.....	43 25 52	73 26 00	115		10-29-69	.66
						8-11-70	*.1
						8-25-71	*.2

1/ County code is listed after Table 1.

REFERENCE NO. 25

Table 2.2 Range of Values of Hydraulic Conductivity and Permeability

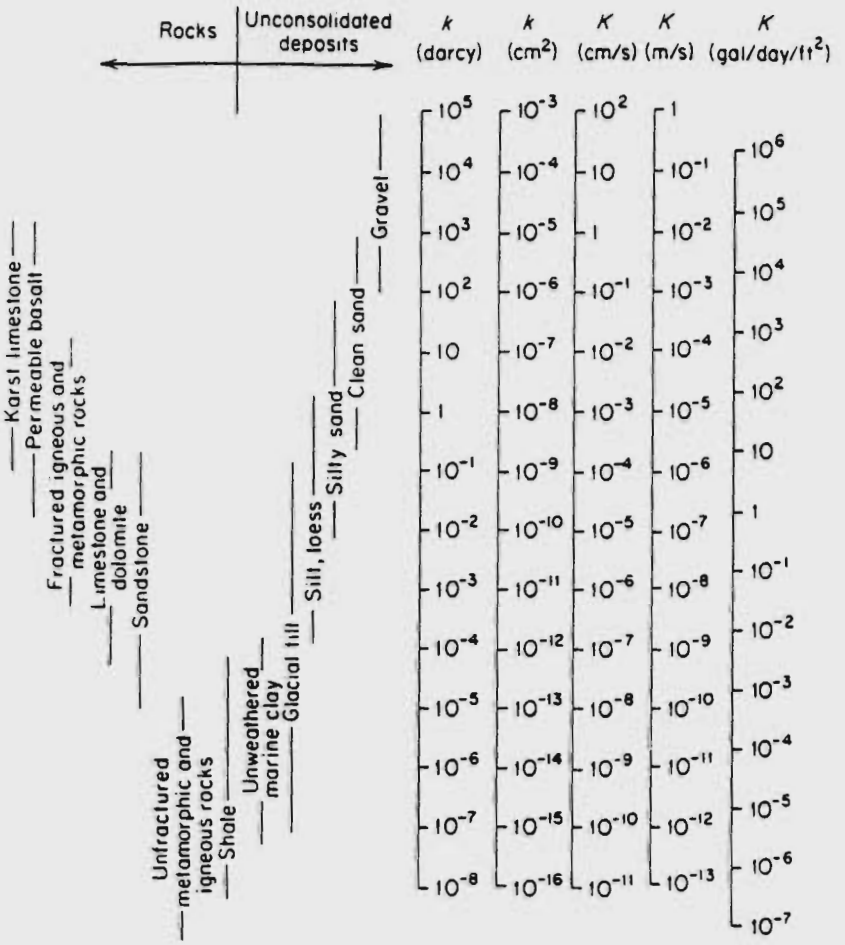


Table 2.3 Conversion Factors for Permeability and Hydraulic Conductivity Units

	Permeability, k*			Hydraulic conductivity, K		
	cm²	ft²	darcy	m/s	ft/s	U.S. gal/day/ft²
cm²	1	1.08×10^{-3}	1.01×10^{8}	9.80×10^{2}	3.22×10^{3}	1.85×10^{9}
ft²	9.29×10^{2}	1	9.42×10^{10}	9.11×10^{5}	2.99×10^{6}	1.71×10^{12}
darcy	9.87×10^{-9}	1.06×10^{-11}	1	9.66×10^{-6}	3.17×10^{-5}	1.82×10^{1}
m/s	1.02×10^{-3}	1.10×10^{-6}	1.04×10^{5}	1	3.28	2.12×10^{6}
ft/s	3.11×10^{-4}	3.35×10^{-7}	3.15×10^{4}	3.05×10^{-1}	1	6.46×10^{5}
U.S. gal day ft²	5.42×10^{-10}	5.83×10^{-13}	5.49×10^{-2}	4.72×10^{-7}	1.55×10^{-6}	1

*To obtain k in ft², multiply k in cm² by 1.08×10^{-3}.

REFERENCE NO. 26

SIGNIFICANT HABITAT OVERLAY NO. 1 OF 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF FISH AND WILDLIFE
BUREAU OF WILDLIFE

PREPARED FOR: SIGNIFICANT HABITAT UNIT
WILDLIFE RESOURCES CENTER
DELMAR, NEW YORK 12054
(518) 457-5782

PREPARED BY: HABITAT INVENTORY UNIT

QUAD: GLENS FALLS

SCALE: 1:250,000

FEBRUARY 1981

REVISED:

GLENS FALLS N. Y.

KEY

SW	SIGNIFICANT FOR WILDLIFE
SP	SIGNIFICANT FOR PLANTS
SB	SIGNIFICANT FOR WILDLIFE AND PLANTS
PW	POTENTIALLY SIGNIFICANT FOR WILDLIFE
PP	POTENTIALLY SIGNIFICANT FOR PLANTS
PB	POTENTIALLY SIGNIFICANT FOR WILDLIFE AND PLANTS
OT	OTHER (e.g. UNIQUE GEOLOGICAL FORMATIONS)

LEGEND

BOSTON
RICHMOND
EVANSTON
Newman
Bar Harbor

REFERENCE NO. 27

NUS CORPORATION AND SUBSIDIARIES — **TELECON NOTE**

CONTROL NO.:	DATE:	TIME:
02-9008-26	~~10/35/90~~ Lois 9/28/90	10:35 AM

DISTRIBUTION:

Finch Pruyn File

BETWEEN:	OF:	PHONE:
Dean White	Washington Co. Tax office	518 747 3330

AND: Lois Adams (NUS)

DISCUSSION:

location of Finch Pruyn

Sect 118
Block 1
Lot 1

approx 71.1 acres.

ACTION ITEMS:

310

REFERENCE NO. 28

REFERENCE NO. 29

REFERENCE NO. 30

ID NO.	SITE NAME / STREET / CITY / COUNTY CODE AND NAME	STATE ZIP / CONG DIST.	NFA. FLAG	OPRBLE UNIT	EVENT TYPE	ACTUAL START DATE	ACTUAL COMPL DATE	CURRENT EVENT LEAD
45861267	FIBERGLASS RESOURCES CORP			00	DS1		05/01/80	EPA (FUND)
	MOTOR AVE				PA1		06/01/80	EPA (FUND)
	SOUTH FARMINGDALE	NY 11735						
	059 NASSAU							
80508279	FINCH PRUYN			00	DS1		04/01/79	EPA (FUND)
	OFF RTE 149				PA1		06/08/87	STATE(FUND)
	QUEENSBURY	NY 12801						
	113 WARREN							
13506514	FISHER CAGE		NFA	00	DS1		06/24/87	EPA (FUND)
	COLTEEN ST				PA1		09/01/87	EPA (FUND)
	WATERTOWN	NY 13601						
	045 JEFFERSON							
00518357	FISHERS ISLAND LF		NFA	00	DS1		06/01/83	EPA (FUND)
	UNKNOWN				PA1		06/01/83	EPA (FUND)
	FISHERS ISLAND	NY 06390			HR1		05/01/83	OTHER
	103 SUFFOLK				SI1	05/01/83	06/01/83	EPA (FUND)
80508287	FISHKILL LF			00	DS1		04/01/80	EPA (FUND)
	GARY RD				PA1		10/01/83	EPA (FUND)
	FISHKILL	NY 12524			SI1	10/01/83	10/01/83	EPA (FUND)
	027 DUTCHESS							
80528574	FITCH FARM		NFA	00	DS1		04/01/80	EPA (FUND)
	SCHENCK RD				PA1		05/30/86	EPA (FUND)
	PERRY	NY 14530						
	121 WYOMING							
29107107	FLINTKOTE PROPERTY		NFA	00	DS1		04/01/80	EPA (FUND)
	CLINTON ST				PA1		09/01/84	STATE(FUND)
	LOCKPORT	NY 14094						
	063 NIAGARA							
80532345	FLUSHING RIVER COKING STATION		NFA	00	DS1		06/01/81	EPA (FUND)
	32ND AVE (NR FLUSHING RIVER)				PA1		12/30/87	EPA (FUND)
	QUEENS	NY 11361						
	081 QUEENS							

REFERENCE NO. 31

be made illegible.

- Include a sketch or map of the site which can be used to locate photo or sample locations. Note landmarks, compass north, and if possible include an approximate scale. Include as many sketches and maps as necessary.

- Record any other relevant information which would be difficult to generate at a later date.

FINCH PRUYN
02-9008-26
TDD MANAGER - S. ANDERSON
LOGBOOK #0646
SEPTEMBER 12, 1990

GUIDANCE FOR PROPER USE OF LOG BOOKS

Purpose

- Serves to document onsite activities and be understandable to an outside reader.
- Provides the basis for later written reports.
- Used as an evidentiary document and may be used in legal proceedings.

Distribution

- Controlled by the project manager and distributed as appropriate to personnel designated by the project manager.

General Procedures

- Record information in language which is objective and factual.
- Use ink. Waterproof ink is recommended.
- Leave first two pages blank. They serve as space for the table of contents to be added when the log book is complete.
- The first written page identifies the date, time, TDD number, site name, location, NUS personnel and their responsibilities, other non-NUS personnel and observed weather conditions.
- Start on a new page at the start of each day's field activities. This page should identify date, time, TDD number, site name and location, NUS personnel and their responsibilities, other non-NUS personnel and observed weather conditions.
- Log all persons leaving or entering the site.
- Information recorded in the log book should be in chronological order.
- Sign and date each page, log all entries using a 24 hour clock. Entries should be time logged every 15 to 30 minutes.
- Corrections are to be lined through and initialed. No erroneous notes are to be made illegible.
- Include a sketch or map of the site which can be used to locate photo or sample locations. Note landmarks, indicate north, and if possible include an approximate scale. Include as many sketches and maps as necessary.
- A person not present when field activities were being documented should read each completed page, and countersign and date when satisfied that the written notes are understandable.

Specific Field Activities To Be Documented

- Record the who, what and where of field activities.
- Indicate sampling and photo locations on a site sketch or map.
- As part of the chain of custody procedure, recorded in-situ sampling information must include sample number, date, time, sampling personnel, sample type, designation of sample as a grab or composite, and any preservative used.
- Information for in-situ measurements must include a sample ID number, the date, time, and personnel taking measurements. Pertinent in-situ measurements include but are not limited to pH, temperature, conductivity, flow measurements, continuous air monitoring measurements, and stack gas analysis. If in-field calculations are necessary they must be checked and signed by a second team member.
- Create a photo log to document photos taken in the field. These must include date, time, photographer, sample number, roll number, frame number, photo ID number and description. Indicate if the film is for slides or prints in the column for roll number. Photo ID numbers can be added at the time the photo log is assembled.
- Record onsite health and safety measures used. Describe observed potential hazards to health and safety. Document the level of protection used, decontamination procedure used and specific decontamination solutions.
- When sampling is complete, a summary log is to be completed. It must include date, time, sample number, description, field book reference page, and the number and date of the chain of custody form on which the sample is listed. Indicate whether or not the sample was split.
- Record details regarding relevant information obtained during onsite interviews. Include names of persons interviewed, the interest group represented, their address and phone number.
- Record any other relevant information which would be difficult to generate at a later date.

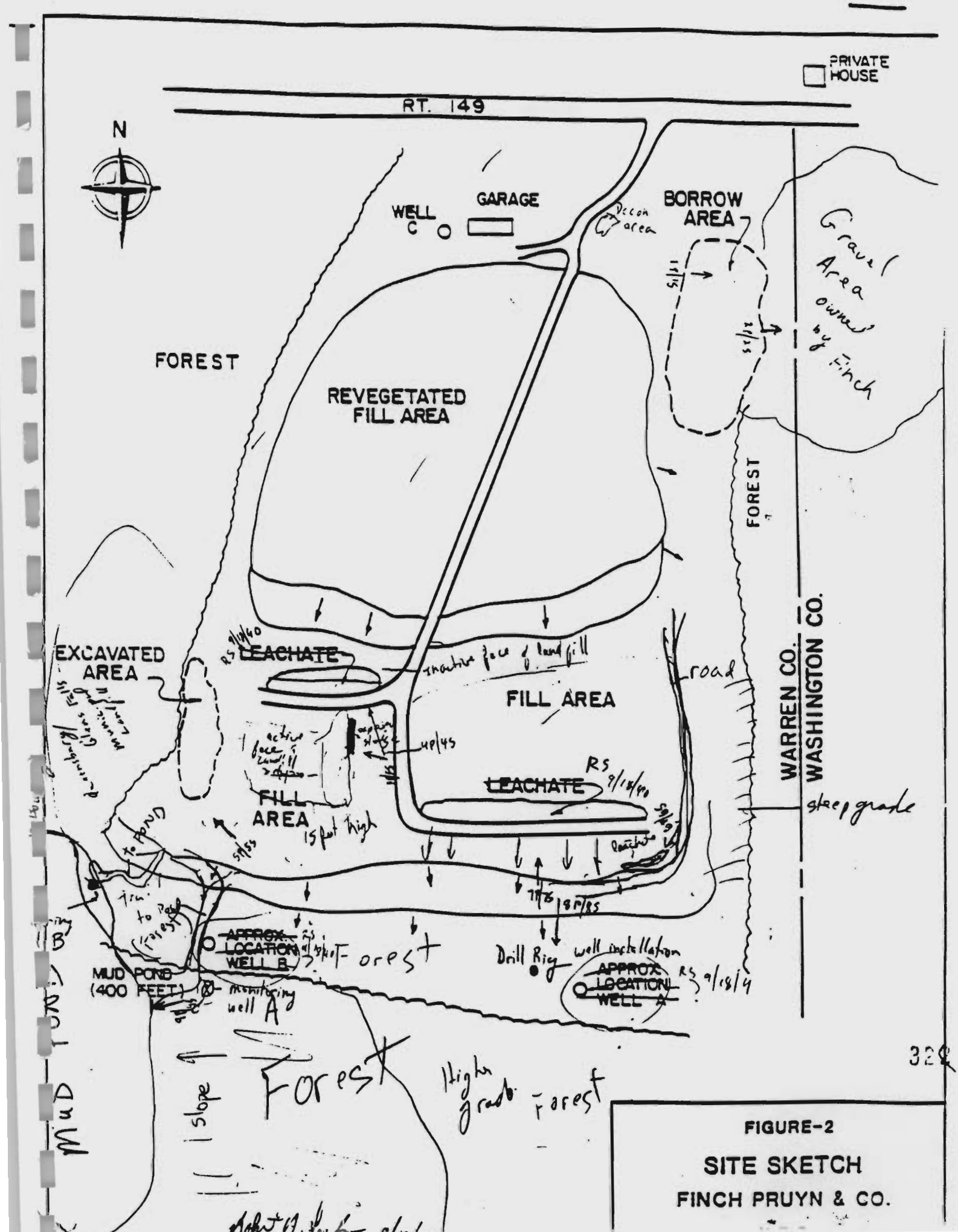


FIGURE-2

SITE SKETCH

FINCH PRUYN & CO.

Philip J. Arthur
Environmental Control Manager
Finch, Pruyn & Company, Inc.
Glens Falls, New York 12801
Telephone: (518) 793-2541

Finch

Date:

Time of

Time of

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Custody of field logbook # 0646
is transferred to Bob Sceebo.
Susan Anderson 9/14/90

Robert Scott 9/18/90

Finch Pruyn 9/18/90 021-9008-26

On-Site Reconnaissance

Date: 9/18/90

Time of Arrival: 0915

Time of Departure: 1135

NUS Personnel on site		Duties on site
Robert Scerba	RAS	Site Manager
Mike Gallagher	MMG	Site Safety Officer
Tom Mulder	TM	Surveillance

Work Plans and QA/QC requirements were discussed with the above-listed personnel.

Weather Conditions: Sunny, High Pressure System, No Clouds, Winds 0-5 mpH out of the NE, Temp 45-50° F

Site Contact: Roger S. Hague, Vice President
Philip Arthur, Environmental Manager

Equipment	EPA ID Nos.
OVA A	307133
HNu G	probe 469753, 469747
mini-rad	469785
camera/w prints	469776
camera/w slides	307129
Compass	

Robert H Scerba 9/18/90

Michael M Gallagher 9/19/90

3-5

Finch Penyn 9/18/90 02-9008-26

9:00 Met with Mr. Hague at the Finch Headquarters in Glens Falls. Followed him to the site which is approximately 8 miles away

9:15 arrive on site

9:20 Discussing the boundaries of the landfill with Mr. Hague the landfill is partially closed with the most active portion located on or near the southern boundary

9:25 Setting up decon pad at the entrance of the landfill - Mr. Hague informed me that the site is accessable by vehicle. He stated the entire landfill (active portion) is approximately 40-50 acres.
The landfill is partially used for sludge ~~removal~~ disposal and another portion is used for gravel/fill collection.
Finch sells gravel to outside companys.

0930 Mr Hague informed me that the western border of the landfill is bordered by the Queensbury/Glens Falls municipal landfill.

- The site has been in use since 1971 and is currently preparing to undergo a state approved closure. Closure is estimated to be late 1992 or early 1993.

0935 - The site is generally gravel and fill covered and we will perform a generally walk around recon of the site concentrating on the active portion in the south.

0936 ~~No readings~~ Background on the OVA and HNu 0 ppm
~~9/18/90~~ mini-rad 21 cpm

R. Yonker 9/18/90 Jeff Ledbetter 9/19/90

Finch Pruyn 9/13/90 02-9008-26

No Readings above background (NRHB)

RS 9/17/90
0940 Preparing to walk around the ~~facility~~ on landfill

0955 walking the inactive portion of the landfill
Start northeastern corner of the facility Mr. Arthur accompanies us. Mr. Hague leaves the site and returns to his office.

0956 1P/1S Photograph east toward the woods from access road.

1000 observed Gravel area east of inactive portion of the facility (See MAP) Gravel is loaded on Dumps and sold by Finch.

1001 2P/2S Photo looking east of gravel area.

1002 generally the inactive portion is covered with a hand packed fine sand and gravel. No leachate was observed. RS
The geology in the area seems to be sand and gravel, which would indicate a high permeability.

1010 walking to the active southern portion of the landf.ll In the process of walking.

1011 3P/3S Photo of exposed sludge and active face of landfill looking west from flat area of access road.

2

Robert H. Scott
9/13/90

RS 9/13/90

Finch Pruyn 9/18/90 021-9008-26

1013 4P/4S looking North

1015 NRAB on the OVA or HNu.

1019 walking around southern face of the actual part of landfill

1021 5P/5S Photo NW of large municipal landfill on western border of site Note: open flame on the landfill

1022 experiencing methane fluctuations on the OVA presumably from the active landfill on the western border of Finch Pruyn

1023 walking to the most southern border of the facility

1028 witnessed an actual dumping of sludge at the facility, blackish moist sludge resembles silt:

Rust colored

1031 Noticed iron-colored leachate on the southeastern corner of the landfill

1035 6P/6S Photo looking at the leachate looking south

3:18

Geologist Doctor 9/18/90 [signature] 9/19/90

Finch Pruyn: 9/18/90 02-9005-26

1038 TP/26 Photo looking North at the southern face of the landfill

1039 Steady 10 ppm reading of methane. Mike performs the methane test and confirms the presence of methane. NRRB on the HNu

1040 Drill rig installing monitoring well at the southern border of site.

1041 21/65 photo looking south of Drill Rig

1045 Walking to Mudd Pond and trying to locate the wells on a trail through the forest.

Mud Pond bordering Finch Pruyn, and the municipal landfill

1050 9P/95 Photo looking west at Mud Pond from the trail in the forest

1054 Looking at Mudd Pond the slope runs directly to the pond from the Finch landfill and the municipal landfill

Robert A. Yeale 9/18/90 Gallagher 9/19/90

Finch Pruyn 7/18/90 62-9008-26

1055 It is unknown whether any streams connect to the pond. Sampling of the pond would be difficult because of the heavy brush

1058 Located monitoring well location A (The map locations from the DEC Report are very inaccurate) monitoring well A is very close to Mudd Pond (see map)

11:00 NRNB on HNu
SVA is still fluctuating

11:06 located monitoring well B southwestern corner of property close to Mudd Pond - located NW of mw A. mw B located downgrade of landfill just like in mw A

~~11:07~~ 1107 Returning to the Decon area
AS 9/18/90

11 18 Mr. Arthur told me he would send maps of the site at the begining of operations and the most recent. Also he would send the most recent sampling information of the wells and sludge analysis of the paperon, N sludge.

11 19 Cleaning up preparing to leave the site

320

Robert A. Sacco 7/18/90 Jeff Gallagher 9/19/90

1123 Garage and equipment storage, vehicle repair
Mr. Hoffner informed me that only 2 or 3 people work on the active portion of the landfill and 6 people work in the garage.

1126 General conclusions: the site is not fenced; hence, accessible to the public. The site is open and large and is generally bordered by forested areas. On-site drainage is toward the south with a decline of greater than 15% slope from the landfill toward the southern treeline. Many portions of the landfill are flat, however general slope is toward the south and Mudd Pond. The area surrounding the site is very rural and homes are scarce. The main concern is the municipal landfill on the western border of the site. This landfill borders Mudd Pond. Any sampling of Mud Pond would probably be influenced by this large municipal landfill.

1135 Leave Site.

331

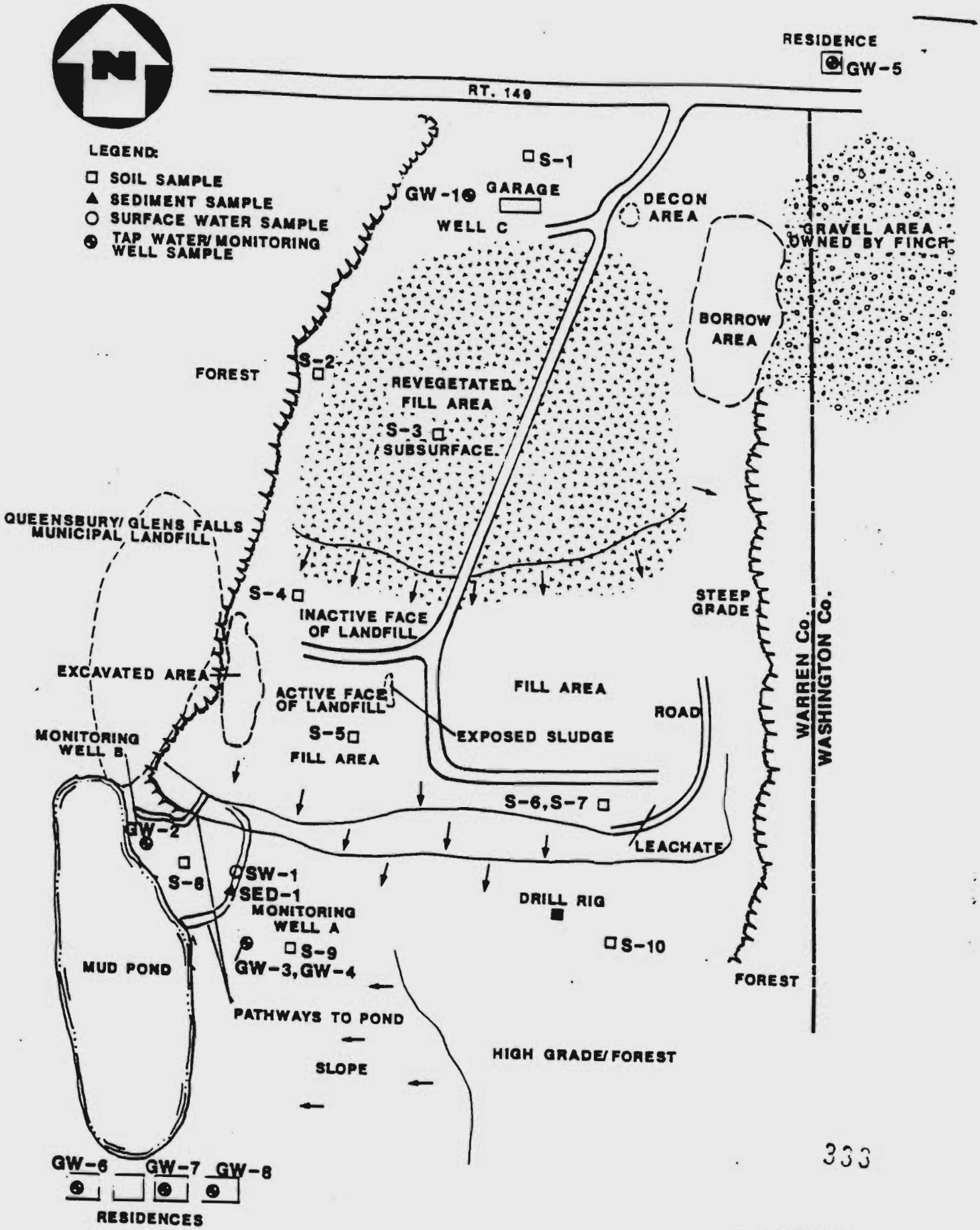
Robert Hoch 9/28/90 MJ Gallagher 9/28/90

Finch Pruyn 9/18/90 021-9008-26 11

No photo log for the on-site reconnaissance. Photographs could not be developed Robin A. Jenks 9/22/90

This logbook # 0646 is transferred back to Susan Anderson Robin A. Jenks 10/16/90.

322



333

PRE-SAMPLE LOCATION MAP
FINCH PRUYN
QUEENSBURY, N.Y.

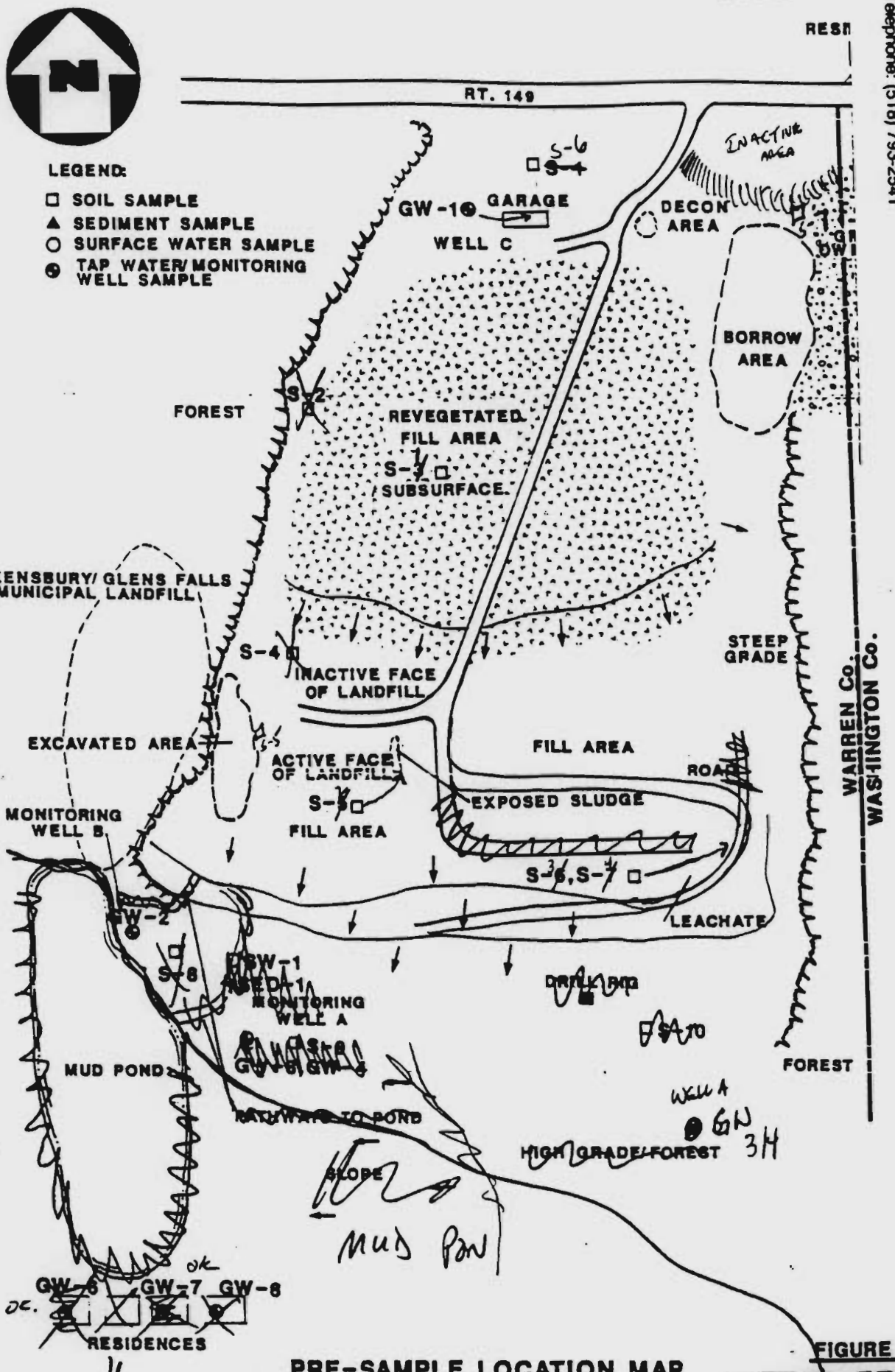
NOT TO SCALE

FIGURE 2

NUS CORPORATION

Finch Pruyn 2/18/90 02-9008-26 12

Philip J. Arthur
Environmental Control Manager
Finch, Pruyn & Company, Inc.
Glens Falls, New York 12801
Telephone: (518) 793-2541



335

FIGURE 2

PRE-SAMPLE LOCATION MAP
FINCH PRUYN
QUEENSBURY, N.Y.

NOT TO SCALE

NUS CORPORATION

Finch Pruyn 02-9008-26

Custody of field logbook # 0646
is transferred to David Grupp
Susan Anderson 10/12/90

10/18/90

0800 ARRIVED AT FINCH PRUYN OFFICE - MET WITH ROGER HANGER AND PHIL ARTHER. SHOW them my letter of introduction. I Asked about the deep monitoring well & found out it is used as a supply well for the Garage area of the landfill. We will take sample from the kitchen tap.

0810 LEFT FOR LANDFILL

835 ARRIVED AT LANDFILL AREA. ALL Personnel sign in at Guard house

840 BEGIN SETUP OF DECON AREA. PHIL ARTHER will show me around the landfill.

0910 Return from getting a tour of the site. There is no odors coming off the landfill. Two monitoring wells are accessible by truck.

- The inactive / revegetated area of landfill is not capped, so we will take a subsurface sample in this area.

- Unable to definitively identify drainage ditch to Mud Pond but we will look again.

- One sample will be of the sludge on the active face of the landfill.

- Noted leachate areas indicated on map.

Map in work plan needs changes - see opposite page.

10/18/90 Susan Anderson 10/22/90

336

0918 EITHER Phil Arthur or Don Bovair of Finch Pruyn will accompany us all day.

NUS Personnel on site

D. Group Site manager / Site safety for GW crew
E. Knipfel Site Safety / Documentation of soil sampling
R Setting Sample Mgt.
B. Centopallo - Sampler
T. Beauregard - Sampler
D. Foerster - Sampler

All above have read the Workplan and have been advised of JSA/H&S.

We will have a split crew:

D. Group
D. Foerster } GW samples
B. Centopallo

E. Knipfel } Soil samples.
T. Beauregard

Weather: Overcast / cloudy Warm 55-60° slight wind from the southwest

Phil Arthur informed me that they are beginning closure procedures & have installed several new wells that have not been sampled or approved at this time.

Finch Pruyn will split samples with us. Their lab will be Malcolm Pirnie. They were not aware that we would be taking private well samples so they will not be splitting these samples.

307

10/18/90 10/19/90

TABLE 1

WELL CASING-VOLUME

CONVERSION CHART (Gallons)

WELL CASING DIAMETER (INCHES)

depth-feet	1.0	1.5	2.0	3.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	24.0	36.0	48.0
1.	.004	009	.016	037	.065	.15	.26	.41	.59	.80	1.04	1 32	2.35	5.29	9 40
.5	.02	05	.08	18	.33	.73	1.3	2.0	2.9	4 0	5 2	6 6	11.7	26.4	47.0
1.0	.04	.09	.16	37	65	1.5	2.6	4 1	5.9	8.0	10.4	13.2	23.5	52.9	94 0
2.0	.08	.18	.33	73	1 3	2.9	5 2	8.2	11.7	16.0	20.9	26.4	47.0	105.8	188.0
4.0	.16	.36	.65	1.5	2.6	5.9	10.4	16.3	23.5	32.0	41.8	52.9	94.0	211.5	376.1
6.0	.24	.45	.98	2.2	3.9	8.8	15.7	24.5	35.3	48.0	62.7	79 3	141.0	317.3	564 1
8.0	.33	.73	1.3	2.9	5.2	11.7	20.9	32.6	47.0	64.0	83.6	105.8	188.0	423.1	752.2
10.0	.41	.92	1.6	3.7	6.5	14.7	26.1	40.8	58.8	80.0	104.5	132.2	235 1	528 9	940 2

FINCH PRUYN 02-500 8-26 10/18/90

0950 Conduct tailgate Safety Meeting.
1000 Give logbook #0685 To E. KNYPSL for soil sampling.
1010 Go with Ed to Show him Soil sample locations.

1030 Return from showing Ed Soil locations.
WIND HAS PICKED UP CONSIDERABLY - Soil Sampling Conducted on level C
AND GO TO collect GW samples. 3 Containers, 3 Gauge, 1-Fourter.

1055 ARRIVE AT Monitoring well A location; this is a
2" well - PVC. 1 - A
Dennis & Bob setting up to purge well.

1105 Well will be opened on level B.
1108 Bob & Dennis on site.
No Readings on OVA or HNu
1112 Taken water level measurements - Depth to Water 12'4"
17 10" From Top of Casing
12 4" - Depth of well 11'10"
5 6" - Water Column
Volume of well = .98 gallons ≈ 1 gallon
3 volumes = 3 gallons
5 Volumes = 5 gallons
Note: Well volumes were determined using conversion chart on opposite page.
No readings on OVA or HNu while taking well measurements.
1117 OFF AIR.

1123 Pump set, on level B to purge & monitor
1125 on Air 339
1127 Start purging
1130 Shut pump - well dry - Fill up approx. 1/2 5 gallon bucket
pH using pH paper - 6.0
OVA reading 1-1.5 ppm

Bob Stupp 10/18/90 Eric O Knypstra 10/19/90

1131 Start pump again
Accumulated to 50 ppm reading on OVA
5 gal. bucket
1132 Shut pump - approx. 1/2 full - pH 6.0
1134 Turn on pump - 50 ppm OVA pH 6.0 0 ppm when water is pumping.
1135 Pump off - water brownish gray - silty.
No reading in well - on OVA & HNu
1137 Bob & Dennis off site.
There were no OVA or HNu readings from the water itself.
Readings were from the end of the discharge hose when
pump was running but no water was coming out.
Pumped well dry 3 times, each time approximately 2 gallons
were purged. Allowing well to recharge.
Dennis & Bob are packing up pump.

1141 Samples to be collected at this well are GW-3 and
GW-4 (duplicate). Only one sample will be collected for
Finch Penryn. They don't have enough bottles for a duplicate.

1145 Samples will be collected on level D respiratory
remaining upwind at all times.
Dennis takes water level measurement
Depth to water 12'4" - OK to take samples.

1153 Begin sampling well
Dennis determining how many drops of HCL needed to
preserve sample. Initial - pH 6
4 Drops - pH < 2
4 Drops in each VOA Vial.
No OVA or HNu readings off final bailer. 340

Finch Penryn VOA vials are already spiked.
Each sample consists of 2-40 mL VOA Vials for Volatiles
1-1/2 liter poly for metals & 2 1-liter
Amber Glass for BNA's Pest/PCB.

Edward Kruger PE 10/19/90
10/19/90

1200 VOA's collected first - then BNA pest/PCB then Metals. Sample is TURBID.

1209 No readings on OVA or HNU. Continue collecting Sample

1226 Finish collecting GW-3/GW-4 Begin cleaning area. Dennis CAPS the Well. No locks-on wells

1233 Finished at Monitoring Well A location, Proceeding to Monitoring Well B

1241 ARRIVE AT Monitoring WELL B location
Dennis & Bob set up to pump well.

1250 Bob & Dennis on Air to open & screen well
Well is 2 in. PVC - No lock
OVA 2 ppm in casing
HNU 0 ppm
After 1 minute vent no reading on OVA

1303 Taking Water level measurement.
Depth to Water - 12' 8" Top of casing
Bottom of Well 27' 9"

27' 9" Water column approximately 15 feet
- 12' 8" Volume of water in well is approximately 25 gal.
15' 1" 3 volumes 7.5 gallons
5 Volumes 12.5 gallons

1258 OFF AIR
It has gotten very Windy Gusts of 20-25 MPH
1300 Dennis & Bob set up pump to evacuate well

34

Bob George 10/13/90 Edward Kopel 10/29/90

1307 because of wind conditions & large number of dead trees in the area. I have decided to go back to command center to get hard hats. Myself, Dennis & Bob return to command post.

