ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

PHASE 1 INVESTIGATION

Pawling Rubber Company
Site No. 314002
Pawling, Dutchess County

Final - June, 1988

Prepared for :
New York State
Department of
Environmental Conservation

50 Wolf Road, Albany, New York 12233
Thomas C. Jorling, Commissioner

Division of Hazardous Waste Remediation
Michael J. O'Toole, P. E., Director

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50 Wolf Road, Albany, New York

Prepared by:

GIBBS & HILL, INC.
New York, New York

CONTENTS

1. EXECUTIVE SUMMARY

The Pawling Rubber Company site (New York I.D. No. 314002, EPA I.D. NYD001354349) is located at 157 Charles Colman Boulevard (formerly Maple Boulevard), Pawling, Dutchess County, New York (Figure 1). The Pawling Corporation is made up of the Pawling Rubber Company and Preray, and has been at this location since 1946. The Pawling Rubber Company is an extruded and molded rubber manufacturing plant. On the property is an inactive landfill which is covered by a parking lot [A-1, Photo #1]. The property is in a wetlands area [A-1, Photo #2&3].

Many years ago, a low area on the property was landfilled using construction material, blocks, boards, scrap rubber and scrap machinery. The dates of the landfilling process, the composition of the material and the amount of material landfilled is not known. The area is completely paved over and the brook running under the property is piped by a 30 inches galvanized steel pipe. Therefore, migration of any contamination from the landfilled materials is unlikely. There is no record of hazardous waste disposal at the site.

Pawling Rubber has a discharge of contaminated stormwater to a dry well located inside the plant, which may contaminate groundwater. The company is in process of installing monitoring wells to see if any of its discharges are seriously impacting the groundwater.

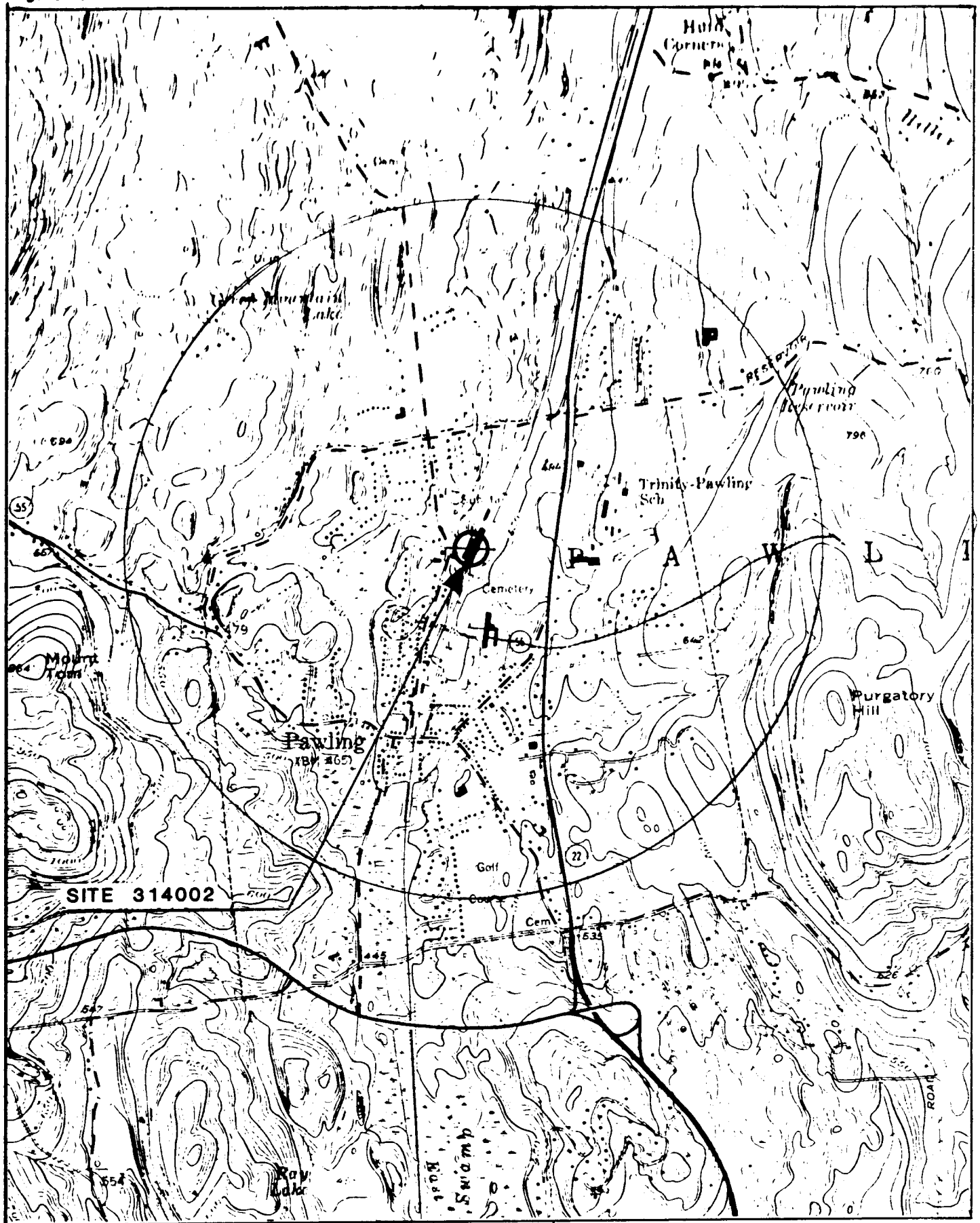
The Swamp River into which the piped brook flows is used for cooling water discharge and is regularly monitored. Analytical results from the Swamp River sampling process conducted downstream of the discharge by Nenco Lab on August 4, 1987 indicate no detectable amount of contaminants. The Gibbs & Hill, Inc. (G&H) site inspection found no evidence of stressed vegetation in the wetlands around the plant.

The preliminary HRS scores for this site are as follows: S_M = 20.15, (S_{GW} = 33.40, S_{SW} = 10.00, Sa = 0.00), S_{FE} = N/A, and S_{DC} = 0.00.

A Phase II investigation is recommended. Gibbs & Hill recommends that DEC reviews the Work Plan and obtains data from the monitoring wells which are planned to be installed in the near future by the Pawling Rubber Co.

Figure 1

PAWLING RUBBER COMPANY



COORDINATES:

LAT. 41 34' 07"

LONG. 73 35' 53"

0 1000 2000

SCALE (FEET)

MAP SOURCE:

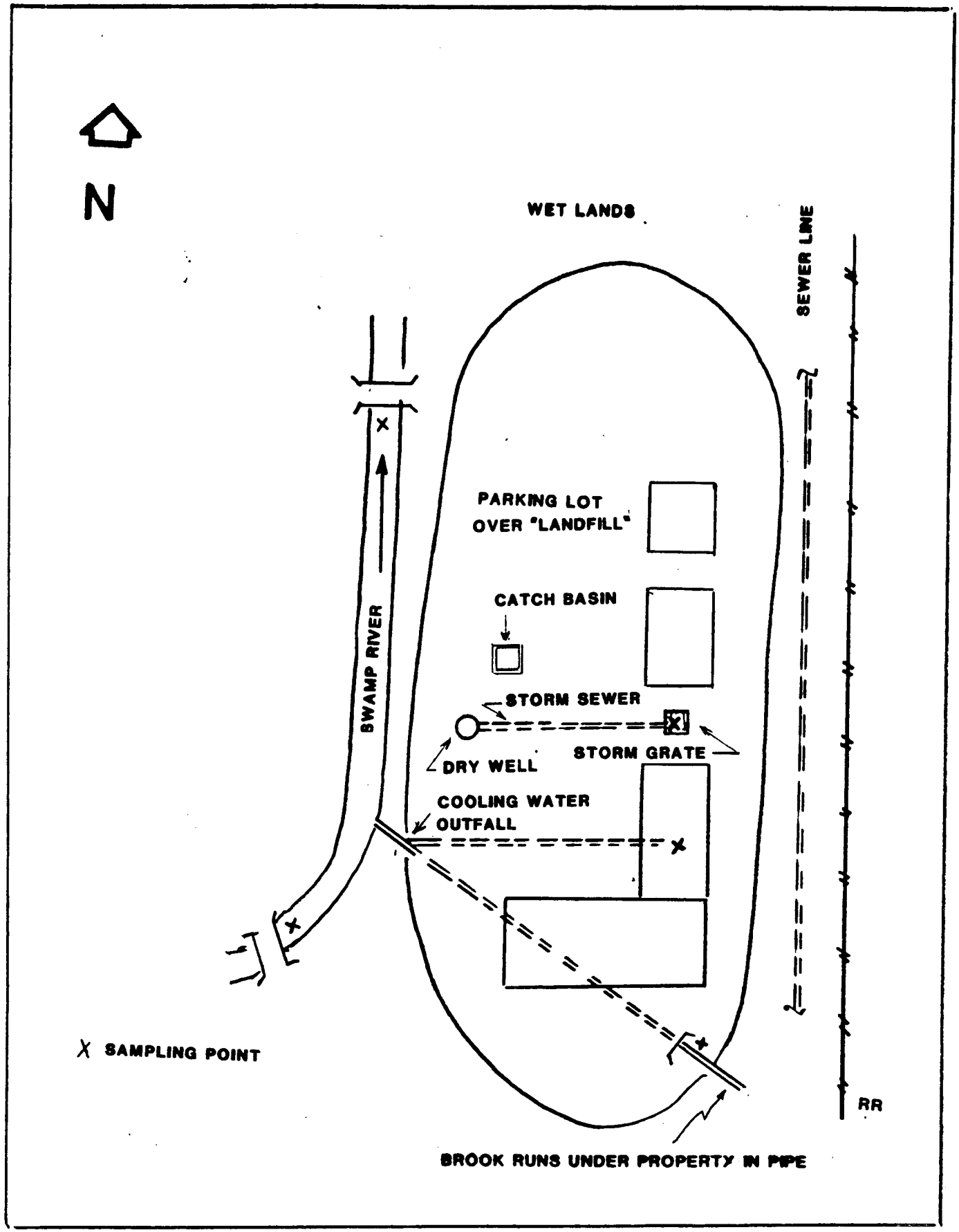
USGS MAP PAWLING QUAD.

NEW YORK DUTCHESS CTY.

7.5 MINUTE SERIES (Photorevised 1971)

Figure 2

PAWLING RUBBER COMPANY



2. PURPOSE

The Pawling Rubber Company site is listed in the Registry of "Inactive Hazardous Waste Disposal Sites in New York State" as an inactive landfill covered by a parking lot or building expansion.

The Phase I investigation at the Pawling Rubber Company provides a preliminary characterization of any hazardous substances at this site, establishes possible migration route of pollutants, determines the population or resources which could be affected by pollutants from the site, investigates site operation and determines the party responsible for wastes at the site.

This Phase I investigation consists of the following:

A. The compilation of existing information about the site including:

   1) Records on site history from local, county, state, and federal agencies.

   2) Information on site topography, geology, surface and groundwater and local demographics.

   3) Interviews of site operators and other individuals and parties with knowledge of the site.

B. The inspection of the site to:

   1) Observe current conditions.

   2) Verify information, where possible.

C. The review of all available data

D. The preparation of a Phase I report containing:

1) A summary of findings.

2) The computation of a preliminary Hazard Ranking System (HRS) score.

3. SCOPE OF WORK

The Phase I investigation of the Pawling Rubber Company site involved a site inspection by Gibbs & Hill, Inc., interviews and record searches.