1320 Arrive back at Command post drop off samples GW3 & GW-4, Get hard hats.

1324 Leave to go back to Well B

1330 Arrive at Well B again.

1335 Bob & Dennis on Level B to purge well.
ON AIR
Start purging OVA reading 200 ppm while purging
0 ppm in bucket & breathing zone
HNu 0 ppm

1337 Stop purge well dry. pH 6.0 Approx. 4 gal. in bucket

1340 Start purging - 2nd time OVA 400 ppm while purging directly in bucket.
No readings off of water in bucket after shutting pump.

1342 Shut pump. pH 6.0. No readings on HNu or OVA in bucket after shutting pump.
Approx 3 gal. of water in bucket.

1343 Screen well with OVA & HNu.
HNu - No readings
OVA - approx. 100 ppm directly in well
1.5 ppm at approx 8 inches above well

302

1346 Start purge - 3rd time

1348 Shut pump. Approx. 200 ppm on OVA while pumping and no water coming out. With water coming out approx 0 ppm on OVA. No readings on HNu - pH - 6.0 Approx. 4 gallons in bucket. Anything collected Samuel Ryan Jr. 10/19/00

1349 OFF AIR

1400 Dennis takes water level measurement - 13' 2" well has sufficiently recharged to sample.
Screen well with OVA & HNu
OVA 100 ppm in well
3" above well 1 ppm
No readings on HNu.
Well will be sampled on Level B

1410 Bob & Dennis on Air begin sampling well.
Sample Number GW-2
Test pH of water. ≈ 6.0
4 drops HCL used ≈ 2.0

1412 Start collecting VOA samples
Splitting sample - HALF of each bailer will be put in our jars & half in Finch Pruyn's. All VOA's filled from same bailer.
WATER IS BROWNISH GRAY IN COLOR - VERY TURBID.

1425 Finished collecting Sample GW-2

1426 Capped well, secured off air. Start cleaning up the area.

1432 Area Clean, returning to decon area.

1436 Arrive at Decon area

343

Nick Setting informs me - one of Finch Pruyn's sample containers broke - GW-3 they don't have another sample bottle so we will give them one of our 32 oz. bottles and provide them with half the sample volume from one of the 80 oz. amber extractable bottles. The volume of the bottle will be noted on our traffic report. [signature] 10/24/90

10/24/90

1445 Dennis & Bob will begin decanning. I will go into Landfill office building at turn on tap to collect sample for GW-1
removed aerator from tap.
1449 TURN ON TAP. Return to decon Area.
1452 Ed, Tim, and Dennis will collect soil sample S-7 on level B while Bob and I collect the sample from the tap. After we're done with these we will collect the tap water samples from the downgradient locations.

1508 Start collecting GW-1 sample B. Contractor collects sample. Sample is collected from the kitchen sink in the landfill office. Water is used for drinking

1517 Finished collecting GW-1 Return to decon Area.

1542 ED & I go for tap water samples, one

1600 Arrive at Bemis residence. Speak with Nancy Bemis
17 AZURE DRIVE
1605 TURN OUTSIDE TAP ON, this tap does not have any treatment. ED KNYFD will collect sample when tap has been allowed to run for 15-20 minutes.
Mrs. Bemis does not know any specifics on the well. She said she went through all her paper work but she couldn't find anything. She said the house was built in 1979. Mrs. Bemis provided us with the well Survey log that Susan Anderson had sent to her.

1625 E. KNYFD starts collecting GW-6 sample, this is the MS/MSD.

1634 Finished collecting sample GW-6 344
1640 Give Mrs Bemis a receipt for sample. Go across street to Creeden residence.

10/29/90 Edward J. Knyfd 10/29/90

1645 SPEAK WITH DAN CREEDAN homeowner at 14 ASHRA DRIVE
Water has softner, We can sample at the pump, however we are unable to get sample bottles underneath the spigot. There is only 3-4 inches of clearance. Therefore we will sample from the outside spigot, this is most likely after water treatment. Water treatment just consists of the addition of Morton Salt. Sample will be collected from a hose because the outside spigot is below the deck.
1650 TURN ON SPIGOT
1705 Start sampling GW-5 - E (NMF) collecting sample from hose

1710 Ed finished collecting sample GW-5

1715 Mr. Creedan filled out the well survey form as best as he could but he didn't really know specifics on the well. House was built in 1979.
I gave Mr. Creedan a receipt for sample & gave him Ben Conetta's phone number for a copy of results
Returning to command post.

1724 Arrive back at decon area.
The only two tap water samples off site that will be collected are GW-5 and GW-6. We don't have access to others and since the upgradient well on-site is used for drinking, it is not necessary to collect an additional upgradient private well sample.

1730 Rich Setting is finishing packaging samples.
Area has been basically packed up except for sample coolers.

345

10/19/90 10/29/90

1740 The following samples were collected today
7 soil samples (including duplicate).
4 onsite groundwater samples (including the duplicate)
2 downgradient residential well samples

The following samples were not collected:

The surface water and sediment sample from the drainage swale to Mud Pond. These were not collected because they would not be representative of migration from the site. The soil is very sandy therefore most runoff from the site infiltrates very quickly into the soil and runoff from the landfill would infiltrate before reaching this drainage swale. There was also no aqueous material in the swale. Therefore, the only possible sample would have been a soil sample since it was dry.

Two additional residential wells (one upgradient and one downgradient) because we did not have access, and were unable to get access. It was also determined that they weren't necessary because the upgradient on-site well is used for drinking and 2 downgradient samples had been collected.

The two soil samples on the east side of the landfill were eliminated because there was no indication of wastes along the east side. ↑ Seep present

The soil sample that was supposed to be collected between the 2 downgradient monitoring wells was also eliminated because it would not have been representative of wastes on site.

1800 Leave Site + Phil Arthur locks up.

[signature] 10/19/90 Edward Kuzmeski 10/29/90

with it. I asked if the revegetated/inactive portion of the landfill was capped and he told me it wasn't at this time but would be during closure of the landfill. He informed me that they were beginning closure requirements for the landfill and were in the process of getting approval for a new site for sludge disposal, which is where the sludge will be disposed of when the present landfill is closed. Phil showed me active face of the landfill, each of the GW monitoring well locations, and the locations of new wells being installed as part of the closure. These wells have not received approval for use yet. I asked if all that was disposed of in this landfill was sludge and he said it was, and was the sludge after secondary wastewater treatment.

After arriving back at the command post I took Ed Kingsford out to show him the soil sample locations. The first one was located in the inactive/revegetated area and would be a subsurface sample. The second was a sample of the sludge material on the active face of the landfill. The third and fourth (environmental duplicates) were from a leachate seep/drainage path in the southeast corner along the access road. The fifth was a composite surface sample of a large leachate/stained soil area on the western portion of the active portion of the landfill. The sixth sample was a background sample located in the wooded area behind the landfill office/garage. The seventh soil sample was from an inactive portion located in the northeast portion of the site. The sample was collected in a drainage ditch with large areas of discolored soil and leachate. 348

The crew was split with E. Kingsford and T. Beauregarde collecting soil samples and D. Foerter, D. Krupp, and B. Cantagallo collecting the groundwater samples. Following collection of all samples on site E. Kingsford and D. Krupp went to collect two off site residential well samples downgradient of the site.

D. Krupp 10/29/90 E. Kingsford Jr. 10/29/90

Both residential samples were collected from outside taps. These residents were located at 17 and 14 Asher Drive.

Following collection and packaging of all samples receipt for sample forms were filled out by R. Setting and given to Phil Arthur.

Samples were dropped off at the Federal Express office off of Wolf Rd, in Albany New York at approximately 1930 hours.

11/24/80

0915 Logbook transferred back to Sue Anderson from D Crumpl.

349

11/24/80 11/29/80

NUS CORPORATION

II

0665

FINCH PRUYN
02-9008-26
TDD MANAGER-S. ANDERSON
LOGBOOK #0665
OCTOBER 12, 1990

GUIDANCE FOR PROPER USE OF LOG BOOKS

Purpose

- Serves to document onsite activities and be understandable to an outside reader.
- Provides the basis for later written reports.
- Used as an evidentiary document and may be used in legal proceedings.

Distribution

- Controlled by the project manager and distributed as appropriate to personnel designated by the project manager.

General Procedures

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- Use ink. Waterproof ink is recommended.
- Leave first two pages blank. They serve as space for the table of contents to be added when the log book is complete.
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- Information recorded in the log book should be in chronological order.
- Sign and date each page, log all entries using a 24 hour clock. Entries should be time logged every 15 to 30 minutes.
- Corrections are to be lined through and initialed. No erroneous notes are to be made illegible.
- Include a sketch or map of the site which can be used to locate photo or sample locations. Note landmarks, indicate north, and if possible include an [illegible]. Include as many sketches and maps as necessary.
- A person not present when field activities were being documented should read each completed page, and countersign and date when satisfied that the written notes are understandable.

Specific Field Activities To Be Documented

- Record the who, what and where of field activities.
- Indicate sampling and photo locations on a site sketch or map.
- As part of the chain of custody procedure, recorded in-situ sampling information must include sample number, date, time, sampling personnel, sample type, designation of sample as a grab or composite, and any preservative used.
- Information for in-situ measurements must include a sample ID number, the date, time, and personnel taking measurements. Pertinent in-situ measurements include but are not limited to pH, temperature, conductivity, flow measurements, continuous air monitoring measurements, and stack gas analysis. If infield calculations are necessary they must be checked and signed by a second team member.
- Create a photo log to document photos taken in the field. These must include date, time, photographer, sample number, roll number, frame number, photo ID number and description. Indicate if the film is for slides or prints in the column for roll number. Photo ID numbers can be added at the time the photo log is assembled.
- Record onsite health and safety measures used. Describe observed potential hazards to health and safety. Document the level of protection used, decontamination procedure used and specific decontamination solutions.
- When sampling is complete, a summary log is to be completed. It must include date, time, sample number, description, field book reference page, and the number and date of the chain of custody form on which the sample is listed. Indicate whether or not the sample was split.
- Record details regarding relevant information obtained during onsite interviews. Include names of persons interviewed, the interest group represented, their address and phone number.
- Record any other relevant information which would be difficult to generate at a later date.

302

Finch Pruyn

02-9008-26

Custody of field logbook #0665 is transferred to David Grupp.
Susan Anderson 10/12/90

10/19/90 1000 Turn logbook over to E. Kuyfi for documentation of soil sampling.
10/19/90

1015 - Drive around with Dave Grupp to locate samples.

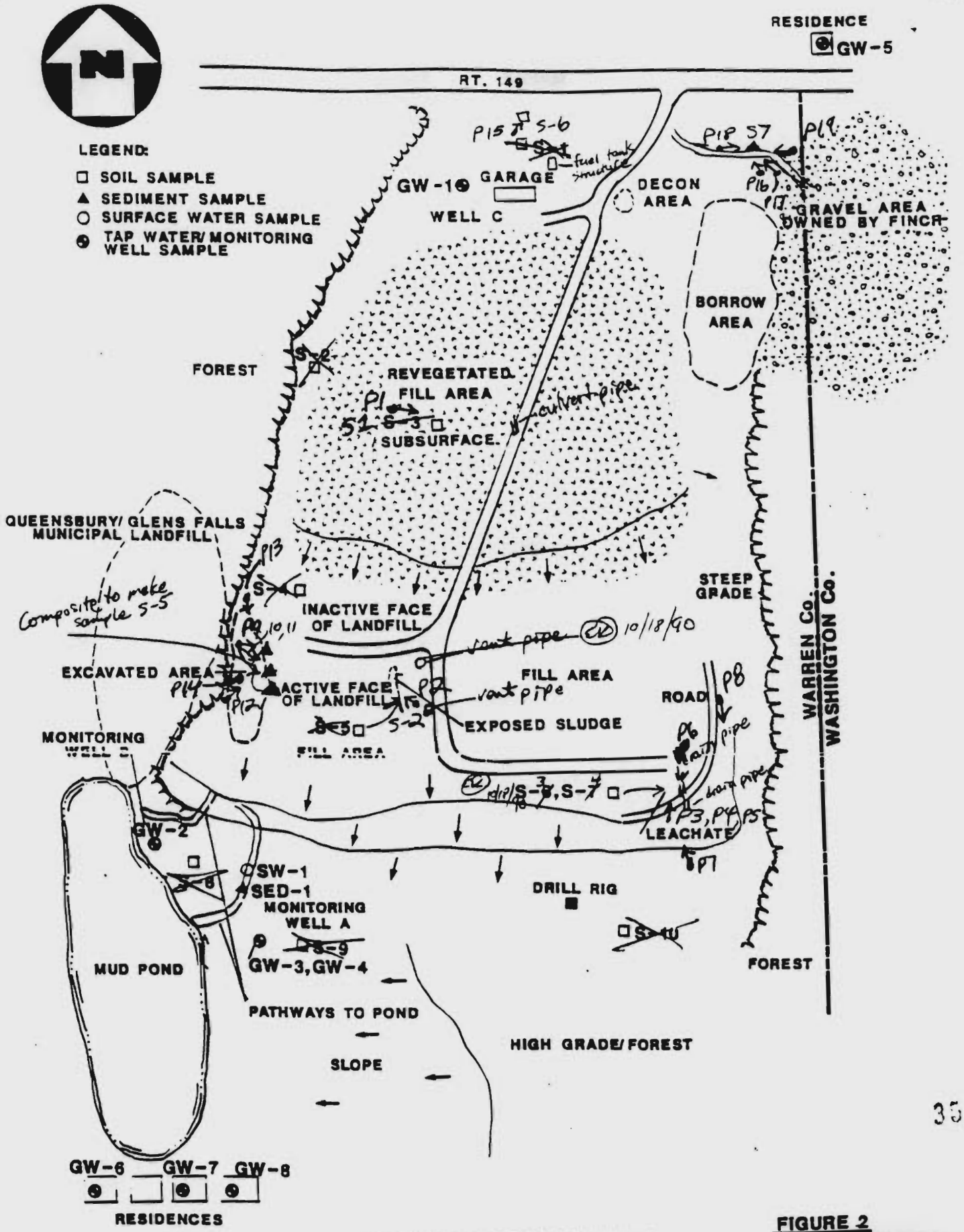
1045 - Return to Dixon area

1055 - Arrive at location of soil sample S1 which will be located at a bearing of 255° and 100 feet west of culvert pipe opening along the road.
access ok 10/19/90

1115 - Collecting subsurface soil sample is hindered by stocks. Have to try new auger holes.

35

Edward Kuyfi. 10/23/90 10/24/90



355

FIGURE 2

PRE-SAMPLE LOCATION MAP
FINCH PRUYN
QUEENSBURY, N.Y.

NUS CORPORATION

Roy F Weston

02-9008-26

10/18/90

1125- Tim Beauregard collecting soil sample (subsurface) S-1.
2-81, S1

The soil is a medium to large grained sand, brown, alternating to a grayish color. Sample collected at a depth of 2 feet.

1145- Drop off samples S1 to the decon area and proceed to collect sample S2.

Sample S1 yielded 5-14 ppm readings in the hole on the OVA, no readings on the HNu.

1200- Arrive at location of next sample (sludge material) S2. The material is a gray/black color and fibrous and clustery in nature.

1200- Tim and Ed (EK) 10/18/90
Upgrade to level C because of wind conditions dusty, heavy equipment operating, and venting of the landfill. noticable H_2S odor from landfill venting.

3:56

Edward Kybal 2.

10/24/90

10/18/90

EK 10/18/90

1210

~~1200~~ - 2-P2,S2 Tim Beauregard collecting surface soil sample S2

OVA-M will not light up; HNu still working okay.

HNu did not yield readings above background.

Sample S2 is located at a bearing of 281° and 67.1 feet from a vault pipe near the "Y" in the main landfill road.

~~1220 - Tim and Ed remove cartridge respirators. EK 10/18/90~~

1225 Proceeding to sample locations S3 and S4 (duplicates).

1235 At location of samples S3 and S4 duplicates, to be collected from a drainage ditch along the main access road and at the edge of the landfill. The sample is a mix of leachate and sand material. sand is coarse-grained and light brown to pale yellow in color.

1245 -

2-P3,S3 Tim Beauregard collecting duplicate soil samples S3 and S4.

No readings above background on the HNu.

EK 10/23/90

Frnch-Pruyn 02-9008-26 10/18/90

1250 - 2-P4,S4 Photo looking northeast along access road at location of soil samples S3 and S4 collected from leachate in drainage ditch..

1305 - 2-P5,S5 Photo looking north at leachate in drainage ditch by sample locations S5 and S4

1305 2-P6,S6 Photo looking southwest at drain pipe opening, directing leachate southeast under access road.

1310 2-P7,S7 Photo looking north at drain pipe opening on southeast side of access road which directs leachate into drainage ditch.

1310 2-P8,S8 Photo looking southeast at boulders lined drainage ditch on southeast side of access road

Edward Kopal Jr. 10/19/90 10/24/90

1315 - Head to decon area to drop off samples and get sampling equipment and bottles for sample locations S5, S6, and S7

1335 - Leave decon area to go to sample location S5.

1340 - Arrive at sample location S5, located on the western side of the active landfill face; Tim and Ed put on cartridge respirators.

1355 - Tim Beauregard compositing sample S5 from three leachate streams.

2-P9, 10, 11
2-S9, 10, 11

The leachate color varies from a yellowish-white to gray and black.

1405 - 2-P12, S12 Tim Beauregard collecting composited soil sample S5, composited from three leachate streams.

1415 - 2-P13, S13 Photo looking south at slope of landfill and leachate near sample location S5

359

Edward Kopalty 10/23/90 [signature] 10/24/90

1415 2+P14,514 Photo looking southwest and across the access road from sample location S5 at installation of two monitoring wells.

1415- Tim and Ed remove cartridge respirators.

1420 - Return to decon area and drop off sample S5.

1430 - Leave decon area to collect background sample S6.

1432 - Arrive at location of sample S6, located north of landfill garage and office.

1445 - 2-P15,515 Tim Beauregard collecting soil sample S6 at a bearing of 356° and 132 feet from the outside fuel tank structure.

1450 - Return to decon area to drop off samples and get sample containers for sample S7.

300

Ed Kubaly 10/23/90

Photo log Photo's taken by D Gropp

1-P-1	Monitoring well A location. Viewing towards	1145
3-P-1	MUD POND ~~west~~? South (06) 10/24/90	
1-P-2	B. Cantygallo & D. Foerter collecting groundwater	12:00
3-P-2	Sample GW-3 and Duplicate GW 4	
1-P-3	Photo of Monitoring Well B location	12:45
3-P-3		
1-P-4	Photo of B. Cantygallo & D. Foerter	1415
3-P-4	collecting GW2	
1-P-5	B. Cantygallo collecting GW-1 sample	1515
3-P-5	from kitchen tap in Landfill office	
1-P-6	EJ, Tim, & Dennis ~~cutter~~ at S-7 soil location	1527
3-P-6		
1-P-7	EJ KNYFB collecting tap water sample	1630
3-P-7	from downgradient private well (Bemis House)	
2-S-20		
		1708
1-P-8	E. KNYFB Collecting tapwater sample	
2-S-21	from downgradient private well (Creeden Residence)	

10/18/90 10/19/90

Photos taken by Ed Kyle

P1, S1 Jim Beauregard collecting soil sample (subsurface) S-1 1105

P2, S2 Jim Beauregard collecting surface soil sample S-2 1210

P3, S3 Jim Beauregard collecting duplicate soil samples S-3 and S-4 1245

P4, S4 Photo looking northeast along access road at location of soil samples S3 and S4 collected from leachate in drainage ditch. 1250

P5, S5 Photo looking south at leachate in drainage ditch big sample locations S3 and S4 1305

P6, S6 Photo looking southeast at drainage opening, directing leachate southeast under access road 1305

P7, S7 Photo looking north at drain pipe opening on southeast side of access road which directs leachate into drainage ditch. 1310

P8, S8 Photo looking southeast at boulder lined drainage ditch on southeast side of access road 1310

Grayphite Plume 1/7/81 11/7/81 Ed Kellaghan 10/19/80

2-P9,10,11 2-S7,10,11 Jim Beauregard compositing sample S-5 from three leachate streams 1353

2-P12,S12 Jim Beauregard collecting composited soil sample S-5, composited from three leachate streams. 1425

2-P13,S13 Photo looking South at slope of landfill and leachate near sample location S-5 1415

2-P14,S14 Photo looking southwest and across the access road from sample location S-5 at installation of two monitoring wells 1415

2-P15,S15 Jim Beauregard collecting soil sample S-6 at a bearing of 356° and 132 feet from the fuel tank structure 1445

2-P16,S16 Jim Beauregard collecting soil sample S-7 at a bearing of 67° and approximately 500 feet east of the landfill office 1530

2-P17,S17 Picture of bubbling leachate in a drainage ditch along the southern slope of the northern portion of the landfill located approximately 500 feet east of the landfill office 1545

Josephine Brown 11/7/91

Sid J Gallagher 10/14/91

10. S19	Photo looking east along the drainage ditch showing leachate stream from the south facing landfill slope; located approximately 500 feet east of the landfill office	1550
11. S19	Photo looking west along the drainage ditch showing leachate stream from the south facing landfill slope; located approximately 500 feet east of the landfill office	1550

Josephine Brown 1/7/91

E. J. Gallagher 10/15/90

REFERENCE NO. 32

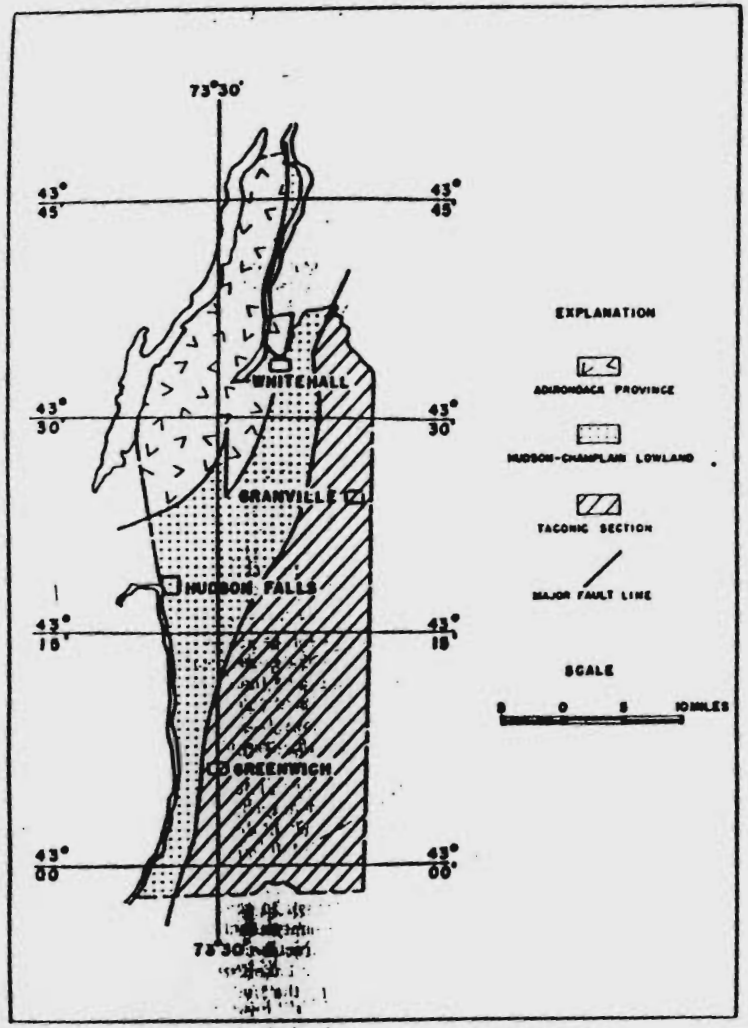


Figure 2.—Map of physiographic divisions in Washington County.

most the entire drainage basin of Wood Creek is included in the area. South of the divide the Hudson River emerges from the Adirondack Mountains and turns south at Hudson Falls to form the western boundary of the County. It receives drainage through two large tributaries on the east, Batten Kill and the Hoosic River. Batten Kill rises in Vermont, enters the County east of Cambridge, flows westward, and discharges into the Hudson River at Clarks Mills (pl. 1). Westward from Greenwich the river skirts the edge of a triangular mass of sand and gravel which represents a delta built by the Batten Kill into Lake Albany (pl. 3), the body of water that occupied the Hudson Valley in late Pleistocene time. The Hoosic River drains the southern part of the County, forming part of the southern boundary.

There has been derangement of the preglacial drainage pattern in some sections of Washington County, as indicated by the reversed courses of some streams. The normal pattern of preglacial and present-day streamflow is to the south or west. Originally Batten Kill probably flowed southwest through the present Owl Kill valley, but the upper part of the stream valley between Shushan and Cambridge was later filled with drift or ice and the river was forced to turn to the northwest. The low divide that separates Owl Kill from Batten Kill and the narrow steep-sided valley of Batten Kill below Shushan are further evidence that the river formerly drained through the partly buried valley at Cambridge. Similarly, the northward-flowing Poultney River in Washington County probably once flowed southwestward from Poultney, Vt., and entered the Mettawee River valley near Raceville. (See pl. 1.)

Most of the present lakes of the region were formed at the close of Pleistocene time. They occupy channels or depressions carved out by the erosive action of the ice which later dammed on one or more sides by Pleistocene deposits. Cossayuna Lake and Summit Lake, the two largest in the County, were formed in this manner.

In cooperation with the New York Department of Public Works and other State agencies, the U. S. Geological measures streamflow at about 200 stations on large and small streams throughout the State. Table 1 lists the stream-gaging stations in or near Washington County and the duration of the records. A listing for the entire State is given in Geological Survey Circular 138 (1950).

Table 1.—Location of stream-gaging stations in or near Washington County and the record available

Stream	Drainage area (sq. miles)	Years of record available
Glens Falls feeder at Glens Falls (canal season only)	—	1927-
Glens Falls feeder at Dunham Basin (canal season only)	—	1945-
Bond Brook at Dunham Basin	14.7	1947-
Batten Kill at Arlington, Vt.	152	1929-
Batten Kill at Battenville	394	1923-
Hoosic River near Eagle Bridge	510	1910-21; 1923-
Walloomsac River at North Bennington, Vt.	111	1931-
Lake George outlet at Ticonderoga	234	1904-5; 1942-
Schroon River at Riverbank	527	1908-

CLIMATE

The climatic conditions prevailing in Washington County are those of a humid continental climate characterized by a wide range in temperatures, by heavy snowfall during the winter, and by a moderately heavy total annual precipitation. Although no detailed records are available for the upland areas, weather conditions appear to be quite uniform in all parts of the County.

Table 3.—Geologic formations in Washington County and their water-bearing properties

Age: System	Age: Series	Geologic formation	Maximum thickness (feet)	Character of material	Water-bearing properties
Quaternary	Recent	Alluvium	30	Sand, silt, muck, and gravel.	Yields moderate supplies of good-quality water to a few dug and driven wells.
			240+	Outwash—stratified sand and gravel deposited by streams.	Yields moderately large supplies to driven wells and springs; could probably be developed to a much greater extent.
			200	Lacustrine deposits—clay and silt deposited in glacial Lake Albany.	Generally not water bearing.
		Wisconsin drift	150	Delta deposits—fine gravel and sand deposited as deltas in standing bodies of water.	Yields moderately large supplies to driven wells and springs; could probably be developed to a much greater extent.
			25	Till—heterogeneous mixture of gravel, sand, and clay with a predominance of clay.	Yields small supplies of water to many shallow dug wells for domestic and stock use.
Ordovician	Middle Ordovician	Basal Hill formation	600	Black to gray argillaceous shale possessing a platy appearance due to cleavage.	Yields small supplies of ground water to many drilled wells penetrating 150 feet or more; average yield 5 gallons per minute (gpm); water is soft and of good quality; some wells flow. Best supplies in Salem, Salem Center, and Cossayuna areas in Washington County; may be obtained from this formation.
	Middle and Lower Ordovician	Wallomsac slate	Unknown	Greenish-gray to black slate and schist showing considerable metamorphism.	Supplies a few springs but is relatively unimportant as a source of ground water.
		Truxton group and Bascom-Owens formation	1,100	Dark-blue fine-grained thin- to thick-bedded limestone and dolomite thinly interbedded with beds of sandstone and shale; shaly partings in upper 50 feet.	Yields moderately large supplies to many drilled wells which encounter fractures or joints; average yield is 15 gpm; very few dry holes encountered. Water is hard; sometimes contains hydrogen sulfide.
	Ordovician and Cambrian	Transition sequence of rocks	2,000	Complex of thin-bedded pink, flesh-colored, gray, and purple shale and shaly limestone, and purple and white fine-grained sandstone; limestone predominant in upper part, sandstone in lower part; interbedded in varying degrees.	Yields small but reliable supplies of ground water to 5 to 8 gpm; somewhat greater supplies could probably be developed from them; water hard; iron content high in some localities; generally satisfactory. Only small supplies can be developed from shale.
Cambrian	Upper Cambrian	Potsdam sandstone and unnamed dolomite	600	Coarse- to fine-grained almost pure sandstone, grading into sandy dolomite. Contains several thin intervening zones of sandy dolomite and dolomite beds.	Yields very small supplies to a few drilled wells but is relatively unimportant as a source of ground water. Water is soft and of good quality.
Pre-Cambrian		Crystalline rocks and associated igneous rocks	Unknown	Crystalline metamorphic rocks intruded by syenite and granite masses.	Supplies small springs but is unimportant as a source of ground water. Water is soft.

The sandstone, dolomite, and limestone of the Hudson-Champlain lowland, because of their compactness and their more westerly position, have resisted the forces causing folding and crumpling. Instead, the pressure was taken up by breaking along joint planes. The two principal sets of joints trend approximately N. 50° W. and N. 40° E., respectively. Thus, the joints form a pattern of two sets of parallel vertical planes intersecting at approximately right angles. Joints trending in other directions exist but are not prominent. The joints decrease in number and size of opening with depth and are believed to become closed at depths below 200 to 300 feet.

The rocks of the Taconic sequence exhibit the most intricate structure. Because of their more easterly position and physical character, they have taken up most of the compressive force from the east. They are highly folded and faulted, and the mapping of the smaller structural details is beyond the scope of this report. They are cut by numerous cleavage and joint planes which intersect at various angles and divide the rock into very small blocks. The compressive forces have further moved the crumpled mass as a unit in a westerly direction along extensive low-angle faults called "thrusts". An almost continuous thrust plane, extending the length of the County from south of Greenwich to north of Whitehall, marks the western limit of the rocks of the Taconic sequence. These rocks now overlie the rocks of the valley in the vicinity of the thrust fault. It is probable that the rocks of the Taconic sequence are relatively thin in the vicinity of the fault and that deep drilling might pass through them and penetrate the relatively undeformed valley rocks beneath.

STRATIGRAPHY

All the formations that crop out in Washington County are utilized to some extent as sources of water supply. Table 3 summarizes the lithologic and hydrologic properties of these aquifers. Their distribution within the County is shown on plate 2 (bedrock geology) and plate 3 (surficial geology).

Pre-Cambrian Rocks

The pre-Cambrian rocks of the Grenville series consist of schist and gneiss formed by the alteration of older sedimentary rocks by intruding magmas during periods of mountain building. Subsequent intrusions by magmas of different composition have resulted in the formation of irregular bodies of syenite, granite, and gabbro. More than one-fifth of the County is underlain by these crystalline rocks, which are exposed throughout Dresden Township, nearly all of Putnam Township, and parts of Fort Ann and Whitehall Townships.

Syenite is the most common of the crystalline rocks in Washington County. It has a coarse-grained appearance, exhibits a gneissic structure, and is intimately mixed with the schist and gneiss of the Grenville series. The rock is hard and well drillers refer to it as "granite". In most places it crops out at the surface, there being but a thin covering of glacial till over the crystalline area and almost no residual or disintegrated rock. Intersecting sets of nearly vertical joints are common and the openings are of irregular size and distribution.

Cambrian and Ordovician Systems

The Potsdam sandstone of Cambrian age is well exposed in the valley of Wood Creek from Whitehall to Fort Ann and in smaller outcrops in the vicinity of West Fort Ann. It is a medium-grained massive sandstone composed of angular to subrounded grains of quartz sand of red, yellow, gray, and grayish-white colors. The grains are well cemented by silica, giving the rock, in most places, the appearance of a quartzite. Individual beds vary in thickness from a few inches to several feet, and the bedding planes are well defined. The formation becomes more calcareous and slightly more porous toward the top, grading up into a series of alternating beds of light-colored sandstone and blue sandy dolomite. These beds have been called the "passage beds" of the Theresa formation (Cushing and others, p. 64-66), but as there is

3-10

records were collected is 2.6 gpm. One well, W 103, was abandoned at a depth of 490 feet without encountering a water-bearing joint or fracture. The average depth of the wells in Mettawee slate is 188 feet.

SPRINGS

Several municipal ground-water supplies and a few of the domestic supplies in Washington County are obtained from springs. In addition, the village of Schuylerville, in Saratoga County, obtains its water from a spring in Washington County (W 23Sp). The larger springs are found in areas underlain by unconsolidated deposits, whereas small springs are numerous in the hilly area in the eastern section of the County underlain by shale. Representative records are given in table 6.

The springs flow under the force of gravity from openings in the rocks and are in effect an outcrop of the water table. They are seeps which percolate from the small openings in porous open material, such as a sand or gravel, or tiny streams which flow from joints or fractures in the rocks.

Many fracture springs occur in the Adirondack and Taconic areas, in places where ground water circulates along these crevices in the bedrock and finds its way to the surface. They furnish small quantities of water, generally less than 3 gpm. Lick Spring (W 3Sp), one of this type, flows out from an opening in the Schodack formation. The water has a strong disagreeable taste and odor resulting from entrained hydrogen sulfide gas, a decomposition product of the pyrite in the shale beds of the Schodack formation.

Many of the springs in the County are contact springs in that they issue from the contact of an impermeable material with an overlying permeable material. Such springs occur on the outer slopes of the glacial delta of the Batten Kill where beds of clay underlie sand and gravel and prevent further downward percolation of the ground water (W 8Sp, W 6Sp, W 23Sp). One of these, W 23Sp, has an estimated yield of greater than 150 gpm. Other springs of this type occur in the Taconic area, where they issue from the contact of relatively impermeable shale with overlying glacial till (W 11Sp, W 18Sp). The springs in the Taconic and Hudson Falls area have small yields, available records showing flows of less than 10 gpm. Most of them supply ample water for domestic needs. In contrast to these small springs are the larger springs that occur at an outcrop of the water table in outwash materials; for example, spring W 12Sp. It actually consists of several springs which flow out from the base of a depression, which extends below the water table in permeable sand and gravel. The depression is situated at the north end of the Owl Kill valley and the springs furnish water for the municipal supply at Cambridge. When measured on August 29, 1946, the yield was about 475 gpm and the temperature of the water was 48° F. Other springs of this type furnish the municipal supply for Hudson Falls (W 15p) and Granville Water District 1 (W 14Sp). Water from seepage springs in Washington County varies in chemical character, but it generally contains fewer dissolved solids and is softer than most well water in the area. Analyses of water from 3 springs are given in table 7.

UTILIZATION

The average daily withdrawal of ground water in Washington County is estimated to be 4 million gallons. Slightly more than half this amount is pumped for public-supply systems. Other principal users of ground water are industrial and commercial establishments, farms, and rural homes.

Municipal Supplies

Nine municipalities in Washington County have public water supplies. Of these, five use wells or springs as a source of supply. The average daily consumption of ground water at these

Table 6.—Records of selected springs in Washington County

Location: For explanation of location symbols see section "Methods of investigation".
Altitude: Approximate altitude of land surface as scaled from topographic map.
Use: Dom, domestic; Stock, stockwater; PWS, public water supply.

Spring number	Location	Owner	Altitude above sea level (ft)	Topography	Water-bearing formation	Yield (gpm)	Temperature (°F)	Use	Remarks
W 1Sp	T7, R11E, S.1?	Hudson Falls Water Co.	280	Hillside	Pleistocene gravel	...	50	PWS	Twenty-five springs at this location.*
W 2Sp	T7, R17E, S4.7?	George Dorman	110	Valley	Pleistocene sand and clay	...	...	Farm	
W 3Sp	T7, R8E, S2.1?	James Bull	250	Hillside	Taconic sequence	1	48	Stock	Water has strong hydrogen sulfide odor.
W 4Sp	T7, T.2N, R3.1?	James Ellis	260	do.	Pleistocene gravel	...	...	Farm	Three springs at this location.
W 5Sp	T7, R13E, S.2?	Mary Simmons	120	Valley	Pleistocene clay	...	...	Farm	
W 6Sp	T7, R11E, S.2?	A. B. Cobb	120	do.	do.	...	...	Farm	
W 7Sp	T7, R11E, S.2?	Webb Booth	140	do.	do.	...	...	Farm	
W 8Sp	T7, R12E, S.2?	H. W. Dixon	140	do.	do.	...	...	Farm	
W 9Sp	T7, R12E, S.2?	Robert Booth	140	do.	do.	...	...	Farm	
W 10Sp	T7, R12E, S.2?	Wesley Cobb	110	do.	do.	...	...	Farm	
W 11Sp	T7, R8E, S.1?	Ellison & Bain	740	Upland	Pleistocene till	5	...	Farm	
W 12Sp	T8, R8E, T.2S	Cambridge Water Works	320	Valley	Pleistocene gravel	475	48	PWS	(a)
W 13Sp	T7, R.2E, S.5?	E. W. Ewell	680	do.	Pleistocene till	5	...	Dom	Spring supplies 20 homes
W 14Sp	T7, R.4E, S.2?	Granville Water District 1	300	do.	Pleistocene gravel	35	...	PWS	(a)
W 15Sp	T7, R.7E, S.1?	G. P. Skinner	314	Hillside	Pleistocene clay	...	...	Farm	
W 16Sp	T7, R.3W, S.2?	Gunter Bros.	300	do.	Granville series	14	52	Farm	Water dependable year round.
W 17Sp	T7, R.2W, S.1?	Walter Stark	190	do.	do.	2	52	Dom	Spring once supplying restaurant.
W 18Sp	T7, R.4E, S.1?	Lena Carpenter	280	do.	Pleistocene clay	...	48	Farm	Spring reported never dry.
W 19Sp	T7, R.4E, S.2?	Benson Bros.	295	do.	Granville series	...	54	Farm	do.
W 20Sp	T7, R.7E, S.2?	H. Wheeler	271	do.	Bomoseen channers	...	47	Farm	
W 21Sp	T7, R.4E, S.1?	J. E. Ward	280	Valley	Bomoseen channers	4	48	Farm	Spring supplies 30 head of stock
W 22Sp	T7, R.6W, S.2?	McCabe	600	Hillside	Granville series	6	43	Dom	Spring supplies drinking fountain.
W 23Sp	T7, R4E, S.4?	Village of Schuylerville	220	Valley	Pleistocene sand	150+	...	PWS	Three springs at this location. Flow has been Hudson River to Schuylerville in Saratoga County.
W 24Sp	T8, R.3E, S.1?	Ronald Gregory	440	Valley	Pleistocene sediments	4	47	Dom	Spring reported very low in summer of 1947.

* For chemical analyses see table 7.

Table 8.—Comparison of mineral waters of Washington County with some typical mineral waters of the Saratoga Springs district

[Dissolved constituents given in parts per million]

	Saratoga Springs[1]				Washington County[2]		
	Geyser	Hathorn No. 1	Old Red	Gurn Spring	W 155	W 156	W 61
Dissolved solids	7,980	3,530	2,970	4,230	2,020	2,090	2,150
Bicarbonate	2,700	2,940	1,430	2,190	1,770	2,560	1,060
Sulfate	Trace	Trace	Trace	Trace	0	7	1,250
Chloride	1,700	2,560	873	736	250	430	210
Total hardness (as $CaCO_3$)	1,700	2,250	978	1,205	846	450	1,700
Total alkalinity (as $CaCO_3$)	2,600	2,600	1,170	1,700	1,450	2,100	870
Date of collection	1928	1928	1928	.....	2-4-46	2-4-46	12-14-45

[1] Report of the Saratoga Springs Commission to the Legislature, New York Legis. Doc. 70, 1936, p. 158.

[2] Analyses by New York State Department of Health.

that it has a high concentration of chloride and bicarbonate, and practically no sulfate. It also has considerable uncombined carbon dioxide, the quantities of which were not determined. Of the three Washington County waters, all are moderately high in chloride and bicarbonate. Samples from wells W 155 and W 156 have very little sulfate, whereas a sample from well W 61 has considerable sulfate. The water from wells W 155 and W 156 is generally similar to that from the Old Red Spring at Saratoga Springs and from Gurn Spring about 6½ miles northeast of Saratoga Springs.

The mineral springs of the Saratoga region are along or close to normal faults. Cushing and Ruedemann have mapped a large fault trending northeastward through Gurn Spring. This fault may continue northeastward and pass near wells W 155 and W 156. The two wells are close together, and the analyses of their water show similar chemical concentrations. Thus they probably obtain water from the same source, and perhaps from the same source as the Saratoga water. Several widely different theories have been presented to account for the origin of the Saratoga Springs water (Kemp, 1912; Cushing and Ruedemann, 1914; Colony, 1930; Strock, 1944). Only two points are generally agreed upon: (1) the water probably originates as meteoric water and obtains most of its mineral content in deep zones, and (2) the water is more dilute the farther northeast of Saratoga Springs it occurs. The Saratoga water apparently comes from the Little Falls dolomite, whereas wells W 61, W 155, and W 156 tap the overlying Snake Hill formation.

SUMMARY

The occurrence, quantity, and quality of ground water available in Washington County are controlled largely by the geologic formations of the area. These consist of consolidated rock, overlain nearly everywhere by a cover of unconsolidated deposits of varying thickness. Both the structure and character of these rocks and deposits in large part affect the movement and amount of ground water that may be recovered by means of wells.

Stratified deposits of sand and gravel offer the best possibilities for the development of large supplies. The average yield of properly constructed wells penetrating sand and gravel probably is about 100 gallons per minute, and it is believed relatively shallow wells in these materials will yield much larger quantities if modern methods of well construction and development are used. The principal areas of stratified deposits are the West Granville area, the Hudson Falls area, the Salem area, the Cambridge area, and the Batten Kill delta area. In some of these areas the permeable deposits are thin or, as in the Cambridge area, they may contain considerable clay which may make them less permable. Additional exploration in the form of test drilling and pumping tests is needed to determine proper locations for wells.

In contrast to the unconsolidated deposits, ground water in the bedrock in Washington County is contained primarily in joints and cleavage cracks rather than in the pore spaces of the rock. Although the bedrock, in general, yields only small supplies of ground water, water of satisfactory quality and of sufficient quantity for domestic and farm use can be obtained almost anywhere in the County from drilled wells penetrating the bedrock. The water from the Ordovician limestones is hard and may contain iron, hydrogen sulfide, and other minerals in troublesome amounts but is generally satisfactory. The joints in massive limestones are better developed than in the other rock types and are commonly enlarged by solution. Consequently, wells in limestones have larger yields than those in other bedrock formations, averaging about 12 gallons per minute.

An estimated 4 million gallons of ground water is withdrawn daily in Washington County. Approximately half the total amount of ground water withdrawn is used for public supply, five of the nine municipalities that have public systems using wells or springs as a source. The amount of ground water pumped by industries and commercial establishments in the County is relatively small and the principal use, other than for public supply, is for farms and rural homes.

REFERENCE NO. 33

Inorganic Rev. #1

- COPY OF CLP DATA

(REDLINED AND MARKED)

- COMPUTER QA'd PRINTOUT

SITE NAME: Finch Pruyn

CASE# AND/OR SAS#: 15130

BRICS#: NYML

TDD#: 02-9008-26

Finch Pruyn
TCC Nyml
TCE Nyml

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH91

Lab Name: INNER & SHERMAN Labs. Contract: 68-01-0089

Lab Code: INER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): SOIL Lab Sample ID: 10176-10S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 87.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3400.00			P
7440-36-0	Antimony	6.00	U	N J	P
7440-38-2	Arsenic	1.40	B		F
7440-39-3	Barium	17.40	B		P
7440-41-7	Beryllium	0.20	U		P
7440-41-7	Cadmium	0.60	U		P
7440-70-2	Calcium	49600.00			P
7440-47-3	Chromium	5.40			P
7440-48-4	Cobalt	4.00	B		P
7440-50-8	Copper	7.00		J	P
7439-89-6	Iron	9610.00			P
7439-92-1	Lead	~~1.90~~		~~N*~~	F
7439-95-4	Magnesium	13300.00			P
7439-96-5	Manganese	~~162.00~~		~~N*~~	P
7439-97-6	Mercury	0.09 ~~0.13~~	U		CV
7440-02-0	Nickel	KDF 11/19/90 6.50	B	J	P
7440-09-7	Potassium	380.00	B	J	P
7782-49-2	Selenium	0.41	U		F
7440-22-4	Silver	1.00	U		P
7440-23-5	Sodium	110.00	B	J	P
7440-28-0	Thallium	0.41	U	NW J	F
7440-62-2	Vanadium	8.90	B	J	P
7440-66-6	Zinc	~~27.70~~			P
	Cyanide				NR

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: BLACK Clarity After: Artifacts: YES

Comments:

LOCKS

375

000012

U.S. EPA - CLP

1 EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MBDH92

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): SOIL Lab Sample ID: 10176-113

Level (low/med): LOW Date Received: 10/19/90

% Solids: 84.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3600.00			P
7440-36-0	Antimony	6.60	U	NJ	P
7440-38-2	Arsenic	2.00	B		F
7440-39-3	Barium	17.90	B		P
7440-41-7	Beryllium	0.22	U		P
7440-41-7	Cadmium	0.66	U		P
7440-70-2	Calcium	59700.00			P
7440-47-3	Chromium	4.20			P
7440-48-4	Cobalt	27.70			P
7440-50-8	Copper	14.70		J	P
7439-89-6	Iron	7890.00			P
7439-92-1	Lead	~~1.90~~		~~N*~~	F
7439-95-4	Magnesium	20300.00			P
7439-96-5	Manganese	~~2550.00~~		~~N*~~	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	28.30		-	P
7440-09-7	Potassium	242.00	B		P
7782-49-2	Selenium	0.45	U		F
7440-22-4	Silver	1.10	U		P
7440-23-5	Sodium	77.10	B	J	P
7440-28-0	Thallium	0.45	U	NWJ	F
7440-62-2	Vanadium	7.20	B	J	P
7440-66-6	Zinc	~~47.30~~			P
	Cyanide				NR

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: BLACK Clarity After: Artifacts: YES

Comments:

ROCKS

376

000013

FORM I - IN 7/88

SITE NAME: FINCH PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130
LAB NAME: SKINNER & SHERMAN

INORGANICS

Sample ID No.	NYML-GW1	NYML-GW2	NYML-GW3	NYML-GW4(DUP)	NYML-GW5	NYML-GW6(MS/MSD)	NYML-S1(MS/MSD)	NYML-S2	NYML-S3	NYML-S4(DUP)	NYML-S5
Traffic Report No.	MBDH66	MBDH67	MBDH81	MBDH82	MBDH83	MBDH84	MBDH89	MBDH90	MBDH91	MBDH92	MBDH93
Matrix	WATER	WATER	WATER	WATER	WATER	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aluminum	J	62700	6930	8790			3130	3440 E	3400	3600	3380
Antimony											
Arsenic		11.6	J	J		J	2.7	J	J	J	2.3
Barium	J	394 E	J	J		J	48	J	J	J	J
Beryllium		J	J	J							
Cadmium											
Calcium	47000	406000	108000	115000	J	60600	61500	36500 E	49600	59700	49000
Chromium	J	232	28.3 E	18.8 E			4	10.9 E	5.4	4.2	5
Cobalt		68.5	J	J			J		J	27.7	J
Copper	48	174	32.4	32.1	J	J	8.7 E	21.1 E	7 E	14.7 E	5.4
Iron	J	129000 E	18200 E	19700 E	600 E	2190 E	7890	3450 E	9610	7890	8610
Lead	J	74.4	14.7 E	17.6 E	4.2 E	J	6.1 E	5.9 E	R	R	R
Magnesium	17100	144000	25300	28500	J	23800	17100	J	13300	20300	12000
Manganese	J	R	R	R	J	R	R	R	R	R	R
Mercury					0.44						
Nickel		132	52.8	58.4	J		J	J	J	28.3 E	J
Potassium	J	10200	J	J	J	J	J	J	J	J	J
Selenium											
Silver											
Sodium	J	7860 E	J	J	180000 E	6230 E	J	J	J	J	J
Thallium											
Vanadium		128	J	J			J	J	J	J	J
Zinc	R	R	R	R	R	R	R	R	R	R	R

NOTES:
Blank space - compound analyzed for but not detected
E - estimated value
J - estimated value, compound present below CRDL but above IDL
R - analysis did not pass EPA QA/QC
NR - analysis not required

- COPY OF CLP DATA

(REDLINED AND MARKED)

- COMPUTER QA'd PRINTOUT

SITE NAME: Finch Pruyn

CASE# AND/OR SAS#: 15130

BRICS#: NYML

TDD#: 02-9008-26

SITE NAME: [redacted] PRU[redacted]
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

VOLATILES	NYML-GW1	NYML-GW2	NYML-GW3	NYML-GW4(DUP)	NYML-GW5	NYML-GW6(MS/MSD)	NYML-S1(MS/MSD)	NYML-S2	NYML-S3	NYML-S4(DUP)	NYML-S5
Sample ID No.	BFC14	BFC15	BFC16	BFC17	BFC18	BFC19	BFC24	BFC25	BFC26	BFC27	BFC28
Traffic Report No.											
Matrix	WATER	WATER	WATER	WATER	WATER	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor	1	1	1	1	1	1	1	5	1	1	1
Percent Moisture	--	--	--	--	--	--	7	68	13	13	16
Chloromethane	R					R		R			
Bromomethane	R					R		R			
Vinyl Chloride	R					R		R			
Chloroethane	R					R		R			
Methylene Chloride	R					R		R			
Acetone	R					R		R		160	250
Carbon Disulfide	R					R		R			8
1,1-Dichloroethene	R					R		R			
1,1-Dichloroethane	R					R		R			
Trans-1,2-Dichloroethene (total)	R					R		R			
Chloroform	R					R		R			
1,2-Dichloroethane	R					R		R			
2-Butanone	R					R		R			
1,1,1-Trichloroethane	R					R		R			
Carbon Tetrachloride	R					R		R			
Vinyl Acetate	R					R		R			
Bromodichloromethane	R					R		R			
1,2-Dichloropropane	R					R		R			
cis-1,3-Dichloropropene	R					R		R			
Trichloroethene	R					R		R			
Dibromochloromethane	R					R		R			
1,1,2-Trichloroethane	R					R		R			
Benzene	R					R		R			
trans-1,3-Dichloropropene	R					R		R			
Bromoform	R					R		R			
4-Methyl-2-Pentanone	R					R		R			
2-Hexanone	R					R		R			
Tetrachloroethene	R					R		R			
Toluene	R					R		R			
1,1,2,2-Tetrachloroethane	R					R		R			
Chlorobenzene	R					R		R			
Ethylbenzene	R					R		R			
Styrene	R					R		R			
Xylenes (Total)	R					R		R			

NOTES:
Blank space - compound analyzed for but not detected
B - compound found in lab blank as well as sample, indicates possible/probable blank contamination
E - estimated value
J - estimated value, compound present below CRQL but above IDL
R - analysis did not pass EPA QA/QC
N - Presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%

SITE NAME: FINCH PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

VOLATILES

Sample ID No.	NYML-S6	NYML-S7	NYML-RIN1	NYML-RIN2	NYML-RIN3	NYML-RIN4	NYML-TBLK1
Traffic Report No.	BFC29	BFC30	BFC34	BFC35	BFC36	BFC37	BFC38
Matrix	SOIL	SOIL	WATER	WATER	WATER	WATER	WATER
Units	ug/kg	ug/kg	ug/L	ug/L	ug/L	ug/L	ug/L
Dilution Factor	5	1	1	1	1	1	1
Percent Moisture	16	11	--	--	--	--	--
Chloromethane	R				R		R
Bromomethane	R				R		R
Vinyl Chloride	R				R		R
Chloroethane	R				R		R
Methylene Chloride	R				R		R
Acetone	R	190			R		R
Carbon Disulfide	R	15			R		R
1,1-Dichloroethene	R				R		R
1,1-Dichloroethane	R				R		R
Trans-1,2-Dichloroethene (total)	R				R		R
Chloroform	R		5	J	J	J	6 E
1,2-Dichloroethane	R				R		R
2-Butanone	R	38			R		R
1,1,1-Trichloroethane	R				R		R
Carbon Tetrachloride	R				R		R
Vinyl Acetate	R				R		R
Bromodichloromethane	R				R		R
1,2-Dichloropropane	R				R		R
cis-1,3-Dichloropropene	R				R		R
Trichlorethene	R				R		R
Dibromochloromethane	R				R		R
1,1,2-Trichloroethane	R				R		R
Benzene	R				R		R
trans-1,3-Dichloropropene	R				R		R
Bromoform	R				R		R
4-Methyl-2-Pentanone	R				R		R
2-Hexanone	R				R		R
Tetrachloroethene	R				R		R
Toluene	R				R		R
1,1,2,2-Tetrachloroethane	R				R		R
Chlorobenzene	R				R		R
Ethylbenzene	R				R		R
Styrene	R				R		R
Xylenes (Total)	R				R		R

NOTES:
Blank space - compound analyzed for but not detected
B - compound found in lab blank as well as sample, indicates possible/probable blank contamination
E - estimated value
J - estimated value, compound present below CRQL but above IDL
R - analysis did not pass EPA QA/QC
N - Presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%

SITE NAME: FINCH PRUYN
TDDB: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

PESTICIDES

Sample ID No.	NYML-GW1	NYML-GW2	NYML-GW3	NYML-GW4(DUP)	NYML-GW5	NYML-GW6(MS/MSD)	NYML-S1(MS/MSD)	NYML-S2	NYML-S3	NYML-S4(DUP)	NYML-S5
Traffic Report No.	BFC14	BFC15	BFC16	BFC17	BFC18	BFC19	BFC24	BFC25	BFC26	BFC27	BFC28
Matrix	WATER	WATER	WATER	WATER	WATER	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor/GPC Cleanup (Y)	1	1	1	1	1	1	1	1	1	1	1
Percent Moisture	--	--	--	--	--	--	7	68	13	13	16
alpha-BHC											
beta-BHC											
delta-BHC											
gamma-BHC (Lindane)											
Heptachlor											
Aldrin											
Heptachlor epoxide											
Endosulfan I											
Dieldrin											
4,4'-DDE											
Endrin											
Endosulfan II											
4,4'-DDD											
Endosulfan sulfate											
4,4'-DDT											
Methoxychlor											
Endrin ketone											
alpha-Chlordane											
gamma-Chlordane											
Toxaphene											
Aroclor-1016											
Aroclor-1221											
Aroclor-1232											
Aroclor-1242											
Aroclor-1248											
Aroclor-1254											
Aroclor-1260											

NOTES:
Blank space - compound analyzed for but not detected
B - compound found in lab blank as well as sample, indicates possible/probable blank contamination
E - estimated value
J - estimated value, compound present below CRQL but above IDL
R - analysis did not pass EPA QA/QC
N - Presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%

SITE NAME: PINCH PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

PESTICIDES	NYML-S6	NYML-S7	NYML-RIN1	NYML-RIN2	NYML-RIN3	NYML-RIN4	NYML-TBLK1
Sample ID No.	BFC29	BFC30	BFC34	BFC35	BFC36	BFC37	BFC38
Traffic Report No.	SOIL	SOIL	WATER	WATER	WATER	WATER	WATER
Matrix	ug/kg	ug/kg	ug/L	ug/L	ug/L	ug/L	ug/L
Units	1	1	1	1	1	1	N/A
Dilution Factor/GPC Cleanup (Y)	16	12	--	--	--	--	N/A
Percent Moisture							
alpha-BHC							NR
beta-BHC							NR
delta-BHC							NR
gamma-BHC (Lindane)							NR
Heptachlor							NR
Aldrin							NR
Heptachlor epoxide							NR
Endosulfan I							NR
Dieldrin							NR
4,4'-DDE							NR
Endrin							NR
Endosulfan II							NR
4,4'-DDD							NR
Endosulfan sulfate							NR
4,4'-DDT							NR
Methoxychlor							NR
Endrin ketone							NR
alpha-Chlordane							NR
gamma-Chlordane							NR
Toxaphene							NR
Aroclor-1016							NR
Aroclor-1221							NR
Aroclor-1232							NR
Aroclor-1242							NR
Aroclor-1248							NR
Aroclor-1254							NR
Aroclor-1260							NR

NOTES:
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B - compound found in lab blank as well as sample, indicates possible/probable blank contamination
E - estimated value
J - estimated value, compound present below CRQL but above IDL
R - analysis did not pass EPA QA/QC
N - Presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%

SITE NAME: FINCH PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

SEMI-VOLATILES

Sample ID No.	NYML-GW1	NYML-GW2	NYML-GW3	NYML-GW4(DUP)	NYML-GW5	NYML-GW6(MS/MSD)	NYML-S1(MS/MSD)	NYML-S2	NYML-S3	NYML-S4(DUP)	NYML-S5
Traffic Report No.	BFC14	BFC15	BFC16	BFC17	BFC18	BFC19	BFC24	BFC25	BFC26	BFC27	BFC28
Matrix	WATER	WATER	WATER	WATER	WATER	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor/GPC Cleanup (Y)	1	1	1	1	1	1	1	1	1	1	1
Percent Moisture	--	--	--	--	--	--	7	68	13	13	16
Phenol											
bis(2-Chloroethyl)ether											
2-Chlorophenol											
1,3-Dichlorobenzene											
1,4-Dichlorobenzene											
Benzyl alcohol											
1,2-Dichlorobenzene											
2-Methylphenol											
bis(2-Chloroisopropyl)ether											
4-Methylphenol											
N-Nitroso-di-n-dipropylamine											
Hexachloroethane											
Nitrobenzene											
Isophorone											
2-Nitrophenol											
2,4-Dimethylphenol											
Benzoic acid											
bis(2-Chloroethoxy)methane											
2,4-Dichlorophenol											
1,2,4-Trichlorobenzene											
Naphthalene											
4-Chloroaniline											
Hexachlorobutadiene											
4-Chloro-3-Methylphenol											
2-Methylnaphthalene											
Hexachlorocyclopentadiene											
2,4,6-Trichlorophenol											
2,4,5-Trichlorophenol											
2-Chloronaphthalene											
2-Nitroaniline											
Dimethylphthalate											
Acenaphthylene											
2,6-Dinitrotoluene											
3-Nitroaniline											
Acenaphthene											
2,4-Dinitrophenol											
4-Nitrophenol											
Dibenzofuran											
2,4-Dinitrotoluene											
Diethylphthalate											
4-Chlorophenyl-phenyl ether											
Fluorene											
4-Nitroaniline											
4,6-Dinitro-2-methylphenol											
N-nitrosodiphenylamine											
4-Bromophenyl-phenyl ether											
Hexachlorobenzene											

SITE NAME: FINCH PRUYN
TDDB: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

SEMI-VOLATILES											
Sample ID No.	NYML-GW1	NYML-GW2	NYML-GW3	NYML-GW4(DUP)	NYML-GW5	NYML-GW6(MS/MSD)	NYML-S1(MS/MSD)	NYML-S2	NYML-S3	NYML-S4(DUP)	NYML-S5
Traffic Report No.	BFC14	BFC15	BFC16	BFC17	BFC18	BFC19	BFC24	BFC25	BFC26	BFC27	BFC28
Matrix	WATER	WATER	WATER	WATER	WATER	WATER	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor/GPC Cleanup (Y)	1	1	1	1	1	1	1	1	1	1	1
Percent Moisture	--	--	--	--	--	--	7	68	13	13	16
Pentachlorophenol											
Phenanthrene											
Anthracene											
Di-n-butylphthalate											
Fluoranthene											
Pyrene											
Butylbenzylphthalate											
3,3'-Dichlorobenzidine											
Benzo(a)anthracene											
Chrysene											
bis(2-Ethylhexyl)phthalate											
Di-n-octylphthalate											
Benzo(b)fluoranthene											
Benzo(k)fluoranthene											
Benzo(a)pyrene											
Indeno(1,2,3-cd)pyrene											
Dibenz(a,h)anthracene											
Benzo(g,h,i)perylene											

NOTES:
Blank space - compound analyzed for but not detected
B - compound found in lab blank as well as sample, indicates possible/probable blank contamination
E - estimated value
J - estimated value, compound present below CRQL but above IDL
R - analysis did not pass EPA QA/QC
N - Presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%

SITE NAME: PINUS PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

SEMI-VOLATILES							
Sample ID No.	NYML-S6	NYML-S7	NYML-RIN1	NYML-RIN2	NYML-RIN3	NYML-RIN4	NYML-TBLK1
Traffic Report No.	BFC29	BFC30	BFC34	BFC35	BFC36	BFC37	BFC38
Matrix	SOIL	SOIL	WATER	WATER	WATER	WATER	WATER
Units	ug/kg	ug/kg	ug/L	ug/L	ug/L	ug/L	ug/L
Dilution Factor/GPC Cleanup (Y)	1	1	1	1	1	1	N/A
Percent Moisture	16	12	--	--	--	--	N/A
Phenol							NR
bis(2-Chloroethyl)ether							NR
2-Chlorophenol							NR
1,3-Dichlorobenzene							NR
1,4-Dichlorobenzene							NR
Benzyl alcohol							NR
1,2-Dichlorobenzene							NR
2-Methylphenol							NR
bis(2-Chloroisopropyl)ether							NR
4-Methylphenol							NR
N-Nitroso-di-n-dipropylamine							NR
Hexachloroethane							NR
Nitrobenzene							NR
Isophorone							NR
2-Nitrophenol							NR
2,4-Dimethylphenol							NR
Benzoic acid							NR
bis(2-Chloroethoxy)methane							NR
2,4-Dichlorophenol							NR
1,2,4-Trichlorobenzene							NR
Naphthalene							NR
4-Chloroaniline							NR
Hexachlorobutadiene							NR
4-Chloro-3-Methylphenol							NR
2-Methylnaphthalene							NR
Hexachlorocyclopentadiene							NR
2,4,6-Trichlorophenol							NR
2,4,5-Trichlorophenol							NR
2-Chloronaphthalene							NR
2-Nitroaniline							NR
Dimethylphthalate							NR
Acenaphthylene							NR
2,6-Dinitrotoluene							NR
3-Nitroaniline							NR
Acenaphthene							NR
2,4-Dinitrophenol							NR
4-Nitrophenol							NR
Dibenzofuran							NR
2,4-Dinitrotoluene							NR
Diethylphthalate							NR
4-Chlorophenyl-phenyl ether							NR
Fluorene							NR
4-Nitroaniline							NR
4,6-Dinitro-2-methylphenol							NR
N-nitrosodiphenylamine							NR
4-Bromophenyl-phenyl ether							NR
Hexachlorobenzene							NR

SITE NAME: PINEW PRUYN
TDDB: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130 LAB: ANAMETRIX, INC.

SEMI-VOLATILES							
Sample ID No.	NYML-S6	NYML-S7	NYML-RIN1	NYML-RIN2	NYML-RIN3	NYML-RIN4	NYML-TBLK1
Traffic Report No.	BFC29	BFC30	BFC34	BFC35	BFC36	BFC37	BFC38
Matrix	SOIL	SOIL	WATER	WATER	WATER	WATER	WATER
Units	ug/kg	ug/kg	ug/L	ug/L	ug/L	ug/L	ug/L
Dilution Factor/GPC Cleanup (Y)	1	1	1	1	1	1	N/A
Percent Moisture	16	12	--	--	--	--	N/A
Pentachlorophenol							NR
Phenanthrene							NR
Anthracene							NR
Di-n-butylphthalate							NR
Fluoranthene							NR
Pyrene							NR
Butylbenzylphthalate							NR
3,3'-Dichlorobenzidine							NR
Benzo(a)anthracene							NR
Chrysene							NR
bis(2-Ethylhexyl)phthalate							NR
Di-n-octylphthalate							NR
Benzo(b)fluoranthene							NR
Benzo(k)fluoranthene							NR
Benzo(a)pyrene							NR
Indeno(1,2,3-cd)pyrene							NR
Dibenz(a,h)anthracene							NR
Benzo(g,h,i)perylene							NR

NOTES:
Blank space - compound analyzed for but not detected
B - compound found in lab blank as well as sample, indicates possible/probable blank contamination
E - estimated value
J - estimated value, compound present below CRQL but above IDL
R - analysis did not pass EPA QA/QC
N - Presumptive evidence of the presence of the material
NR - analysis not required
Detection limits elevated if Dilution Factor >1 and/or percent moisture >0%

SITE NAME: FINCH PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130
LAB NAME: SKINNER & SHERMAN

INORGANICS Sample ID No. Traffic Report No. Matrix Units	NYML-GW1 MBDH66 WATER ug/L	NYML-GW2 MBDH67 WATER ug/L	NYML-GW3 MBDH81 WATER ug/L	NYML-GW4(DUP) MBDH82 WATER ug/L	NYML-GW5 MBDH83 WATER ug/L	NYML-GW6(MS/MSD) MBDH84 WATER ug/L	NYML-S1(MS/MSD) MBDH89 SOIL ug/kg	NYML-S2 MBDH90 SOIL ug/kg	NYML-S3 MBDH91 SOIL ug/kg	NYML-S4(DUP) MBDH92 SOIL ug/kg	NYML-S5 MBDH93 SOIL ug/kg
Aluminum	J	62700	6930	8790			3130	3440 E	3400	3600	3360
Antimony											
Arsenic		11.6	J	J		J	2.7	J	J	J	2.3
Barium	J	394 E	J	J		J	48	J	J	J	J
Beryllium		J	J	J							
Cadmium											
Calcium	47000	406000	108000	115000	J	60600	61500	36500 E	49600	59700	49000
Chromium	J	232	28.3 E	18.8 E			4	10.9 E	5.4	4.2	5
Cobalt		68.5	J	J			J		J	27.7 E	J
Copper	48	174	32.4	32.1	J	J	8.7 E	21.1 E	7 E	14.7 E	5.4
Iron	J	129000 E	18200 E	19700 E	600 E	2190 E	7890	3450 E	9610	7890	8610
Lead	J	74.4	14.7 E	17.6 E	4.2 E	J	6.1 E	5.9 E	R	R	R
Magnesium	17100	144000	25300	28500	J	23800	17100	J	13300	20300	12000
Manganese	J	R	R	R	J	R	R	R	R	R	R
Mercury					0.44						
Nickel		132	52.8	58.4	J		J	J	J	28.3 E	J
Potassium	J	10200	J	J	J	J	J	J	J	J	J
Selenium											
Silver											
Sodium	J	7860 E	J	J	180000 E	6230 E	J	J	J	J	J
Thallium											
Vanadium		128	J	J			J	J	J	J	J
Zinc	R	R	R	R	R	R	R	R	R	R	R

NOTES:
Blank space - compound analyzed for but not detected
E - estimated value
J - estimated value, compound present below CRDL but above IDL
R - analysis did not pass EPA QA/QC
NR - analysis not required

SITE NAME: FINCH PRUYN
TDD#: 02-9008-26
SAMPLING DATE: 10/18/90
EPA CASE NO.: 15130
LAB NAME: SKINNER & SHERMAN

INORGANICS							
Sample ID No.	NYML-S6	NYML-S7	NYML-RIN1	NYML-RIN2	NYML-RIN3	NYML-RIN4	NYML-TBLK1
Traffic Report No.	MBDW94	MBDW95	MBDW99	MBDW01	MBDW02	MBDD17	N/A
Matrix	SOIL	SOIL	WATER	WATER	WATER	WATER	N/A
Units	mg/kg	mg/kg	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	9130	3670	J				NR
Antimony							NR
Arsenic	3.5	2.4					NR
Barium	108	J					NR
Beryllium							NR
Cadmium							NR
Calcium	1710	24900	J	J	J	J	NR
Chromium	13.6	5.6					NR
Cobalt	J	J					NR
Copper	5.8	6.6 E				J	NR
Iron	13800	9280					NR
Lead	R	R	3.2 E	J			NR
Magnesium	1820	9420					NR
Manganese	R	R	J	J	J	J	NR
Mercury							NR
Nickel	11.7	J				J	NR
Potassium	J	J					NR
Selenium	R	J				J	NR
Silver							NR
Sodium	J	J					NR
Thallium							NR
Vanadium	19.1 E	J					NR
Zinc	R	R	R	R	R	R	NR

NOTES:
Blank space - compound analyzed for but not detected
E - estimated value
J - estimated value, compound present below CRDL but above IDL
R - analysis did not pass EPA QA/QC
NR - analysis not required

SAMPLING TRIP REPORT

SITE NAME: Finch Pruyn

TDD NO.: 02-9008-26

SAMPLING DATE: October 18, 1990

EPA CASE NO.: 15130

1. Site Location: See Figure 1

2. Sample Locations: See Figures 2 and 3

3. Sample Descriptions: See Table 1

4. Laboratories Receiving Samples:

Sample Type	Name and Address of Laboratory
Organic	Anametrix, Inc. 1961 Concourse Drive Suite E San Jose, CA 95131
Inorganic	Skinner & Sherman, Inc. 300 Second Avenue Waltham, MA 02254

5. Sample Dispatch Data:

A total of 7 soil and 11 aqueous samples for organic analysis were shipped by FIT 2 personnel via Federal Express under Airbill No. 7821825605 to Anametrix, Inc. October 18, 1990 at approximately 1930 hours.

A total of 7 soil and 10 aqueous samples for inorganic analysis were shipped by FIT 2 personnel via Federal Express under Airbill No. 7821825616 to Skinner & Sherman, Inc. on October 18, 1990 at approximately 1930 hours.

6. Sampling Personnel:

Name	Organization	Duties on Site
David Grupp	NUS Corporation, FIT 2	Site Manager, Written and Photographic Documentation/ Site Safety Officer for Groundwater Crew
Ed Knyfd	NUS Corporation, FIT 2	Site Safety Officer/ Documentation of Soil Sampling
Rich Settino	NUS Corporation, FIT 2	Sample Management Officer
Robert Cantagallo	NUS Corporation, FIT 2	Sampler
Tim Beauregard	NUS Corporation, FIT 2	Sampler
Dennis Foerter	NUS Corporation, FIT 2	Sampler
Other On-Site Personnel:		
Philip J. Arthur, Environmental ControlManager	Finch Pruyn	Observation
Don Bovair	Finch Pruyn	Observation

7. Weather Conditions:

Overcast, temperature approximately 55° to 60°, slight wind from the southwest. Wind picked up during the day.

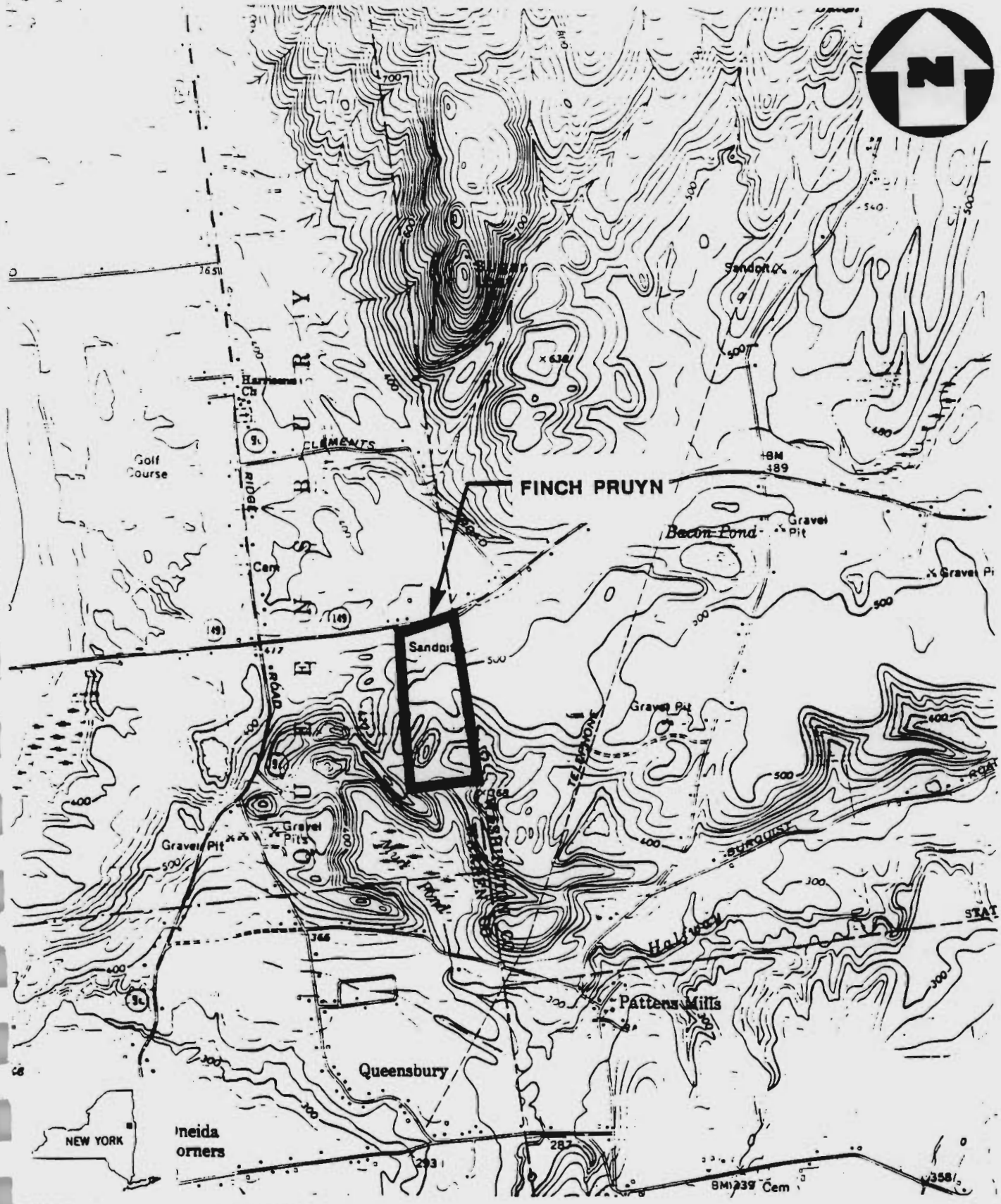
8. Additional Comments:

All samples will be analyzed for Target Compound List (TCL) organic compounds and TCL inorganic compounds, excluding cyanide, with the exception of the trip blank which will be analyzed for volatile organic compounds only.