The following individuals and agencies were contacted:

Contact	Information Received
Lewis DeCarlo Vice President/Operations Susan Thompson Pawling Corporation 157 Charles Colman Boulevard Pawling, N Y 12564-1188 (914) 855-1000	Interview
David Ruff Dutchess County Department of Health 22 Market Street Poughkeepsie, N Y 12601 (914) 431-2044	Site File
Lawrence J. Alden Michael J. Komoroske Marsden Chen, P.E. N.Y. State Dept. of Environmental Conservation Bureau of Hazardous Site Control Div. of Hazardous Waste Remediation 50 Wolf Road Albany, N Y 12233-0001 (518) 457-0639	NYSDEC Files
Ramanand Pergadia, P.E. Shayne Mitchell N.Y. State Dept. of Environmental Conservation Div. of Solid and Hazardous Waste 21 South Putt Corners Road New Paltz, N Y 12561 (914) 255-5453	NYSDEC Files

Contact	Information Received
Mark Moroukian N.Y. State Dept. of Environmental Conservation Bureau of Eastern Remedial Action Div. of Hazardous Waste Remediation 50 Wolf Road Albany, N Y 12233-0001 (518) 457-0639	NYSDEC Files
N.Y. State Department of Health Division of Environmental Protection Bureau of Public Water Supply Protection Empire State Plaza Corning Tower Building Albany, N Y 12237 (518) 457-4408	NYS Atlas of Community Water System Sources 1982
N.Y. State Dept. of Transportation 1220 Washington Ave. - Bldg. F Albany, N Y 12224	NYSDOT Quad Maps
Bruno Nemikus USGS 5 Aerial Way Syosset, N Y (516) 938-8830	Published Info. on Geology, Topography, Groundwater, and Wells
Fred Gilbert (State Soil Scientist) U.S. Dept. of Agriculture Soil Conservation Service U.S. Courthouse and Federal Bldg. 100 So. Clinton Street Syracuse, N Y 13260 (315) 423-5521	County Soil Borings
Jerard S. Hankin Hankin, Hanig, Stall & Shafran 319 Main Mall Rear P.O. Box 911 Poughkeepsie, N.Y. 12602	Site Water Info.
Ben Con Etta Davila Juan Environmental Protection Agency 26 Federal Plaza New York, N Y (212) 264-6696	EPA ID No. Info.
Norman Boson Soil & Water Conservation District P.O. Box 37 Millbrook, N Y 12545 (914) 677-3194	Agriculture Land Info.

4. SITE ASSESSMENT

4.1 Site History

The Pawling Rubber Company is located at 157 Charles Colman Boulevard (formerly Maple Boulevard), Pawling, Dutchess County, New York. The Pawling Corporation is made up of the Pawling Rubber Company and Preray and has been at this location since 1946. The Pawling Rubber Company is an extruded and molded rubber manufacturing plant. On the property is an inactive landfill which is covered by a parking lot. The property is in a wetlands area [A-1, Photo #2&3] and permits have been required to extend the plant.

During the G&H site visit, Lewis DeCarlo, Vice President of Operations for the Pawling Corporation, stated that many years ago a low area on the property was landfilled using construction material, blocks, boards, scrap rubber and scrap machinery. The dates of the landfilling process, the composition of the material and the amount of material landfilled is not known. However, a letter written in 1978 indicates that on-site landfilling stopped in the early 1970's [A-2-1-1]. The landfill is now under a paved parking lot [A-1, Photo #1]. A low area adjacent to this parking lot was filled in with soil.

A brook, which is piped by a 30 inches galvanized steel pipe under the parking lot and through the landfill area, joins the Swamp River running north through the wetlands along the east side of the property (Figure 2). Currently, the plant discharges its cooling water into the piped brook on the west side of the property under a SPDES permit [A-3-1-2].

Other wastes generated by the operations at the plant, including waste solvent, waste oil and sludge [A-4-3-3] are stored at the hazardous waste storage area. Area drainage is conveyed to a catch basin. Until 1981, the waste solvents were burned on-site and the waste oil and sludge were sent to the Pawling Town dump. Since 1981 the wastes have been handled by a removal disposal company [A-5-5-5].

4.2 Site Topography

The surface of Dutchess County is moderately irregular, consisting of an almost continuous alternation of hills and valleys. The county is divided, on the basis of topography, into two relatively distinct parts: 1) numerous small irregular shaped hills, and 2) numerous regular shaped hills and low mountains. The topographic section characterized by numerous small irregular shaped hills is located west of Wappinger Creek and longitude 73^{o} 45' W [A-6-2-9]. The Pawling Rubber Company site is located in the southeast corner of Dutchess County within the regular shaped hills and low mountain topographic region.

The site is located approximately 1,500 feet east of Green Mountain Lake, 900 feet north of Reservoir Road, and 1,400 feet west of Route 22. The nearest river is an unnamed tributary of the Swamp River which runs under the site and the nearest sensitive environment is a freshwater wetlands located downgradient 100 feet west and northwest of the site. In 1982 (date approximate), Pawling Rubber Company received a permit to construct a building within the adjacent freshwater wetlands. The site is partially located in surface waters.

Site topography is variable from less than three percent in parking lots and areas immediate to buildings to greater than ten percent along the edges of the property line. However, the average slope of the site is generally less than three percent.

The site is approximately 10 feet higher in elevation than the adjacent wetlands, therefore flooding is unlikely.

4.3 Site Hydrogeology

The climate of Dutchess County is humid continental and is characterized by long cold winters, short warm summers, and abundant rainfall. The mean monthly temperature is approximately 49^{o}F and the mean annual precipitation is about 45 inches (Figure 4-1). The one-year 24-hour rainfall is approximately 2.85 inches. The mean annual lake evaporation is 31 inches, thus net annual precipitation is 14 inches.

Groundwater occurs in all geologic formations in Dutchess County. The two principal water bearing formation or groups are: 1) the consolidated rocks that range in age from Precambrian to Ordovician, and 2) unconsolidated deposits of Pleistocene and Recent Age, [A-6-4-9]. The principal bedrock units within the county are the undifferentiated granite and gneiss (Precambrian), the Cheshire Quartzite (Early Cambrian), the Stockbridge limestone (Ordovician and Cambrian), and the Hudson River formation (Ordovician). The Stockbridge limestone formation underlies the Pawling Rubber Company site. This formation is chiefly composed of calcium carbonate and calcium magnesium carbonate, [A-6-8-9]. The lower part of the unit is chiefly dolomite and the upper portion limestone. Depth to bedrock at the site is 20 feet based on data from well Du 550 [A-6-9-9].

Unconsolidated material mantling is likely glacial till composed of heterogeneous mixtures of boulders and clay deposits. Permeability of the till is about 10^{-6} cm/sec. Glacial till in Dutchess County is generally thin and impermeable but yields small water supplies to large diameter wells [A-6-5-9]. Resting on top of the glacial till are recent alluvial deposits consisting of clay and silt (based on the fact that the site is boarded by wetlands). Permeability of the clay and silt is

between 10^{-6} cm/sec to 10^{-7} cm/sec. Groundwater flow within the alluvial deposits is believed to be west towards the freshwater wetlands. The aquifer of concern is the Stockbridge bedrock aquifer.

The Stockbridge limestone formation is the most productive bedrock formation in Dutchess County with an average yield of 22 gpm to a maximum of 220 gpm. Therefore, the permeability of the formation is likely to be moderate (i.e. 10^{-3} cm/sec). This is supported by on-site data with well Du 550 having a capacity of 5 gpm/ft. drawdown. The aquifer is not a sole source water supply. Surface water reservoirs (i.e., Pawling Reservoir located 1.2 miles northeast) also provide for potable water.

The on-site 6" well (Du 550) was originally drilled in the 1940's for industrial purposes. The total depth drilled was 145 feet. The well had a yield of 50 gpm (72,000 gpd) with a drawdown of 10 feet. Therefore, the well had a capacity of 5 gpm/ft. drawdown, [A-6-9-9]. The well is no longer in use.

4.4 Site Contamination

Waste Types and Quantities

An interview with Lewis DeCarlo, Vice President of Operations for the Pawling Corporation, indicated that wastes deposited in the landfill included construction material, block, boards, scrap rubber and scrap machinery. No records of this landfill exist. The quantity of material is not known.

Pawling Rubber's permitted SPDES outfall 001 (cooling water) was recently sampled and found to contain moderate levels of copper and zinc and low levels of chromium; lead; Trans-1-2-Dichloroethene; Tetrachloroethene; 1,1,1- Trichloroethane. The source of this cooling water is a water supply well, therefore the solvents are probably being pumped from the groundwater.

Pawling Rubber also has a discharge of contaminated stormwater to a dry well (groundwater). This discharge contains high levels of antimony, cadmium, chromium, copper, lead, iron, 1,1,1-Trichloroethane and moderate to low levels of zinc, aluminum, manganese, Trans -1,2 - Dichloroethene and methylene chloride, [A-7-1-8].

Groundwater

Village of Pawling Water Supply Wells near the Pawling Rubber Company site found to contain traces of organics [A7-1-8]. The company's monitoring wells appear to be installed in the near future and well data will be available very soon.

Surface Water

A piped brook flows under the property and into the wetlands. The stream flowing north in the wetlands is used as cooling water discharge and is monitored under a SPDES Permit.

Soil

No data available.

Air

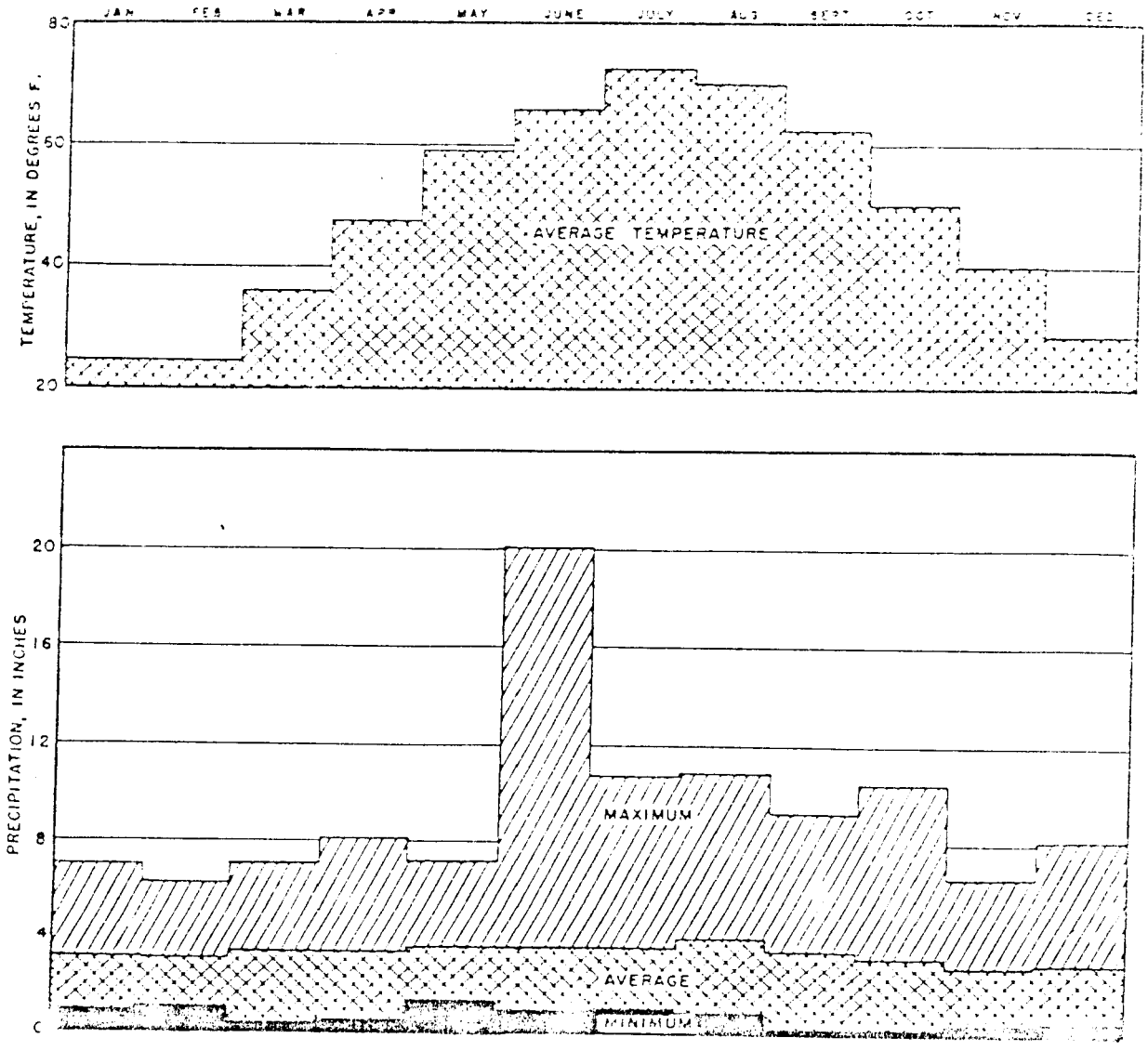
No data available.

Table 4-1

Class	Age	Geologic Unit		Maximum thickness (feet)	Character of material	Water-bearing properties
Unconsolidated deposits	Recent	Alluvium		30±	Clay, silt sand, and gravel deposited by present-day streams in lakes, swamps, and on flood plains.	Not important as source of water because of limited thickness and restriction to discontinuous areas adjacent to streams. Potentially important, however, in larger valleys where coarse-grained material permits induced infiltration from nearby streams.
	Pleistocene	Stratified drift	Sand and gravel	200	Irregularly interbedded and interlensing sand and gravel formed by glacial melt-water streams.	Most productive source of ground water in county, though restricted in areal extent to portions of main stream valleys. Yields moderate to large supplies from properly constructed wells. Water moderately hard in parts of the valleys underlain by Stockbridge limestone.
			Lacustrine deposits	200	Clay and silt deposited in glacial lakes.	Yields little water. Generally acts as a confining bed where underlain by permeable deposits.
		Unstratified drift	Till	150	Heterogeneous mixture of boulders and clay deposited by glacial ice. In places, contains small lenses of sand and gravel. Locally called "hardpan."	Generally thin and impermeable but yields small supplies to wells of large diameter.
Consolidated rocks	Late (?) and Middle Ordovician	Hudson River formation		3,000+	Shale or slate, chiefly gray or black but locally red, purple, and green. Contains beds of grit, limestone, limestone conglomerate, and black chert. Metamorphosed to phyllite and in east to schist.	Most extensive bedrock formation in county. Yields average 16 gpm. Water moderately soft and fairly low in dissolved solids, but hydrogen sulfide reported in some wells.
	Ordovician and Cambrian	Stockbridge limestone		1,000±	White, blue, and gray limestone and dolomite metamorphosed to marble in east. Veins of calcite and quartz common.	Chiefly restricted to valley areas. Most productive bedrock formation; yields average 22 gpm and range widely from 0 to 220 gpm. Water moderately hard and relatively high in dissolved solids.
	Early Cambrian	Cheshire quartzite		600±	Strong, compact rock composed almost entirely of quartz. Generally white except locally, where impurities result in buff or pink color.	Unimportant as a source of ground water because of small areal extent. Yields of five wells in southern part of county average 10 gpm.
	Precambrian	Undifferentiated granite and gneiss		Unknown	Banded black and white gneiss and gray or pink granite. Chief minerals feldspar and quartz. Locally contains basic dikes, quartz veins, and minor amounts of schist and marble.	Principally restricted to southern part of county. Yields of wells average 11 gpm. Water generally soft and low in dissolved solids.

Source: Reference A-6 , Pg. 14

Figure 4-1



Average monthly temperature and maximum, average, and minimum monthly precipitation at Wappingers Falls for the period 1893-1950.

Source: Reference A-6 , pg. 11

5. PRELIMINARY HRS SCORE

5.1 Narrative Summary

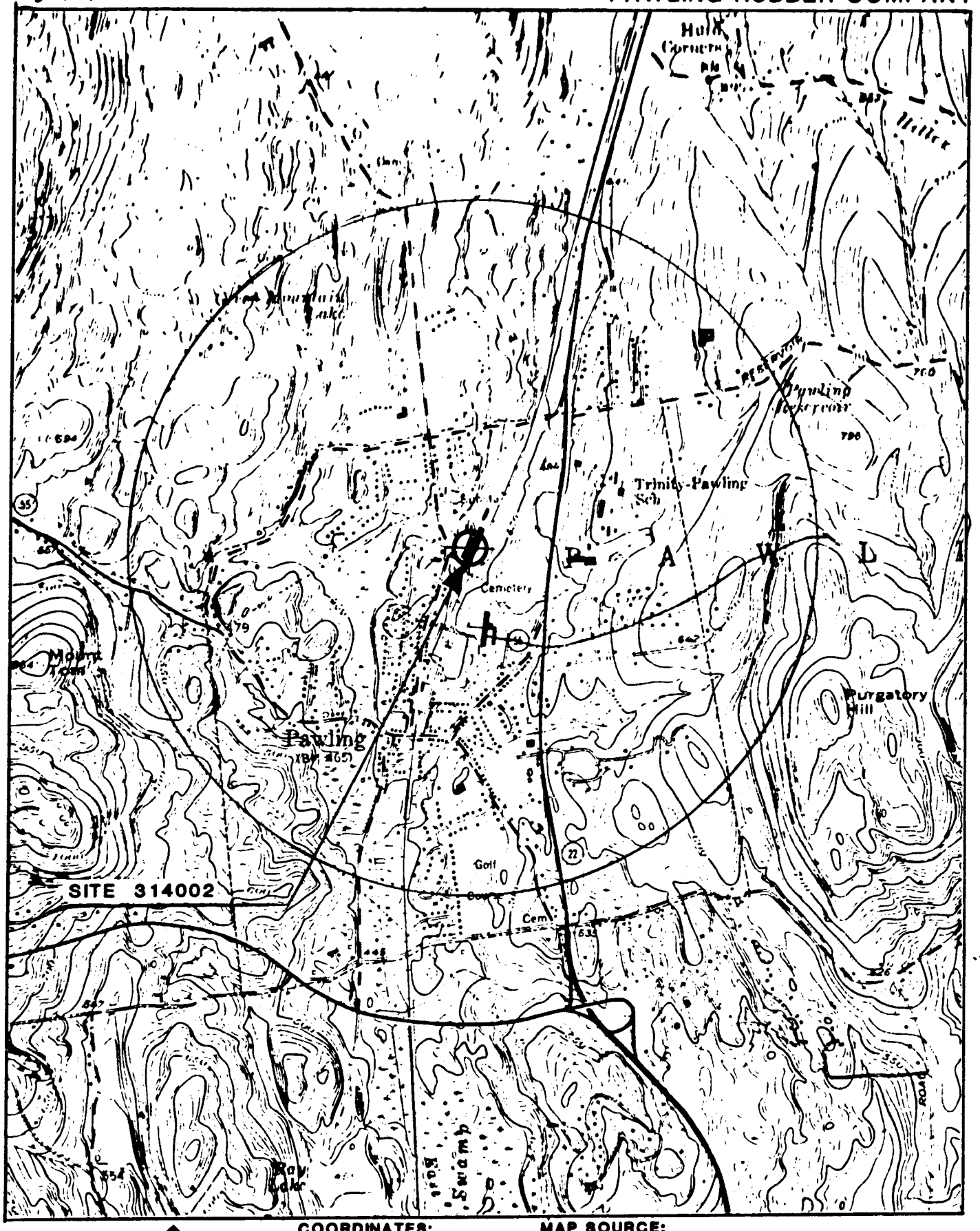
The Pawling Rubber Company site is located at 157 Charles Colman Boulevard, Pawling, Dutchess County, New York. The company manufactures extruded and molded rubber products and has been at the location since 1946. On the property is an inactive landfill which is covered by a parking lot.

Many years ago a low area on the property was landfilled using construction material, blocks, boards, scrap rubber and scrap machinery. The dates of the landfilling process, the composition of the material and the amount of material landfilled is not known. The Pawling Corporation property is in a wetlands area. A piped brook flows under the property into a nearby wetlands. The Swamp River flows northward through the wetlands along the west side of the Pawling Corporation. The population within one mile of the site is on the public water supply.

5.2 Location

Figure 1

PAWLING RUBBER COMPANY



N

COORDINATES:

LAT. 41 34' 07"

LONG. 73 35' 58"

0 1000 2000

SCALE (FEET)

MAP SOURCE:

USGS MAP PAWLING QUAD.

NEW YORK DUTCHESS CTY.

7.5 MINUTE SERIES (Photorevised 1971)

5.3 HRS Worksheets

Facility name: Pawling Rubber Company

Location: 157 Charles Colman Blvd.

EPA Region: II

Person(s) in charge of the facility: Lewis DeCarlo
Vice President/Operations

Name of Reviewer: Propersi/Radko Date: 9/10/87

General description of the facility:

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

This site is an inactive landfilled covered by a paved parking lot. There is no record of hazardous waste disposal at the site. The landfill was a low area and was filled in with construction material, scrap metal and machinery. The site is adjacent to wetlands. A piped brook flows under the property and north into the wetlands.

Scores: S_M = 20.15 (S_{gw} = 33.40 S_{sw} = 10.00 S_a = 0.00)
S_{FE} = N/A
S_{DC} = 0.00

FIGURE 1
HRS COVER SHEET

Ground Water Route Work Sheet							
Rating Factor	Assigned Value (Circle One)		Multi-plier	Score	Max. Score	Ref. (Section)	Max. Score
1 Observed Release	(0) 45		1	0	45	3.1	45
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	6	6		
Net Precipitation	0 1 (2) 3		1	2	3		
Permeability of the Unsaturated Zone	0 (1) 2 3		1	1	3		
Physical State	0 1 2 (3)		1	3	3		
Total Route Characteristics Score				12	15		12
3 Containment	0 1 2 (3)		1	3	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	1	8		
Total Waste Characteristics Score				13	26		13
5 Targets						3.5	
Ground Water Use	0 1 (2) 3		3	6	9		
Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 (20) 24 30 32 (35) 40		1	35	40		
Total Targets Score				41	49		41
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				19,188	57.330		23,985
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} =		33.40			41.84

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet							Max. Score
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)		
1 Observed Release	(0) 45	1	0	45	4.1		45
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	0	3			
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3			
Distance to Nearest Surface Water	0 1 2 (3)	2	6	6			
Physical State	0 1 2 (3)	1	3	3			
Total Route Characteristics Score			11	15			11
3 Containment	0 1 2 (3)	1	3	3	4.3		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	1	8			
Total Waste Characteristics Score			13	26			14
5 Targets					4.5		
Surface Water Use	0 1 2 (3)	3	9	9			
Distance to a Sensitive Environment	0 1 2 (3)	2	6	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			15	55			15
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			6,435	64,350			9,450
7 Divide line 6 by 64,350 and multiply by 100	S_{sw} = 10.00						14.69

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

Air Route Work Sheet						
Rating Factor	Assigned Value (Circle One)		Multi-plier	Score	Max. Score	Ref. (Section)
[1] Observed Release	(0)	45	1	0	45	5.1
Date and Location:	No Samples Taken					
Sampling Protocol:	No Samples Taken					
If line [1] is 0, the S_a = 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	0	3	
Toxicity	(0) 1 2 3		3	0	9	
Hazardous Waste Quantity	(0) 1 2 3 4 5 6 7 8		1	0	8	
	Total Waste Characteristics Score			0	20	
[3] Targets						5.3
Population Within 4-Mile Radius	0 9 12 15 (18) 21 24 27 30		1	18	30	
Distance to Sensitive Environment	0 1 2 (3)		2	6	6	
Land Use	0 1 2 (3)		1	3	3	
	Total Targets Score			27	39	
[4] Multiply [1] x [2] x [3]				0	35,100	
[5] Divide line [4] by 35,100 and multiply by 100			S_a =	0.00		

FIGURE 9
AIR ROUTE WORK SHEET

	S	S^2
Groundwater Route Score (S_{gw})	33.40	1115.56
Surface Water Route Score (S_{sw})	10.00	115.99
Air Route Score (S_a)	0.00	0.00
$S_{gw}^2 + S_{sw}^2 + S_a^2$		1215.56
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		34.86
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} \,/\, 1.73 = S_M =$		20.15

FIGURE 10
WORKSHEET FOR COMPUTING S_M

Fire and Explosion Work Sheet N/A*					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1	1	3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1	0	3	
Ignitability	0 1 2 3	1	0	3	
Reactivity	0 1 2 3	1	0	3	
Incompatibility	0 1 2 3	1	0	3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score			0	20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1	5	5	
Distance to Nearest Building	0 1 2 3	1	3	3	
Distance to Sensitive Environment	0 1 2 3	1	3	3	
Land Use	0 1 2 3	1	3	3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1	4	5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1	4	5	
Total Targets Score			22	24	
4 Multiply 1 x 2 x 3			0	1,440	
5 Divide line 4 by 1,440 and multiply by 100		S_{FE} = N/A			

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

*S_{FE} is scored only if a Fire Marshal has certified that the site is a fire and explosion threat or field observation documented a fire and explosion threat. Since neither of these is true, S_{FE} is not scored.