Three groundwater samples were collected from on-site monitoring wells, one groundwater sample was collected from an on-site tap, and two groundwater samples were collected from off-site residential wells. One subsurface soil and six surface soil samples were collected from the site.

9. Report Prepared By: Susan Anderson Date: November 2, 1990

10. Approved By: Ann Naman Date: 11/15/90



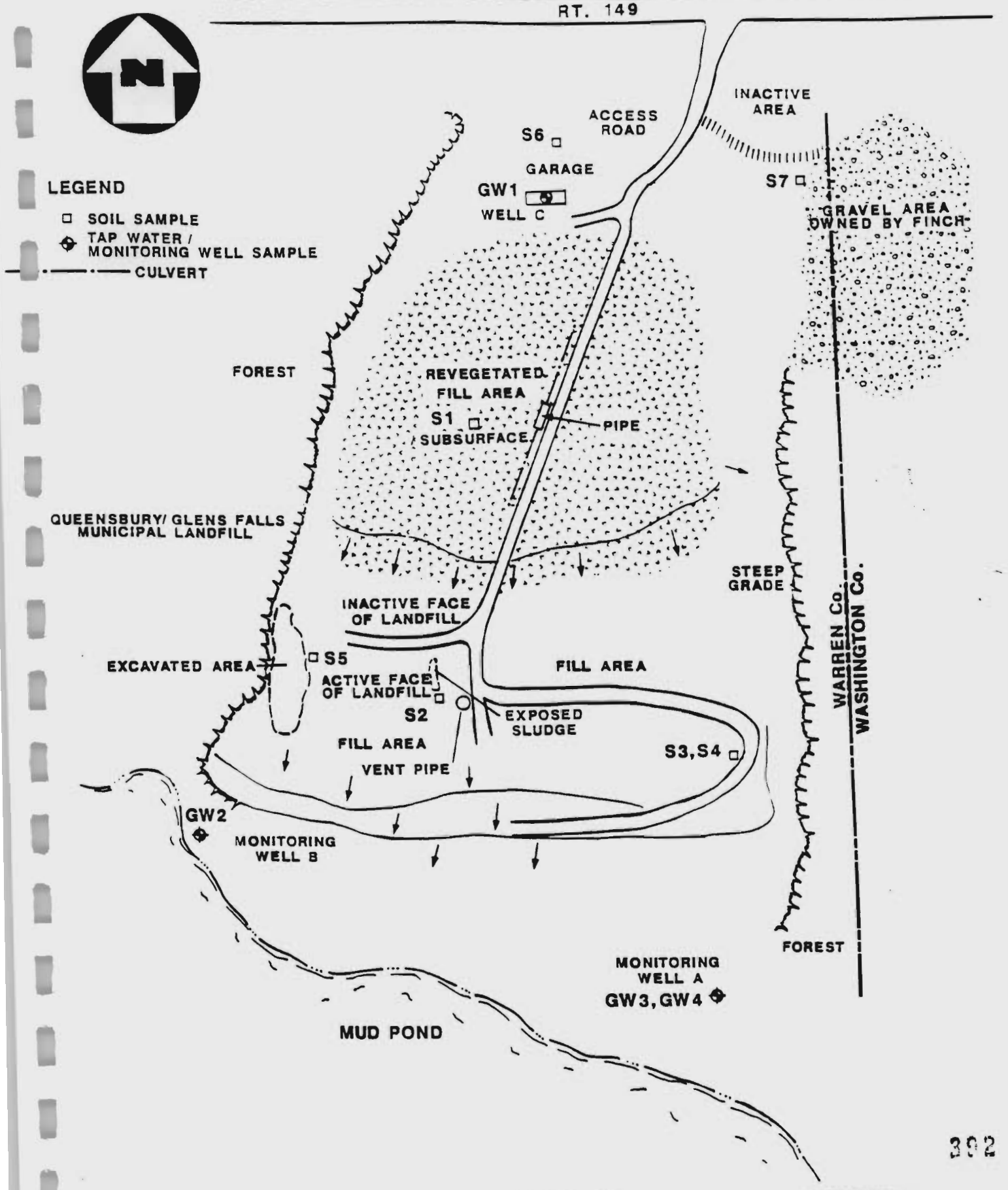
(QUAD) PUTNAM MOUNTAIN, N.Y.

FIGURE 1

SITE LOCATION MAP

FINCH PRUYN, QUEENSBURY, N.Y.

NUS CORPORATION



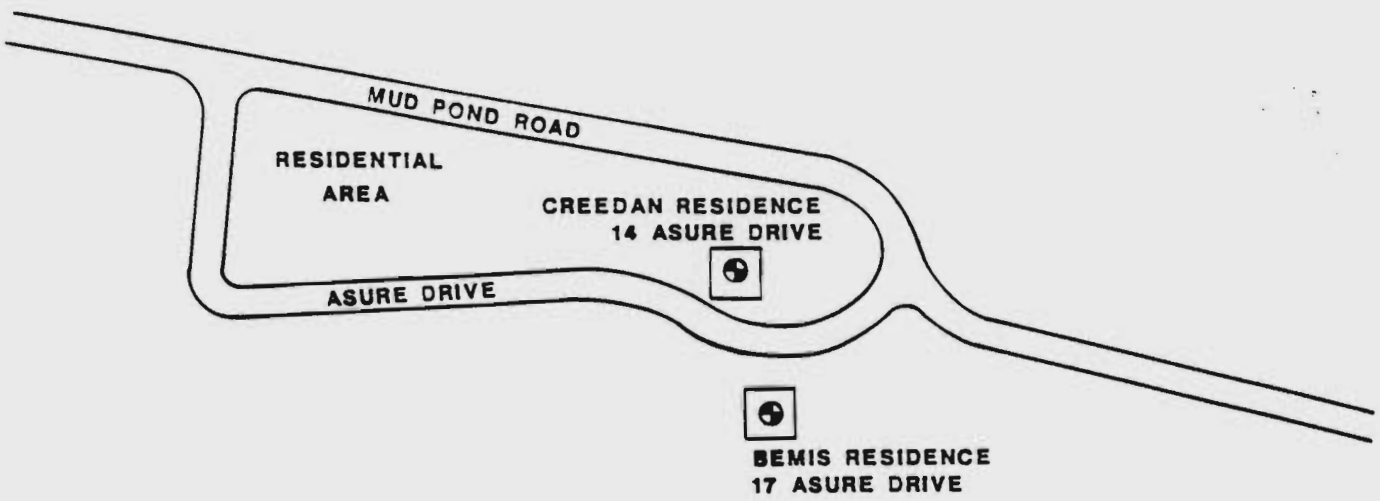
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SAMPLE LOCATION MAP

FINCH PRUYN, QUEENSBURY, N.Y.

FIGURE 2

NUS



LEGEND

● TAP WATER SAMPLE

OFF-SITE SAMPLE LOCATION MAP

FINCH PRUYN, QUEENSBURY, N.Y.

FIGURE 3

NUS CORPORATION

TABLE I
SAMPLE DESCRIPTIONS
FINCH PRUYN
QUEENSBURY, NEW YORK
CASE NO. 15130

NUS Sample Number	CLP Organic Sample Number	CLP Inorganic Sample Number	Collection Time	Sample Type	Sample Location
NYML-GW1	BFC-14	MBDH-66	1508	Aqueous	Groundwater sample collected from a tap located in the office building on site.
NYML-GW2	BFC-15	MBDH-67	1412	Aqueous	Groundwater sample collected from downgradient monitoring well MW-8. Located on the southwest portion of the landfill near Mud Pond.
NYML-GW3	BFC-16	MBDH-81	1200	Aqueous	Groundwater sample collected from downgradient monitoring well MW-A . Located on the southeast portion of the landfill near Mud Pond.
NYML-GW4**	BFC-17	MBDH-82	1200	Aqueous	Environmental duplicate sample collected at the same location as NYML-GW3.
NYML-GW5	BFC-18	MBDH-83	1705	Aqueous	Tap water sample collected from a private well located at 14 Asure Drive (Creedan residence).
NYML-GW6*	BFC-19	MBDH-84	1625	Aqueous	Tap water sample collected from a private well located at 17 Asure Drive (Bemis residence).

* MS/MSD - Indicates that additional sample volume was collected and shipped to the laboratory for matrix spike (MS) and matrix spike duplicate (MSD) analysis.

** Duplicate- Indicates that a sample was collected as an enviromental duplicate.

TABLE I (CONT'D)
SAMPLE DESCRIPTIONS
FINCH PRUYN
QUEENSBURY, NEW YORK
CASE NO. 15130

NUS Sample Number	CLP Organic Sample Number	CLP Inorganic Sample Number	Collection Time	Sample Type	Sample Location
NYML-SI*	BFC-24	MBDH-89	1125	Soil	Subsurface soil sample collected from the inactive revegetated fill area. Located at a bearing of 255° and a distance of 100 feet west of the culvert pipe opening along the access road. Sample collected at an interval of approximately 12 to 24 inches.
NYML-S2	BFC-25	MBDH-90	1210	Soil	Surface soil sample collected from the active face of the landfill. Located at a bearing of 281° and a distance of 67.1 feet from a vent pipe near the "Y" in the main landfill road. Sample collected at an interval of approximately 0 to 6 inches.
NYML-S3	BFC-26	MBDH-91	1245	Soil	Surface soil sample collected from the southeast portion of the landfill. Located in a drainage ditch along the main access road and at the edge of the landfill. Sample collected at on interval of approximately 0 to 6 inches.
NYML-S4**	BFC-27	MBDH-92	1245	Soil	Environmental duplicate sample collected at the same location as NYML-S3.

* MS/MSD - Indicates that additional sample volume was collected and shipped to the laboratory for matrix spike (MS) and matrix spike duplicate (MSD) analysis.

** Duplicate- Indicates that a sample was collected as an environmental duplicate.

TABLE 1 (CONT'D)
SAMPLE DESCRIPTIONS
FINCH PRUYN
QUEENSBURY, NEW YORK
CASE NO. 15130

NUS Sample Number	Organic Sample Number	Inorganic Sample Number	Collection Time	Sample Type	Sample Location
NYML-S5	BFC-28	MBDH-93	1405	Soil	Soil sample collected from the western side of the active landfill face. Sample collected was a composite of three leachate streams. Each portion of the composite was collected at an interval of approximately 0 to 6 inches.
NYML-S6	BFC-29	MBDH-94	1445	Soil	Surface soil sample collected north of the landfill garage and office. Located at a bearing of 356° and a distance of 132 feet from the outside fuel tank structures. Soil sample collected at an interval of approximately 0 to 6 inches.
NYML-S7	BFC-30	MBDH-95	1530	Soil	Soil sample collected from a drainage ditch accepting leachate from the inactive northeast portion of the landfill. Located at a bearing of 67° and a distance of approximately 500 feet from the east side of the office building. Sample collected at an interval of approximately 0 to 6 inches.
NYML-RIN1	BFC-34	MBDH-99	1211	Aqueous	Trowel rinsate blank collected in the field.
NYML-RIN2	BFC-35	MBDW-01	1232	Aqueous	Bowl rinsate blank collected in the field.

TABLE 1 (CONT'D)
SAMPLE DESCRIPTIONS
FINCH PRUYN
QUEENSBURY, NEW YORK
CASE NO. 15130

NUS Sample Number	Organic Sample Number	Inorganic Sample Number	Collection Time	Sample Type	Sample Location
NYML-RIN3	BFC-36	MBDW-02	1045	Aqueous	Auger rinsate blank collected in the field.
NYML-RIN4	BFC-37	MBDD-17	1135	Aqueous	Bailer rinsate blank collected in the field.
NYML-TBLK1	BFC-38	N/A	N/A	Aqueous	Trip blank; analyte-free water obtained from NUS Region 2 FIT, Edison, New Jersey.

Title: Evaluation of Metals Data for the Contract Laboratory Program
Appendix A.2: Data Assessment Narrative

Date: Feb. 1990
Number: HW-2
Revision: 10

Case# 15130 Site FINCH PRUYN Matrix: Soil 7

SDG# MBDD17 Lab SKINER Water 10

Contractor NUS FIT-2 Reviewer JOHN BULICH Other —

A.2.1 The case description and exceptions, if any, are noted below with reason(s) for rejection or qualification as estimated value(s) J.

1) Correlation coefficient for Se calibration standards was 0.985, Pb was 0.994 and Tl was 0.993. Flag the following samples as estimated (J): Se → MBDH 90,99
Pb → MBDH 66,81-84,89,90,99, MBDW01,02 MBDD17
Tl → MBDH 66,67,81,82,84,89-95,99, MBDW01,02 MBDD17

2) CROL Std - Cr has recovery between 121-150%. Flag the following samples as estimated (J): Cr → MBDH 66,81,82
Zn has recovery >150%. Reject (red-line) the following samples:
Zn → MBDD17, MBDH83,99, MBDW01,02

3) Pb would be flagged in samples MBDH 66,83,84,99 & MBDW01 due to CRA % Recovery between 121-150% but was previously flagged as per statement #1.

4) Soil Spiked Sample Recovery — Sb and Pb have recoveries between 10-74%. Flag the following samples as estimated (J):
Sb → MBDH 89-95 ~~Pb → MBDH 94~~ 3 1/24/91
Tl would be flagged as estimated (J) in samples MBDH 89-95 because soil spike sample rec. fell between 10-74%, but was previously flagged as per statement 1.

A.2.1 (continuation) Pb would be flagged as est. (J) in samples MBDH 89 & 90 due to soil spike sample rec. between 10-74% but was previously flagged as per statement 1.

Mn has recovery less than 10%. Reject (red-line) the following samples: Mn → MBDH 89-95

4) ICP ICS — Sodium is not expected to be found in the ICS solution, it is considered a false positive value (>IDL) & therefore associated positive results should be flagged est. (J) in samples MBDH 66, 67, 81-84, 89-95

5) Field Duplicates (Soil) — Ni and Co have differences > 2 x CRDL. Flag the following samples as est. (J): Ni, Co → MBDH 91, 92

6) ICP Serial Dilution — Ba(H_2O), Fe(H_2O), Cu(soil), K(soil) & V(soil) have differences >10% and are >10 x IDL. Flag the following samples as est. (J):

Ba (H_2O) → MBDH 67, 81, 82, 84 Fe(H_2O) MBDH 67, 81-84

Cu(soil) → MBDH 89-92, 95 K(soil) → MBDH 89-91, 93-95

V (soil) → MBDH 89, 91-95

Mn (H_2O) & Zn (H_2O & soil) have differences >100% and are >10 x IDL. Reject (red-line) the following samples:

Mn (H_2O) → MBDH 67, 81, 82, 84 Zn (H_2O) → MBDH 66, 67, 81, 82, 84

Zn (soil) → MBDH 89-95

7) MSA — Correlation coefficient is <0.990. Reject (red-line) the following sample: Se(soil) → MBDH 94

A.2.1 (continuation)

8) Field Blanks — Pb is > CRDL. Reject (red-line) the following samples: Pb → MBDH 91-93, 94, 95

9) % solids — Sample MBDH 90 has solids content <50%. Flag as estimated (J) the following analytes: Al, As, Ba, Be, Cd, Ca, Cr, Co, Fe, Mg, Hg, Ni, Ag & V.

Title: Evaluation of Metals Data for the Contract Laboratory Program
Appendix A.2: Data Assessment Narrative

Date: Feb. 1990
Number: HW-2
Revision: 10

A.2.2 Contract-Problems/Non-Compliance

1) Spike Added (SA) concentrations on Form 5As should be reported to one decimal place not two.
2) All times on ICP instrument run log do not match times in raw data.
3) Samples were diluted beyond contract requirements and the dilutions were not noted on Form I's! MBDH83 Tl(5x) MBDH67 Se(5x) MBDH67 Pb(2x) MBDH94 Pb(10x)

MMB Reviewer: _____ Date: _____
Signature

Contractor Reviewer: John Bulich Date: Dec. 27, 1990
Signature

Verified by: [signature] Date: 1-24-91

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0068

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

SOW No.: 7/88

EPA Sample No.	Lab Sample ID.
MBDW02	10176-176

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Kirk Johnson

Date: 11/9/90

Name: Kirk D. Johnson

Title: Inorganic Data Auditor

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

ab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

a Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

OW No.: 7/88

EPA Sample No.	Lab Sample ID.
MBDD17	10176-01S
MBDH66	10176-02S
MBDH67	10176-03S
MBDH81	10176-04S
MBDH82	10176-05S
MBDH83	10176-06S
MBDH84	10176-07S
MBDH84D	10176-07S2
MBDH84S	10176-07DS
MBDH89	10176-08S
MBDH89D	10176-08S2
MBDH89S	10176-08DS
MBDH90	10176-09S
MBDH91	10176-10S
MBDH92	10176-11S
MBDH93	10176-12S
MBDH94	10176-13S
MBDH95	10176-14S
MBDH99	10176-15S
MBDW01	10176-16S

e ICP interelement corrections applied? Yes/No YES

e ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

mments:

ertify that this data package is in compliance with the terms and onditions of the contract, both technically and for completeness, for ther than the conditions detailed above. Release of the data contained n this hardcopy data package and in the computer-readable data submitted n floppy diskette has been authorized by the Laboratory Manager or the anager's designee, as verified by the following signature.

ignature: Kirk Johnson Name: Kirk D. Johnson

ate: 11/19/90 Title: Inorganic Data Auditor

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH66

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0083

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): WATER Lab Sample ID: 10176-02S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	165.00	B		P
7440-36-0	Antimony	30.00	U		P
7440-38-2	Arsenic	2.00	U	W	F
7440-39-3	Barium	14.00	B		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	3.00	U		P
7440-70-2	Calcium	47000.00			P
7440-47-3	Chromium	5.40	B		P
7440-48-4	Cobalt	7.00	U		P
7440-50-8	Copper	48.00			P
7439-89-6	Iron	71.50	B	E	P
7439-92-1	Lead	3.00	B		F
7439-95-4	Magnesium	17100.00			P
7439-96-5	Manganese	1.40	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	6.00	U		P
7440-09-7	Potassium	785.00	B		P
7782-49-2	Selenium	2.00	U		F
7440-22-4	Silver	5.00	U		P
7440-23-5	Sodium	2820.00	B		P
7440-28-0	Thallium	2.00	U	W	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	~~184.00~~			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

404

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH67

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-04-0033

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): WATER Lab Sample ID: 10176-03S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	62700.00			P
7440-36-0	Antimony	30.00	U		P
7440-38-2	Arsenic	11.60			F
7440-39-3	Barium	394.00		J	P
7440-41-7	Beryllium	3.60	B		P
7440-41-7	Cadmium	3.00	U		P
7440-70-2	Calcium	406000.00			P
7440-47-3	Chromium	232.00			P
7440-48-4	Cobalt	68.50			P
7440-50-8	Copper	174.00			P
7439-89-6	Iron	129000.00		E J	P
7439-92-1	Lead	74.40			F
7439-95-4	Magnesium	144000.00			P
7439-96-5	Manganese	~~3320.00~~			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	132.00			P
7440-09-7	Potassium	10200.00			P
7782-49-2	Selenium	10.00	U	MW	F
7440-22-4	Silver	5.00	U		P
7440-23-5	Sodium	7860.00		J	P
7440-28-0	Thallium	2.00	U	W J	F
7440-62-2	Vanadium	128.00			P
7440-66-6	Zinc	~~352.00~~			P
	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture:

Color After: BROWN Clarity After: OPAQUE Artifacts:

Comments:

405

000005

U.S. EPA - CLP

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH81

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0088

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): WATER Lab Sample ID: 10176-04S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6930.00			P
7440-36-0	Antimony	30.00	U		P
7440-38-2	Arsenic	5.20	B		F
7440-39-3	Barium	65.20	B	J	P
7440-41-7	Beryllium	1.60	B		P
7440-41-7	Cadmium	3.00	U		P
7440-70-2	Calcium	108000.00			P
7440-47-3	Chromium	28.30		J	P
7440-48-4	Cobalt	12.70	B		P
7440-50-8	Copper	32.40			P
7439-89-6	Iron	18200.00		E	P
7439-92-1	Lead	14.70			F
7439-95-4	Magnesium	25300.00			P
7439-96-5	Manganese	~~725.00~~			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	52.80			P
7440-09-7	Potassium	2200.00	B		P
7782-49-2	Selenium	2.00	U	W	F
7440-22-4	Silver	5.00	U		P
7440-23-5	Sodium	2000.00	B		P
7440-28-0	Thallium	2.00	U	W	F
7440-62-2	Vanadium	18.40	B		P
7440-66-6	Zinc	~~97.70~~			P
	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture:

Color After: BROWN Clarity After: OPAQUE Artifacts:

Comments:

406

000006

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

M8DH8C

Lab Name: SKINNER & SHEPMAN LABS. Contract: 68-03-0088

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: M8DD17

Matrix (soil/water): WATER Lab Sample ID: 10176-05S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8790.00			P
7440-36-0	Antimony	30.00	U		P
7440-38-2	Arsenic	6.40	B		F
7440-39-3	Barium	76.60	B		P
7440-41-7	Beryllium	1.20	B		P
7440-41-7	Cadmium	3.00	U		P
7440-70-2	Calcium	115000.00			P
7440-47-3	Chromium	18.80			P
7440-48-4	Cobalt	13.30	B		P
7440-50-8	Copper	32.10			P
7439-89-6	Iron	19700.00		E	P
7439-92-1	Lead	17.60			F
7439-95-4	Magnesium	28500.00			P
7439-96-5	Manganese	~~802.00~~			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	58.40			P
7440-09-7	Potassium	2850.00	B		P
7782-49-2	Selenium	2.00	U	W	F
7440-22-4	Silver	5.00	U		P
7440-23-5	Sodium	2220.00	B		P
7440-28-0	Thallium	2.00	U	W	F
7440-62-2	Vanadium	21.20	B		P
7440-66-6	Zinc	~~101.00~~			P
	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture:

Color After: BROWN Clarity After: OPAQUE Artifacts:

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH83

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0088

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): WATER Lab Sample ID: 10176-06S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.00	U		P
7440-36-0	Antimony	30.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	2.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	3.00	U		P
7440-70-2	Calcium	346.00	B		P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	7.00	U		P
7440-50-8	Copper	16.40	B		P
7439-89-6	Iron	600.00		E	P
7439-92-1	Lead	4.20			F
7439-95-4	Magnesium	191.00	B		P
7439-96-5	Manganese	5.40	B		P
7439-97-6	Mercury	0.44			CV
7440-02-0	Nickel	6.60	B		P
7440-09-7	Potassium	164.00	B		P
7782-49-2	Selenium	2.00	U		F
7440-22-4	Silver	5.00	U		P
7440-23-5	Sodium	180000.00			P
7440-28-0	Thallium	10.00	U	W	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	47.00			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

408

000008

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH84

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-03-0088

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): WATER Lab Sample ID: 10176-07S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.00	U		P
7440-36-0	Antimony	30.00	U		P
7440-38-2	Arsenic	2.30	B		F
7440-39-3	Barium	26.10	B		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	3.00	U		P
7440-70-2	Calcium	60600.00			P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	7.00	U		P
7440-50-8	Copper	6.00	B		P
7439-89-6	Iron	2190.00		E	P
7439-92-1	Lead	2.10	B		F
7439-95-4	Magnesium	23800.00			P
7439-96-5	Manganese	~~40.60~~			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	6.00	U		P
7440-09-7	Potassium	1200.00	B		P
7782-49-2	Selenium	2.00	U		F
7440-22-4	Silver	5.00	U		P
7440-23-5	Sodium	6230.00			P
7440-28-0	Thallium	2.00	U	W	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	~~104.00~~			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

409

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH89

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D0-0088

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): SOIL Lab Sample ID: 10176-08S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 93.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3130.00			P
7440-36-0	Antimony	5.70	U	N J	P
7440-38-2	Arsenic	2.70			F
7440-39-3	Barium	48.00			P
7440-41-7	Beryllium	0.19	U		P
7440-41-7	Cadmium	0.57	U		P
7440-70-2	Calcium	61500.00			P
7440-47-3	Chromium	4.00			P
7440-48-4	Cobalt	4.20	B		P
7440-50-8	Copper	8.70		J	P
7439-89-6	Iron	7890.00			P
7439-92-1	Lead	6.10		N* J	F
7439-95-4	Magnesium	17100.00			P
7439-96-5	Manganese	~~309.00~~		~~N*~~	F
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	6.20	B		P
7440-09-7	Potassium	297.00	B	J	P
7782-49-2	Selenium	0.38	U		F
7440-22-4	Silver	0.95	U		P
7440-23-5	Sodium	64.20	B	J	P
7440-28-0	Thallium	0.38	U	NW J	F
7440-62-2	Vanadium	8.60	B	J	P
7440-66-6	Zinc	~~19.10~~			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROOTS

410

000040

U.S. EPA

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH90

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0080

Lab Code: SKINER Case No.: 19130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): SOIL Lab Sample ID: 10176-095

Level (low/med): LOW Date Received: 10/19/90

% Solids: 30.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3440.00		-	P
7440-36-0	Antimony	17.60	U	N -	P
7440-38-2	Arsenic	1.50	B	-	F
7440-39-3	Barium	77.30	B	-	P
7440-41-7	Beryllium	0.59	U	-	P
7440-41-7	Cadmium	1.80	U	-	P
7440-70-2	Calcium	36500.00			P
7440-47-3	Chromium	10.90		-	P
7440-48-4	Cobalt	4.10	U	-	P
7440-50-8	Copper	21.10		-	P
7439-89-6	Iron	3450.00		-	P
7439-92-1	Lead	5.90		N*	F
7439-95-4	Magnesium	1650.00	B	-	P
7439-96-5	Manganese	~~859.00~~		N*	P
7439-97-6	Mercury	0.28	U	-	CV
7440-02-0	Nickel	9.60	B	-	P
7440-09-7	Potassium	2100.00	B	-	P
7782-49-2	Selenium	1.10	U	W	F
7440-22-4	Silver	2.90	U		P
7440-23-5	Sodium	677.00	B		P
7440-28-0	Thallium	1.10	U	NW	F
7440-62-2	Vanadium	7.10	B		P
7440-66-6	Zinc	~~82.90~~			P
	Cyanide				NR

Color Before: BLACK Clarity Before: Texture: FINE

Color After: BLACK Clarity After: Artifacts: YES

Comments:

MOLDY. ROTTING PAPER

411

000011

EPA - CLP

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

M8DH91

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D4-0032

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: M8DD17

Matrix (soil/water): SOIL Lab Sample ID: 10176-10S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 87.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3400.00			P
7440-36-0	Antimony	6.00	U	NJ	P
7440-38-2	Arsenic	1.40	B		F
7440-39-3	Barium	17.40	B		P
7440-41-7	Beryllium	0.20	U		P
7440-41-7	Cadmium	0.60	U		P
7440-70-2	Calcium	49600.00			P
7440-47-3	Chromium	5.40			P
7440-48-4	Cobalt	4.00	B	J	P
7440-50-8	Copper	7.00		J	P
7439-89-6	Iron	9610.00			P
7439-92-1	Lead	~~1.90~~		~~N*~~	F
7439-95-4	Magnesium	13300.00			P
7439-96-5	Manganese	~~162.00~~		N*	P
7439-97-6	Mercury	0.09 ~~0.10~~	U		CV
7440-02-0	Nickel	6.50	B	J	P
7440-09-7	Potassium	380.00	B	J	P
7782-49-2	Selenium	0.41	U		F
7440-22-4	Silver	1.00	U		P
7440-23-5	Sodium	110.00	B	J	P
7440-28-0	Thallium	0.41	U	NW J	F
7440-62-2	Vanadium	8.90	B	J	P
7440-66-6	Zinc	~~27.70~~			P
	Cyanide				NR

KOK 11/19/90

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: BLACK Clarity After: Artifacts: YES

Comments:

ROCKS

412

000012

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH92

Lab Name: SKINNER & SHERMAN LABS Contract: 68-D9-0088

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): SOIL Lab Sample ID: 10176-11S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 84.6

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3600.00			P
7440-36-0	Antimony	6.60	U	NJ	P
7440-38-2	Arsenic	2.00	B		F
7440-39-3	Barium	17.90	B		P
7440-41-7	Beryllium	0.22	U		P
7440-41-7	Cadmium	0.66	U		P
7440-70-2	Calcium	59700.00			P
7440-47-3	Chromium	4.20			P
7440-48-4	Cobalt	27.70		J	P
7440-50-8	Copper	14.70		J	P
7439-89-6	Iron	7890.00			P
7439-92-1	Lead	~~1.90~~		~~N*~~	F
7439-95-4	Magnesium	20300.00			P
7439-96-5	Manganese	~~2550.00~~		~~N*~~	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	28.30		J	P
7440-09-7	Potassium	242.00	B		P
7782-49-2	Selenium	0.45	U		F
7440-22-4	Silver	1.10	U		P
7440-23-5	Sodium	77.10	B		P
7440-28-0	Thallium	0.45	U	NW	F
7440-62-2	Vanadium	7.20	B		P
7440-66-6	Zinc	~~47.30~~			P
	Cyanide				NR

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: BLACK Clarity After: Artifacts: YES

Comments:

ROCKS

413

000013

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH93

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-09-0088

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): SOIL Lab Sample ID: 10176-12S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 81.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3360.00			P
7440-36-0	Antimony	5.80	U	NJ	P
7440-38-2	Arsenic	2.30			F
7440-39-3	Barium	25.50	B		P
7440-41-7	Beryllium	0.19	U		P
7440-41-7	Cadmium	0.58	U		P
7440-70-2	Calcium	49000.00			P
7440-47-3	Chromium	5.00			P
7440-48-4	Cobalt	4.40	B		P
7440-50-8	Copper	5.40			P
7439-89-6	Iron	8610.00			P
7439-92-1	Lead	~~2.40~~		~~N*~~	F
7439-95-4	Magnesium	12000.00			P
7439-96-5	Manganese	~~308.00~~		~~N*~~	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	6.70	B		P
7440-09-7	Potassium	474.00	B	J	P
7782-49-2	Selenium	0.38	U		F
7440-22-4	Silver	0.97	U		P
7440-23-5	Sodium	74.60	B	J	P
7440-28-0	Thallium	0.38	U	NWJ	F
7440-62-2	Vanadium	8.20	B		P
7440-66-6	Zinc	~~20.80~~			P
	Cyanide				NR

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: BLACK Clarity After: Artifacts: YES

Comments:

ROCKS

414

000014

EPA - CLP

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH94

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D4-0022

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): SOIL Lab Sample ID: 10176-13S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 83.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9130.00			P
7440-36-0	Antimony	6.60	U	N	P
7440-38-2	Arsenic	3.50			F
7440-39-3	Barium	108.00			P
7440-41-7	Beryllium	0.22	U		P
7440-41-7	Cadmium	0.66	U		P
7440-70-2	Calcium	1710.00			P
7440-47-3	Chromium	13.60			P
7440-48-4	Cobalt	6.30	B		P
7440-50-8	Copper	5.30			P
7439-89-6	Iron	13800.00			P
7439-92-1	Lead	~~24.00~~		~~N*~~	F
7439-95-4	Magnesium	1820.00			P
7439-96-5	Manganese	~~930.00~~		~~N*~~	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	11.70			P
7440-09-7	Potassium	353.00	B		P
7782-49-2	Selenium	~~0.92~~	~~B~~		F
7440-22-4	Silver	1.10	U		P
7440-23-5	Sodium	31.30	B		P
7440-28-0	Thallium	0.44	U	N	F
7440-62-2	Vanadium	19.10			P
7440-66-6	Zinc	~~45.10~~			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

ROOTS

415

000015

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH95

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D4-0038

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): SOIL Lab Sample ID: 10176-14S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 84.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3670.00			P
7440-36-0	Antimony	5.60	U	NJ	P
7440-38-2	Arsenic	2.40			F
7440-39-3	Barium	20.10	B		P
7440-41-7	Beryllium	0.19	U		P
7440-41-7	Cadmium	0.56	U		P
7440-70-2	Calcium	24900.00			P
7440-47-3	Chromium	5.60			P
7440-48-4	Cobalt	4.80	B		P
7440-50-8	Copper	6.60		J	P
7439-89-6	Iron	9280.00			P
7439-92-1	Lead	~~2.80~~		~~N*~~	F
7439-95-4	Magnesium	9420.00			P
7439-96-5	Manganese	~~310.00~~		~~N*~~	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	6.30	B		P
7440-09-7	Potassium	368.00	B	J	P
7782-49-2	Selenium	0.43	B	W	F
7440-22-4	Silver	0.94	U		P
7440-23-5	Sodium	78.20	B	J	P
7440-28-0	Thallium	0.40	U	NWJ	F
7440-62-2	Vanadium	8.70	B	J	P
7440-66-6	Zinc	~~18.30~~			P
	Cyanide				NR

Color Before: BLACK Clarity Before: Texture: FINE

Color After: BLACK Clarity After: Artifacts: YES

Comments:

ROCKS

416

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDH99

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-03-0088

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBD017

Matrix (soil/water): WATER Lab Sample ID: 10176-15S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	27.90	B		P
7440-36-0	Antimony	30.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	2.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	3.00	U		P
7440-70-2	Calcium	29.20	B		P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	7.00	U		P
7440-50-8	Copper	3.00	U		P
7439-89-6	Iron	10.00	U	E	P
7439-92-1	Lead	3.20		J	F
7439-95-4	Magnesium	64.00	U		P
7439-96-5	Manganese	2.80	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	6.00	U		P
7440-09-7	Potassium	134.00	U		P
7782-49-2	Selenium	2.00	U	J	F
7440-22-4	Silver	5.00	U		P
7440-23-5	Sodium	48.00	U		P
7440-28-0	Thallium	2.00	U	J	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	~~41.50~~			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

417

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDW01

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): WATER Lab Sample ID: 10176-16S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.00	U		P
7440-36-0	Antimony	30.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	2.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	3.00	U		P
7440-70-2	Calcium	38.20	B		P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	7.00	U		P
7440-50-8	Copper	3.00	U		P
7439-89-6	Iron	10.00	U	E	P
7439-92-1	Lead	3.00	B		F
7439-95-4	Magnesium	64.00	U		P
7439-96-5	Manganese	2.80	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	6.00	U		P
7440-09-7	Potassium	134.00	U		P
7782-49-2	Selenium	2.00	U		F
7440-22-4	Silver	5.00	U		P
7440-23-5	Sodium	48.00	U		P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	~~47.00~~			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

418

000018

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDW02

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D9-0088

Lab Code: SKINER Case No.: 15130 SAS No.: SDG No.: MBDD17

Matrix (soil/water): WATER Lab Sample ID: 10176-17S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.00	U		P
7440-36-0	Antimony	30.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	2.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	3.00	U		P
7440-70-2	Calcium	20.20	B		P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	7.00	U		P
7440-50-8	Copper	3.00	U		P
7439-89-6	Iron	10.00	U	E	P
7439-92-1	Lead	2.00	U	J	F
7439-95-4	Magnesium	64.00	U		P
7439-96-5	Manganese	2.60	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	6.00	U		P
7440-09-7	Potassium	134.00	U		P
7782-49-2	Selenium	2.00	U		F
7440-22-4	Silver	5.00	U		P
7440-23-5	Sodium	48.00	U		P
7440-28-0	Thallium	2.00	U	J	F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	~~66.60~~			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

419

000019

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MBDD17

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-09-0088

Lab Code: SKINER Case No.: 15130 SAS No. SDG No.: MBDD17

Matrix (soil/water): WATER Lab Sample ID: 10176-01S

Level (low/med): LOW Date Received: 10/19/90

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.00	U		P
7440-36-0	Antimony	30.00	U		P
7440-38-2	Arsenic	2.00	U		F
7440-39-3	Barium	2.00	U		P
7440-41-7	Beryllium	1.00	U		P
7440-41-7	Cadmium	3.00	U		P
7440-70-2	Calcium	49.40	B		P
7440-47-3	Chromium	5.00	U		P
7440-48-4	Cobalt	7.00	U		P
7440-50-8	Copper	9.50	B		P
7439-89-6	Iron	10.00	U	E	P
7439-92-1	Lead	2.00	U		F
7439-95-4	Magnesium	64.00	U		P
7439-96-5	Manganese	2.60	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.10	B		P
7440-09-7	Potassium	134.00	U		P
7782-49-2	Selenium	3.50	B	W	F
7440-22-4	Silver	5.00	U		P
7440-23-5	Sodium	48.00	U		P
7440-28-0	Thallium	2.00	U		F
7440-62-2	Vanadium	3.00	U		P
7440-66-6	Zinc	~~61.00~~			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ATTACHMENT 1
SOP NO. HW-6

PAGE __OF__

TOTAL REVIEW

CLP DATA ASSESSMENT

Functional Guidelines for Evaluating Organics Analysis

Case No. 15130 SDG No. BFC14 LABORATORY ~~Anametrix~~ SITE Finch Pruyn

DATA ASSESSMENT:

The current functional guidelines (1988) for evaluating organic data have been applied.