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	(0) 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	(0) 1 2 3	1	0	3	8.2
3 Containment	(0) 15	1	0	15	8.3
4 Waste Characteristics Toxicity	(0) 1 2 3	5	0	15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 (3) 4 5	4	12	20	
Distance to a Critical Habitat	(0) 1 2 3	4	0	12	
Total Targets Score			12	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0	21,600	
7 Divide line 6 by 21,600 and multiply by 100		S_{DC} = "No Score"			

FIGURE 12
DIRECT CONTACT WORK SHEET

5.4 HRS Documentation

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference. Include the location of the document.

FACILITY NAME: Pawling Rubber Company

LOCATION: 157 Charles Colman Blvd., Pawling, NY 12564

DATE SCORED: 9/10/87

PERSON SCORING: Propersi/Kostic

PRIMARY SOURCE(S) OF INFORMATION (e.g. EPA region, FIT, etc.):

Site visit, site representative interview, NYSDEC

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

Sfe, Sdc, Sa - waste characteristics and quantity are not known, no air sample data is available.

COMMENTS OR QUALIFICATIONS:

The site is an inactive landfill covered by a paved parking lot. There is no record of hazardous waste disposal at the site.

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

No release observed.

Rationale for attributing the contaminants to the facility:

N/A
Score = 0

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

20 feet. Stockbridge limestone aquifer. [1]

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

4 feet. [1]

Depth from the ground surface to the lowest point of waste disposal/storage:

Estimated difference from filled parking lot to lowest surface of swamp is less than 20 ft.
Score = 6

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

45 inches. [2]

Mean annual lake or seasonal evaporation (list months for seasonal):

31 inches. [2]

Net precipitation (subtract the above figures):

14 inches. [2]
Score = 2

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Recent Alluvial deposits of silt and clay. [1]

Permeability associated with soil type:

$1x10^{-6}$ cm/sec. [1]
Score = 1

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Solid and liquid wastes.
Score = 3

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No known containment.

Method with highest score:

No containment.
Score = 3

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Compound with highest score:

Tetrachloroethene
Score = 12

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):

Record of negligible hazardous waste disposal at site.
Score = 1

Basis of estimating and/or computing waste quantity:

Stated in Reference 7.

* * *

5 TARGETS

Ground Water Use

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

Drinking water.
Score = 6

Distance to Nearest Well

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

North of site. [3]

Distance to above well or building:

0.5 miles. [3]

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:

Community well and private wells serving 6,249 persons. [3,4,5]
One well serving 2,000 people; #30; private wells - 4,249 persons.
(Private wells total based on 1,118 dwellings and 3.8 persons per dwelling). [House Count Detail, Ref. 5]

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

None. [6]

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

6,249 (see breakdown by well above).
Score = 35

SURFACE WATER ROUTE

1 OBSERVED RELEASE

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

Presently, there is no data available which indicates landfill leachate has contaminated the nearest surface water body (unnamed tributary to Swamp River).
Score = 0

Rationale for attributing the contaminants to the facility:

N/A. No surface water data is presently available.

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

Less than 3 percent. [4]

Name/description of nearest downslope surface water:

Unnamed tributary to Swamp River is piped through the site to wetlands.

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

Less than 3 percent. [4]

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

Yes, partially.

Is the facility completely surrounded by areas of higher elevation?

No. [4]
Score = 0

1-Year 24-Hour Rainfall in Inches

2.85 inches. [2]
Score = 2

Distance to Nearest Downslope Surface Water

0.02 miles. [4]
Score = 6

Physical State of Waste

Solid wastes were reported to be disposed of in landfill. Pawling Rubber has a discharge of contaminated stormwater to a dry well located in the landfill.
Score = 3

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

No known containment.

Method with highest score:

No containment.
Score = 3

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

Lead.

Compound with highest score:

Score = 12

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):

Score = 1

Basis of estimating and/or computing waste quantity:

Stated in Reference 7.

* * *

5 TARGETS

Surface Water Use

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

Drinking water and recreation.

Is there tidal influence?

No.
Score = 9

Distance to a Sensitive Environment

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

N/A

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

Less than 100 feet. [Site visit]

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

Not within one mile. [6]
Score = 6

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 substances and population served by each intake:

None. There are no surface water intakes on unnamed brook within three miles downstream of the facility. Pawling Reservoir is greater than one mile east from the site.

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

None. [6]

Total population served:

None. [6]

Name/description of nearest of above water bodies:

N/A

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

N/A
Score = 0

AIR ROUTE

1 OBSERVED RELEASE

Contaminants detected:

No observed release.

Date and location of detection of contaminants

No samples taken.

Methods used to detect the contaminants:

N/A

Rationale for attributing the contaminants to the site:

N/A
Score = 0

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

No record of hazardous waste disposal at site.

Most incompatible pair of compounds:

N/A
Score = 0

Toxicity

Most toxic compound:

No record of hazardous waste disposal at site.
Score = 0

Hazardous Waste Quantity

Total quantity of hazardous waste:

No record of hazardous waste disposal at site.

Basis of estimating and/or computing waste quantity:

Assume minimum non-zero quantity.
Score = 1.0

* * *

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

2,345 persons (based on 3.8 persons per dwelling for 617 dwellings). [4]
Score = 18

Distance to a Sensitive Environment

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

N/A

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

Less than 100 feet.

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

Not within one mile. [6]
Score = 6

Land Use

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

On site.

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

N/A. [Site visit]

Distance to residential area, if 2 miles or less:

0.75 miles. [4]

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

1.0 miles. [6]

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

Not within 2 miles. [6]

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

No. [G&H site visit, company interview)
Score = 3

FIRE AND EXPLOSION

*S_{FE} is scored only if a Fire Marshall has certified that the site is a fire and explosion threat or field observation documented a fire and explosion threat. Since neither of these is true, S_{FE} is not scored.

1 CONTAINMENT

Hazardous substances present:

No record of hazardous waste disposal at site.

Type of containment, if applicable:

No known containment

* * *

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

No measurements taken.

Ignitability

Compound used:

N/A

Reactivity

Most reactive compound:

N/A

Incompatibility

Most incompatible pair of compounds:

N/A

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

No record of hazardous waste disposal at site.

Basis of estimating and/or computing waste quantity:

Assume minimum non-zero quantity.
Score = 1

* * *

3 TARGETS

Distance to Nearest Population

On site. [Site visit]
Score = 5

Distance to Nearest Building

50 feet. [Site visit]
Score = 3

Distance to Sensitive Environment

Distance to wetlands:

Less than 100 feet. [Site visit]

Distance to critical habitat:

Not within one mile. [6]
Score = 3

Land Use

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

On site. [Site visit]

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

0.75 miles. [Site visit]

Distance to residential area, if 2 miles or less:

0.75 miles. [4]

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

1.0 miles [6]

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

N/A [6]

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

No. [Site visit, company interview]
Score = 3

Population Within 2-Mile Radius

3,409 persons (based on 3.8 persons per dwelling for 897 dwellings). [4,5] [House Count Detail, Ref. 5]
Score = 4

Buildings Within 2-Mile Radius

897 buildings. [4]
Score = 4

DIRECT CONTACT

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

No incident observed.
Score = 0

* * *

2 ACCESSIBILITY

Describe type of barrier(s):

Waste is located under a paved parking lot.
Score = 0

* * *

3 CONTAINMENT

Type of containment, if applicable:

Waste is located under a paved parking lot.
Score = 0

* * *

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

No record of hazardous waste disposal at site.

Compound with highest score:

N/A
Score = 0

5 TARGETS

Population within one-mile radius

2,345 persons (based on 3.8 persons per dwelling for 617 dwellings). [4,5] [House Count Detail, Ref. 5]
Score = 12

Distance to critical habitat (of endangered species)

Not within one mile. [6]
Score = 0

REFERENCES

If the entire reference is not available for public review in the EPA regional files on this site, indicate where the reference may be found:

Reference Number	Description of Reference
1	Simmons, E., Groundwater Resources of Dutchess County, NY, USGS Bulletin GW-43, 1961, pp. 6,11,12, 14,15,16,17,73.
2	Uncontrolled Hazardous Waste Site Ranking System; A Users Manual, USEPA, 1984.
3	New York State Atlas of Community Water System Sources, New York State Department of Health, 1982, p.66.
4	Pawling Quadrangle Map, United States Department of the Interior Geological Survey, 1971.
5	USGS House Count.
6	Telephone Conversion Record.
7	Memorandum: S. Singh to M. Chen, Dated Nov. 17, 1987.
8	Telephone Conversation Record.

REF. 1-1.9

STATE OF NEW YORK

DEPARTMENT OF CONSERVATION

WATER RESOURCES COMMISSION

Ground-Water Resourses of Dutchess County, New York

By

E. T. SIMMONS, I. G. GROSSMAN, AND R. C. HEATH

Geologists, U. S. Geological Survey

Prepared by the

U. S. GEOLOGICAL SURVEY

in cooperation with the

NEW YORK WATER RESOURCES COMMISSION

BULLETIN GW-43

ALBANY, N. Y.

1961

Ref 1-2.9

GEOGRAPHY

Location and Setting

Dutchess County is in southeastern New York State, about halfway between New York City and Albany. It is one of a row of counties east of the Hudson River that border on the New England States. The county is bordered on the east by the State of Connecticut, on the south by Putnam County, on the west by the Hudson River, and on the north by Columbia County and the Commonwealth of Massachusetts.

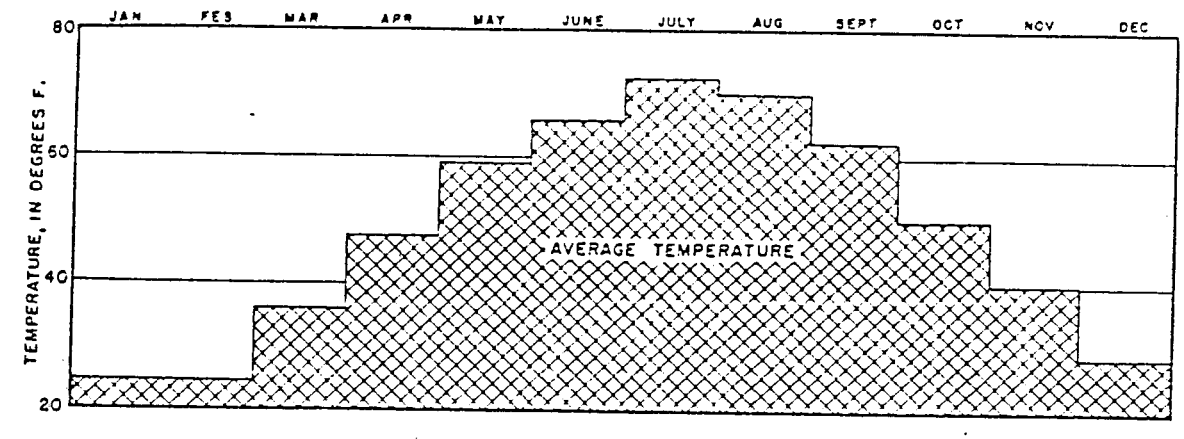
Dutchess County is rectangular in outline and has an area of 816 square miles. It extends about 34 miles in a north-south direction and 22 miles in an east-west direction. Most of it lies between meridians 73°30' and 73°59' west longitude and parallels 41°30' and 42°04' north latitude. The population of the county in 1950 was 136,781, about 40 percent of which was concentrated in the cities of Poughkeepsie and Beacon.