All data are valid and acceptable except those analytes which have been qualified with a "J" (estimated), "U" (non-detects), "R" (unusable),or "JN" (presumptive evidence for the presence of the material at an estimated value). All action is detailed on the attached sheets.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Reviewer's Signature: Dorothy Marian Pinta Date: 12/12/1990

Verified By: Susan Lewczyk Date: 12/14/1990

ATTACHMENT 1
SOP NO. HW-6

DATA ASSESSMENT:

1. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detects (sample quantitation limits) will be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

The following action was taken in the samples and analytes shown due to excessive holding time.

VOA-soil- due to professional judgement, no action was taken for holding time exceedence for samples BFC24, 25, 26, 28, 29, 27, 30. Holding time had been exceeded by 1 day for these samples.

ATTACHMENT 1
SOP NO. HW-6

DATA ASSESSMENT:

2. BLANK CONTAMINATION:

Quality assurance (QA) blanks, i.e., method, trip field, rinse and water blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross- contamination of samples during field operations. If the concentration of the analyte is less than 5 times the blank contaminant level (10 times for the common contaminants), the analytes are qualified as non- detects, "U". The following analytes in the samples shown were qualified with "U" for these reasons:

A) Method blank contamination

VOA-soil- methylene chloride was flagged non detected 'U' in sample BFC25, 26, 27, 28, BFC30, (This analyte was rejected later in sample BFC29 due to bubbles in both the VOA vials)

B) Field or rinse blank contamination ("water blanks" or "distilled water blanks" are validated like any other sample)

C) Trip blank contamination

ATTACHMENT 1
SOP NO. HW-6

DATA ASSESSMENT:

3. MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds, and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is bromofluorobenzene (BFB) and for semi-volatiles is decafluorotriphenyl- phosphine (DFTPP).

If the mass calibration is in error, all associated data will be classified as unusable, "R".

DATA ASSESSMENT:

4. CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) RESPONSE FACTOR:

The response factor measures the instrument's response to specific chemical compounds. The response factor for the Target Compound List (TCL) must be $\geq$ 0.05 in both the initial and continuing calibrations. A value < 0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound will be rejected ("R").

ATTACHMENT 1
SOP NO. HW-6

PAGE__OF__

DATA ASSESSMENT:

5. CALIBRATION:

A) PERCENT RELATIVE STANDARD DEVIATION '%RSD) AND PERCENT DIFFERENCE (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be <30% and %D must be <25%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ" (if %D or RSD >50%). If there is a gross deviation of %RSD and %D, the non-detects may be rejected ("R").

For the PCB/PESTICIDE fraction, %RSD for aldrin, endrin, DDT, and dibutylchlorendate must not exceed 10%. Percent D must be within 15% on the quantitation column and 20% on the confirmation column.

VOA-soil- the %D for cis-1,3-dichloropropane was greater than 50% but <90% in samples BFC 24,26,27,28,29,30 The analyte was qualified estimated 'J' in these samples. (This analyte was later rejected in sample BFC29 due to bubbles in VOA vials).

-water- the %D for trans-1,3-dichloropropane was greater than 50% but <90% in sample BFC18. The analyte was qualified estimated 'J' in this sample.

- the %D for chloromethane was >50% but <90% in samples BFC 14,15,16,17,19,34,35,37,38. The analyte was qualified estimated 'J' in these samples. (This analyte was later rejected in samples BFC14,19 due to bubbles in VOA vials).

- the %D for bromomethane was >50% but <90% in samples BFC 14,15,16,17,19,34,35,37,38. The analyte was qualified 'J' estimated in these samples. (This analyte was later rejected in samples BFC14,19 due to bubbles in the VOA vials).

BNA-soil- the %D for 4-Nitrophenol was greater than 50% but <90% in samples BFC27,28,29,30. The analyte was qualified estimated 'J' in these samples.

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VOA-water- the %D for Trans-1,3-dichloropropene was >50% but <90% in sample BFC18. The analyte was qualified estimated 'J' in these samples.

ATTACHMENT
SOP NO. HW-6

DATA ASSESSMENT:

6. SURROGATES:

All samples are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate concentrations were outside contract specifications, qualifications were applied to the samples and analytes as shown below.

BNA-soil- all analytes in sample BFC24 were qualified estimated J' due to two base neutral surrogates outside QC limits.
-The lab reported SI-nitrobenzene-d5 as 20 (within QC limits), however the calculated value for this surrogate came to ~20.2.

DATA ASSESSMENT:

7. INTERNAL STANDARDS PERFORMANCE:

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than ±30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, the reviewer will use professional judgment to determine either partial or total rejection of the data for that sample fraction.

VOA - soil - chlorobenzene-d5 (internal standard # 3) was < Q.A / QC criteria in sample BFC25. The analytes associated with this internal standard were previously flagged due to soil % moisture exceedance, therefore no further action was taken.

DATA ASSESSMENT:

8. COMPOUND IDENTIFICATION:

A) VOLATILE AND SEMI-VOLATILE FRACTIONS:

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within ± 0.06 RRT units of the standard compound and have an ion spectra which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound. For the tentatively identified compounds (TIC) the ion spectra must match accurately. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications.

B) PESTICIDE FRACTION:

The retention times of reported compounds must fall within the calculated retention time windows for the two chromatographic columns and a GC/MS confirmation is required if the concentration exceeds 10 ng/ml in the final sample extract.

DATA ASSESSMENT:

9. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD may be used in conjunction with other QC criteria for some additional qualification of the data.

ATTACHMENT 1
SOP NO. HW-6

PAGE__OF__

DATA ASSESSMENT:

10. OTHER QC DATA OUT OF SPECIFICATION:

11. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT (continued on next page if necessary):

VOA - soil - sample BFC25 - this surface soil sample contained more than 50% water. All analytes were flagged estimated 'J'.

VOA - due to air bubbles contained in both vials all analytes were ~~flagged~~ rejected in samples BFC14, 19, 25, 29

BNA - soil - sample BFC25 contained more than 50% water. All analytes were flagged estimated 'J'.

Pest - soil - sample BFC25 contained more than 50% water. All analytes were flagged estimated 'J'.

12. CONTRACT PROBLEMS____NON-COMPLIANCE:

VOA - GC/MS Tuning and Mass Form 5A - the lab reported incorrect values on Form 5A for BFB injection date 10/18/90, time 10:10 and BFB injection date 10/29/90, time 10:55 The %RA were within limits.

VOA - continuing calibration Check %D calculation were off by more than + or - 10%

VOA - There was a high acetone hit & a non detect ~~to~~ showing in the field duplicate samples.

13. This package contains re-extraction, re-analysis or dilution. Upon reviewing the QA results, the following form I(s) are identified to be used.

VOA - soil - sample BFC25 was reanalyzed due to one internal standard outside of QC limits. Use BFC25, do not use BFC25RE.

- a dilution reanalysis of sample BFC28 was done. Use samples BFC28, , do no use BFC28DL,

- a reanalysis of sample BFC29 was performed, use sample BFC29RE (DF 10/29/90), do not use BFC29RE

DATA ASSESSMENT:

11. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT (continued):

[illegible] Date: February 1989

Type of Review: Total Date: December 12, 1990 Case #: 15130

Project: Finch Pruyn Lab Name: Anamet

Reviewer's Initials: DP Number of Samples: 18

Analytes Rejected Due to Exceeding Review Criteria:

	Surrogates	Holding Time	Calibration	Contamination	ID	Other	Total # Samples	Total # Rejected/ Total # in all Samples
ds (15)							17	0/255
(50)							17	0/850
(35)				6/6			18	6/630
r (20)							17	0/340
(7)							17	0/119
) (1)							—	—

Analytes Estimated Due to Exceeding Review Criteria for:

			%D			% moisture >50% for soil		
ds (15)			4/4				17	4/255
(50)							17	0/850
(35)			23/15			35/1	18	53/630
r (20)							17	0/340
(7)							17	0/119
) (1)							—	—

DPO: [ ] ACTION [ ] FYI

Repon 2

ORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO. 15130 LABORATORY ANAMET

SDG NO. BFC14 DATA USER FIT 2

SOW _____ REVIEW COMPLETION DATE December 12, 1990

NO. OF SAMPLES 11 WATER 7 SOIL _____ OTHER

REVIEWER [ ] ESD [ ] ESAT [ ] OTHER, CONTRACT/CONTRACTOR _____

	VOA	BNA	PEST	OTHER
1. HOLDING TIMES	O	O	O	
2. GC-MS TUNE/ GC PERFORMANCE	O	O	O	
3. INITIAL CALIBRATIONS	O	O	O	
4. CONTINUING CALIBRATIONS	X	X	O	
5. FIELD BLANKS ('F' = not applicable)	O	O	O	
6. LABORATORY BLANKS	O	O	O	
7. SURROGATES	O	O	O	
8. MATRIX SPIKE/DUPLICATES	O	O	O	
9. REGIONAL QC ('F' = not applicable)	F	F	F	
10. INTERNAL STANDARDS	O	O		
11. COMPOUND IDENTIFICATION	O	O	O	
12. COMPOUND QUANTITATION	O	O	O	
13. SYSTEM PERFORMANCE	X	X	O	
14. OVERALL ASSESSMENT	X	X	O	

O = No problems or minor problems that do not affect data usability.
X = No more than *about* 5% of the data points are qualified as either estimated or unusable.
M = More than *about* 5% of the data points are qualified as estimated.
Z = More than *about* 5% of the data points are qualified as unusable.

DPO ACTION ITEMS: _____

AREAS OF CONCERN: Bubbles and headspace were detected in VOA vials. This is indicative of poor sampling techniques.

RECORD OF COMMUNICATION	☐ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☐ CONFERENCE ☐ OTHER (SPECIFY)
TO: GEORGE KARRAS	FROM: RSCC/ESAT
	DATE: 11/28/90
	TIME

SUBJECT

CLP Organic Data Packages for Quality Assurance Review

SUMMARY OF CONVERSATION

Attached are the following CLP Organic/SAS Data Packages to be reviewed for Quality Assurance.

SITE	CASE/SAS NO.	LABORATORY	MATRIX	NO. of SAMPLES
FINCH PRUYN FITN/SI	15130	ANAMET	WATER SOIL	11 7

CONCLUSIONS, ACTION TAKEN OR REQUIRED

435

INFORMATION COPIES TO:

* SAS NO. FOR ANALYTICAL SERVICES MAY BE USED UNTIL SUPPLY IS EXHAUSTED.

CASE NARRATIVE

Lab Name:	ANAMETRIX, INC.	Case No.:	15130
Contract No.:68-W8-0041		SDG No.:	BFC14
		SAS No.:	5511HQ

SDG Sample No's:	BFC14	BFC15	BFC16	BFC17
	BFC18	BFC19	BFC24	BFC25
	BFC26	BFC27	BFC28	BFC29
	BFC30	BFC34	BFC35	BFC36
	BFC37	BFC38		

Billable Re-analyses: BFC25

Reason: Sample BFC25 had one internal standard outside of QC limits for the volatile analysis. The sample was reanalyzed, but the internal standard was still outside of QC limits.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Sarah Schoen
Laboratory Manager

11-20-90
Date

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NOV 1990
S.F. BRANCH

430

QUALITY CONTROL PROBLEMS:

VOA: The 58 ion was used to quantitate 4-methyl-2-pentanone, instead of the 43 ion, because of coelution with 2-chloroethylvinylether, a non-TCL compound.

Bromofluorobenzene was quantitated by ion 174, instead of ion 95, because of interference from 1,1,2,2-tetrachloroethane.

One internal standard area was outside of the limits for Sample BFC25. The sample was reanalyzed and the limits were again exceeded.

BNA: The water method blank was contaminated with diethylphthalate at 94 µg/L. According to the SOW, all samples associated with the blank should be re-extracted and reanalyzed. Because the extraction hold time had been exceeded by a large amount of time, no reextraction was performed. Anametrix does not feel as though the data reported for these samples was compromised because no diethylphthalate was detected in any sample.

Pesticides:

A mega-bore capillary column, DB-608, was used for the primary analysis.

Sarah Schoen 11-20-90
Sarah Schoen Date
Laboratory Manager

Larry Kent 11-20-90
Larry Kent Date
Quality Assurance Manager

\4098

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC14

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 3ER10247V01

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. Date Analyzed: 10/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	CHLOROMETHANE	10.	UJR
74-83-9	BROMOMETHANE	10.	UJR
75-01-4	VINYL CHLORIDE	10.	UJR
75-00-3	CHLOROETHANE	10.	U
75-09-2	METHYLENE CHLORIDE	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	U
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

Both VOA vials contain bubbles

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC15

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 3ER10247V02

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. Date Analyzed: 10/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	CHLOROMETHANE	10.	UJ
74-83-9	BROMOMETHANE	10.	UJ
75-01-4	VINYL CHLORIDE	10.	U
75-00-3	CHLOROETHANE	10.	U
75-09-2	METHYLENE CHLORIDE	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	U
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC16

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9810247-03

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 3ER10247V03

Level: (low/med) LOW Date Received: 10/19/98

% Moisture: not dec. 100. Date Analyzed: 10/26/98

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	CHLOROMETHANE	10.	U
74-83-9	BROMOMETHANE	10.	U
75-01-4	VINYL CHLORIDE	10.	U
75-00-3	CHLOROETHANE	10.	U
75-09-2	METHYLENE CHLORIDE	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	U
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC17

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-04

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 3EU10247V04

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. Date Analyzed: 10/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	CHLOROMETHANE	10.	U J
74-83-9	BROMOMETHANE	10.	U J
75-01-4	VINYL CHLORIDE	10.	U
75-00-3	CHLOROETHANE	10.	U
75-09-2	METHYLENE CHLORIDE	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	U
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC18

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-05

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 3EU10247V05

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. Date Analyzed: 10/25/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	CHLOROMETHANE	10.	U
74-83-9	BROMOMETHANE	10.	U
75-01-4	VINYL CHLORIDE	10.	U
75-00-3	CHLOROETHANE	10.	U
75-09-2	METHYLENE CHLORIDE	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	U
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY

EPA SAMPLE NO.

BFC19

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-06

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 3ER10247V06

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. Date Analyzed: 10/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

JP 1/11/90

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	CHLOROMETHANE	10.	UJ R
74-83-9	BROMOMETHANE	10.	UJ R
75-01-4	VINYL CHLORIDE	10.	UR
75-00-3	CHLOROETHANE	10.	
75-09-2	METHYLENE CHLORIDE	5.	
67-64-1	ACETONE	10.	
75-15-0	CARBON DISULFIDE	5.	
75-35-4	1,1-DICHLOROETHENE	5.	
75-34-3	1,1-DICHLOROETHANE	5.	
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	
67-66-3	CHLOROFORM	5.	
107-06-2	1,2-DICHLOROETHANE	5.	
78-93-3	2-BUTANONE	10.	
71-55-6	1,1,1-TRICHLOROETHANE	5.	
56-23-5	CARBON TETRACHLORIDE	5.	
108-05-4	VINYL ACETATE	10.	
75-27-4	BROMODICHLOROMETHANE	5.	
78-87-5	1,2-DICHLOROPROPANE	5.	
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	
79-01-6	TRICHLOROETHENE	5.	
124-48-1	DIBROMOCHLOROMETHANE	5.	
79-00-5	1,1,2,-TRICHLOROETHANE	5.	
71-43-2	BENZENE	5.	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	
75-25-2	BROMOFORM	5.	
108-10-1	4-METHYL-2-PENTANONE	10.	
591-78-6	2-HEXANONE	10.	
127-18-4	TETRACHLOROETHENE	5.	
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	
108-88-3	TOLUENE	5.	
108-90-7	CHLOROBENZENE	5.	
100-41-4	ETHYLBENZENE	5.	
100-42-5	STYRENE	5.	
1330-20-7	XYLENE (TOTAL)	5.	UR

FORM I VOA-TIC

All 6 VOA vials contain bubble

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC24

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-07

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1EU10247V07

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 7. Date Analyzed: 10/29/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	11.	U
74-83-9	BROMOMETHANE	11.	U
75-01-4	VINYL CHLORIDE	11.	U
75-00-3	CHLOROETHANE	11.	U
75-09-2	METHYLENE CHLORIDE	5.	U
67-64-1	ACETONE	11.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	U
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	11.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	11.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	11.	U
591-78-6	2-HEXANONE	11.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC25

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-08

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 1EU10247V08

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 68. Date Analyzed: 10/29/90

Column: (pack/cap) CAP Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	160.	UJ R
74-83-9	BROMOMETHANE	160.	UJ R
75-01-4	VINYL CHLORIDE	160.	UJ R
75-00-3	CHLOROETHANE	160.	UJ R
75-09-2	METHYLENE CHLORIDE	7832	B UJ R
67-64-1	ACETONE	160.	UJ R
75-15-0	CARBON DISULFIDE	78.	U
75-35-4	1,1-DICHLOROETHENE	78.	U
75-34-3	1,1-DICHLOROETHANE	78.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	78.	U
67-66-3	CHLOROFORM	78.	U
107-06-2	1,2-DICHLOROETHANE	78.	U
78-93-3	2-BUTANONE	160.	U
71-55-6	1,1,1-TRICHLOROETHANE	78.	U
56-23-5	CARBON TETRACHLORIDE	78.	U
108-05-4	VINYL ACETATE	160.	U
75-27-4	BROMODICHLOROMETHANE	78.	U
78-87-5	1,2-DICHLOROPROPANE	78.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	78.	U
79-01-6	TRICHLOROETHENE	78.	U
124-48-1	DIBROMOCHLOROMETHANE	78.	U
79-00-5	1,1,2,-TRICHLOROETHANE	78.	U
71-43-2	BENZENE	78.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	78.	U
75-25-2	BROMOFORM	78.	U
108-10-1	4-METHYL-2-PENTANONE	160.	U
591-78-6	2-HEXANONE	160.	U
127-18-4	TETRACHLOROETHENE	78.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	78.	U
108-88-3	TOLUENE	78.	U
108-90-7	CHLOROBENZENE	78.	U
100-41-4	ETHYLBENZENE	78.	U
100-42-5	STYRENE	78.	U
1330-20-7	XYLENE (TOTAL)	78.	U R

Both VOA vials had head-space

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ATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC25

[redacted]ame: ANAMET Contract: 68-W8-0041

Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

ix: (soil/water) SOIL Lab Sample ID: 9010247-08

ple wt/vol: 1.0 (g/mL) G Lab File ID: 1EU10247V08

l: (low/med) LOW Date Received: 10/19/90

Moisture: not dec. 68. Date Analyzed: 10/29/90

lumn: (pack/cap) CAP Dilution Factor: 5.00

ber TICs found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	3.45	100.	J
2.	- -	UNKNOWN	4.15	80.	J
3.	4889-83-2	BICYCLO[3.1.1]HEPT-2-ENE, 3,	15.22	100.	J
4.	- -	UNKNOWN	16.30	60.	J
5.	- -	UNKNOWN	16.83	60.	J
6.	- -	UNKNOWN	17.38	200.	J
7.	- -	UNKNOWN	17.57	60.	J
8.	- -	UNKNOWN	17.62	60.	J
9.	- -	UNKNOWN	17.93	200.	J
10.	- -	UNKNOWN	18.15	100.	J
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
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FORM I VOA-TIC 1/87 Rev.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC25 RE

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-08

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 1ER10247V08

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 68. Date Analyzed: 10/29/90

Column: (pack/cap) CAP Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	160.	U
74-83-9	BROMOMETHANE	160.	U
75-01-4	VINYL CHLORIDE	160.	U
75-00-3	CHLOROETHANE	160.	U
75-09-2	METHYLENE CHLORIDE	78.	BJ
67-64-1	ACETONE	160.	U
75-15-0	CARBON DISULFIDE	78.	U
75-35-4	1,1-DICHLOROETHENE	78.	U
75-34-3	1,1-DICHLOROETHANE	78.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	78.	U
67-66-3	CHLOROFORM	78.	U
107-06-2	1,2-DICHLOROETHANE	78.	U
78-93-3	2-BUTANONE	160.	U
71-55-6	1,1,1-TRICHLOROETHANE	78.	U
56-23-5	CARBON TETRACHLORIDE	78.	U
108-05-4	VINYL ACETATE	160.	U
75-27-4	BROMODICHLOROMETHANE	78.	U
78-87-5	1,2-DICHLOROPROPANE	78.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	78.	U
79-01-6	TRICHLOROETHENE	78.	U
124-48-1	DIBROMOCHLOROMETHANE	78.	U
79-00-5	1,1,2,-TRICHLOROETHANE	78.	U
71-43-2	BENZENE	78.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	78.	U
75-25-2	BROMOFORM	78.	U
108-10-1	4-METHYL-2-PENTANONE	160.	U
591-78-6	2-HEXANONE	160.	U
127-18-4	TETRACHLOROETHENE	78.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	78.	U
108-88-3	TOLUENE	78.	U
108-90-7	CHLOROBENZENE	78.	U
100-41-4	ETHYLBENZENE	78.	U
100-42-5	STYRENE	78.	U
1330-20-7	XYLENE (TOTAL)	78.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC26

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-09

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1EU10247V09

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 13. Date Analyzed: 10/29/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	11.	U
74-83-9	BROMOMETHANE	11.	U
75-01-4	VINYL CHLORIDE	11.	U
75-00-3	CHLOROETHANE	11.	U
75-09-2	METHYLENE CHLORIDE	6 ~~5~~.	~~BJ~~ J
67-64-1	ACETONE	11.	U
75-15-0	CARBON DISULFIDE	6.	U
75-35-4	1,1-DICHLOROETHENE	6.	U
75-34-3	1,1-DICHLOROETHANE	6.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	6.	U
67-66-3	CHLOROFORM	6.	U
107-06-2	1,2-DICHLOROETHANE	6.	U
78-93-3	2-BUTANONE	11.	U
71-55-6	1,1,1-TRICHLOROETHANE	6.	U
56-23-5	CARBON TETRACHLORIDE	6.	U
108-05-4	VINYL ACETATE	11.	U
75-27-4	BROMODICHLOROMETHANE	6.	U
78-87-5	1,2-DICHLOROPROPANE	6.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	6.	U
79-01-6	TRICHLOROETHENE	6.	U
124-48-1	DIBROMOCHLOROMETHANE	6.	U
79-00-5	1,1,2,-TRICHLOROETHANE	6.	U
71-43-2	BENZENE	6.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	6.	U
75-25-2	BROMOFORM	6.	U
108-10-1	4-METHYL-2-PENTANONE	11.	U
591-78-6	2-HEXANONE	11.	U
127-18-4	TETRACHLOROETHENE	6.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	6.	U
108-88-3	TOLUENE	6.	U
108-90-7	CHLOROBENZENE	6.	U
100-41-4	ETHYLBENZENE	6.	U
100-42-5	STYRENE	6.	U
1330-20-7	XYLENE (TOTAL)	6.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC27

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247V10

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1EU10247V10

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 12. Date Analyzed: 10/29/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	11.	U
74-83-9	BROMOMETHANE	11.	U
75-01-4	VINYL CHLORIDE	11.	U
75-00-3	CHLOROETHANE	11.	U
75-09-2	METHYLENE CHLORIDE	5.	B U
67-64-1	ACETONE	160.	
75-15-0	CARBON DISULFIDE	6.	U
75-35-4	1,1-DICHLOROETHENE	6.	U
75-34-3	1,1-DICHLOROETHANE	6.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	6.	U
67-66-3	CHLOROFORM	6.	U
107-06-2	1,2-DICHLOROETHANE	6.	U
78-93-3	2-BUTANONE	11.	U
71-55-6	1,1,1-TRICHLOROETHANE	6.	U
56-23-5	CARBON TETRACHLORIDE	6.	U
108-05-4	VINYL ACETATE	11.	U
75-27-4	BROMODICHLOROMETHANE	6.	U
78-87-5	1,2-DICHLOROPROPANE	6.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	6.	U
79-01-6	TRICHLOROETHENE	6.	U
124-48-1	DIBROMOCHLOROMETHANE	6.	U
79-00-5	1,1,2,-TRICHLOROETHANE	6.	U
71-43-2	BENZENE	6.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	6.	U
75-25-2	BROMOFORM	6.	U
108-10-1	4-METHYL-2-PENTANONE	11.	U
591-78-6	2-HEXANONE	11.	U
127-18-4	TETRACHLOROETHENE	6.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	6.	U
108-88-3	TOLUENE	6.	U
108-90-7	CHLOROBENZENE	6.	U
100-41-4	ETHYLBENZENE	6.	U
100-42-5	STYRENE	6.	U
1330-20-7	XYLENE (TOTAL)	6.	U

1E-

ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC27

Contract: 68-W8-0041

Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

(low/med) SOIL Lab Sample ID: 9010247V10

Vol: 5.0 (g/mL) G Lab File ID: 1EU10247V10

(low/med) LOW Date Received: 10/19/90

Moisture: not dec. 12. Date Analyzed: 10/29/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CONCENTRATION UNITS:
Number TICs found: 2 (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	3.57	5.	JN
2.	535-77-3	BENZENE, 1-METHYL-3-(1-METHY	17.08	7.	JN
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

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VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC28

) Name: ANAMET Contract: 68-W8-0041

ab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

rix: (soil/water) SOIL Lab Sample ID: 9010247-11

ample wt/vol: 5.0 (g/mL) G Lab File ID: 1EU10247U11

evel: (low/med) LOW Date Received: 10/19/90

oisture: not dec. 16. Date Analyzed: 10/29/90

olumn: (pack/cap) CAP Dilution Factor: 1.00

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CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
	Use these data		
74-87-3	CHLOROMETHANE	12.	U
74-83-9	BROMOMETHANE	12.	U
75-01-4	VINYL CHLORIDE	12.	U
75-00-3	CHLOROETHANE	12.	U
75-09-2	METHYLENE CHLORIDE	6 ~~6~~.	~~U~~ B
67-64-1	ACETONE	250 ~~260~~.	~~U~~ B
75-15-0	CARBON DISULFIDE	8.	
75-35-4	1,1-DICHLOROETHENE	6.	U
75-34-3	1,1-DICHLOROETHANE	6.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	6.	U
67-66-3	CHLOROFORM	6.	U
107-06-2	1,2-DICHLOROETHANE	6.	U
78-93-3	2-BUTANONE	12.	U
71-55-6	1,1,1-TRICHLOROETHANE	6.	U
56-23-5	CARBON TETRACHLORIDE	6.	U
108-05-4	VINYL ACETATE	12.	U
75-27-4	BROMODICHLOROMETHANE	6.	U
78-87-5	1,2-DICHLOROPROPANE	6.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	6.	U J
79-01-6	TRICHLOROETHENE	6.	U
124-48-1	DIBROMOCHLOROMETHANE	6.	U
79-00-5	1,1,2,-TRICHLOROETHANE	6.	U
71-43-2	BENZENE	6.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	6.	U
75-25-2	BROMOFORM	6.	U
108-10-1	4-METHYL-2-PENTANONE	12.	U
591-78-6	2-HEXANONE	12.	U
127-18-4	TETRACHLOROETHENE	6.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	6.	U
108-88-3	TOLUENE	6.	U
108-90-7	CHLOROBENZENE	6.	U
100-41-4	ETHYLBENZENE	6.	U
100-42-5	STYRENE	6.	U
1330-20-7	XYLENE (TOTAL)	6.	U

Analyte value transfered from BFC28DL dilution analysis.

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EPA SAMPLE NO.

ORGANICS ANALYSIS DATA SHEET
TIVELY IDENTIFIED COMPOUNDS

BFC28

Contract: 68-W8-0041

NAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

(oil/water) SOIL Lab Sample ID: 9010247-11

t/vol: 5.0 (g/mL) G Lab File ID: 1EU10247U11

(low/med) LOW Date Received: 10/19/90

isture: not dec. 16. Date Analyzed: 10/29/90

on: (pack/cap) CAP Dilution Factor: 1.00

CONCENTRATION UNITS:
umber TICs found: 3 (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	3.60	10.	JN
2.	- -	UNKNOWN	15.68	8.	JN
3.	535-77-3	BENZENE, 1-METHYL-3-(1-METHY	17.08	20.	JN
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
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26.					
27.					
28.					
29.					
30.					

VOLATILE ORGANICS ANALYSIS DATA SHEET

BFC28 DL

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-11

Sample wt/vol: 2.5 (g/mL) G Lab File ID: 1ER10247V11

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 16. Date Analyzed: 10/29/90

Column: (pack/cap) CAP Dilution Factor: 2.00

12/07/90

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	CHLOROMETHANE	24.	U	
74-83-9	BROMOMETHANE	24.	U	
75-01-4	VINYL CHLORIDE	24.	U	
75-00-3	CHLOROETHANE	24.	U	
75-09-2	METHYLENE CHLORIDE	11.	BJ	D
67-64-1	ACETONE	250.		D
75-15-0	CARBON DISULFIDE	12.	U	
75-35-4	1,1-DICHLOROETHENE	12.	U	
75-34-3	1,1-DICHLOROETHANE	12.	U	
540-59-0	1,2-DICHLOROETHENE (TOTAL)	12.	U	
67-66-3	CHLOROFORM	12.	U	
107-06-2	1,2-DICHLOROETHANE	12.	U	
78-93-3	2-BUTANONE	24.	U	
71-55-6	1,1,1-TRICHLOROETHANE	12.	U	
56-23-5	CARBON TETRACHLORIDE	12.	U	
108-05-4	VINYL ACETATE	24.	U	
75-27-4	BROMODICHLOROMETHANE	12.	U	
78-87-5	1,2-DICHLOROPROPANE	12.	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	12.	U	
79-01-6	TRICHLOROETHENE	12.	U	
124-48-1	DIBROMOCHLOROMETHANE	12.	U	
79-00-5	1,1,2,-TRICHLOROETHANE	12.	U	
71-43-2	BENZENE	12.	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	12.	U	
75-25-2	BROMOFORM	12.	U	
108-10-1	4-METHYL-2-PENTANONE	24.	U	
591-78-6	2-HEXANONE	24.	U	
127-18-4	TETRACHLOROETHENE	12.	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	12.	U	
108-88-3	TOLUENE	12.	U	
108-90-7	CHLOROBENZENE	12.	U	
100-41-4	ETHYLBENZENE	12.	U	
100-42-5	STYRENE	12.	U	
1330-20-7	XYLENE (TOTAL)	12.	U	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC29

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-12

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 1EU10247V12

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 16. Date Analyzed: 10/29/90

Column: (pack/cap) CAP Dilution Factor: 5.00

Use these data

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	60.	UR
74-83-9	BROMOMETHANE	60.	U
75-01-4	VINYL CHLORIDE	60.	U
75-00-3	CHLOROETHANE	60.	UR
75-09-2	METHYLENE CHLORIDE	31.	XR
67-64-1	ACETONE	60.	R
75-15-0	CARBON DISULFIDE	30.	U
75-35-4	1,1-DICHLOROETHENE	30.	U
75-34-3	1,1-DICHLOROETHANE	30.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	30.	U
67-66-3	CHLOROFORM	30.	U
107-06-2	1,2-DICHLOROETHANE	30.	U
78-93-3	2-BUTANONE	60.	U
71-55-6	1,1,1-TRICHLOROETHANE	30.	U
56-23-5	CARBON TETRACHLORIDE	30.	U
108-05-4	VINYL ACETATE	60.	U
75-27-4	BROMODICHLOROMETHANE	30.	U
78-87-5	1,2-DICHLOROPROPANE	30.	UR
10061-01-5	CIS-1,3-DICHLOROPROPENE	30.	UR
79-01-6	TRICHLOROETHENE	30.	UR
124-48-1	DIBROMOCHLOROMETHANE	30.	U
79-00-5	1,1,2,-TRICHLOROETHANE	30.	U
71-43-2	BENZENE	30.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	30.	U
75-25-2	BROMOFORM	30.	U
108-10-1	4-METHYL-2-PENTANONE	60.	U
591-78-6	2-HEXANONE	60.	U
127-18-4	TETRACHLOROETHENE	30.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	30.	U
108-88-3	TOLUENE	30.	U
108-90-7	CHLOROBENZENE	30.	U
100-41-4	ETHYLBENZENE	30.	U
100-42-5	STYRENE	30.	U
1330-20-7	XYLENE (TOTAL)	30.	UR

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC29 RE

a Name: ANAMET Contract: 68-W8-0041

ab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

a rix: (soil/water) SOIL Lab Sample ID: 9010247-12

ample wt/vol: 5.0 (g/mL) G Lab File ID: 1ER10247U12

evel: (low/med) LOW Date Received: 10/19/90

Moisture: not dec. 16. Date Analyzed: 10/29/90

olumn: (pack/cap) CAP Dilution Factor: 1.00

Do not use these data

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	12.	U
74-83-9	BROMOMETHANE	12.	U
75-01-4	VINYL CHLORIDE	12.	U
75-00-3	CHLOROETHANE	12.	U
75-09-2	METHYLENE CHLORIDE	6.	U
67-64-1	ACETONE	12.	U
75-15-0	CARBON DISULFIDE	6.	U
75-35-4	1,1-DICHLOROETHENE	6.	U
75-34-3	1,1-DICHLOROETHANE	6.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	6.	U
67-66-3	CHLOROFORM	6.	U
107-06-2	1,2-DICHLOROETHANE	6.	U
78-93-3	2-BUTANONE	12.	U
71-55-6	1,1,1-TRICHLOROETHANE	6.	U
56-23-5	CARBON TETRACHLORIDE	6.	U
108-05-4	VINYL ACETATE	12.	U
75-27-4	BROMODICHLOROMETHANE	6.	U
78-87-5	1,2-DICHLOROPROPANE	6.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	6.	U
79-01-6	TRICHLOROETHENE	6.	U
124-48-1	DIBROMOCHLOROMETHANE	6.	U
79-00-5	1,1,2,-TRICHLOROETHANE	6.	U
71-43-2	BENZENE	6.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	6.	U
75-25-2	BROMOFORM	6.	U
108-10-1	4-METHYL-2-PENTANONE	12.	U
591-78-6	2-HEXANONE	12.	U
127-18-4	TETRACHLOROETHENE	6.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	6.	U
108-88-3	TOLUENE	6.	U
108-90-7	CHLOROBENZENE	6.	U
100-41-4	ETHYLBENZENE	6.	U
100-42-5	STYRENE	6.	U
1330-20-7	XYLENE (TOTAL)	6.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC30

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-13

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1EU10247V13

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 11. Date Analyzed: 10/29/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	CHLOROMETHANE	11.	U
74-83-9	BROMOMETHANE	11.	U
75-01-4	VINYL CHLORIDE	11.	U
75-00-3	CHLOROETHANE	11.	U
75-09-2	METHYLENE CHLORIDE	6.	BU
67-64-1	ACETONE	190.	
75-15-0	CARBON DISULFIDE	15.	
75-35-4	1,1-DICHLOROETHENE	6.	U
75-34-3	1,1-DICHLOROETHANE	6.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	6.	U
67-66-3	CHLOROFORM	6.	U
107-06-2	1,2-DICHLOROETHANE	6.	U
78-93-3	2-BUTANONE	38.	
71-55-6	1,1,1-TRICHLOROETHANE	6.	U
56-23-5	CARBON TETRACHLORIDE	6.	U
108-05-4	VINYL ACETATE	11.	U
75-27-4	BROMODICHLOROMETHANE	6.	U
78-87-5	1,2-DICHLOROPROPANE	6.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	6.	U
79-01-6	TRICHLOROETHENE	6.	U
124-48-1	DIBROMOCHLOROMETHANE	6.	U
79-00-5	1,1,2,-TRICHLOROETHANE	6.	U
71-43-2	BENZENE	6.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	6.	U
75-25-2	BROMOFORM	6.	U
108-10-1	4-METHYL-2-PENTANONE	11.	U
591-78-6	2-HEXANONE	11.	U
127-18-4	TETRACHLOROETHENE	6.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	6.	U
108-88-3	TOLUENE	6.	U
108-90-7	CHLOROBENZENE	6.	U
100-41-4	ETHYLBENZENE	6.	U
100-42-5	STYRENE	6.	U
1330-20-7	XYLENE (TOTAL)	6.	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC34

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-14

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 3EU10247U14

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. Date Analyzed: 10/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	CHLOROMETHANE	10.	U
74-83-9	BROMOMETHANE	10.	U
75-01-4	VINYL CHLORIDE	10.	U
75-00-3	CHLOROETHANE	10.	U
75-09-2	METHYLENE CHLORIDE	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC35

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-15

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 3EU10247V15

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. Date Analyzed: 10/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	CHLOROMETHANE	10.	U
74-83-9	BROMOMETHANE	10.	U
75-01-4	VINYL CHLORIDE	10.	U
75-00-3	CHLOROETHANE	10.	U
75-09-2	METHYLENE CHLORIDE	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	J
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC36

a Name: ANAMET Contract: 68-W8-0041

ab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

a rix: (soil/water) WATER Lab Sample ID: 9010247-16

ample wt/vol: 5.0 (g/mL) ML Lab File ID: 3EU10247V16

e el: (low/med) LOW Date Received: 10/19/90

oisture: not dec. 100. Date Analyzed: 10/26/90

olumn: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	CHLOROMETHANE	10.	U
74-83-9	BROMOMETHANE	10.	U
75-01-4	VINYL CHLORIDE	10.	U
75-00-3	CHLOROETHANE	10.	U
75-09-2	METHYLENE CHLORIDE	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	5.	J
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

FORM I VOA - air bubble in 2 VOA bottles 1/87 Rev.