Topography

The surface of Dutchess County is moderately irregular, consisting of an almost continous alternation of hills and valleys (pl. 1). Flat areas, though present in most parts of the county, are generally small and occupy a minor proportion of the area. The county is divided on the basis of topography into two relatively distinct parts. The smaller of these consists of the area in the northwestern part of the county west of Wappinger Creek and longitude 73°45'W. This area is characterized by numerous small, irregularly shaped hills, most of which range in height from about 20 to about 100 feet above the intervening valleys. Scattered throughout the area, however, are a few small, regularly shaped hills that rise 200 to 300 feet or more above the adjacent valleys. Altitudes in this area range from about 40 feet above sea level near the Hudson River to about 900 feet above sea level at Old Round Top. Drainage is not so well developed as in the remainder of the county, as indicated by the presence of numerous swamps.

The remainder of the county--that is, east of longitude 73°45' W. in the northern part of the county and east and south of Wappinger Creek in the central and southern parts of the county--is characterized by numerous regularly shaped hills and low mountains. These are larger and generally higher than those in the northwestern part. Many of the hills in this area range in altitude from 500 to 1,000 feet above the floors of the valleys. The highest altitudes generally occur along the southern and eastern boundaries of the county. South Beacon Mountain, near the southwest corner of the county reaches an altitude of 1,602 feet above sea level. Brace Mountain, in the extreme northeast corner, reaches an altitude of 2,311 feet above sea level, the highest point in the county. South Beacon Mountain and the other mountains in the southern part of the county mark the northern limit of the Hudson Highlands, a belt of northeast-trending mountains under-

Ref 1-3.9



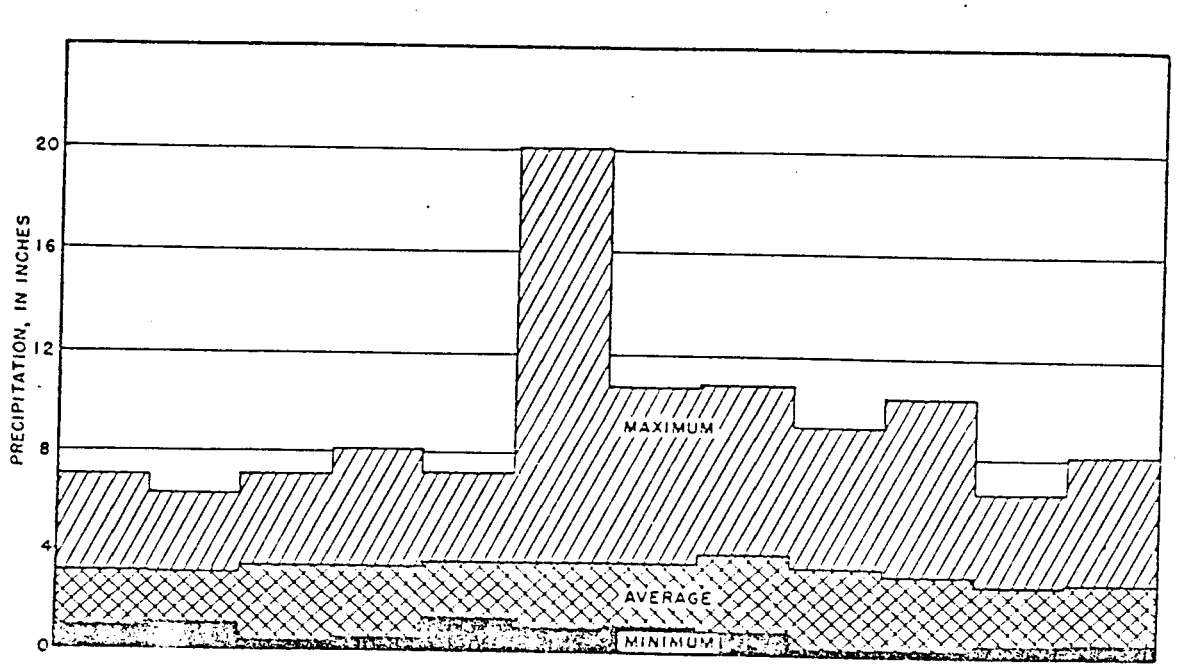


Figure 3.--Average monthly temperature and maximum, average, and minimum monthly precipitation at Wappingers Falls for the period 1893-1950.

Ref 1-4,9

GEOLOGY

Ground water occurs in all the geologic formations in Dutchess County and most of these are important sources of water. With respect to the principal kinds of openings in which the water occurs, these formations are placed in two major groups: (1) consolidated rocks that range in age from Precambrian to Ordovician, and (2) unconsolidated deposits of Pleistocene and Recent age. The areal extent of the different bedrock formations is shown on plate 2. These rocks underlie the entire county and crop out at the surface principally on hillsides and hilltops. In most of the county, however, the bedrock is overlain by unconsolidated deposits, which range in thickness from less than a foot on steep hills to more than 100 feet in some of the larger valleys. The areal extent of the different types of unconsolidated deposits is shown on plate 3. The principal events leading to the present-day distribution of the consolidated rocks and unconsolidated deposits in the county are described briefly in the following paragraphs. Although this report is a cooperative product of the New York Water Resources Commission and the U. S. Geological Survey, the geologic nomenclature does not necessarily follow that of the U. S. Geological Survey.

Geologic History

The oldest known strata in the county were laid down as clayey and limy mud and sand in a sea which covered the area in Precambrian time, more than 500 million years ago. After deposition, these strata were subjected to great heat and pressure which accompanied the intrusion of extensive masses of granite. The sediments were metamorphosed to a gneiss by the heat and pressure, and the gneiss is now so completely penetrated by the granite that the two look very much alike and hence are referred to on the bedrock map (pl. 2) as "undifferentiated granite and gneiss." The intrusion of the granite was followed by a long period of erosion during which the area was reduced to a low plain.

During the Cambrian, the first period of the Paleozoic era, the sea once again advanced over the area. A thick mass of sediments, consisting chiefly of sand and limy mud, collected on the sea floor. Deposition of limy mud and of clay and sandy clay continued into the succeeding Ordovician period. All these sediments were subsequently consolidated into beds of sandstone, limestone, and shale. At the end of the Ordovician, these beds were folded, metamorphosed, and raised above sea level during an episode of mountain-making known as the Taconic orogeny. During this orogeny the sandstone, limestone, and shale in the southern and eastern parts of the county were converted, through metamorphism, to quartzite, marble, and phyllite and schist. During and following the Taconic orogeny the area was subjected to another long period of erosion. Some deposition may have occurred in the general area during subsequent periods of the Paleozoic era, although no bedrock younger than Ordovician is known to occur. Crustal movements near the end of Devonian time known as the Acadian disturbance, during which rocks in areas to the north and west were faulted, also may have affected the rocks in Dutchess County.

Table 2.--Geologic units in Dutchess County and their water-bearing properties

Class	Age	Geologic Unit		Maximum thickness (feet)	Character of material	Water-bearing properties
Unconsolidated deposits	Recent	Alluvium		30±	Clay, silt sand, and gravel deposited by present-day streams in lakes, swamps, and on flood plains.	Not important as source of water because of limited thickness and restriction to discontinuous areas adjacent to streams. Potentially important, however, in larger valleys where coarse-grained material permits induced infiltration from nearby streams.
	Pleistocene	Stratified drift	Sand and gravel	200	Irregularly interbedded and interlensing sand and gravel formed by glacial melt-water streams.	Most productive source of ground water in county, though restricted in areal extent to portions of main stream valleys. Yields moderate to large supplies from properly constructed wells. Water moderately hard in parts of the valleys underlain by Stockbridge limestone.
			Lacustrine deposits	200	Clay and silt deposited in glacial lakes.	Yields little water. Generally acts as a confining bed where underlain by permeable deposits.
		Unstratified drift	Till	150	Heterogeneous mixture of boulders and clay deposited by glacial ice. In places, contains small lenses of sand and gravel. Locally called "hardpan."	Generally thin and impermeable but yields small supplies to wells of large diameter.
Consolidated rocks	Late (?) and Middle Ordovician	Hudson River formation		3,000+	Shale or slate, chiefly gray or black but locally red, purple, and green. Contains beds of grit, limestone, limestone conglomerate, and black chert. Metamorphosed to phyllite and in east to schist.	Most extensive bedrock formation in county. Yields average 16 gpm. Water moderately soft and fairly low in dissolved solids, but hydrogen sulfide reported in some wells.
	Ordovician and Cambrian	Stockbridge limestone		1,000±	White, blue, and gray limestone and dolomite metamorphosed to marble in east. Veins of calcite and quartz common.	Chiefly restricted to valley areas. Most productive bedrock formation; yields average 22 gpm and range widely from 0 to 220 gpm. Water moderately hard and relatively high in dissolved solids.
	Early Cambrian	Cheshire quartzite		600±	Strong, compact rock composed almost entirely of quartz. Generally white except locally, where impurities result in buff or pink color.	Unimportant as a source of ground water because of small areal extent. Yields of five wells in southern part of county average 10 gpm.
	Precambrian	Undifferentiated granite and gneiss		Unknown	Banded black and white gneiss and gray or pink granite. Chief minerals feldspar and quartz. Locally contains basic dikes, quartz veins, and minor amounts of schist and marble.	Principally restricted to southern part of county. Yields of wells average 11 gpm. Water generally soft and low in dissolved solids.

Ref 1-5.9

Consolidated Rocks

The bedrock underlying the county is composed of highly metamorphosed rocks of Precambrian age, and partially metamorphosed rocks of Paleozoic age. The older rocks, those of Precambrian age, consist mainly of granite and gneiss. The younger rocks, of Paleozoic age, consist of a larger variety of rock types, including quartzite, limestone, dolomite, marble, shale, phyllite, slate, and schist. Differences in age, degree of metamorphism, and lithology influence the water-bearing properties of the consolidated rocks. Thus, as an aid in understanding the occurrence of ground water in these rocks in different parts of the county, each of the principal types, as differentiated in table 2, is discussed separately in the following paragraphs.

Undifferentiated granite and gneiss.--Almost a tenth of Dutchess County is underlain at or near the surface by masses of northeast-trending igneous and metamorphic rocks of Precambrian age consisting chiefly of granite and gneiss. The largest mass underlies the southern part of the county from the Hudson River to the Connecticut State line. This mass ends abruptly 2 to 3 miles north of the southern border of the county against a series of subparallel major faults (pl. 2). Erosion of less resistant Paleozoic rocks north of the faults has resulted in a row of granite and gneiss spurs which are prominent topographic features in the southern part of the county.

The second largest mass of granite and gneiss underlies the group of prominent hills east of Dover Plains. Smaller bodies of granite and gneiss crop out at Corbin Hill, north of Pawling; at Stissing Mountain, west of Pine Plains; northeast of Beacon; and south of Sprout Creek, a few miles southeast of Poughkeepsie (pl. 2). The elongate mass northeast of Beacon has been called the Matteawan granite (Mather, 1843, pl. 18) and the Glenham gneiss (Gordon, 1911, p. 18). In the southwestern part of the county, the granite was subdivided into the Canada Hill granite and Storm King granite by Berkey and Rice (1921). The gneiss, which contains some schist and limestone, was called "Grenville gneiss and schists" by Berkey and Rice. However, in an earlier study of the southwestern part of the county, Gordon (p. 11) grouped together all the granite and gneiss along the southwestern border of the county under the term "Precambrian gneisses."

Balk (1932 and 1936) mapped the same rocks in the eastern part of the county and made a detailed study of their structure. In his reports, and in a report by Barth (1936), the granite and gneiss were combined into one major group, undifferentiated Precambrian gneiss. Because these rocks have not been further subdivided in the eastern part of the county and because there appear to be no significant differences in their water-bearing properties, the granites and the gneisses are grouped together in this report as "undifferentiated granite and gneiss."