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC37

a Name: ANAMET Contract: 68-W8-0041

ab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

a rix: (soil/water) WATER Lab Sample ID: 9010247-17

ample wt/vol: 5.0 (g/mL) ML Lab File ID: 3EU10247V17

evel: (low/med) LOW Date Received: 10/19/90

oisture: not dec. 100. Date Analyzed: 10/26/90

olumn: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	CHLOROMETHANE	10.	U
74-83-9	BROMOMETHANE	10.	U
75-01-4	VINYL CHLORIDE	10.	U
75-00-3	CHLOROETHANE	10.	U
75-09-2	METHYLENE CHLORIDE	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	U
67-66-3	CHLOROFORM	4.	J
107-06-2	1,2-DICHLOROETHANE	5.	U
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U

EPA SAMPLE NO.

RGANICS ANALYSIS DATA SHEET
ICY IDENTIFIED COMPOUNDS

BFC37

Contract: 68-W8-0041

AMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

(soil/water) WATER Lab Sample ID: 9010247-17

ple wt/vol: 5.0 (g/mL) ML Lab File ID: 3EU10247V17

vel: (low/med) LOW Date Received: 10/19/90

Moisture: not dec. 100. Date Analyzed: 10/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

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

umber TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	HEXANE (DOT)	3.83	10.	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC38

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-18

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 3EU10247V18

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. Date Analyzed: 10/26/90

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	CHLOROMETHANE	10.	U
74-83-9	BROMOMETHANE	10.	U
75-01-4	VINYL CHLORIDE	10.	U
75-00-3	CHLOROETHANE	10.	U
75-09-2	METHYLENE CHLORIDE	5.	U
67-64-1	ACETONE	10.	U
75-15-0	CARBON DISULFIDE	5.	U
75-35-4	1,1-DICHLOROETHENE	5.	U
75-34-3	1,1-DICHLOROETHANE	5.	U
540-59-0	1,2-DICHLOROETHENE (TOTAL)	5.	R
67-66-3	CHLOROFORM	6.	
107-06-2	1,2-DICHLOROETHANE	5.	U R
78-93-3	2-BUTANONE	10.	U
71-55-6	1,1,1-TRICHLOROETHANE	5.	U
56-23-5	CARBON TETRACHLORIDE	5.	U
108-05-4	VINYL ACETATE	10.	U
75-27-4	BROMODICHLOROMETHANE	5.	U
78-87-5	1,2-DICHLOROPROPANE	5.	U
10061-01-5	CIS-1,3-DICHLOROPROPENE	5.	U
79-01-6	TRICHLOROETHENE	5.	U
124-48-1	DIBROMOCHLOROMETHANE	5.	U
79-00-5	1,1,2,-TRICHLOROETHANE	5.	U
71-43-2	BENZENE	5.	U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	5.	U
75-25-2	BROMOFORM	5.	U
108-10-1	4-METHYL-2-PENTANONE	10.	U
591-78-6	2-HEXANONE	10.	U
127-18-4	TETRACHLOROETHENE	5.	U
79-34-5	1,1,2,2-TETRACHLOROETHANE	5.	U
108-88-3	TOLUENE	5.	U
108-90-7	CHLOROBENZENE	5.	U
100-41-4	ETHYLBENZENE	5.	U
100-42-5	STYRENE	5.	U
1330-20-7	XYLENE (TOTAL)	5.	U R

dVOA vials has bubble.

1B

S ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC14

Contract: 68-W8-0041

15130 SAS No.: 5511HQ SDG No.: BFC14

mL) ML Lab Sample ID: 9010247-01

Lab File ID: 2EU10247C01

Date Received: 10/19/90

EPF Date Extracted: 10/22/90

H 7.5 Date Analyzed: 11/ 8/90

Dilution Factor: 1.00

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

		Q
DETHYL)ETHER	20.	U
ENOL	20.	U
ROBENZENE	20.	U
BENZENE	20.	U
OL	20.	U
ROBENZENE	20.	U
OL	20.	U
SOPROPYL)ETHER	20.	U
NOL	20.	U
N-PROPYLAMINE	20.	U
ANE	20.	U
	20.	U
	20.	U
ENOL	20.	U
	20.	U
HOXY)METHANE	20.	U
ENOL	100.	U
ROBENZENE	20.	U
	20.	U
	20.	U
ADIENE	20.	U
THYLPHENOL	20.	U
ENE	20.	U
ENTADIENE	20.	U
OPHENOL	20.	U
HENOL	20.	U
ENE	20.	U
	100.	U
ATE	20.	U
	100.	U
ENE	20.	U
	20.	U
	20.	U

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EPA SAMPLE NO.

BFC14

8-0041

HQ SDG No.: BFC14

Sample ID: 9010247-01

File ID: 2EU10247C01

Received: 10/19/90

e Extracted: 10/22/90

e Analyzed: 11/ 8/90

lution Factor: 1.00

ATION UNITS:
ug/Kg) UG/L

		Q
	100.	U
	20.	U
	100.	U
	100.	U
	20.	U
	20.	U
	20.	U
HER	20.	U
	20.	U
	100.	U
NOL	100.	U
(1)	20.	U
HER	20.	U
	20.	U
	100.	U
	20.	U
	20.	U
	20.	U
	20.	U
	20.	U
	20.	U
IE	40.	U
	20.	U
	20.	U
HALATE	20.	U
	20.	U
IE	20.	U
NE	20.	U
	20.	U
ENE	20.	U
NE	20.	U
E	20.	U

ylamine

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC14

ab Name: ANAMET Contract: 68-W8-0041

a Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

atrix: (soil/water) WATER Lab Sample ID: 9010247-01

ple wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C01

evel: (low/med) LOW Date Received: 10/19/90

Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

xtraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 8/90

PC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

Number TICs found: 2 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	6.65	8.	BJ R
2.	123-79-5	HEXANEDIOIC ACID, DIOCTYL ES	26.87	8.	BJ R
3.					
4.					
5.					
6.					
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29.					
30.					

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC15

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-02

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C02

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 8/90

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	PHENOL	10.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	10.	U
95-57-8	2-CHLOROPHENOL	10.	U
541-73-1	1,3-DICHLOROBENZENE	10.	U
106-46-7	1,4-DICHLOROBENZENE	10.	U
100-51-6	BENZYL ALCOHOL	10.	U
95-50-1	1,2-DICHLOROBENZENE	10.	U
95-48-7	2-METHYLPHENOL	10.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	10.	U
106-44-5	4-METHYLPHENOL	10.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	U
67-72-1	HEXACHLOROETHANE	10.	U
98-95-3	NITROBENZENE	10.	U
78-59-1	ISOPHORONE	10.	U
88-75-5	2-NITROPHENOL	10.	U
105-67-9	2,4-DIMETHYLPHENOL	10.	U
65-85-0	BENZOIC ACID	50.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10.	U
120-83-2	2,4-DICHLOROPHENOL	10.	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	U
91-20-3	NAPHTHALENE	10.	U
106-47-8	4-CHLOROANILINE	10.	U
87-68-3	HEXACHLOROBUTADIENE	10.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	U
91-57-6	2-METHYLNAPHTHALENE	10.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	U
91-58-7	2-CHLORONAPHTHALENE	10.	U
88-74-4	2-NITROANILINE	50.	U
131-11-3	DIMETHYLPHTHALATE	10.	U
208-96-8	ACENAPHTHYLENE	10.	U
606-20-2	2,6-DINITROTOLUENE	10.	U

[redacted] 1C

[redacted] ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC15

[redacted] ANAMET Contract: 68-W8-0041

[redacted]: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

[redacted]: (soil/water) WATER Lab Sample ID: 9010247-02

[redacted] wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C02

[redacted]: (low/med) LOW Date Received: 10/19/90

[redacted]: not dec. 100. dec. 0. Date Extracted: 10/22/90

[redacted]: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 8/90

[redacted] Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-NITROANILINE	50.	U
83-32-9	ACENAPHTHENE	10.	U
51-28-5	2,4-DINITROPHENOL	50.	U
100-02-7	4-NITROPHENOL	50.	U
132-64-9	DIBENZOFURAN	10.	U
121-14-2	2,4-DINITROTOLUENE	10.	U
84-66-2	DIETHYLPHTHALATE	10.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10.	U
86-73-7	FLUORENE	10.	U
100-01-6	4-NITROANILINE	50.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	10.	U
118-74-1	HEXACHLOROBENZENE	10.	U
87-86-5	PENTACHLOROPHENOL	50.	U
85-01-8	PHENANTHRENE	10.	U
120-12-7	ANTHRACENE	10.	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	U
206-44-0	FLUORANTHENE	10.	U
129-00-0	PYRENE	10.	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	U
56-55-3	BENZO(A)ANTHRACENE	10.	U
218-01-9	CHRYSENE	10.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10.	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	U
205-99-2	BENZO(B)FLUORANTHENE	10.	U
207-08-9	BENZO(K)FLUORANTHENE	10.	U
50-32-8	BENZO(A)PYRENE	10.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	10.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	10.	U
191-24-2	BENZO(G,H,I)PERYLENE	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC15

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-02

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C02

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 8/90

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	6.65	8.	BOR
2.					
3.					
4.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC16

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-03

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C03

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 8/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	PHENOL	10.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	10.	U
95-57-8	2-CHLOROPHENOL	10.	U
541-73-1	1,3-DICHLOROBENZENE	10.	U
106-46-7	1,4-DICHLOROBENZENE	10.	U
100-51-6	BENZYL ALCOHOL	10.	U
95-50-1	1,2-DICHLOROBENZENE	10.	U
95-48-7	2-METHYLPHENOL	10.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	10.	U
106-44-5	4-METHYLPHENOL	10.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	U
67-72-1	HEXACHLOROETHANE	10.	U
98-95-3	NITROBENZENE	10.	U
78-59-1	ISOPHORONE	10.	U
88-75-5	2-NITROPHENOL	10.	U
105-67-9	2,4-DIMETHYLPHENOL	10.	U
65-85-0	BENZOIC ACID	50.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10.	U
120-83-2	2,4-DICHLOROPHENOL	10.	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	U
91-20-3	NAPHTHALENE	10.	U
106-47-8	4-CHLOROANILINE	10.	U
87-68-3	HEXACHLOROBUTADIENE	10.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	U
91-57-6	2-METHYLNAPHTHALENE	10.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	U
91-58-7	2-CHLORONAPHTHALENE	10.	U
88-74-4	2-NITROANILINE	50.	U
131-11-3	DIMETHYLPHTHALATE	10.	U
208-96-8	ACENAPHTHYLENE	10.	U
606-20-2	2,6-DINITROTOLUENE	10.	U

1C

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC16

Contract: 68-W8-0041

Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

(soil/water) WATER — Lab Sample ID: 9010247-03

ple wt/vol: 1000.0 (g/mL) ML — Lab File ID: 2EU10247C03

vol: (low/med) LOW — Date Received: 10/19/90

Moisture: not dec. 100. dec. 0. — Date Extracted: 10/22/90

traction: (SepF/Cont/Sonc) SEPF — Date Analyzed: 11/ 8/90

PC Cleanup: (Y/N) N pH: 7.4 — Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-NITROANILINE	50.	U
83-32-9	ACENAPHTHENE	10.	U
51-28-5	2,4-DINITROPHENOL	50.	U
100-02-7	4-NITROPHENOL	50.	U
132-64-9	DIBENZOFURAN	10.	U
121-14-2	2,4-DINITROTOLUENE	10.	U
84-66-2	DIETHYLPHTHALATE	10.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10.	U
86-73-7	FLUORENE	10.	U
100-01-6	4-NITROANILINE	50.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	10.	U
118-74-1	HEXACHLOROBENZENE	10.	U
87-86-5	PENTACHLOROPHENOL	50.	U
85-01-8	PHENANTHRENE	10.	U
120-12-7	ANTHRACENE	10.	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	U
206-44-0	FLUORANTHENE	10.	U
129-00-0	PYRENE	10.	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	U
56-55-3	BENZO(A)ANTHRACENE	10.	U
218-01-9	CHRYSENE	10.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10.	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	U
205-99-2	BENZO(B)FLUORANTHENE	10.	U
207-08-9	BENZO(K)FLUORANTHENE	10.	U
50-32-8	BENZO(A)PYRENE	10.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	10.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	10.	U
191-24-2	BENZO(G,H,I)PERYLENE	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC16

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-03

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C03

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 8/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	6.65	8.	BJR
2.					
3.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC17

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-04

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C04

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 8/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	PHENOL	10.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	10.	U
95-57-8	2-CHLOROPHENOL	10.	U
541-73-1	1,3-DICHLOROBENZENE	10.	U
106-46-7	1,4-DICHLOROBENZENE	10.	U
100-51-6	BENZYL ALCOHOL	10.	U
95-50-1	1,2-DICHLOROBENZENE	10.	U
95-48-7	2-METHYLPHENOL	10.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	10.	U
106-44-5	4-METHYLPHENOL	10.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	U
67-72-1	HEXACHLOROETHANE	10.	U
98-95-3	NITROBENZENE	10.	U
78-59-1	ISOPHORONE	10.	U
88-75-5	2-NITROPHENOL	10.	U
105-67-9	2,4-DIMETHYLPHENOL	10.	U
65-85-0	BENZOIC ACID	50.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10.	U
120-83-2	2,4-DICHLOROPHENOL	10.	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	U
91-20-3	NAPHTHALENE	10.	U
106-47-8	4-CHLOROANILINE	10.	U
87-68-3	HEXACHLOROBUTADIENE	10.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	U
91-57-6	2-METHYLNAPHTHALENE	10.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	U
91-58-7	2-CHLORONAPHTHALENE	10.	U
88-74-4	2-NITROANILINE	50.	U
131-11-3	DIMETHYLPHTHALATE	10.	U
208-96-8	ACENAPHTHYLENE	10.	U
606-20-2	2,6-DINITROTOLUENE	10.	U

1C-

ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC17

Contract: 68-W8-0041

Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

(soil/water) WATER Lab Sample ID: 9010247-04

(soil/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C04

(low/med) LOW Date Received: 10/19/90

Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 8/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-NITROANILINE	50.	U
83-32-9	ACENAPHTHENE	10.	U
51-28-5	2,4-DINITROPHENOL	50.	U
100-02-7	4-NITROPHENOL	50.	U
132-64-9	DIBENZOFURAN	10.	U
121-14-2	2,4-DINITROTOLUENE	10.	U
84-66-2	DIETHYLPHTHALATE	10.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10.	U
86-73-7	FLUORENE	10.	U
100-01-6	4-NITROANILINE	50.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	10.	U
118-74-1	HEXACHLOROBENZENE	10.	U
87-86-5	PENTACHLOROPHENOL	50.	U
85-01-8	PHENANTHRENE	10.	U
120-12-7	ANTHRACENE	10.	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	U
206-44-0	FLUORANTHENE	10.	U
129-00-0	PYRENE	10.	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	U
56-55-3	BENZO(A)ANTHRACENE	10.	U
218-01-9	CHRYSENE	10.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10.	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	U
205-99-2	BENZO(B)FLUORANTHENE	10.	U
207-08-9	BENZO(K)FLUORANTHENE	10.	U
50-32-8	BENZO(A)PYRENE	10.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	10.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	10.	U
191-24-2	BENZO(G,H,I)PERYLENE	10.	U

(1) - Cannot be separated from diphenylamine

472

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC18

b Name: ANAMET Contract: 68-W8-0041

Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

trix: (soil/water) WATER Lab Sample ID: 9010247-05

le wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C05

l: (low/med) LOW Date Received: 10/19/90

Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

action: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

C Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	PHENOL	10.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	10.	U
95-57-8	2-CHLOROPHENOL	10.	U
541-73-1	1,3-DICHLOROBENZENE	10.	U
106-46-7	1,4-DICHLOROBENZENE	10.	U
100-51-6	BENZYL ALCOHOL	10.	U
95-50-1	1,2-DICHLOROBENZENE	10.	U
95-48-7	2-METHYLPHENOL	10.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	10.	U
106-44-5	4-METHYLPHENOL	10.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	U
67-72-1	HEXACHLOROETHANE	10.	U
98-95-3	NITROBENZENE	10.	U
78-59-1	ISOPHORONE	10.	U
88-75-5	2-NITROPHENOL	10.	U
105-67-9	2,4-DIMETHYLPHENOL	10.	U
65-85-0	BENZOIC ACID	50.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10.	U
120-83-2	2,4-DICHLOROPHENOL	10.	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	U
91-20-3	NAPHTHALENE	10.	U
106-47-8	4-CHLOROANILINE	10.	U
87-68-3	HEXACHLOROBUTADIENE	10.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	U
91-57-6	2-METHYLNAPHTHALENE	10.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	U
91-58-7	2-CHLORONAPHTHALENE	10.	U
88-74-4	2-NITROANILINE	50.	U
131-11-3	DIMETHYLPHTHALATE	10.	U
208-96-8	ACENAPHTHYLENE	10.	U
606-20-2	2,6-DINITROTOLUENE	10.	U

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[redacted] TILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC18

[redacted] ANAMET Contract: 68-W8-0041

Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-05

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C05

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-NITROANILINE	50.	U
83-32-9	ACENAPHTHENE	10.	U
51-28-5	2,4-DINITROPHENOL	50.	U
100-02-7	4-NITROPHENOL	50.	U
132-64-9	DIBENZOFURAN	10.	U
121-14-2	2,4-DINITROTOLUENE	10.	U
84-66-2	DIETHYLPHTHALATE	10.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10.	U
86-73-7	FLUORENE	10.	U
100-01-6	4-NITROANILINE	50.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	10.	U
118-74-1	HEXACHLOROBENZENE	10.	U
87-86-5	PENTACHLOROPHENOL	50.	U
85-01-8	PHENANTHRENE	10.	U
120-12-7	ANTHRACENE	10.	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	U
206-44-0	FLUORANTHENE	10.	U
129-00-0	PYRENE	10.	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	U
56-55-3	BENZO(A)ANTHRACENE	10.	U
218-01-9	CHRYSENE	10.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10.	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	U
205-99-2	BENZO(B)FLUORANTHENE	10.	U
207-08-9	BENZO(K)FLUORANTHENE	10.	U
50-32-8	BENZO(A)PYRENE	10.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	10.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	10.	U
191-24-2	BENZO(G,H,I)PERYLENE	10.	U

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

BFC18

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Name: ANAMET Contract: 68-W8-0041

Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

ix: (soil/water) WATER Lab Sample ID: 9010247-05

ple wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C05

l: (low/med) LOW Date Received: 10/19/90

oisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

raction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

mber TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	6.73	20.	BJR
2.					
3.					
4.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC19

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-06

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C06

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	PHENOL	10.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	10.	U
95-57-8	2-CHLOROPHENOL	10.	U
541-73-1	1,3-DICHLOROBENZENE	10.	U
106-46-7	1,4-DICHLOROBENZENE	10.	U
100-51-6	BENZYL ALCOHOL	10.	U
95-50-1	1,2-DICHLOROBENZENE	10.	U
95-48-7	2-METHYLPHENOL	10.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	10.	U
106-44-5	4-METHYLPHENOL	10.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	U
67-72-1	HEXACHLOROETHANE	10.	U
98-95-3	NITROBENZENE	10.	U
78-59-1	ISOPHORONE	10.	U
88-75-5	2-NITROPHENOL	10.	U
105-67-9	2,4-DIMETHYLPHENOL	10.	U
65-85-0	BENZOIC ACID	50.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10.	U
120-83-2	2,4-DICHLOROPHENOL	10.	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	U
91-20-3	NAPHTHALENE	10.	U
106-47-8	4-CHLOROANILINE	10.	U
87-68-3	HEXACHLOROBUTADIENE	10.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	U
91-57-6	2-METHYLNAPHTHALENE	10.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	U
91-58-7	2-CHLORONAPHTHALENE	10.	U
88-74-4	2-NITROANILINE	50.	U
131-11-3	DIMETHYLPHTHALATE	10.	U
208-96-8	ACENAPHTHYLENE	10.	U
606-20-2	2,6-DINITROTOLUENE	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC19

Lab: ANAMET Contract: 68-W8-0041

Client: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-06

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C06

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-NITROANILINE	50.	U
83-32-9	ACENAPHTHENE	10.	U
51-28-5	2,4-DINITROPHENOL	50.	U
100-02-7	4-NITROPHENOL	50.	U
132-64-9	DIBENZOFURAN	10.	U
121-14-2	2,4-DINITROTOLUENE	10.	U
84-66-2	DIETHYLPHTHALATE	10.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10.	U
86-73-7	FLUORENE	10.	U
100-01-6	4-NITROANILINE	50.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	10.	U
118-74-1	HEXACHLOROBENZENE	10.	U
87-86-5	PENTACHLOROPHENOL	50.	U
85-01-8	PHENANTHRENE	10.	U
120-12-7	ANTHRACENE	10.	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	U
206-44-0	FLUORANTHENE	10.	U
129-00-0	PYRENE	10.	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	U
56-55-3	BENZO(A)ANTHRACENE	10.	U
218-01-9	CHRYSENE	10.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10.	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	U
205-99-2	BENZO(B)FLUORANTHENE	10.	U
207-08-9	BENZO(K)FLUORANTHENE	10.	U
50-32-8	BENZO(A)PYRENE	10.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	10.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	10.	U
191-24-2	BENZO(G,H,I)PERYLENE	10.	U

(1) - Cannot be separated from diphenylamine

1F

ORGANICS ANALYSIS DATA SHEET
TIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC19

Contract: 68-W8-0041

ET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

(Soil/water) WATER Lab Sample ID: 9010247-06

t/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C06

(low/med) LOW Date Received: 10/19/90

isture: not dec. 100. dec. 0. Date Extracted: 10/22/90

raction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

PC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

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

Number TICs found: 1

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	6.70	20.	BdR
2.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC24

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-07

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C07

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 7. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 8.1 Dilution Factor: 1.00

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	PHENOL	360.	UJ
111-44-4	BIS(2-CHLOROETHYL)ETHER	360.	U
95-57-8	2-CHLOROPHENOL	360.	U
541-73-1	1,3-DICHLOROBENZENE	360.	U
106-46-7	1,4-DICHLOROBENZENE	360.	U
100-51-6	BENZYL ALCOHOL	360.	U
95-50-1	1,2-DICHLOROBENZENE	360.	U
95-48-7	2-METHYLPHENOL	360.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	360.	U
106-44-5	4-METHYLPHENOL	360.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	360.	U
67-72-1	HEXACHLOROETHANE	360.	U
98-95-3	NITROBENZENE	360.	U
78-59-1	ISOPHORONE	360.	U
88-75-5	2-NITROPHENOL	360.	U
105-67-9	2,4-DIMETHYLPHENOL	360.	U
65-85-0	BENZOIC ACID	1800.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	360.	U
120-83-2	2,4-DICHLOROPHENOL	360.	U
120-82-1	1,2,4-TRICHLOROBENZENE	360.	U
91-20-3	NAPHTHALENE	360.	U
106-47-8	4-CHLOROANILINE	360.	U
87-68-3	HEXACHLOROBUTADIENE	360.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	360.	U
91-57-6	2-METHYLNAPHTHALENE	360.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	360.	U
88-06-2	2,4,6-TRICHLOROPHENOL	360.	U
95-95-4	2,4,5-TRICHLOROPHENOL	1800.	U
91-58-7	2-CHLORONAPHTHALENE	360.	U
88-74-4	2-NITROANILINE	1800.	U
131-11-3	DIMETHYLPHTHALATE	360.	U
208-96-8	ACENAPHTHYLENE	360.	U
606-20-2	2,6-DINITROTOLUENE	360.	UJ

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC24

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-07

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C07

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 7. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 8.1 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-NITROANILINE	1800.	U J
83-32-9	ACENAPHTHENE	360.	U
51-28-5	2,4-DINITROPHENOL	1800.	U
100-02-7	4-NITROPHENOL	1800.	U
132-64-9	DIBENZOFURAN	360.	U
121-14-2	2,4-DINITROTOLUENE	360.	U
84-66-2	DIETHYLPHTHALATE	360.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	360.	U
86-73-7	FLUORENE	360.	U
100-01-6	4-NITROANILINE	1800.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1800.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	360.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	360.	U
118-74-1	HEXACHLOROBENZENE	360.	U
87-86-5	PENTACHLOROPHENOL	1800.	U
85-01-8	PHENANTHRENE	360.	U
120-12-7	ANTHRACENE	360.	U
84-74-2	DI-N-BUTYLPHTHALATE	360.	U
206-44-0	FLUORANTHENE	360.	U
129-00-0	PYRENE	360.	U
85-68-7	BUTYLBENZYLPHTHALATE	360.	U
91-94-1	3,3'-DICHLOROBENZIDINE	710.	U
56-55-3	BENZO(A)ANTHRACENE	360.	U
218-01-9	CHRYSENE	360.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	360.	U
117-84-0	DI-N-OCTYLPHTHALATE	360.	U
205-99-2	BENZO(B)FLUORANTHENE	360.	U
207-08-9	BENZO(K)FLUORANTHENE	360.	U
50-32-8	BENZO(A)PYRENE	360.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	360.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	360.	U
191-24-2	BENZO(G,H,I)PERYLENE	360.	U J

(1) - Cannot be separated from diphenylamine

480

1F

EPA SAMPLE NO.

...TILE ORGANICS ANALYSIS DATA SHEET
...TENTATIVELY IDENTIFIED COMPOUNDS

BFC24

...AMET Contract: 68-W8-0041

...AMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

...oil/water) SOIL Lab Sample ID: 9010247-07

...t/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C07

...(low/med) LOW Date Received: 10/19/90

...isture: not dec. 7. dec. 0. Date Extracted: 10/25/90

...traction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 9/90

...C Cleanup: (Y/N) N pH: 8.1 Dilution Factor: 1.00

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	5.78	1000.	~~BJ~~ R A
2.	- -	UNKNOWN	6.57	4000.	~~BJ~~ R A
3.	- -	UNKNOWN	8.08	700.	~~BJ~~ R
4.	- -	UNKNOWN	8.80	1000.	J N
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC25

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-08

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C08

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 68. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	PHENOL	1000.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	1000.	U
95-57-8	2-CHLOROPHENOL	1000.	U
541-73-1	1,3-DICHLOROBENZENE	1000.	U
106-46-7	1,4-DICHLOROBENZENE	1000.	U
100-51-6	BENZYL ALCOHOL	1000.	U
95-50-1	1,2-DICHLOROBENZENE	1000.	U
95-48-7	2-METHYLPHENOL	1000.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1000.	U
106-44-5	4-METHYLPHENOL	1000.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1000.	U
67-72-1	HEXACHLOROETHANE	1000.	U
98-95-3	NITROBENZENE	1000.	U
78-59-1	ISOPHORONE	1000.	U
88-75-5	2-NITROPHENOL	1000.	U
105-67-9	2,4-DIMETHYLPHENOL	1000.	U
65-85-0	BENZOIC ACID	5200.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1000.	U
120-83-2	2,4-DICHLOROPHENOL	1000.	U
120-82-1	1,2,4-TRICHLOROBENZENE	1000.	U
91-20-3	NAPHTHALENE	1000.	U
106-47-8	4-CHLOROANILINE	1000.	U
87-68-3	HEXACHLOROBUTADIENE	1000.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	1000.	U
91-57-6	2-METHYLNAPHTHALENE	1000.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	1000.	U
88-06-2	2,4,6-TRICHLOROPHENOL	1000.	U
95-95-4	2,4,5-TRICHLOROPHENOL	5200.	U
91-58-7	2-CHLORONAPHTHALENE	1000.	U
88-74-4	2-NITROANILINE	5200.	U
131-11-3	DIMETHYLPHTHALATE	1000.	U
208-96-8	ACENAPHTHYLENE	1000.	U
606-20-2	2,6-DINITROTOLUENE	1000.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC25

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-08

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C08

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 68. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-NITROANILINE	5200.	U J
83-32-9	ACENAPHTHENE	1000.	U
51-28-5	2,4-DINITROPHENOL	5200.	U
100-02-7	4-NITROPHENOL	5200.	U
132-64-9	DIBENZOFURAN	1000.	U
121-14-2	2,4-DINITROTOLUENE	1000.	U
84-66-2	DIETHYLPHTHALATE	1000.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	1000.	U
86-73-7	FLUORENE	1000.	U
100-01-6	4-NITROANILINE	5200.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	5200.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	1000.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	1000.	U
118-74-1	HEXACHLOROBENZENE	1000.	U
87-86-5	PENTACHLOROPHENOL	5200.	U
85-01-8	PHENANTHRENE	1000.	U
120-12-7	ANTHRACENE	1000.	U
84-74-2	DI-N-BUTYLPHTHALATE	1000.	U
206-44-0	FLUORANTHENE	1000.	U
129-00-0	PYRENE	1000.	U
85-68-7	BUTYLBENZYLPHTHALATE	1000.	U
91-94-1	3,3'-DICHLOROBENZIDINE	2100.	U
56-55-3	BENZO(A)ANTHRACENE	1000.	U
218-01-9	CHRYSENE	1000.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1000.	U
117-84-0	DI-N-OCTYLPHTHALATE	1000.	U
205-99-2	BENZO(B)FLUORANTHENE	1000.	U
207-08-9	BENZO(K)FLUORANTHENE	1000.	U
50-32-8	BENZO(A)PYRENE	1000.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	1000.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	1000.	U
191-24-2	BENZO(G,H,I)PERYLENE	1000.	U J

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC25

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-08

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C08

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 68. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.7 Dilution Factor: 1.00

Number TICs found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	5.80	7000.	BJRA
2.	- -	UNKNOWN	6.10	7000.	JN
3.	- -	UNKNOWN	6.57	20000.	BJRA
4.	98-00-0	2-FURANMETHANOL	6.80	10000.	JN
5.	97-53-0	PHENOL, 2-METHOXY-4-(2-PROPE	15.77	10000.	J
6.	3891-98-3	DODECANE, 2,6,10-TRIMETHYL-	15.90	2000.	J
7.	- -	UNKNOWN HYDROCARBON	16.22	2000.	J
8.	10544-50-0	SULFUR, MOL. (S8)	17.95	2000.	J
9.	6627-88-9	PHENOL, 2,6-DIMETHOXY-4-(2-P	18.95	4000.	J
10.	629-78-7	HEPTADECANE	19.98	4000.	J
11.	57-10-3	HEXADECANOIC ACID	22.88	9000.	J
12.	19407-28-4	PHENANTHRENE, 1,2,3,4,4A,9,1	24.18	20000.	J
13.	- -	UNKNOWN	24.50	20000.	J
14.	1454-85-9	1-HEPTADECANOL	25.98	9000.	J
15.	- -	UNKNOWN	26.45	5000.	J
16.	661-19-8	1-DOCOSANOL	27.72	9000.	J
17.	- -	UNKNOWN ALCHOL	29.33	4000.	J
18.	- -	UNKNOWN	33.62	3000.	J
19.	111-63-7	OCTADECANOIC ACID, ETHENYL E	36.25	5000.	J
20.	- -	UNKNOWN	22.77	3000.	JN
21.					
22.					
23.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC26

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-09

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C09

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 13. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 6.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	PHENOL	380.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	380.	U
95-57-8	2-CHLOROPHENOL	380.	U
541-73-1	1,3-DICHLOROBENZENE	380.	U
106-46-7	1,4-DICHLOROBENZENE	380.	U
100-51-6	BENZYL ALCOHOL	380.	U
95-50-1	1,2-DICHLOROBENZENE	380.	U
95-48-7	2-METHYLPHENOL	380.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	380.	U
106-44-5	4-METHYLPHENOL	380.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	380.	U
67-72-1	HEXACHLOROETHANE	380.	U
98-95-3	NITROBENZENE	380.	U
78-59-1	ISOPHORONE	380.	U
88-75-5	2-NITROPHENOL	380.	U
105-67-9	2,4-DIMETHYLPHENOL	380.	U
65-85-0	BENZOIC ACID	1900.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	380.	U
120-83-2	2,4-DICHLOROPHENOL	380.	U
120-82-1	1,2,4-TRICHLOROBENZENE	380.	U
91-20-3	NAPHTHALENE	380.	U
106-47-8	4-CHLOROANILINE	380.	U
87-68-3	HEXACHLOROBUTADIENE	380.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	380.	U
91-57-6	2-METHYLNAPHTHALENE	380.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	380.	U
88-06-2	2,4,6-TRICHLOROPHENOL	380.	U
95-95-4	2,4,5-TRICHLOROPHENOL	1900.	U
91-58-7	2-CHLORONAPHTHALENE	380.	U
88-74-4	2-NITROANILINE	1900.	U
131-11-3	DIMETHYLPHTHALATE	380.	U
208-96-8	ACENAPHTHYLENE	380.	U
606-20-2	2,6-DINITROTOLUENE	380.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC26

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-09

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C09

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 13. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 6.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-NITROANILINE	1900.	U
83-32-9	ACENAPHTHENE	380.	U
51-28-5	2,4-DINITROPHENOL	1900.	U
100-02-7	4-NITROPHENOL	1900.	U
132-64-9	DIBENZOFURAN	380.	U
121-14-2	2,4-DINITROTOLUENE	380.	U
84-66-2	DIETHYLPHTHALATE	380.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	380.	U
86-73-7	FLUORENE	380.	U
100-01-6	4-NITROANILINE	1900.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1900.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	380.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	380.	U
118-74-1	HEXACHLOROBENZENE	380.	U
87-86-5	PENTACHLOROPHENOL	1900.	U
85-01-8	PHENANTHRENE	380.	U
120-12-7	ANTHRACENE	380.	U
84-74-2	DI-N-BUTYLPHTHALATE	380.	U
206-44-0	FLUORANTHENE	380.	U
129-00-0	PYRENE	380.	U
85-68-7	BUTYLBENZYLPHTHALATE	380.	U
91-94-1	3,3'-DICHLOROBENZIDINE	760.	U
56-55-3	BENZO(A)ANTHRACENE	380.	U
218-01-9	CHRYSENE	380.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	380.	U
117-84-0	DI-N-OCTYLPHTHALATE	380.	U
205-99-2	BENZO(B)FLUORANTHENE	380.	U
207-08-9	BENZO(K)FLUORANTHENE	380.	U
50-32-8	BENZO(A)PYRENE	380.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	380.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	380.	U
191-24-2	BENZO(G,H,I)PERYLENE	380.	U

(1) - Cannot be separated from diphenylamine

488

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: BFC26

Lab: ANAMET Contract: 68-W8-0041

Client: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-09

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C09

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 13. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 6.2 Dilution Factor: 1.00

Number TICs found: 9 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	5.78	2000.	B R A
2.	- -	UNKNOWN	6.57	6000.	B R A
3.	- -	UNKNOWN	8.80	1000.	B
4.	18641-71-9	3-HEPTANONE, 2,4-DIMETHYL-	9.68	400.	J N
5.	10544-50-0	SULFUR, MOL. (S8)	17.95	800.	J
6.	57-10-3	HEXADECANOIC ACID	22.80	400.	J
7.	- -	UNKNOWN	24.27	800.	J
8.	- -	UNKNOWN HYDROCARBON	29.43	400.	J
9.	- -	UNKNOWN HYDROCARBON	36.47	400.	J N
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC27

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C10

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 12. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	PHENOL	380.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	380.	U
95-57-8	2-CHLOROPHENOL	380.	U
541-73-1	1,3-DICHLOROBENZENE	380.	U
106-46-7	1,4-DICHLOROBENZENE	380.	U
100-51-6	BENZYL ALCOHOL	380.	U
95-50-1	1,2-DICHLOROBENZENE	380.	U
95-48-7	2-METHYLPHENOL	380.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	380.	U
106-44-5	4-METHYLPHENOL	380.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	380.	U
67-72-1	HEXACHLOROETHANE	380.	U
98-95-3	NITROBENZENE	380.	U
78-59-1	ISOPHORONE	380.	U
88-75-5	2-NITROPHENOL	380.	U
105-67-9	2,4-DIMETHYLPHENOL	380.	U
65-85-0	BENZOIC ACID	1900.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	380.	U
120-83-2	2,4-DICHLOROPHENOL	380.	U
120-82-1	1,2,4-TRICHLOROBENZENE	380.	U
91-20-3	NAPHTHALENE	380.	U
106-47-8	4-CHLOROANILINE	380.	U
87-68-3	HEXACHLOROBUTADIENE	380.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	380.	U
91-57-6	2-METHYLNAPHTHALENE	380.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	380.	U
88-06-2	2,4,6-TRICHLOROPHENOL	380.	U
95-95-4	2,4,5-TRICHLOROPHENOL	1900.	U
91-58-7	2-CHLORONAPHTHALENE	380.	U
88-74-4	2-NITROANILINE	1900.	U
131-11-3	DIMETHYLPHTHALATE	380.	U
208-96-8	ACENAPHTHYLENE	380.	U
606-20-2	2,6-DINITROTOLUENE	380.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC27

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C10

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 12. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-NITROANILINE	1900.	U
83-32-9	ACENAPHTHENE	380.	U
51-28-5	2,4-DINITROPHENOL	1900.	U
100-02-7	4-NITROPHENOL	1900.	U
132-64-9	DIBENZOFURAN	380.	U
121-14-2	2,4-DINITROTOLUENE	380.	U
84-66-2	DIETHYLPHTHALATE	380.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	380.	U
86-73-7	FLUORENE	380.	U
100-01-6	4-NITROANILINE	1900.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1900.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	380.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	380.	U
118-74-1	HEXACHLOROBENZENE	380.	U
87-86-5	PENTACHLOROPHENOL	1900.	U
85-01-8	PHENANTHRENE	380.	U
120-12-7	ANTHRACENE	380.	U
84-74-2	DI-N-BUTYLPHTHALATE	380.	U
206-44-0	FLUORANTHENE	380.	U
129-00-0	PYRENE	380.	U
85-68-7	BUTYLBENZYLPHTHALATE	380.	U
91-94-1	3,3'-DICHLOROBENZIDINE	760.	U
56-55-3	BENZO(A)ANTHRACENE	380.	U
218-01-9	CHRYSENE	380.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	380.	U
117-84-0	DI-N-OCTYLPHTHALATE	380.	U
205-99-2	BENZO(B)FLUORANTHENE	380.	U
207-08-9	BENZO(K)FLUORANTHENE	380.	U
50-32-8	BENZO(A)PYRENE	380.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	380.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	380.	U
191-24-2	BENZO(G,H,I)PERYLENE	380.	U

(1) - Cannot be separated from diphenylamine

489

1F

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BFC27

...: ANAMET Contract: 68-W8-0041

...: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

...: (soil/water) SOIL Lab Sample ID: 9010247-10

...e wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C10

...: (low/med) LOW Date Received: 10/19/90

...oisture: not dec. 12. dec. 0. Date Extracted: 10/25/90

...ction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

...mber TICs found: 8 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	5.93	2000.	BJRA
2.	- -	UNKNOWN	6.70	7000.	BJRA
3.	- -	UNKNOWN	8.18	1000.	BJRA
4.	- -	UNKNOWN	8.88	2000.	JN
5.	18641-71-9	3-HEPTANONE, 2,4-DIMETHYL-	9.77	1000.	J
6.	10544-50-0	SULFUR, MOL. (S8)	18.03	1000.	J
7.	57-10-3	HEXADECANOIC ACID	22.87	800.	J
8.	- -	UNKNOWN	24.35	800.	JN
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EPA SAMPLE NO.