Ref 1-7.9

In physical appearance, most of the granite and gneiss consists of light and dark minerals presenting a speckled appearance (granite) or arranged in layers (gneiss). The light minerals consist chiefly of quartz, feldspar, and white mica (muscovite). The dark minerals include black mica (biotite), garnet, and hornblende. Extensive and readily accessible exposures of gneiss can be seen in road cuts along the Taconic State Parkway near the Putnam County line. These rocks are more resistant to weathering than the younger Paleozoic rocks, as is reflected by the more rugged topography and higher altitudes in areas where they crop out. Most of the layers (foliation) in the granite and gneiss strike northeast, approximately parallel to the long axis of the Hudson Highlands, and dip steeply to the southeast. Exceptions occur near thrust faults where the strike and dip of the foliation parallel the faults. Most of the large and prominent spurs underlain by granite and gneiss in the southern part of the county point northeastward, and the long axes of the smaller bodies also are alined in that direction.

Cheshire quartzite.--A compact, strong quartzite, which is so tough that it is deliberately avoided by some drillers, crops out at a few localities in Dutchess County. This quartzite has been called the Poughquag quartzite by Berkey and some other geologists working in New York. It is called the Cheshire quartzite in this report, after its type locality at Cheshire, Berkshire County, Mass. (Emerson, 1917, p. 32-34). The quartzite unconformably overlies the Precambrian granite and gneiss and is the oldest Paleozoic rock in the county. In the southern and eastern parts of the county the quartzite forms the flanks of the higher ridges that are underlain by granite and gneiss. In the east-central part of the county, quartzite underlies several areas along the southern and western borders of the granite and gneiss in the vicinity of Dover Plains. Quartzite is present also in the southern part of Stissing Mountain in the north-central part of the county.

The Cheshire quartzite ranges in thickness from a few feet to about 600 feet. A thickness of about 250 feet has been reported at Stissing Mountain (Knopf, 1956, p. 11). The base of the formation may be conglomeratic and the top contains shaly beds in some places. In general, the quartzite is less strongly metamorphosed in the west than in the east. Some outcrops in the western part of the county still retain original sedimentary features, including bedding, crossbedding, and ripple marks. In the southeast, however, the original bedding has been destroyed by fracturing and recrystallization.

Where the Cheshire quartzite is composed almost entirely of quartz, it is white. Where small amounts of feldspar, mica, and other impurities are mixed with the quartz, it is pink or buff.

The Cheshire is not important as a source of ground water because of its small areal extent and because it underlies steeply sloping hillsides which are sparsely settled. Only five wells in the county are known to tap quartzite; these are listed in table 13.

Stockbridge limestone.--Over the Cheshire quartzite is a thick sequence of carbonate rocks, which underlie a much greater part of the county than the quartzite. In the east, carbonate rocks lie beneath the broad Harlem Valley, which contains Tenmile River and its principal tributaries and which extends almost without interruption from the Putnam County line to the Columbia County line. In the south, the valley of Fishkill Creek is underlain by limestone which extends from Beacon northeastward to the head of the creek. Other areas in the western and central parts of the county also are underlain by elongate masses of carbonate rocks (pl. 2).

Several different names have been applied to the carbonate rocks in different parts of the county, including Barnegat limestone (Mather, 1843, p. 410), Fishkill limestone (Gordon, 1911, p. 70), and Wappinger limestone (Gordon, p. 48). Knopf (1956, p. 1817) found that the carbonate rocks near Stissing Mountain range in age from Early Cambrian to Early Ordovician and divided them into the Stissing dolomite, Pine Plains formation, Briarcliff, dolomite, Halcyon Lake formation, and Rochdale limestone. Because there appear to be no essential differences in the water-bearing properties of the carbonate rocks, all are included in this report under the Stockbridge limestone, after the locality in Massachusetts where they were first described (Emmons, 1842, p. 154-156).

The carbonate rocks range in composition from almost pure calcium carbonate (limestone) to almost pure calcium-magnesium carbonate (dolomite). Limestone is more abundant in the upper part of the sequence and dolomite is more common in the lower part. Table 3 lists an analysis of a typical sample of dolomite from the Stockbridge limestone.

This analysis shows that more than 10 percent of the dolomite consists of impurities, chiefly silica and alumina. In some localities these impurities are abundant enough to form sandy and shaly beds in the Stockbridge.

Pleist... gravel 9 Suction -- Dom

Table 13.--Records of selected wells in Dutchess County (Continued)

Well number	Location	Owner or occupant	Altitude above sea level (feet)	Type of well	Depth below land surface (feet)	Diameter (inches)	Depth to bedrock (feet)	Water-bearing formation	Water level below land surface (feet)	Method of lift	Yield (gallons per minute)	Use	Remarks
Du 519	14Y, 13.0S, 5.0E	Sanita Hills Camp	900	Drl	185	6	0	Hudson River formation	37	Force	20	None	Three other abandoned wells on property.
Du 524	14Y, 13.3S, 4.3E	Interchurch Camp Society, Inc.	740	Drl	52	8 to 6	20	Cheshire quartzite and granite and gneiss, undiff.	18	do.	8	Dom	Drawdown 30 ft after pumping 8 gpm for 8 hrs.
Du 525	14Y, 12.8S, 4.5E	Whaley Lake Inn	720	Drl	72	6	62	Granite and gneiss, undiff.	24	do.	--	Dom	
Du 526	15Y, 2.0N, 8.6W	Robert Lyons	220	Drl	30	6	--	Pleistocene sand and gravel	4	Suction	25	Dom	
Du 527	14Y, 7.2S, 9.5E	Wingdale Hotel	430	Drl	130	6	0	Stockbridge limestone	--	--	--	Dom	
Du 528	14Y, 6.2S, 10.0E	Brookshire Manor	330	Drl	180	6	80	do.	7	Suction	--	Dom	
Du 529	15Y, 8.0N, 2.6W	Harry Sickle	400	Drl	87	6	30	Hudson River formation	16	do.	6	Dom	(b).
Du 530	14Y, 15.4S, 10.7E	G. O'Hara	1,260	Drl	185	6	2	do.	--	Jet	30	Dom	Yield 20 gpm when well was 150 ft deep. Temperature 50°F, June 1949.
Du 531	14Y, 13.8S, 7.3E	Charles Utter	520	Drl	300	6	8	Stockbridge limestone	8	Suction	6	Dom	
Du 532	14Y, 15.5S, 6.7E	H. Krojalis	700	Dug	12	48	--	Pleistocene sand and gravel	--	do.	--	Dom	
Du 533	14Y, 15.0S, 8.5E	Ralph Gwinn	450	Drl	130	6	28	Stockbridge limestone	26	Turbine	40	Com	Temperature 54°F, June 1949.
Du 534	14Y, 15.6S, 7.2E	A. Pennell	530	Dug	22	48	--	Pleistocene sand and gravel	14	Suction	--	Farm	
Du 535	14Y, 11.4S, 7.8E	H. J. Kurris	460	Drl	130	6	--	Pleistocene deposit	--	Jet	--	Farm	
Du 536	14Y, 10.8S, 7.3E	George Dykeman	530	Dug	21	48	--	Pleistocene till	6	Suction	--	Dom	
Du 537	14Y, 9.0S, 7.3E	William Greimer	500	Dug	15	57	--	do.	10	do.	--	Farm	
Du 539	14Y, 5.7S, 1.3E	J. B. Walsh	540	Dug	29	48	--	do.	13	do.	--	Dom	Well used only in summer.
Du 540	14Y, 5.1S, 2.1E	A. Broome	750	Dug	34	53	34	Pleistocene sand	18	Hand	--	Dom	do.
Du 541	14Y, 3.9S, 1.6E	E. F. Acken	730	Drl	102	6	50	Hudson River formation	14	Jet	8	Farm	Yield 2 gpm when well was 75 ft deep.
Du 542	14Y, 1.8S, 0.8E	El Rancho	520	Drl	98	6	21	do.	18	do.	7	Com	Yield did not increase below depth of 83 ft.
Du 543	14Y, 3.1S, 0.7E	Paul Berger	720	Drl	293	6	12	do.	--	Force	30	Farm	
Du 545	14Y, 4.8S, 1.1E	W. R. Parliman	580	Drl	64	6	6	do.	4	Suction	8	Farm	
Du 546	15Y, 0.9S, 10.2W	Dutchess County Broadcasting Co.	1,305	Drl	185	6	0	Granite and gneiss, undiff.	--	--	5	Dom	
Du 547	14Y, 0.2S, 8.6E	Carl Sabo	400	Drl	184	6	--	Pleistocene deposit	--	None	7.5	Dom	Well abandoned; water contained clay.
Du 548	15Y, 11.7N, 1.4W	Dutchess Hatchery	330	Drl	115	6	16	Hudson River formation	--	--	11	Farm	Two other wells on property, 415 ft and 385 ft deep, produced no water.
Du 549	13Y, 17.1S, 8.7E	F. Schern	400	Drl	155	6	110	Stockbridge limestone	38	Jet	40	Dom	
Du 550	14Y, 12.5S, 7.9E	Pawling Rubber Corp.	440	Drl	145	6	20	do.	4	do.	50	Ind	Drawdown 10 ft after pumping 50 gpm for 10 hrs. Temperature 51°F, June 1949. Average consumption is 30,000 gpd. (a).
Du 551	14Y, 11.9S, 0.7E	Peter O'Brien	360	Dug	10	36	10	Pleistocene gravel	9	Suction	14	Dom	Well supplies 5 families and small airport.
Du 552	14Y, 11.5S, 1.7E	Samuel Sottile	380	Drl	96	6	--	do.	--	Jet	40	Dom	Well flows; supplies restaurant and 15 families. (a) (b).

Ref 1-9.9

REF 2.1.1

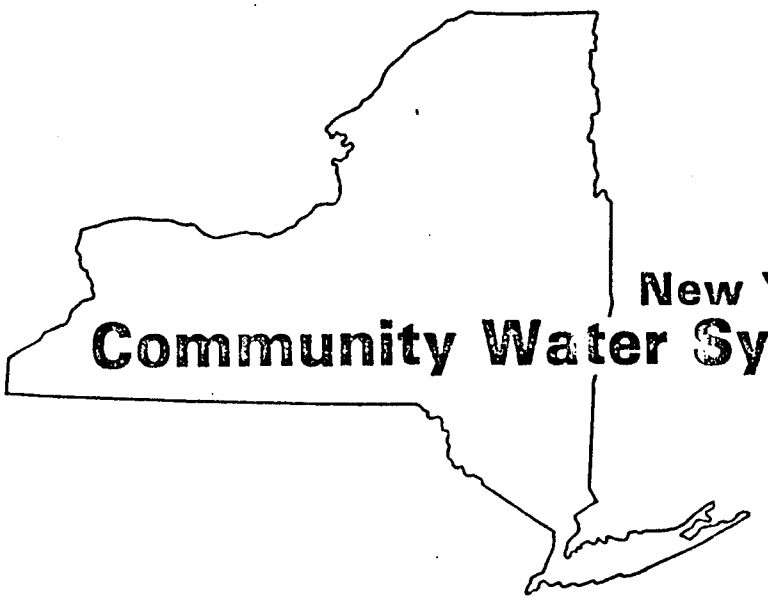
Uncontrolled Hazardous Waste Site Ranking System

A Users Manual
(HW-10)