...S ANALYSIS DATA SHEET

BFC28

Contract: 68-W8-0041

Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

...water) SOIL Lab Sample ID: 9010247-11

...amp ./vol: 30.0 (g/mL) G Lab File ID: 2EU10247C11

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 16. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

GPC Cleanup: (Y/N) N pH: 8.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	PHENOL	400.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	400.	U
95-57-8	2-CHLOROPHENOL	400.	U
541-73-1	1,3-DICHLOROBENZENE	400.	U
106-46-7	1,4-DICHLOROBENZENE	400.	U
100-51-6	BENZYL ALCOHOL	400.	U
95-50-1	1,2-DICHLOROBENZENE	400.	U
95-48-7	2-METHYLPHENOL	400.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	400.	U
106-44-5	4-METHYLPHENOL	400.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	400.	U
67-72-1	HEXACHLOROETHANE	400.	U
98-95-3	NITROBENZENE	400.	U
78-59-1	ISOPHORONE	400.	U
88-75-5	2-NITROPHENOL	400.	U
105-67-9	2,4-DIMETHYLPHENOL	400.	U
65-85-0	BENZOIC ACID	2000.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	400.	U
120-83-2	2,4-DICHLOROPHENOL	400.	U
120-82-1	1,2,4-TRICHLOROBENZENE	400.	U
91-20-3	NAPHTHALENE	400.	U
106-47-8	4-CHLOROANILINE	400.	U
87-68-3	HEXACHLOROBUTADIENE	400.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	400.	U
91-57-6	2-METHYLNAPHTHALENE	400.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	400.	U
88-06-2	2,4,6-TRICHLOROPHENOL	400.	U
95-95-4	2,4,5-TRICHLOROPHENOL	2000.	U
91-58-7	2-CHLORONAPHTHALENE	400.	U
88-74-4	2-NITROANILINE	2000.	U
131-11-3	DIMETHYLPHTHALATE	400.	U
208-96-8	ACENAPHTHYLENE	400.	U
606-20-2	2,6-DINITROTOLUENE	400.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC28

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-11

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C11

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 16. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

GPC Cleanup: (Y/N) N pH: 8.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-NITROANILINE	2000.	U
83-32-9	ACENAPHTHENE	400.	U
51-28-5	2,4-DINITROPHENOL	2000.	U
100-02-7	4-NITROPHENOL	2000.	U J
132-64-9	DIBENZOFURAN	400.	U
121-14-2	2,4-DINITROTOLUENE	400.	U
84-66-2	DIETHYLPHTHALATE	400.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	400.	U
86-73-7	FLUORENE	400.	U
100-01-6	4-NITROANILINE	2000.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	2000.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	400.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	400.	U
118-74-1	HEXACHLOROBENZENE	400.	U
87-86-5	PENTACHLOROPHENOL	2000.	U
85-01-8	PHENANTHRENE	400.	U
120-12-7	ANTHRACENE	400.	U
84-74-2	DI-N-BUTYLPHTHALATE	400.	U
206-44-0	FLUORANTHENE	400.	U
129-00-0	PYRENE	400.	U
85-68-7	BUTYLBENZYLPHTHALATE	400.	U
91-94-1	3,3'-DICHLOROBENZIDINE	790.	U
56-55-3	BENZO(A)ANTHRACENE	400.	U
218-01-9	CHRYSENE	400.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	400.	U
117-84-0	DI-N-OCTYLPHTHALATE	400.	U
205-99-2	BENZO(B)FLUORANTHENE	400.	U
207-08-9	BENZO(K)FLUORANTHENE	400.	U
50-32-8	BENZO(A)PYRENE	400.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	400.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	400.	U
191-24-2	BENZO(G,H,I)PERYLENE	400.	U

(1) - Cannot be separated from diphenylamine

[redacted] 1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
BFC28

[redacted] ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-11

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C11

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 16. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

GPC Cleanup: (Y/N) N pH: 8.3 Dilution Factor: 1.00

Number TICs found: 9 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	5.90	2000.	~~BJ~~ RA
2.	- -	UNKNOWN	6.68	9000.	~~BJ~~ A
3.	- -	UNKNOWN	8.17	1000.	~~BJ~~
4.	- -	UNKNOWN	8.87	2000.	J N
5.	10544-50-0	SULFUR, MOL. (S8)	18.03	2000.	J
6.	57-10-3	HEXADECANOIC ACID	22.88	1000.	J
7.	- -	UNKNOWN	24.33	400.	J
8.	- -	UNKNOWN	32.85	800.	J
9.	- -	UNKNOWN	35.87	400.	J N
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC29

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-12

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C12

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 16. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	PHENOL	400.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	400.	U
95-57-8	2-CHLOROPHENOL	400.	U
541-73-1	1,3-DICHLOROBENZENE	400.	U
106-46-7	1,4-DICHLOROBENZENE	400.	U
100-51-6	BENZYL ALCOHOL	400.	U
95-50-1	1,2-DICHLOROBENZENE	400.	U
95-48-7	2-METHYLPHENOL	400.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	400.	U
106-44-5	4-METHYLPHENOL	400.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	400.	U
67-72-1	HEXACHLOROETHANE	400.	U
98-95-3	NITROBENZENE	400.	U
78-59-1	ISOPHORONE	400.	U
88-75-5	2-NITROPHENOL	400.	U
105-67-9	2,4-DIMETHYLPHENOL	400.	U
65-85-0	BENZOIC ACID	2000.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	400.	U
120-83-2	2,4-DICHLOROPHENOL	400.	U
120-82-1	1,2,4-TRICHLOROBENZENE	400.	U
91-20-3	NAPHTHALENE	400.	U
106-47-8	4-CHLOROANILINE	400.	U
87-68-3	HEXACHLOROBUTADIENE	400.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	400.	U
91-57-6	2-METHYLNAPHTHALENE	400.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	400.	U
88-06-2	2,4,6-TRICHLOROPHENOL	400.	U
95-95-4	2,4,5-TRICHLOROPHENOL	2000.	U
91-58-7	2-CHLORONAPHTHALENE	400.	U
88-74-4	2-NITROANILINE	2000.	U
131-11-3	DIMETHYLPHTHALATE	400.	U
208-96-8	ACENAPHTHYLENE	400.	U
606-20-2	2,6-DINITROTOLUENE	400.	U

1C

ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC29

Lab Code: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-12

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C12

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 16. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-NITROANILINE	2000.	U
83-32-9	ACENAPHTHENE	400.	U
51-28-5	2,4-DINITROPHENOL	2000.	U
100-02-7	4-NITROPHENOL	2000.	UJ
132-64-9	DIBENZOFURAN	400.	U
121-14-2	2,4-DINITROTOLUENE	400.	U
84-66-2	DIETHYLPHTHALATE	400.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	400.	U
86-73-7	FLUORENE	400.	U
100-01-6	4-NITROANILINE	2000.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	2000.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	400.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	400.	U
118-74-1	HEXACHLOROBENZENE	400.	U
87-86-5	PENTACHLOROPHENOL	2000.	U
85-01-8	PHENANTHRENE	400.	U
120-12-7	ANTHRACENE	400.	U
84-74-2	DI-N-BUTYLPHTHALATE	400.	U
206-44-0	FLUORANTHENE	400.	U
129-00-0	PYRENE	400.	U
85-68-7	BUTYLBENZYLPHTHALATE	400.	U
91-94-1	3,3'-DICHLOROBENZIDINE	800.	U
56-55-3	BENZO(A)ANTHRACENE	400.	U
218-01-9	CHRYSENE	400.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	400.	U
117-84-0	DI-N-OCTYLPHTHALATE	400.	U
205-99-2	BENZO(B)FLUORANTHENE	400.	U
207-08-9	BENZO(K)FLUORANTHENE	400.	U
50-32-8	BENZO(A)PYRENE	400.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	400.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	400.	U
191-24-2	BENZO(G,H,I)PERYLENE	400.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC29

Name: ANAMET Contract: 68-W8-0041

Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-12

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C12

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 16. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.00

Number TICs found: 13 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	5.90	2000.	~~BD~~ R A
2.	- -	UNKNOWN	6.68	6000.	~~BD~~ R A
3.	- -	UNKNOWN	8.17	800.	~~BD~~ R
4.	- -	UNKNOWN	8.87	800.	J N
5.	19641-71-9	3-HEPTANONE, 2,4-DIMETHYL-	9.75	800.	J
6.	103-82-2	BENZENEACETIC ACID	14.12	800.	J
7.	57-10-3	HEXADECANOIC ACID	22.88	1000.	J
8.	- -	UNKNOWN HYDROCARBON	26.82	800.	J
9.	629-99-2	PENTACOSANE	29.33	400.	J
10.	- -	UNKNOWN HYDROCARBON	30.98	1000.	J
11.	- -	UNKNOWN HYDROCARBON	33.23	1000.	J
12.	- -	UNKNOWN HYDROCARBON	33.45	1000.	J
13.	- -	UNKNOWN	36.27	400.	J N
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC30

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-13

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C13

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 12. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	PHENOL	380.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	380.	U
95-57-8	2-CHLOROPHENOL	380.	U
541-73-1	1,3-DICHLOROBENZENE	380.	U
106-46-7	1,4-DICHLOROBENZENE	380.	U
100-51-6	BENZYL ALCOHOL	380.	U
95-50-1	1,2-DICHLOROBENZENE	380.	U
95-48-7	2-METHYLPHENOL	380.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	380.	U
106-44-5	4-METHYLPHENOL	380.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	380.	U
67-72-1	HEXACHLOROETHANE	380.	U
98-95-3	NITROBENZENE	380.	U
78-59-1	ISOPHORONE	380.	U
88-75-5	2-NITROPHENOL	380.	U
105-67-9	2,4-DIMETHYLPHENOL	380.	U
65-85-0	BENZOIC ACID	1900.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	380.	U
120-83-2	2,4-DICHLOROPHENOL	380.	U
120-82-1	1,2,4-TRICHLOROBENZENE	380.	U
91-20-3	NAPHTHALENE	380.	U
106-47-8	4-CHLOROANILINE	380.	U
87-68-3	HEXACHLOROBUTADIENE	380.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	380.	U
91-57-6	2-METHYLNAPHTHALENE	380.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	380.	U
88-06-2	2,4,6-TRICHLOROPHENOL	380.	U
95-95-4	2,4,5-TRICHLOROPHENOL	1900.	U
91-58-7	2-CHLORONAPHTHALENE	380.	U
88-74-4	2-NITROANILINE	1900.	U
131-11-3	DIMETHYLPHTHALATE	380.	U
208-96-8	ACENAPHTHYLENE	380.	U
606-20-2	2,6-DINITROTOLUENE	380.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: BFC30

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-13

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C13

Level: (low/med) LOW Date Received: 10/19/90

Moisture: not dec. 12. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-NITROANILINE	1900.	U
83-32-9	ACENAPHTHENE	380.	U
51-28-5	2,4-DINITROPHENOL	1900.	U
100-02-7	4-NITROPHENOL	1900.	U
132-64-9	DIBENZOFURAN	380.	U
121-14-2	2,4-DINITROTOLUENE	380.	U
84-66-2	DIETHYLPHTHALATE	380.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	380.	U
86-73-7	FLUORENE	380.	U
100-01-6	4-NITROANILINE	380.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1900.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	1900.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	380.	U
118-74-1	HEXACHLOROBENZENE	380.	U
87-86-5	PENTACHLOROPHENOL	380.	U
85-01-8	PHENANTHRENE	1900.	U
120-12-7	ANTHRACENE	380.	U
84-74-2	DI-N-BUTYLPHTHALATE	380.	U
206-44-0	FLUORANTHENE	380.	U
129-00-0	PYRENE	380.	U
85-68-7	BUTYLBENZYLPHTHALATE	380.	U
91-94-1	3,3'-DICHLOROBENZIDINE	380.	U
56-55-3	BENZO(A)ANTHRACENE	760.	U
218-01-9	CHRYSENE	380.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	380.	U
117-84-0	DI-N-OCTYLPHTHALATE	380.	U
205-99-2	BENZO(B)FLUORANTHENE	380.	U
207-08-9	BENZO(K)FLUORANTHENE	380.	U
50-32-8	BENZO(A)PYRENE	380.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	380.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	380.	U
191-24-2	BENZO(G,H,I)PERYLENE	380.	U

(1) - Cannot be separated from diphenylamine

1F

EPA SAMPLE NO.

ORGANICS ANALYSIS DATA SHEET
ENTATIVELY IDENTIFIED COMPOUNDS

BFC30

ANAMET Contract: 68-W8-0041

D: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

(soil/water) SOIL Lab Sample ID: 9010247-13

wt/vol: 30.0 (g/mL) G Lab File ID: 2EU10247C13

l: (low/med) LOW Date Received: 10/19/90

oisture: not dec. 12. dec. 0. Date Extracted: 10/25/90

raction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/90

C Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

umber TICs found: 9 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	5.93	2000.	BJR A
2.	- -	UNKNOWN	6.65	5000.	BJR A
3.	- -	UNKNOWN	8.22	800.	BJR
4.	- -	UNKNOWN	8.88	1000.	JN
5.	18641-71-9	3-HEPTANONE, 2,4-DIMETHYL-	9.75	800.	J
6.	10544-50-0	SULFUR, MOL. (S8)	18.03	1000.	J
7.	544-63-8	TETRADECANOIC ACID	20.70	400.	J
8.	- -	UNKNOWN	24.33	400.	J
9.	301-02-0	9-OCTADECENAMIDE, (Z)-	30.08	400.	JN
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC34

Name: ANAMET Contract: 68-W8-0041

Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-14

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C14

Level: (low/med) LOW Date Received: 10/19/90

Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	PHENOL	10.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	10.	U
95-57-8	2-CHLOROPHENOL	10.	U
541-73-1	1,3-DICHLOROBENZENE	10.	U
106-46-7	1,4-DICHLOROBENZENE	10.	U
100-51-6	BENZYL ALCOHOL	10.	U
95-50-1	1,2-DICHLOROBENZENE	10.	U
95-48-7	2-METHYLPHENOL	10.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	10.	U
106-44-5	4-METHYLPHENOL	10.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	U
67-72-1	HEXACHLOROETHANE	10.	U
98-95-3	NITROBENZENE	10.	U
78-59-1	ISOPHORONE	10.	U
88-75-5	2-NITROPHENOL	10.	U
105-67-9	2,4-DIMETHYLPHENOL	10.	U
65-85-0	BENZOIC ACID	50.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10.	U
120-83-2	2,4-DICHLOROPHENOL	10.	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	U
91-20-3	NAPHTHALENE	10.	U
106-47-8	4-CHLOROANILINE	10.	U
87-68-3	HEXACHLOROBUTADIENE	10.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	U
91-57-6	2-METHYLNAPHTHALENE	10.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	U
91-58-7	2-CHLORONAPHTHALENE	10.	U
88-74-4	2-NITROANILINE	50.	U
131-11-3	DIMETHYLPHTHALATE	10.	U
208-96-8	ACENAPHTHYLENE	10.	U
606-20-2	2,6-DINITROTOLUENE	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC34

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-14

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C14

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-NITROANILINE	50.	U
83-32-9	ACENAPHTHENE	10.	U
51-28-5	2,4-DINITROPHENOL	50.	U
100-02-7	4-NITROPHENOL	50.	U
132-64-9	DIBENZOFURAN	10.	U
121-14-2	2,4-DINITROTOLUENE	10.	U
84-66-2	DIETHYLPHTHALATE	10.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10.	U
86-73-7	FLUORENE	10.	U
100-01-6	4-NITROANILINE	50.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	10.	U
118-74-1	HEXACHLOROBENZENE	10.	U
87-86-5	PENTACHLOROPHENOL	50.	U
85-01-8	PHENANTHRENE	10.	U
120-12-7	ANTHRACENE	10.	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	U
206-44-0	FLUORANTHENE	10.	U
129-00-0	PYRENE	10.	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	U
56-55-3	BENZO(A)ANTHRACENE	10.	U
218-01-9	CHRYSENE	10.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10.	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	U
205-99-2	BENZO(B)FLUORANTHENE	10.	U
207-08-9	BENZO(K)FLUORANTHENE	10.	U
50-32-8	BENZO(A)PYRENE	10.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	10.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	10.	U
191-24-2	BENZO(G,H,I)PERYLENE	10.	U

(1) - Cannot be separated from diphenylamine

501

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC34

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-14

Sample wt/vol: 1000.0 (g/mL) ML , Lab File ID: 2EU10247C14

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	6.70	10.	BJ N
2.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC35

L Name: ANAMET Contract: 68-W8-0041

Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

trix: (soil/water) WATER Lab Sample ID: 9010247-15

le wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C15

vel: (low/med) LOW Date Received: 10/19/90

isture: not dec. 100. dec. 0. Date Extracted: 10/22/90

raction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

C Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
108-95-2	PHENOL		10.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER		10.	U
95-57-8	2-CHLOROPHENOL		10.	U
541-73-1	1,3-DICHLOROBENZENE		10.	U
106-46-7	1,4-DICHLOROBENZENE		10.	U
100-51-6	BENZYL ALCOHOL		10.	U
95-50-1	1,2-DICHLOROBENZENE		10.	U
95-48-7	2-METHYLPHENOL		10.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER		10.	U
106-44-5	4-METHYLPHENOL		10.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE		10.	U
67-72-1	HEXACHLOROETHANE		10.	U
98-95-3	NITROBENZENE		10.	U
78-59-1	ISOPHORONE		10.	U
88-75-5	2-NITROPHENOL		10.	U
105-67-9	2,4-DIMETHYLPHENOL		10.	U
65-85-0	BENZOIC ACID		50.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE		10.	U
120-83-2	2,4-DICHLOROPHENOL		10.	U
120-82-1	1,2,4-TRICHLOROBENZENE		10.	U
91-20-3	NAPHTHALENE		10.	U
106-47-8	4-CHLOROANILINE		10.	U
87-68-3	HEXACHLOROBUTADIENE		10.	U
59-50-7	4-CHLORO-3-METHYLPHENOL		10.	U
91-57-6	2-METHYLNAPHTHALENE		10.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE		10.	U
88-06-2	2,4,6-TRICHLOROPHENOL		10.	U
95-95-4	2,4,5-TRICHLOROPHENOL		50.	U
91-58-7	2-CHLORONAPHTHALENE		10.	U
88-74-4	2-NITROANILINE		50.	U
131-11-3	DIMETHYLPHTHALATE		10.	U
208-96-8	ACENAPHTHYLENE		10.	U
606-20-2	2,6-DINITROTOLUENE		10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC35

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-15

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C15

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-NITROANILINE	50.	U
83-32-9	ACENAPHTHENE	10.	U
51-28-5	2,4-DINITROPHENOL	50.	U
100-02-7	4-NITROPHENOL	50.	U
132-64-9	DIBENZOFURAN	10.	U
121-14-2	2,4-DINITROTOLUENE	10.	U
84-66-2	DIETHYLPHTHALATE	10.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10.	U
86-73-7	FLUORENE	10.	U
100-01-6	4-NITROANILINE	50.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	10.	U
118-74-1	HEXACHLOROBENZENE	10.	U
87-86-5	PENTACHLOROPHENOL	50.	U
85-01-8	PHENANTHRENE	10.	U
120-12-7	ANTHRACENE	10.	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	U
206-44-0	FLUORANTHENE	10.	U
129-00-0	PYRENE	10.	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	U
56-55-3	BENZO(A)ANTHRACENE	10.	U
218-01-9	CHRYSENE	10.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10.	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	U
205-99-2	BENZO(B)FLUORANTHENE	10.	U
207-08-9	BENZO(K)FLUORANTHENE	10.	U
50-32-8	BENZO(A)PYRENE	10.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	10.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	10.	U
191-24-2	BENZO(G,H,I)PERYLENE	10.	U

(1) - Cannot be separated from diphenylamine

504

0020 0 0547

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC35

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-15

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C15

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	6.68	20.	BJ N
2.					
3.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC36

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-16

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C16

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	PHENOL	10.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	10.	U
95-57-8	2-CHLOROPHENOL	10.	U
541-73-1	1,3-DICHLOROBENZENE	10.	U
106-46-7	1,4-DICHLOROBENZENE	10.	U
100-51-6	BENZYL ALCOHOL	10.	U
95-50-1	1,2-DICHLOROBENZENE	10.	U
95-48-7	2-METHYLPHENOL	10.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	10.	U
106-44-5	4-METHYLPHENOL	10.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	U
67-72-1	HEXACHLOROETHANE	10.	U
98-95-3	NITROBENZENE	10.	U
78-59-1	ISOPHORONE	10.	U
88-75-5	2-NITROPHENOL	10.	U
105-67-9	2,4-DIMETHYLPHENOL	10.	U
65-85-0	BENZOIC ACID	50.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10.	U
120-83-2	2,4-DICHLOROPHENOL	10.	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	U
91-20-3	NAPHTHALENE	10.	U
106-47-8	4-CHLOROANILINE	10.	U
87-68-3	HEXACHLOROBUTADIENE	10.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	U
91-57-6	2-METHYLNAPHTHALENE	10.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	U
91-58-7	2-CHLORONAPHTHALENE	10.	U
88-74-4	2-NITROANILINE	50.	U
131-11-3	DIMETHYLPHTHALATE	10.	U
208-96-8	ACENAPHTHYLENE	10.	U
606-20-2	2,6-DINITROTOLUENE	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC36

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-16

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C16

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-NITROANILINE	50.	U
83-32-9	ACENAPHTHENE	10.	U
51-28-5	2,4-DINITROPHENOL	50.	U
100-02-7	4-NITROPHENOL	50.	U
132-64-9	DIBENZOFURAN	10.	U
121-14-2	2,4-DINITROTOLUENE	10.	U
84-66-2	DIETHYLPHTHALATE	10.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10.	U
86-73-7	FLUORENE	10.	U
100-01-6	4-NITROANILINE	50.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	10.	U
118-74-1	HEXACHLOROBENZENE	10.	U
87-86-5	PENTACHLOROPHENOL	50.	U
85-01-8	PHENANTHRENE	10.	U
120-12-7	ANTHRACENE	10.	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	U
206-44-0	FLUORANTHENE	10.	U
129-00-0	PYRENE	10.	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	U
56-55-3	BENZO(A)ANTHRACENE	10.	U
218-01-9	CHRYSENE	10.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10.	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	U
205-99-2	BENZO(B)FLUORANTHENE	10.	U
207-08-9	BENZO(K)FLUORANTHENE	10.	U
50-32-8	BENZO(A)PYRENE	10.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	10.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	10.	U
191-24-2	BENZO(G,H,I)PERYLENE	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC36

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HG SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-16

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C16

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	6.70	20.	BJN
2.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC37

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-17

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C17

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	PHENOL	10.	U
111-44-4	BIS(2-CHLOROETHYL)ETHER	10.	U
95-57-8	2-CHLOROPHENOL	10.	U
541-73-1	1,3-DICHLOROBENZENE	10.	U
106-46-7	1,4-DICHLOROBENZENE	10.	U
100-51-6	BENZYL ALCOHOL	10.	U
95-50-1	1,2-DICHLOROBENZENE	10.	U
95-48-7	2-METHYLPHENOL	10.	U
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	10.	U
106-44-5	4-METHYLPHENOL	10.	U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10.	U
67-72-1	HEXACHLOROETHANE	10.	U
98-95-3	NITROBENZENE	10.	U
78-59-1	ISOPHORONE	10.	U
88-75-5	2-NITROPHENOL	10.	U
105-67-9	2,4-DIMETHYLPHENOL	10.	U
65-85-0	BENZOIC ACID	50.	U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10.	U
120-83-2	2,4-DICHLOROPHENOL	10.	U
120-82-1	1,2,4-TRICHLOROBENZENE	10.	U
91-20-3	NAPHTHALENE	10.	U
106-47-8	4-CHLOROANILINE	10.	U
87-68-3	HEXACHLOROBUTADIENE	10.	U
59-50-7	4-CHLORO-3-METHYLPHENOL	10.	U
91-57-6	2-METHYLNAPHTHALENE	10.	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	10.	U
88-06-2	2,4,6-TRICHLOROPHENOL	10.	U
95-95-4	2,4,5-TRICHLOROPHENOL	50.	U
91-58-7	2-CHLORONAPHTHALENE	10.	U
88-74-4	2-NITROANILINE	50.	U
131-11-3	DIMETHYLPHTHALATE	10.	U
208-96-8	ACENAPHTHYLENE	10.	U
606-20-2	2,6-DINITROTOLUENE	10.	U

50

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC37

Lab: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-17

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C17

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-NITROANILINE	50.	U
83-32-9	ACENAPHTHENE	10.	U
51-28-5	2,4-DINITROPHENOL	50.	U
100-02-7	4-NITROPHENOL	50.	U
132-64-9	DIBENZOFURAN	10.	U
121-14-2	2,4-DINITROTOLUENE	10.	U
84-66-2	DIETHYLPHTHALATE	10.	U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10.	U
86-73-7	FLUORENE	10.	U
100-01-6	4-NITROANILINE	50.	U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50.	U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10.	U
101-55-3	4-BROMOPHENYL-PHENYLETHER	10.	U
118-74-1	HEXACHLOROBENZENE	10.	U
87-86-5	PENTACHLOROPHENOL	50.	U
85-01-8	PHENANTHRENE	10.	U
120-12-7	ANTHRACENE	10.	U
84-74-2	DI-N-BUTYLPHTHALATE	10.	U
206-44-0	FLUORANTHENE	10.	U
129-00-0	PYRENE	10.	U
85-68-7	BUTYLBENZYLPHTHALATE	10.	U
91-94-1	3,3'-DICHLOROBENZIDINE	20.	U
56-55-3	BENZO(A)ANTHRACENE	10.	U
218-01-9	CHRYSENE	10.	U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	10.	U
117-84-0	DI-N-OCTYLPHTHALATE	10.	U
205-99-2	BENZO(B)FLUORANTHENE	10.	U
207-08-9	BENZO(K)FLUORANTHENE	10.	U
50-32-8	BENZO(A)PYRENE	10.	U
193-39-5	INDENO(1,2,3-CD)PYRENE	10.	U
53-70-3	DIBENZ[A,H]ANTHRACENE	10.	U
191-24-2	BENZO(G,H,I)PERYLENE	10.	U

(1) - Cannot be separated from diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BFC37

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-17

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 2EU10247C17

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 9/90

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.00

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	- -	UNKNOWN	6.70	20.	BJ N
2.					
3.					
4.					
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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC14

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-01

Sample wt/vol: 1000. (g/mL)ML Lab File ID: 10247B01

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec.100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Hept. epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endo.sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.100	U
5103-71-9	a. Chlordane	.50	U
5103-74-2	g. Chlordane	.50	U
8001-35-2	Toxaphene	1.00	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.00	U
11096-82-5	Aroclor-1260	1.00	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC15

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-02

Sample wt/vol: 1000. (g/mL)ML Lab File ID: 10247B02

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec.100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Hept. epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endo.sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.100	U
5103-71-9	a. Chlordane	.50	U
5103-74-2	g. Chlordane	.50	U
8001-35-2	Toxaphene	1.00	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.00	U
11096-82-5	Aroclor-1260	1.00	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC16

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-03

Sample wt/vol: 1000. (g/mL)ML Lab File ID: 10247B03

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec.100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Hept. epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endo.sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.100	U
5103-71-9	a. Chlordane	.50	U
5103-74-2	g. Chlordane	.50	U
8001-35-2	Toxaphene	1.00	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.00	U
11096-82-5	Aroclor-1260	1.00	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC17

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-04

Sample wt/vol: 1000. (g/mL)ML Lab File ID: 10247B04

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec.100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Hept. epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endo.sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.100	U
5103-71-9	a. Chlordane	.50	U
5103-74-2	g. Chlordane	.50	U
8001-35-2	Toxaphene	1.00	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.00	U
11096-82-5	Aroclor-1260	1.00	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC18

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-05

Sample wt/vol: 1000. (g/mL)ML Lab File ID: 10247B05

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec.100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Hept. epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endo.sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.100	U
5103-71-9	a. Chlordane	.50	U
5103-74-2	g. Chlordane	.50	U
8001-35-2	Toxaphene	1.00	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.00	U
11096-82-5	Aroclor-1260	1.00	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC19

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-06

Sample wt/vol: 1000. (g/mL)ML Lab File ID: 10247B06

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec.100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Hept. epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endo.sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.100	U
5103-71-9	a. Chlordane	.50	U
5103-74-2	g. Chlordane	.50	U
8001-35-2	Toxaphene	1.00	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.00	U
11096-82-5	Aroclor-1260	1.00	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: BFC24

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-07

Sample wt/vol: 30. (g/mL) G Lab File ID: 102478-7

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 7. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/90

GPC Cleanup: (Y/N) N pH: 8.1 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.6	U
319-85-7	beta-BHC	8.6	U
319-86-8	delta-BHC	8.6	U
58-89-9	gamma-BHC	8.6	U
76-44-8	Heptachlor	8.6	U
309-00-2	Aldrin	8.6	U
1024-57-3	Hept. epoxide	8.6	U
959-98-8	Endosulfan I	8.6	U
60-57-1	Dieldrin	17.	U
72-55-9	4,4'-DDE	17.	U
72-20-8	Endrin	17.	U
33213-65-9	Endosulfan II	17.	U
72-54-8	4,4'-DDD	17.	U
1031-07-8	Endo.sulfate	17.	U
50-29-3	4,4'-DDT	17.	U
72-43-5	Methoxychlor	86.	U
53494-70-5	Endrin ketone	17.	U
5103-71-9	a. Chlordane	86.	U
5103-74-2	g. Chlordane	86.	U
8001-35-2	Toxaphene	170.	U
12674-11-2	Aroclor-1016	86.	U
11104-28-2	Aroclor-1221	86.	U
11141-16-5	Aroclor-1232	86.	U
53469-21-9	Aroclor-1242	86.	U
12672-29-6	Aroclor-1248	86.	U
11097-69-1	Aroclor-1254	170.	U
11096-82-5	Aroclor-1260	170.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC25

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-08

Sample wt/vol: 30. (g/mL) G Lab File ID: 10247B08

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 68. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 7.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	25.	U
319-85-7	beta-BHC	25.	U
319-86-8	delta-BHC	25.	U
58-89-9	gamma-BHC	25.	U
76-44-8	Heptachlor	25.	U
309-00-2	Aldrin	25.	U
1024-57-3	Hept. epoxide	25.	U
959-98-8	Endosulfan I	25.	U
60-57-1	Dieldrin	50.	U
72-55-9	4,4'-DDE	50.	U
72-20-8	Endrin	50.	U
33213-65-9	Endosulfan II	50.	U
72-54-8	4,4'-DDD	50.	U
1031-07-8	Endo.sulfate	50.	U
50-29-3	4,4'-DDT	50.	U
72-43-5	Methoxychlor	250.	U
53494-70-5	Endrin ketone	50.	U
5103-71-9	a. Chlordane	250.	U
5103-74-2	g. Chlordane	250.	U
8001-35-2	Toxaphene	500.	U
12674-11-2	Aroclor-1016	250.	U
11104-28-2	Aroclor-1221	250.	U
11141-16-5	Aroclor-1232	250.	U
53469-21-9	Aroclor-1242	250.	U
12672-29-6	Aroclor-1248	250.	U
11097-69-1	Aroclor-1254	500.	U
11096-82-5	Aroclor-1260	500.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC26

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-09

Sample wt/vol: 30. (g/mL) G Lab File ID: 10247B09

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 13. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 6.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.2	U
319-85-7	beta-BHC	9.2	U
319-86-8	delta-BHC	9.2	U
58-89-9	gamma-BHC	9.2	U
76-44-8	Heptachlor	9.2	U
309-00-2	Aldrin	9.2	U
1024-57-3	Hept. epoxide	9.2	U
959-98-8	Endosulfan I	9.2	U
60-57-1	Dieldrin	18.	U
72-55-9	4,4'-DDE	18.	U
72-20-8	Endrin	18.	U
33213-65-9	Endosulfan II	18.	U
72-54-8	4,4'-DDD	18.	U
1031-07-8	Endo.sulfate	18.	U
50-29-3	4,4'-DDT	18.	U
72-43-5	Methoxychlor	92.	U
53494-70-5	Endrin ketone	18.	U
5103-71-9	a. Chlordane	92.	U
5103-74-2	g. Chlordane	92.	U
8001-35-2	Toxaphene	180.	U
12674-11-2	Aroclor-1016	92.	U
11104-28-2	Aroclor-1221	92.	U
11141-16-5	Aroclor-1232	92.	U
53469-21-9	Aroclor-1242	92.	U
12672-29-6	Aroclor-1248	92.	U
11097-69-1	Aroclor-1254	180.	U
11096-82-5	Aroclor-1260	180.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC27

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-10

Sample wt/vol: 30. (g/mL) G Lab File ID: 10247B10

Level: (low/med) LOW Date Received: 10/19/90

Moisture: not dec. 12. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.1	U
319-85-7	beta-BHC	9.1	U
319-86-8	delta-BHC	9.1	U
58-89-9	gamma-BHC	9.1	U
76-44-8	Heptachlor	9.1	U
309-00-2	Aldrin	9.1	U
1024-57-3	Hept. epoxide	9.1	U
959-98-8	Endosulfan I	9.1	U
60-57-1	Dieldrin	18.	U
72-55-9	4,4'-DDE	18.	U
72-20-8	Endrin	18.	U
33213-65-9	Endosulfan II	18.	U
72-54-8	4,4'-DDD	18.	U
1031-07-8	Endo.sulfate	18.	U
50-29-3	4,4'-DDT	18.	U
72-43-5	Methoxychlor	91.	U
53494-70-5	Endrin ketone	18.	U
5103-71-9	a. Chlordane	91.	U
5103-74-2	g. Chlordane	91.	U
8001-35-2	Toxaphene	180.	U
12674-11-2	Aroclor-1016	91.	U
11104-28-2	Aroclor-1221	91.	U
11141-16-5	Aroclor-1232	91.	U
53469-21-9	Aroclor-1242	91.	U
12672-29-6	Aroclor-1248	91.	U
11097-69-1	Aroclor-1254	180.	U
11096-82-5	Aroclor-1260	180.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC28

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-11

Sample wt/vol: 30. (g/mL) G Lab File ID: 10247B11

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 16. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 8.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.5	U
319-85-7	beta-BHC	9.5	U
319-86-8	delta-BHC	9.5	U
58-89-9	gamma-BHC	9.5	U
76-44-8	Heptachlor	9.5	U
309-00-2	Aldrin	9.5	U
1024-57-3	Hept. epoxide	9.5	U
959-98-8	Endosulfan I	9.5	U
60-57-1	Dieldrin	19.	U
72-55-9	4,4'-DDE	19.	U
72-20-8	Endrin	19.	U
33213-65-9	Endosulfan II	19.	U
72-54-8	4,4'-DDD	19.	U
1031-07-8	Endo.sulfate	19.	U
50-29-3	4,4'-DDT	19.	U
72-43-5	Methoxychlor	95.	U
53494-70-5	Endrin ketone	19.	U
5103-71-9	a. Chlordane	95.	U
5103-74-2	g. Chlordane	95.	U
8001-35-2	Toxaphene	190.	U
12674-11-2	Aroclor-1016	95.	U
11104-28-2	Aroclor-1221	95.	U
11141-16-5	Aroclor-1232	95.	U
53469-21-9	Aroclor-1242	95.	U
12672-29-6	Aroclor-1248	95.	U
11097-69-1	Aroclor-1254	190.	U
11096-82-5	Aroclor-1260	190.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC29