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

United States
Environmental Protection
Agency

1984



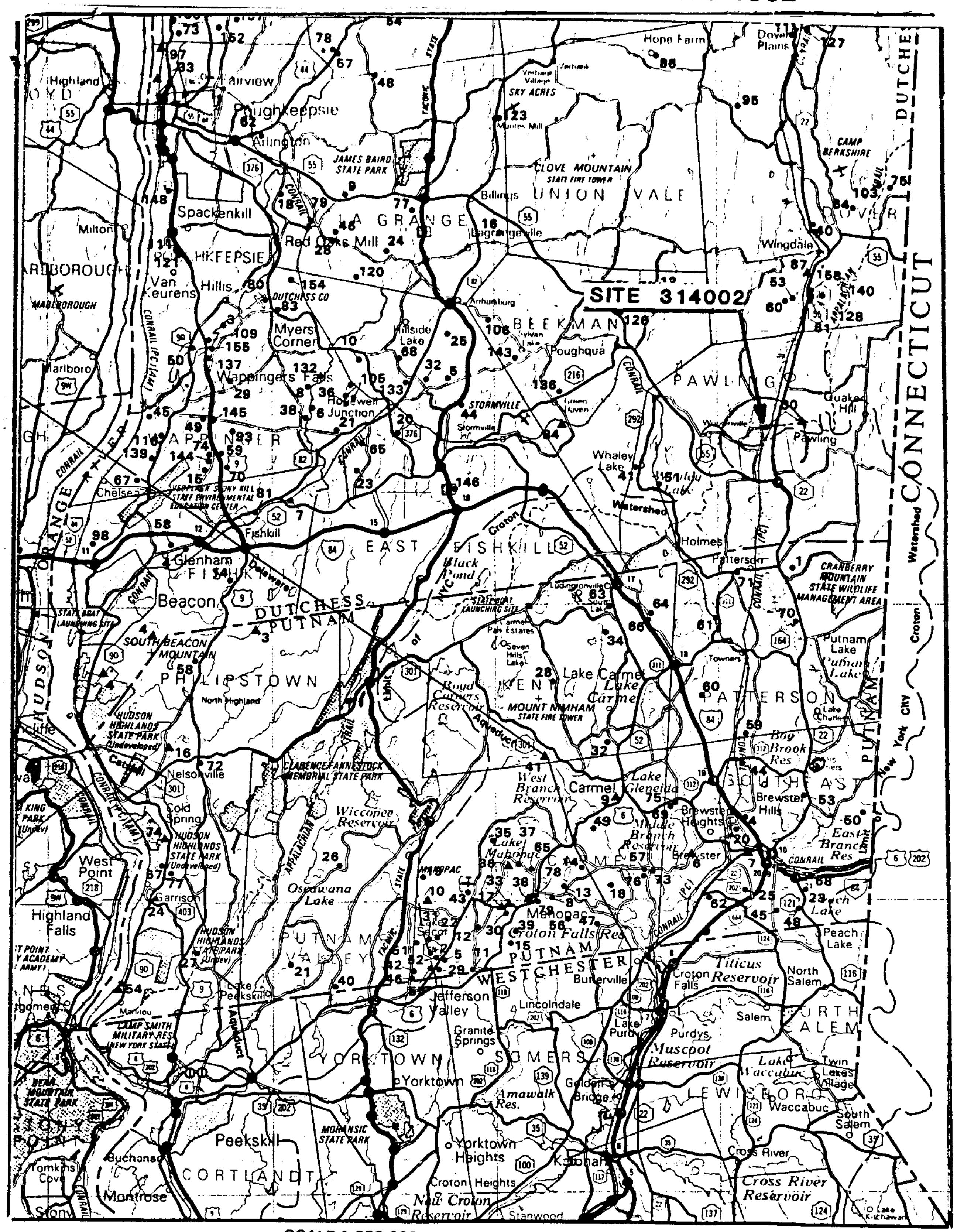
New York State Atlas of Community Water System Sources 1982

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

Ref. 3-14

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

LOCATION OF COMMUNITY WATER SYSTEM SOURCES-1982



SCALE 1:250,000

5 0 5 MILES

NORTH

DUTCHESS and PUTNAM COUNTIES

Ref 3-3.4

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
	Non-Municipal Community		
91	Hi Vu	50	Wells
92	Hickory Hill Mobile Home Park	250	Wells
93	Hidden Hollow Apartments	850	Wells
94	Hidden Valley Mobile Court	30	Wells
95	High Meadows Park Inc.	196	Wells
96	Hoffman Trailer Park	26	Wells
97	Hudson River Psychiatric Center	2000	Hudson River
98	Hudson View Water Works	1800	Wells
99	Hyde Park Mobile Manor Estates	NA	Wells
100	Hyde Park Terrace Apartments	70	Wells
101	Kent Hollow Apartments	24	Wells
102	Kommel Trailer Park	20	Wells
103	Lake Ellis Mobile Home Park	81	Wells
104	Lake Lodges Apartments	24	Wells
105	Lake Walton Park	62	Wells
106	Lakeview Mobile Home Park	NA	Wells
107	Lamplight Court Mobile Estates	23	Wells
108	Ledges Apartments	460	Wells
109	Little Falls Trailer Park	163	Wells
110	M and D Mobile Home Park	108	Wells
111	Maple Lane Trailer Park	150	Wells
112	May Lane Mobile Park	30	Wells
113	Maynards Mobile Manor	101	Wells
114	McCartha's Trailer Park	42	Wells
115	Mobile Home Gardens	30	Wells
116	Montclair Townhouse Apartments	660	Wells
117	Mountain View Mobile Estates	55	Wells
118	Northeastern Conference Nursing Home	120	Wells
119	Northern Dutchess Mobile Home Park	31	Wells
120	Odells Trailer Park	19	Wells
121	Osborne Trailer Park	15	Wells
122	Palmer Apartments	27	Wells
123	Parkway Apartments	16	Wells
124	Partridge Hill Apartments	150	Wells
125	Phillips Trailer Park	45	Wells
126	Pine Grove Mobile Home Park	39	Wells
127	Powell Road Mobile Park	115	Wells
128	Ramsey's Trailer Park	28	Wells
129	Red Church Trailer Park	12	Wells
130	Rhinebeck Country Village	100	Wells
131	Rhinebeck Mobile Court	120	Wells
132	Roberts Running Creek Trailer Park	88	Wells
133	Route 82 Trailer Park	26	Wells
134	Royal Crest Apartments	158	Wells
135	Sabo Trailer Park	45	Wells
136	Saith Mobile Home Park	26	Wells
137	Scenic Apartments	432	Wells
138	Scenic View Mobile Home Park	27	Wells
139	Shady Acres Trailer Park	26	Wells
140	Shady Homes Trailer Park	42	Wells
141	Shady Lane Trailer Park	13	Wells
142	Simpson Mobile Home Site	27	Wells
143	Springhill Mobile Home Park	NA	Wells
144	Sunset Farms Mobile Home Park	35	Wells
145	Sunset Knolls	50	Wells
146	Taconic Motor Lodge	22	Wells
147	Tally Ho Mobile Estates	NA	Wells
148	Tai Apartments	14	Wells
149	The Lodge at Rhinebeck	NA	Wells
150	Unification Theological Church	150	Wells
151	Val Kill Park East	72	Wells
152	Valley Forge Mobile Home Park	60	Wells
153	Venture Lake Estates	44	Wells
154	Village Crest Apartments	600	Wells
155	Wappingers Falls Trailer Park	50	Wells
156	Wassaic Developmental Center	2300	Wells
157	Willow Tree Park	30	Wells
158	Wingdale Village Park	72	Wells
159	Woodcrest Manor Adult Home	NA	Wells
160	Woodfield Apartments	7	Wells

Ref 3-4.4

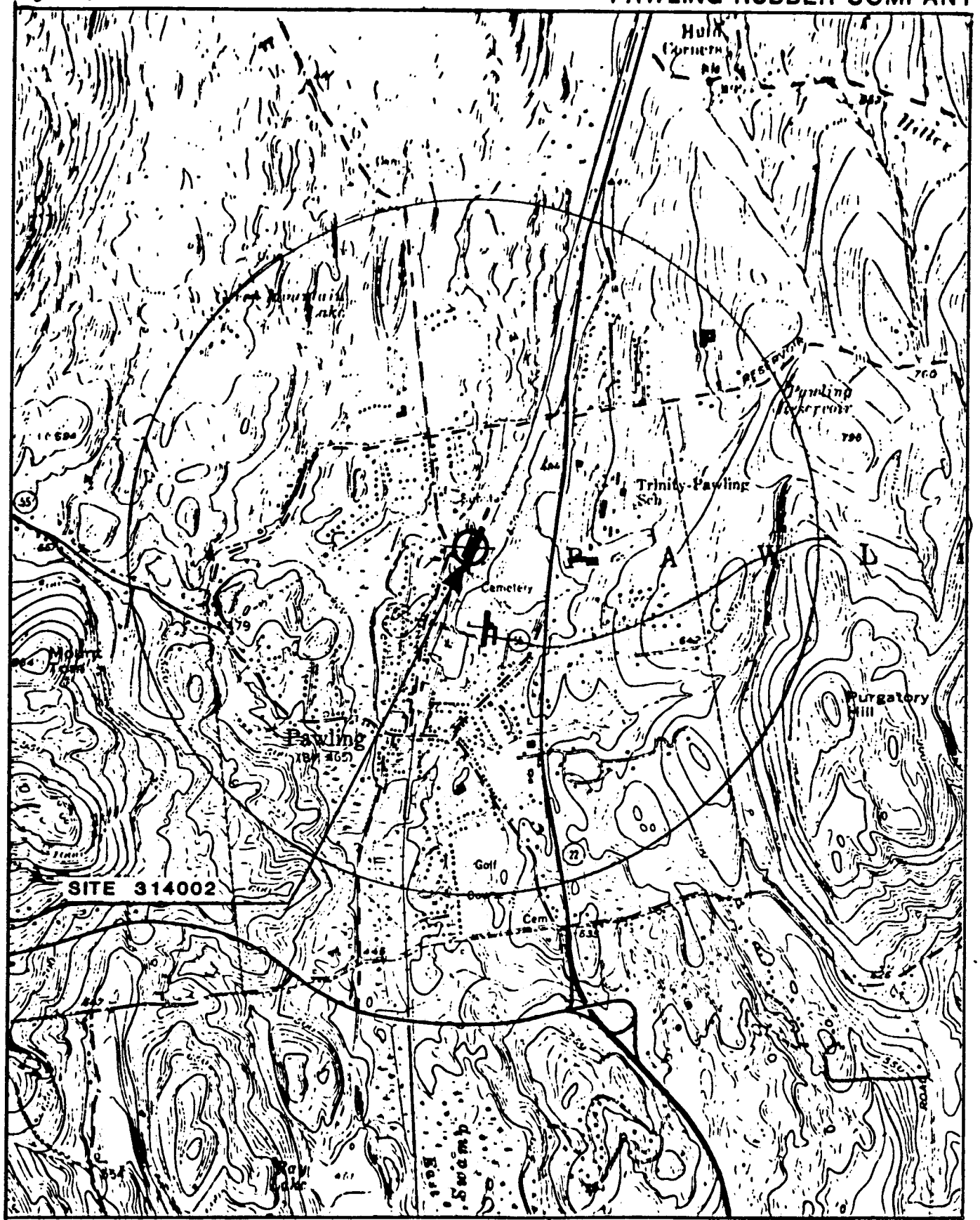
DUTCHESS COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
1	Amenia Water District #1	1000.	Wells
2	Annandale Water Company	500.	Wells
3	Atlas Water Company	1300.	Wells
4	Beacon City (See also No 3 Putnam Co)	5000.	Mt. Beacon & Melzinga Reservoirs, Wells
5	Beekman Country Club	300.	Wells
6	Brettview Acres Water Company	920.	Wells
7	Brinckerhoff Water Company	3500.	Wells
8	Central Wappinger Improvement Area	1800.	Wells
9	Deerfield Estates Water District	900.	Wells
10	Dogwood Knolls	600.	Wells
11	Dover Plains Water Company	1500.	Wells
12	Dover Ridge Estates	60.	Wells
13	Dutchess Estates Inc	700.	Wells
14	Fishkill Village	6000.	Wells
15	Fleetwood Manor Water District	850.	Wells
16	Grandview Water District	160.	Wells
17	Greenfield Water District	1250.	Wells
18	Greenmeadow Park Water Company	350.	Wells
19	Harbourd Hills Water Company Inc	900.	Wells
20	Hopegard, Inc	275.	Wells
21	Hopewell Services Inc	900.	Wells
22	Hyde Park Fire & Water District	4000.	Crum Elbow Creek, Wells
23	Kensington Park Water Company	65.	Wells
24	La Grange Club Estates	120.	Wells (Infiltration Gallery)
25	Little Switzerland Water Company	600.	Wells
26	Millbrook Village	1735.	Wells
27	Millerton Village	1600.	Wells
28	Noxon Knolls Water District	250.	Wells
29	Oakwood Knolls	310.	Wells
30	Pawling Village	2000.	Pawling Reservoir, Wells
31	Pine Plains Water Company	1060.	Wells
32	Pinewood Knolls	265.	Wells
33	Poughkeepsie City	30000.	Hudson River
34	Quaker Hill Estates Water District	428.	Wells
35	Red Hook Village	2000.	Wells
36	Revere Park Water Company	560.	Wells
37	Rhinebeck Village	4200.	Hudson River
38	Rockingham Farms	3000.	Wells
39	Rokeby Homes, Inc	184.	Wells
40	Schreiber Water Works	110.	Wells
41	Shorehaven Civic Association	300.	Wells
42	South Cross Road Water Company Inc	572.	Wells (Infiltration Gallery)
43	Staatsburgh Water Company	1072.	Indian Kill Reservoir, Wells
44	Taconic Estates	185.	Wells
45	Tall Trees	250.	Wells
46	Titusville Water District	700.	Wells
47	Tivoli Village	713.	Wells
48	Valley Dale Water Company	380.	Wells
49	Wappinger Park Homes	400.	Wells
50	Wappingers Falls Village	5300.	Wells
51	Willow Lake Water Company	126.	Wells
52	Windermere Highlands	375.	Wells
Non-Municipal Community			
53	Angels Trailer Park	40.	Wells
54	Arbor Arms Apartments	50.	Wells
55	Arvans Mobile Court #1	72.	Wells
56	Bard College	NA.	Sawkill Creek
57	Beckwith Trailer Park	26.	Wells
58	BGB Mobile Home Park	137.	Wells
59	Birchwood Mobile Home Park	42.	Wells
60	Brooks Mobile Home Park	25.	Wells
61	Cannons Trailer Park	16.	Wells
62	Canterbury Garden Apartments	600.	Wells
63	Cedar Hollow Mobile Home Park	90.	Wells
64	Cedar Lane Mobile Home Park #2	28.	Wells
65	Charlotte Grove Mobile Trailer Park	110.	Wells
66	Chateau Hyde Park Home for Adults	120.	Wells
67	Chelsea Ridge Apartments	1800.	Wells
68	Clove Branch Apartments	19.	Wells
69	Colonial Maples Trailer Park	30.	Wells
70	Cooper Road Trailer Park	35.	Wells
71	Cove View Apartments	48.	Wells
72	Daytop Village	70.	Wells
73	Dutch Garden Apartments	450.	Wells
74	Dutchess Trailer Park	30.	Wells
75	East Mountain Trailer Park	28.	Wells
76	Eleanor Roosevelt	200.	Wells
77	Elliott Apartments	36.	Wells
78	Ennis Mobile Home Park	92.	Wells
79	Feller Trailer Court	60.	Wells
80	Fieldside Apartments	50.	Wells
81	Fishkill Park Apartments	240.	Wells
82	Frantoni Villas	50.	Wells
83	Gerhard P Stoetzel	30.	Wells
84	Green Haven Correctional Facility	NA.	Reservoir
85	Green Meadow Trailer Court	44.	Wells
86	Greer School	300.	Wells
87	Harlem Valley Psychiatric Center	1200.	Swamp River
88	Haviland Apartments	100.	Wells
89	Haviland Mobile Home Park #1	44.	Wells
90	Haviland Mobile Home Park #2	29.	Wells