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-12

Sample wt/vol: 30. (g/mL) G Lab File ID: 10247B12

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 16. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.5	U
319-85-7	beta-BHC	9.5	U
319-86-8	delta-BHC	9.5	U
58-89-9	gamma-BHC	9.5	U
76-44-8	Heptachlor	9.5	U
309-00-2	Aldrin	9.5	U
1024-57-3	Hept. epoxide	9.5	U
959-98-8	Endosulfan I	9.5	U
60-57-1	Dieldrin	19.	U
72-55-9	4,4'-DDE	19.	U
72-20-8	Endrin	19.	U
33213-65-9	Endosulfan II	19.	U
72-54-8	4,4'-DDD	19.	U
1031-07-8	Endo.sulfate	19.	U
50-29-3	4,4'-DDT	19.	U
72-43-5	Methoxychlor	95.	U
53494-70-5	Endrin ketone	19.	U
5103-71-9	a. Chlordane	95.	U
5103-74-2	g. Chlordane	95.	U
8001-35-2	Toxaphene	190.	U
12674-11-2	Aroclor-1016	95.	U
11104-28-2	Aroclor-1221	95.	U
11141-16-5	Aroclor-1232	95.	U
53469-21-9	Aroclor-1242	95.	U
12672-29-6	Aroclor-1248	95.	U
11097-69-1	Aroclor-1254	190.	U
11096-82-5	Aroclor-1260	190.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC30

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) SOIL Lab Sample ID: 9010247-13

Sample wt/vol: 30. (g/mL) G Lab File ID: 10247B13

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec. 12. dec. 0. Date Extracted: 10/25/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 7.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.0	U
319-85-7	beta-BHC	9.0	U
319-86-8	delta-BHC	9.0	U
58-89-9	gamma-BHC	9.0	U
76-44-8	Heptachlor	9.0	U
309-00-2	Aldrin	9.0	U
1024-57-3	Hept. epoxide	9.0	U
959-98-8	Endosulfan I	9.0	U
60-57-1	Dieldrin	18.	U
72-55-9	4,4'-DDE	18.	U
72-20-8	Endrin	18.	U
33213-65-9	Endosulfan II	18.	U
72-54-8	4,4'-DDD	18.	U
1031-07-8	Endo.sulfate	18.	U
50-29-3	4,4'-DDT	18.	U
72-43-5	Methoxychlor	90.	U
53494-70-5	Endrin ketone	18.	U
5103-71-9	a. Chlordane	90.	U
5103-74-2	g. Chlordane	90.	U
8001-35-2	Toxaphene	180.	U
12674-11-2	Aroclor-1016	90.	U
11104-28-2	Aroclor-1221	90.	U
11141-16-5	Aroclor-1232	90.	U
53469-21-9	Aroclor-1242	90.	U
12672-29-6	Aroclor-1248	90.	U
11097-69-1	Aroclor-1254	180.	U
11096-82-5	Aroclor-1260	180.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC34

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-14

Sample wt/vol: 1000. (g/mL)ML Lab File ID: 10247B14

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec.100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Hept. epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endo.sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.100	U
5103-71-9	a. Chlordane	.50	U
5103-74-2	g. Chlordane	.50	U
8001-35-2	Toxaphene	1.00	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.00	U
11096-82-5	Aroclor-1260	1.00	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC35

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-15

Sample wt/vol: 1000. (g/mL)ML Lab File ID: 10247B15

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec.100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Hept. epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endo.sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.100	U
5103-71-9	a. Chlordane	.50	U
5103-74-2	g. Chlordane	.50	U
8001-35-2	Toxaphene	1.00	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.00	U
11096-82-5	Aroclor-1260	1.00	U

0000 0 0820

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC36

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-16

Sample wt/vol: 1000. (g/mL)ML Lab File ID: 10247B16

Level: (low/med) LOW Date Received: 10/19/90

% Moisture: not dec.100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Hept. epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endo.sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.100	U
5103-71-9	a. Chlordane	.50	U
5103-74-2	g. Chlordane	.50	U
8001-35-2	Toxaphene	1.00	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.00	U
11096-82-5	Aroclor-1260	1.00	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BFC37

Lab Name: ANAMET Contract: 68-W8-0041

Lab Code: ANAMET Case No.: 15130 SAS No.: 5511HQ SDG No.: BFC14

Matrix: (soil/water) WATER Lab Sample ID: 9010247-17

Sample wt/vol: 1000. (g/mL)ML Lab File ID: 10247B17

Level: (low/med) LOW Date Received: 10/19/90

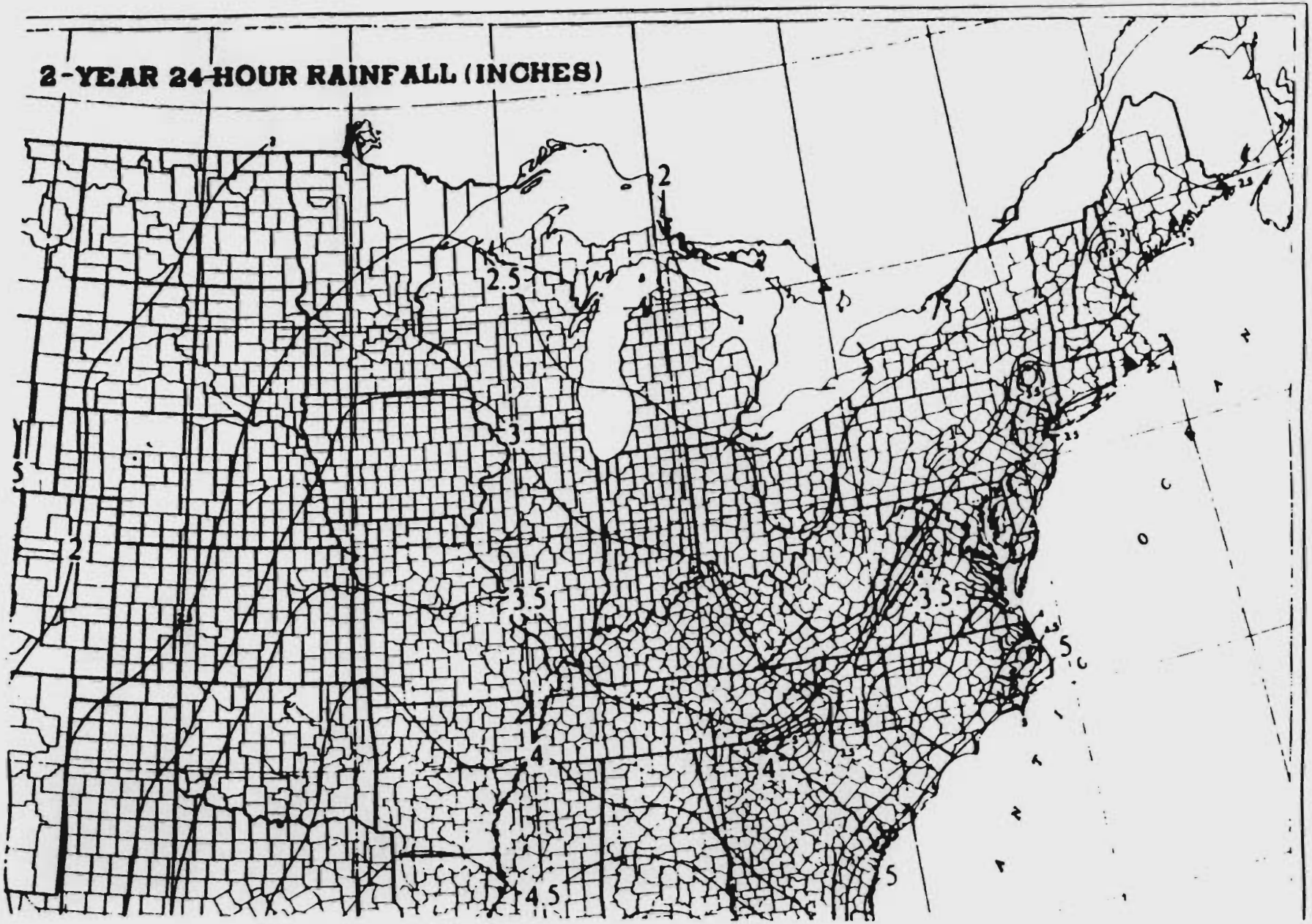
% Moisture: not dec.100. dec. 0. Date Extracted: 10/22/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/ 6/90

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Hept. epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.100	U
72-55-9	4,4'-DDE	.100	U
72-20-8	Endrin	.100	U
33213-65-9	Endosulfan II	.100	U
72-54-8	4,4'-DDD	.100	U
1031-07-8	Endo.sulfate	.100	U
50-29-3	4,4'-DDT	.100	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.100	U
5103-71-9	a. Chlordane	.50	U
5103-74-2	g. Chlordane	.50	U
8001-35-2	Toxaphene	1.00	U
12674-11-2	Aroclor-1016	.50	U
11104-28-2	Aroclor-1221	.50	U
11141-16-5	Aroclor-1232	.50	U
53469-21-9	Aroclor-1242	.50	U
12672-29-6	Aroclor-1248	.50	U
11097-69-1	Aroclor-1254	1.00	U
11096-82-5	Aroclor-1260	1.00	U

REFERENCE NO. 34


2-YEAR 24-HOUR RAINFALL (INCHES)
2
2.5
3
3.5
4
4.5
5

REFERENCE NO. 35

S	ATE	NAME		INU	ON	RIC
1926	30	CORTLAND		42.36	76.11	20.7838
1927	30	PENN YAN 2 SW		42.39	77.05	12.5077
1928	30	COOPERSTOWN		42.42	74.55	18.8574
1929	30	MOUNT MORRIS 2 W		42.44	77.54	10.4639
1930	30	ALBANY WSO	R	42.45	73.48	15.9544
1931	30	GRAFTON		42.47	73.28	22.0022
1932	30	HEMLOCK		42.47	77.37	11.9324
1933	30	CHERRY VALLEY 2 NNE		42.49	74.44	20.2273
1934	30	CANANDAIGUA 3 S		42.51	77.17	12.7669
1935	30	GENEVA RESEARCH FARM		42.53	77.02	13.9284
1936	30	BUFFALO WSO	//R	42.56	78.44	17.7174
1937	30	BATAVIA		43.00	78.11	13.6542
1938	30	GLOVERSVILLE		43.02	74.21	21.0367
1939	30	LITTLE FALLS CITY RES		43.04	74.52	20.7002
1940	30	SYRACUSE WSO	R	43.07	76.07	17.6763
1941	30	ROCHESTER WSO	//R	43.07	77.40	13.6956
1942	30	UTICA FAA AP		43.09	75.23	22.2934
1943	30	SALEM		43.10	73.19	18.9243
1944	30	LOCKPORT 2 NE		43.11	78.39	16.1722
1945	30	SODUS CENTER	//	43.12	77.01	16.8156
1946	30	BROCKPORT 2 NW		43.15	77.58	11.2999
1947	30	GLENS FALLS FAA AP		43.21	73.37	16.5423
1948	30	BOONVILLE 2 SSW		43.27	75.21	36.1207
1949	30	OSWEGO EAST	//	43.28	76.30	20.3430
1950	30	WHITEHALL		43.33	73.24	16.8594
1951	30	INDIAN LAKE 2 SW		43.45	74.17	21.2865
1952	30	LOWVILLE		43.48	75.30	20.7264
1953	30	STILLWATER RESERVOIR		43.53	75.02	25.4735
1954	30	WATERTOWN		43.58	75.52	20.9289
1955	30	WANAKENA RANGER SCHOOL	//	44.09	74.54	21.7079
1956	30	ELIZABETHTOWN		44.13	73.35	15.8559
1957	30	TUPPER LAKE SUNMOUNT		44.14	74.26	18.9485
1958	30	LAKE PLACID CLUB		44.17	73.59	19.0324
1959	30	GOUVERNEUR		44.20	75.29	18.7478
1960	30	PERU 2 WSW		44.34	73.34	11.4853
1961	30	CANTON 4 SE		44.34	75.07	16.1006
1962	30	DANNEMORA		44.43	73.43	13.9140
1963	30	OGDENSBURG 3 NE		44.44	75.27	14.0445
1964	30	CHASM FALLS		44.45	74.13	19.9423
1965	30	LAWRENCEVILLE		44.45	74.39	13.3298
1966	30	CHAZY		44.53	73.26	14.3031
1967	30	MASSENA FAA AP		44.56	74.51	15.1585
1968	31	SOUTHPORT 5 N		34.00	78.01	20.0467
1969	31	WILMINGTON WSO	R	34.16	77.54	17.0337
1970	31	WILLARD 4 SW		34.19	78.02	18.0505
1971	31	LUMBERTON 6 NW		34.42	79.04	14.5491
1972	31	MOREHEAD CITY 2 WNW		34.44	76.44	17.6482
1973	31	SLOAN 3 S		34.47	77.49	20.0112
1974	31	LAURINBURG		34.47	79.27	15.5062
1975	31	MAYSVILLE 6 SW		34.50	77.18	22.4726
1976	31	HAMLET		34.54	79.42	17.2670
1977	31	WADESBORO		34.57	80.04	16.8853
1978	31	MONROE 4 SE		34.58	80.30	17.2467
1979	31	HIGHLANDS 2 S		35.01	83.12	54.9816
1980	31	COWEETA EXP STATION		35.02	83.26	45.1349

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Site Name: Finch Pruyn
Date: 2/6/91

SITE SCORE CALCULATION

	S	S^4
GROUND WATER PATHWAY SCORE (S_{gw}):	25.6	655.36
SURFACE WATER PATHWAY SCORE (S_{sw}):	100.00	10.000000
SOIL EXPOSURE PATHWAY SCORE (S_{se}):	4.13	17.06
AIR PATHWAY SCORE (S_a):	5.94	35.28
SITE SCORE:	$\sqrt{\frac{S_{gw}^2 + S_{sw}^2 + S_{se}^2 + S_a^2}{4}}$ =	51.74

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NOV 0 6 1990

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Site Name: Finch Pruyn
Date: 2/6/91

PA TABLE 1: WASTE CHARACTERISTICS (WC) SCORES

PA Table 1a: WC Scores for Single Source Sites and Formulas for Multiple Source Sites

TIER	SOURCE TYPE	SINGLE SOURCE SITES (assigned WC scores)			MULTIPLE SOURCE SITES
		WC = 18	*WC = 32*	*WC = 100*	Formula for Assigning Source WQ Values
CONSTITUENT	N/A	≤100 lbs	>100 to 10,000 lbs	>10,000 lbs	*lbs ÷ 1*
WASTESTREAM	N/A	≤500,000 lbs	>500,000 to 50 million lbs	>50 million lbs	*lbs ÷ 5,000*
VOLUME	Landfill	≤6.75 million ft³ ≤250,000 yd³	>6.75 million ft³ to 675 million ft³ >250,000 to 25 million yd³	>675 million ft³ >25 million yd³	*ft³ ÷ 67,500* *yd³ ÷ 2,500*
	Surface impoundment	≤6,750 ft³ ≤250 yd³	>6,750 ft³ to 675,000 ft³ >250 to 25,000 yd³	>675,000 ft³ >25,000 yd³	*ft³ ÷ 67.5* *yd³ ÷ 2.5*
	Drums	≤1,000 drums	>1,000 to 100,000 drums	>100,000 drums	*drums ÷ 10*
	Tanks and non-drum containers	≤50,000 gallons	>50,000 to 5 million gallons	>5 million gallons	*gallons ÷ 500*
	Contaminated soil	≤6.75 million ft³ ≤250,000 yd³	>6.75 million ft³ to 675 million ft³ >250,000 to 25 million yd³	>675 million ft³ >25 million yd³	*ft³ ÷ 67,500* *yd³ ÷ 2,500*
	Pile	≤6,750 ft³ ≤250 yd³	>6,750 ft³ to 675,000 ft³ >250 to 25,000 yd³	>675,000 ft³ >25,000 yd³	*ft³ ÷ 67.5* *yd³ ÷ 2.5*
AREA	Landfill	≤340,000 ft² ≤7.8 acres	>340,000 to 34 million ft² >7.8 to 780 acres	>34 million ft² >780 acres	*ft² ÷ 3,400* *acres ÷ 0.078*
	Surface impoundment	≤1,300 ft² ≤0.029 acres	>1,300 to 130,000 ft² >0.029 to 2.9 acres	>130,000 ft² >2.9 acres	*ft² ÷ 13* *acres ÷ 0.00029*
	Contaminated soil	≤3.4 million ft² ≤78 acres	>3.4 million to 340 million ft² >78 to 7,800 acres	>340 million ft² >7,800 acres	*ft² ÷ 34,000* *acres ÷ 0.78*
	Pile*	≤1,300 ft² ≤0.029 acres	>1,300 to 130,000 ft² >0.029 to 2.9 acres	>130,000 ft² >2.9 acres	*ft² ÷ 13* *acres ÷ 0.00029*
	Land treatment	≤27,000 ft² ≤0.62 acres	>27,000 to 2.7 million ft² >0.62 to 62 acres	>2.7 million ft² >62 acres	*ft² ÷ 270* *acres ÷ 0.0062*

1 ton = 2,000 lbs = 1 yd³ = 4 drums = 200 gallons

* Use area of land surface under pile, not surface area of pile.

PA Table 1b: WC Scores for Multiple Source Sites

WQ Total	*WC Score*
>0 to 100	18
>100 to 10,000	32

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NOV 0 6 1990

Site Name: Fran Pugh
Date: 2/6/91

GROUND WATER PATHWAY SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Ground Water Pathway Criteria List, page 71)?	Yes ✓ No ___
Is the site located in karst terrain?	Yes ___ No ___
Depth to aquifer:	10 to 178 ft.
Distance to the nearest drinking-water well:	on site ft.

	A Suspected Release	B No Suspected Release	References
LIKELIHOOD OF RELEASE			
1. SUSPECTED RELEASE: If you suspect a release to ground water (see page 71), assign a score of 550, and use only column A for this pathway.	550		1, 32
2. NO SUSPECTED RELEASE: If you do not suspect a release to ground water, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Use only column B for this pathway.			
LR =	550		
TARGETS			
3. PRIMARY TARGET POPULATION: Determine the number of people served by drinking water from wells that you suspect have been exposed to hazardous substances from the site (see Ground Water Pathway Criteria List, page 71). 0 people x 10 =	0		
4. SECONDARY TARGET POPULATION: Determine the number of people served by drinking water from wells that you do NOT suspect have been exposed to hazardous substances from the site, and assign the total population score from PA Table 2. Are any wells part of a blended system? Yes ✓ No ___ If yes, attach a page to show apportionment calculations.	95		13
5. NEAREST WELL: If you have identified any Primary Targets for ground water, assign a score of 50; otherwise, assign the highest Nearest Well score from PA Table 2. If no drinking-water wells exist within 4 miles, assign a score of zero.	20		31
6. WELLHEAD PROTECTION AREA (WHPA): Assign a score of 20 if any portion of a designated WHPA is within ¼ mile of the site; assign 5 if from ¼ to 4 miles.			16
7. RESOURCES: A score of 5 is assigned.	5	5	
T =	120		
WASTE CHARACTERISTICS			
8. A. If you have identified any Primary Targets for ground water, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.			
B. If you have NOT identified any Primary Targets for ground water, assign the waste characteristics score calculated on page 4.	32		
WC =	32		
GROUND WATER PATHWAY SCORE: LR x T x WC	2560		

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4. The town of Fort Ann has two public supply wells which are blended; the population served by these wells is 550.

Site Name: Fitch Pond
Date: 2/6/91

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PA TABLE 2: VALUES FOR SECONDARY GROUND WATER TARGET POPULATIONS

PA Table 2a: Non-Karst Aquifers

Distance from Site	Population	Nearest Well (choose highest)	Population Served by Wells Within Distance Category: 1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	Population Value
0 to ¼ mile	11	(20)	1	(2)	5	16	52	163	521	1,633	5,214	16,325	2
> ¼ to ½ mile	23	18	1	(1)	3	10	32	101	323	1,012	3,233	10,121	1
> ½ to 1 mile	70	9	1	1	(2)	6	17	52	167	522	1,668	5,224	2
> 1 to 2 miles	865	5	1	1	1	3	(9)	29	94	294	939	2,938	9
> 2 to 3 miles	3,699	3	1	1	1	2	7	21	(68)	212	678	2,122	68
> 3 to 4 miles	1,279	2	1	1	1	1	4	(13)	42	131	417	1,306	13
Nearest Well =		20									Score =		95

PA Table 2b: Karst Aquifers

Distance from Site	Population	Nearest Well (use 20 for karst)	Population Served by Wells Within Distance Category: 1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	Population Value
0 to ¼ mile		20	1	2	5	16	52	163	521	1,633	5,214	16,325	
> ¼ to ½ mile		20	1	1	3	10	32	101	323	1,012	3,233	10,121	
> ½ to 1 mile		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 1 to 2 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 2 to 3 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
> 3 to 4 miles		20	1	1	3	8	26	82	261	816	2,607	8,162	
Nearest Well =											Score =		

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NOV 06 1990 Date: 2/6/91

SURFACE WATER PATHWAY
LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Surface Water Pathway Criteria List, page 111)?	Yes ✓ No ___
Distance to surface water:	500 ft
Flood Frequency:	___ yrs
What is the downstream distance to the nearest drinking-water intake?	½ miles
nearest fishery? 0.4 miles nearest sensitive environment? ___ miles	

	A Suspected Release	B No Suspected Release	References
LIKELIHOOD OF RELEASE			
1. SUSPECTED RELEASE: If you suspect a release to surface water (see page 111), assign a score of 550, and use only column A for this pathway.	550		1
2. NO SUSPECTED RELEASE: If you do not suspect a release to surface water, and the distance to surface water is 2,500 feet or less, assign a score of 500; otherwise, assign a score from the table below. Use only column B for this pathway.			
LR =	550		

Floodplain	Score
Site in annual or 10-yr floodplain	500
Site in 100-yr floodplain	400
Site in 500-yr floodplain	300
Site outside 500-yr floodplain	100

DRINKING WATER THREAT TARGETS

3. Determine the water body types, flows (if applicable), and number of people served by all drinking-water intakes within the 15-mile target distance limit. If there are no drinking-water intakes within the target distance limit, assign a total Targets score of 5 at the bottom of this page (Resources only) and proceed to page 14.

Intake Name	Water Body Type	Flow	People Served
___	Mud Pond	0 cfs	0
___	Halfway Creek	20-30 cfs	0
___	Chambers Reservoir	___ cfs	0

References: 20, 21, 22, 24

4. PRIMARY TARGET POPULATION: If you suspect any drinking-water intake listed above has been exposed to hazardous substances from the site (see Surface Water Pathway Criteria List, page 111), list the intake name(s) and calculate the factor score based on the number of people served.

___, ___

0 people x 10 = 0

5. SECONDARY TARGET POPULATION: Determine the Secondary Target Population score from PA Table 3 based on the populations using drinking-water from intakes that you do NOT suspect have been exposed to hazardous substances from the site.

Are any intakes part of a blended system? Yes ___ No ✓
If yes, attach a page to show apportionment calculations.

0

6. NEAREST INTAKE: If you have identified any Primary Targets for the drinking water threat (Factor 4), assign a score of 50; otherwise, assign the Nearest Intake score from PA Table 3. If no drinking-water intake exists within the 15-mile target distance limit, assign a score of zero.

0

7. RESOURCES: A score of 5 is assigned.

5	5

5

Site Name: Finch Pruyn
Date: 2/6/91

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PA TABLE 3: VALUES FOR SECONDARY SURFACE WATER TARGET POPULATIONS

Surface Water Body Flow Characteristics (see PA Table 4)	Population	Nearest Intake (choose highest)	Population Served by Intakes Within Flow Category											Population Value
			1 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,001 to 3,000,000	
10 cfs	_____	20	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,246	_____
to 100 cfs	_____	2	1	1	2	5	16	52	163	521	1,633	5,214	16,325	_____
00 to 1,000 cfs	_____	1	0	0	1	1	2	5	16	52	163	521	1,633	_____
,000 to 10,000 cfs	_____	0	0	0	0	0	1	1	2	5	16	52	163	_____
0,000 cfs or at Lakes	_____	0	0	0	0	0	0	0	1	1	2	5	16	_____
ile Mixing Zone	_____	10	1	3	8	26	82	261	816	2,607	8,162	26,068	81,663	

Nearest Intake = _____ Score = _____

PA TABLE 4: SURFACE WATER TYPE / FLOW CHARACTERISTICS WITH DILUTION WEIGHTS FOR SECONDARY SURFACE WATER SENSITIVE ENVIRONMENTS

Type of Surface Water Body			Dilution Weight
Water Body Type	OR	Flow Characteristics	
minimal stream		flow less than 10 cfs	1
small to moderate stream		flow 10 to 100 cfs	0.1
moderate to large stream		flow greater than 100 to 1,000 cfs	N/A
large stream to river		flow greater than 1,000 to 10,000 cfs	N/A
large river		flow greater than 10,000 cfs	N/A
3-mile mixing zone of quiet flowing streams or rivers		flow 10 cfs or greater	N/A
coastal tidal water (harbors, sounds, bays, etc.), ocean, or Great Lakes		N/A	N/A

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SURFACE WATER PATHWAY (continued)
HUMAN FOOD CHAIN THREAT SCORESHEET

LIKELIHOOD OF RELEASE		A Suspected Release	B No Suspected Release	Reference
Enter the Surface Water Likelihood of Release score from page 12.	LR =	550		

HUMAN FOOD CHAIN THREAT TARGETS

8. Determine the water body types and flows (if applicable) for all fisheries within the 15-mile target distance limit. If there are no fisheries within the target distance limit, assign a Targets score of 0 at the bottom of this page and proceed to page 15.

Fishery Name	Water Body Type	Flow
Mud Pond		0 cfs
Halfway Creek	Small-Moderate	10-100 cfs
Champlain Barge Canal		cfs
		cfs
		cfs

12

9. PRIMARY FISHERIES: If you suspect any fishery listed above has been exposed to hazardous substances from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 10. List the Primary Fisheries:

Mud Pond, Halfway Creek
Champlain Barge Canal.

300

19,20 c

10. SECONDARY FISHERIES: If you have not identified any Primary Fisheries, assign a Secondary Fisheries score from the table below using the LOWEST flow at any fishery within the 15-mile target distance limit.

Lowest Flow	Secondary Fisheries Score
< 10 cfs	210
10 to 100 cfs	30
> 100 cfs, coastal tidal waters, oceans, or Great Lakes	12

T = 300

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SURFACE WATER PATHWAY (continued)
ENVIRONMENTAL THREAT SCORESHEET

LIKELIHOOD OF RELEASE		A Suspected Release	B No Suspected Release	Refer
Enter the Surface Water Likelihood of Release score from page 12.	LR =	550		

ENVIRONMENTAL THREAT TARGETS

11. Determine the water body types and flows (if applicable) for all surface water sensitive environments within the 15-mile target distance limit (see PA Tables 4 and 5). If there are no sensitive environments within the 15-mile target distance limit, assign a Targets score of 0 at the bottom of this page, and proceed to page 17.

Environment Name	Water Body Type	Flow
Wetlands	Mud Pond	____ cfs
		____ cfs
		____ cfs
		____ cfs
		____ cfs

12

12. PRIMARY SENSITIVE ENVIRONMENTS: If you suspect any sensitive environment listed above has been exposed to hazardous substances from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 13. List the Primary Sensitive Environments:

Mud Pond, _____,
_____, _____.

300

13

13. SECONDARY SENSITIVE ENVIRONMENTS:

A. For Secondary Sensitive Environments on surface water bodies with flows of 100 cfs or less, assign scores as follows, and do not evaluate part B of this factor:

Flow	Dilution Weight (PA Table 4)		Environment Type and Value (PA Tables 5 and 6)		Total
cfs		x		=	
cfs		x		=	
cfs		x		=	
cfs		x		=	
cfs		x		=	

Sum =

B. If NO Secondary Sensitive Environments are located on surface water bodies with flows of 100 cfs or less, assign a score of 10.

0

T = 300

541

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Site Name:
Date:

PA TABLE 5: SURFACE WATER AND AIR SENSITIVE ENVIRONMENTS VALUES

Sensitive Environment	Assigned Value
Critical habitat for Federally designated endangered or threatened species Marine Sanctuary National Park Designated Federal Wilderness Area Ecologically important areas identified under the Coastal Zone Wilderness Act Sensitive Areas identified under the National Estuary Program or Near Coastal Water Program of the Clean Water Act Critical Areas identified under the Clean Lakes Program of the Clean Water Act (subareas in lakes or entire small lakes) National Monument National Seashore Recreation Area National Lakeshore Recreation Area	100
Habitat known to be used by Federally designated or proposed endangered or threatened species National Preserve National or State Wildlife Refuge Unit of Coastal Barrier Resources System Federal land designated for the protection of natural ecosystems Administratively Proposed Federal Wilderness Area Spawning areas critical for the maintenance of fish/shellfish species within a river system, bay or estuary Migratory pathways and feeding areas critical for the maintenance of anadromous fish species in a river system Terrestrial areas utilized by large or dense aggregations of vertebrate animals (semi-aquatic foragers) for breeding National river reach designated as recreational	75
Habitat known to be used by State designated endangered or threatened species Habitat known to be used by a species under review as to its Federal endangered or threatened status Coastal Barrier (partially developed) Federally designated Scenic or Wild River	50
State land designated for wildlife or game management State designated Scenic or Wild River State designated Natural Area Particular areas, relatively small in size, important to maintenance of unique biotic communities	25
State designated areas for the protection/maintenance of aquatic life under the Clean Water Act	5
Wetlands	See PA Table 6 (Surface Water Pathway) or PA Table 9 (Air Pathway)

PA TABLE 6: SURFACE WATER WETLANDS FRONTAGE VALUES

Total Length of Wetlands	Assigned Value
Less than 0.1 mile	0
0.1 to 1 mile	25
Greater than 1 to 2 miles	50
Greater than 2 to 3 miles	75
Greater than 3 to 4 miles	100
Greater than 4 to 8 miles	150
Greater than 8 to 12 miles	250
Greater than 12 to 16 miles	350
Greater than 16 to 20 miles	450
Greater than 20 miles	500

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SURFACE WATER PATHWAY (concluded)
WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE SUMMARY

WASTE CHARACTERISTICS	A *Suspected Release*	B *No Suspected Release*
14. A. If you have identified ANY Primary Targets for surface water (pages 12, 14, or 15), assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.		
B. If you have NOT identified any Primary Targets for surface water, assign the waste characteristics score calculated on page 4.	32	
WC =	32	

SURFACE WATER PATHWAY THREAT SCORES

Threat	*Likelihood of Release (LR) Score (from page 12)*	*Targets (T) Score*	*Pathway Waste Characteristics (WC) Score (determined above)*	*Threat Score LR x T x WC / 82,500*
Drinking Water	550	5	32	1.07
Human Food Chain	550	300	32	64.00
Environmental	550	300	32	64.00

SURFACE WATER PATHWAY SCORE
(Drinking Water Threat + Human Food Chain Threat + Environmental Threat) 100.00

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SOIL EXPOSURE PATHWAY SCORESHEET

Pathway Characteristics	
Do any people live on or within 200 ft of areas of suspected contamination?	Yes ___ No ✓
Do any people attend school or day care on or within 200 ft of areas of suspected contamination?	Yes ___ No ✓
Is the facility active? Yes ✓ No ___ If yes, estimate the number of workers: 10	

		A Suspected Contamination	B No Suspected Contamination	Reference
LIKELIHOOD OF EXPOSURE				
1. SUSPECTED CONTAMINATION: Surficial contamination is assumed. A score of 550 is assigned.	LE =	550		1
RESIDENT POPULATION THREAT TARGETS				
2. RESIDENT POPULATION: Determine the number of people occupying residences or attending school or day care on or within 200 feet of areas of suspected contamination (see Soil Exposure Pathway Criteria List, page 18). 0 people x 10 =		0		
3. RESIDENT INDIVIDUAL: If you have identified any Resident Population (Factor 2), assign a score of 50; otherwise, assign a score of 0.		0		
4. WORKERS: Assign a score from the following table based on the total number of workers at the facility and nearby facilities with suspected contamination:		5		31
5. TERRESTRIAL SENSITIVE ENVIRONMENTS: Assign a value from PA Table 7 for each terrestrial sensitive environment that is located on an area of suspected contamination:		0		
6. RESOURCES: A score of 5 is assigned.	Sum =	5		
	T =	10		
WASTE CHARACTERISTICS				
7. Assign the waste characteristics score calculated on page 4.	WC =	32		
RESIDENT POPULATION THREAT SCORE:	LE x T x WC / 82,500	2.13		
NEARBY POPULATION THREAT SCORE: *Assign a score of 2*		2		

Number of Workers	Score
0	0
1 to 100	5
101 to 1,000	10
>1,000	15

Terrestrial Sensitive Environment Type	Value

54

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Date: 2/6/91

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AIR PATHWAY SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Air Pathway Criteria List, page 211?	Yes ___ No X
Distance to the nearest individual:	onsite ft

	A Suspected Release	B No Suspected Release	References
LIKELIHOOD OF RELEASE			
1. SUSPECTED RELEASE: If you suspect a release to air (see page 21), assign a score of 550, and use only column A for this pathway.			
2. NO SUSPECTED RELEASE: If you do not suspect a release to air, assign a score of 500, and use only column B for this pathway.		500	1
LR =		500	
TARGETS			
3. PRIMARY TARGET POPULATION: Determine the number of people subject to exposure from a release of hazardous substances through the air (see Air Pathway Criteria List, page 211). ____ people x 10 =			
4. SECONDARY TARGET POPULATION: Determine the number of people within the 4-mile target distance limit, and assign the total population score from PA Table 8.		5	13
5. NEAREST INDIVIDUAL: If you have identified any Primary Targets for the air pathway, assign a score of 50; otherwise, assign the highest Nearest Individual score from PA Table 8.		20	31
6. PRIMARY SENSITIVE ENVIRONMENTS: Sum the sensitive environment values (PA Table 5) and wetland acreage values (PA Table 9) for environments subject to exposure from air hazardous substances (see Air Pathway Criteria List, page 211).			
Sensitive Environment Type / Value: ____ / ____; ____ / ____			
Sum =			
7. SECONDARY SENSITIVE ENVIRONMENTS: Use PA Table 10 to determine the score for secondary sensitive environments.		0.625	12
8. RESOURCES: A score of 5 is assigned.	5	5	
T =		3063	
WASTE CHARACTERISTICS			
9. A. If you have identified any Primary Targets for the air pathway, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.			
B. If you have NOT identified any Primary Targets for the air pathway, assign the waste characteristics score calculated on page 4.		32	
WC =		32	

AIR PATHWAY SCORE: LR x T x WC = 494

545

Site Name: Finch Prop
Date: 2/6/91

PA TABLE 8: VALUES FOR SECONDARY AIR TARGET POPULATIONS

Distance from Site	Population	Nearest Individual (choose highest)	Population Within Distance Category: 1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	300,001 to 1,000,000	1,000,001 to 3,000,000	Population Value
Onsite	10	(20)	(1)	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,248	1
>0 to ¼ mile	11	20	1	(1)	1	4	13	41	130	408	1,303	4,081	13,034	40,811	1
>¼ to ½ mile	23	2	0	(0)	1	1	3	9	28	88	282	882	2,815	8,815	0
>½ to 1 mile	70	1	0	0	(0)	1	1	3	8	26	83	261	834	2,612	0
>1 to 2 miles	865	0	0	0	0	0	(1)	1	3	8	27	83	266	833	1
>2 to 3 miles	3,699	0	0	0	0	0	1	1	(1)	4	12	38	120	376	1
>3 to 4 miles	1,279	0	0	0	0	0	0	(1)	1	2	7	23	73	229	1

Nearest Individual = [ ]

Score = 5

PA TABLE 9: AIR PATHWAY VALUES FOR WETLAND AREA

Wetland Area	Assigned Value
Less than 1 acre	0
1 to 50 acres	25
Greater than 50 to 100 acres	75
Greater than 100 to 150 acres	125
Greater than 150 to 200 acres	175
Greater than 200 to 300 acres	250
Greater than 300 to 400 acres	350
Greater than 400 to 500 acres	450
Greater than 500 acres	500

PA TABLE 10: DISTANCE WEIGHTS AND CALCULATIONS FOR AIR PATHWAY SECONDARY SENSITIVE ENVIRONMENTS

Distance	Distance Weight	Sensitive Environment Type and Value from PA Table 5 or 9	Product
Onsite	0.10	x	
		x	
0-1/4 mi	0.025	x 25	0.625
		x	
		x	
1/4-1/2mi	0.0054	x	
		x	
		x	
		x	

Total Environments Score = 0.625

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