Figure 1

REF 4-1-1

PAWLING RUBBER COMPANY



COORDINATES:

LAT. 41 34' 07"

LONG. 73 36' 58"

0 1000 2000

SCALE (FEET)

MAP SOURCE:

USGS MAP PAWLING QUAD.

NEW YORK DUTCHESS CTY.

7.5 MINUTE SERIES (Photorevised 1971)

REF. 5-1-2

GIBBS & HILL, INC.

Pawling Rubber Company
USGS House Count
(See Attached Diagram)

	1 mile (A)	2 mile (B)	3 mile (C)
I	82	146	73
II	104	49	61
III	294	33	35
IV	137	52	52
	617	280	221
	x3.8	x3.8	x3.8
	2345	1064	840

Total Population	1 mile	2 mile	3 mile
	2345	3409	4249

Dravo

Population Count

REF. 5-2-2

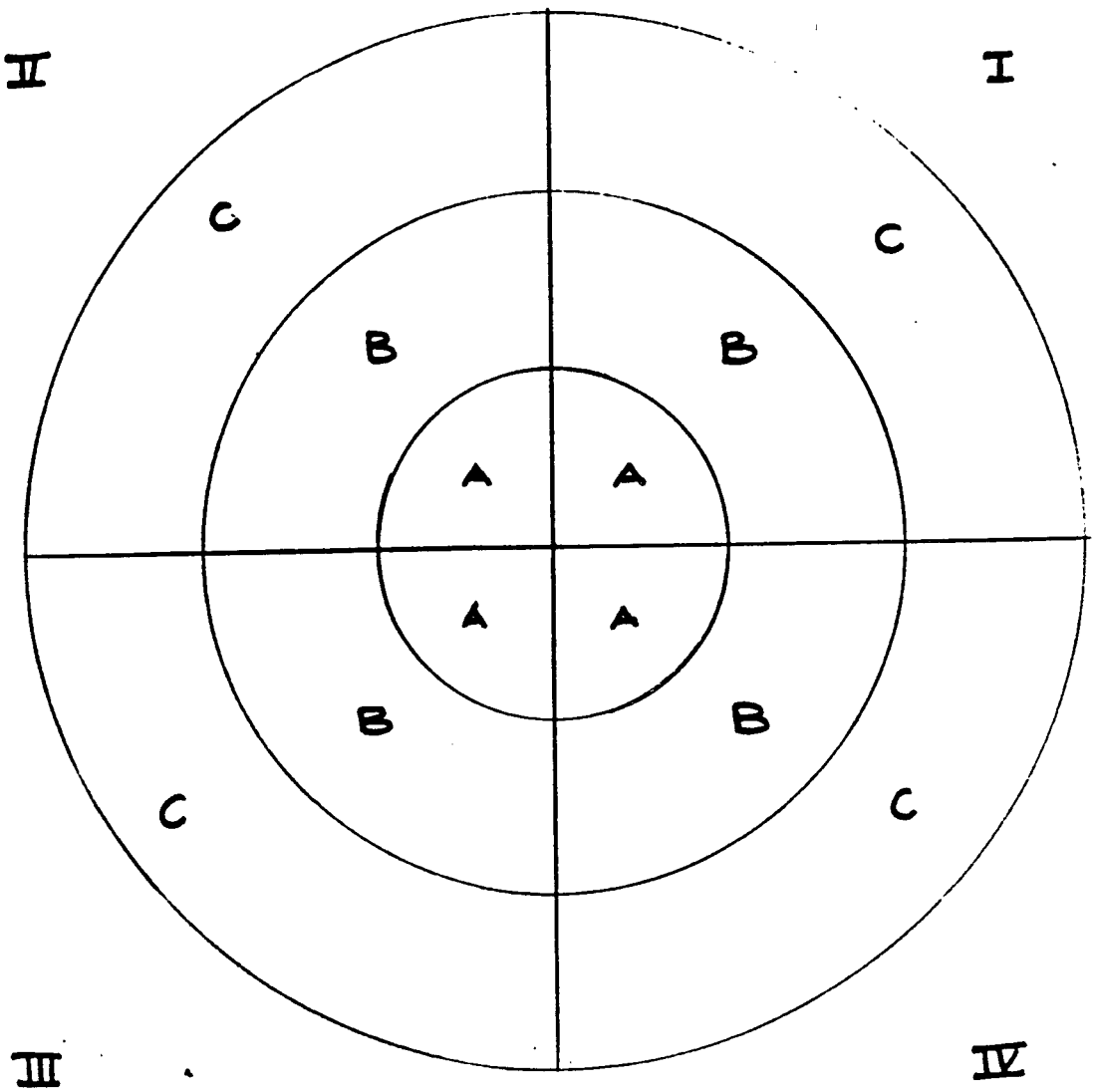
Population within 3 mile radius of each Phase I site is determined using the coordinates system illustrated below.The number of residences for each quadrant and section is determined by overlaying this pattern onto a USGS 7.5 minute topographic map. A multiplier of 3.8 persons per residence is used to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

A = 1 Mile radius

B = 2 Mile radius

C = 3 Mile radius

(Figure not To Scale)



REF. 6-1-1

Telephone Conversation Record

Date: 5/9/88

Time: 11:30

Call by: Alex Kostic (Name) of Gibbs & Hill, Inc. (Company)

Answer by: Norman Boson (Name) of Soil & Water Cons. District (Company)

Contract No: Phase I Investigation, Rowling Rubber Co.

Subject discussed: Land area irrigated

SUMMARY OF DISCUSSION, DECISIONS AND COMMITMENTS.

Mr. N. Boson informed me of the following:

1) There is no land area irrigated within 3 mile radius of site.

2) Distance to agricultural land in production within past 5 years is 1.0 mile.

3) There was no prime agricultural land in production within past 5 years within 2 miles radius.

4) He thinks that there is no critical habitat of an endangered species within 1.0 mile radius.

New Paltz

REF. A7-1.8

PDK/AK RECEIV
3/4002 DEC 1 19

NYSDEC
New Paltz

15 (12/75)

New York State Department of Environmental Conservation

MEMORANDUM

TO: Marsden Chen - Albany
FROM: Shaminder Singh - Region 3 - New Paltz SPS
SUBJECT: PHASE I - PAWLING RUBBER COMPANY - COMMENTS

DATE: November 17, 1987

A copy of the draft Phase I report was sent to David Ruff-Dutchess Co. Health Department, who returned it with no comments.

A review of the report suggests that the site, location and the history is correct but the report is incomplete in itself.

Village of Pawling Water Supply Wells near the Pawling Rubber Company site were found to contain:

Trichloroethene	6 PPb
Dichlorodifluoromethane	27 PPb
Benzene	1 PPb
Trans - 1,2 - Dichloroethylene	8 PPb

Pawling Rubber's permitted SPDES outfall 001 (cooling water - as mentioned in the draft report) was recently sampled and found to contain moderate levels of copper and zinc and low levels of chromium; lead; Trans-1,2-Dichloroethene; Tetrachloroethene; 1,1,1-Trichloroethane. The source of this cooling water is a well, therefore the solvents are probably being pumped from the groundwater.

Pawling Rubber also has a discharge of contaminated stormwater to a dry well (groundwater). This discharge contains high levels of antimony, cadmium, chromium, copper, lead, iron, 1,1,1-Trichloroethane and moderate to low levels of zinc, aluminum, manganese, Trans - 1,2 -Dichloroethene and methylene chloride.

In a recent meeting, the company has agreed to install monitoring wells to see if any of its discharges are seriously impacting the groundwater.

It has come to my knowledge that a long time ago, the Pawling Rubber Company shipped its waste to the 7th Day Adventist Church (Site #314010) where DEC did Phase I investigation and recommended the site for Phase II. Also, the Village of Pawling Landfill (Site #314036) had received its waste and the DEC is doing Phase I there.

Since this site is completely covered by an asphalt parking lot, I suggest to defer any further investigation at this time. We should make a decision on this site after reviewing the company's monitoring wells data (which should be available very soon).

I am holding one draft copy in the Region 3 office for our reference.

If you have any questions or you wish to obtain any of the above sampling results, please contact me.

SS/di
cc: L. Alden

A7-2.8

To: David Ruff
Re: Village of Pawling well contamination
Date: May 20, 1987
From: Lee Felshin

Overview.
Because of supply shortages the Village has drilled a new 10 inch well beside the Corbin Road well. Normally required sampling of this new well revealed three organic contaminants. Subsequent sampling of the other supply wells showed that the Corbin Road well also is contaminated to some degree.

Area.
The basin divide between the Housatonic and the Croton Rivers runs through the middle of the village, thus half of the village drains south into the New York City watershed and the other half drains north via the Swamp River to the Ten Mile and eventually Long Island Sound. The village wells are located at the northern boundary of the village along the Swamp River. The new well is ~30 feet from the River. See attached map. Several smaller streams drain through some wet areas and join the Swamp river upstream of the wells. Along the Swamp and these feeders are several possible pollution sources. These include grave yards, laundromats, the village sewer plant, Pawling Rubber Co., Lumalite Plastics, and the village itself.

The wells.
Corbin Road Well is a rock well about ___ feet deep. Its original yield was 150gpm but has dropped to 45gpm. This well has already been redeveloped once. 60' from stream.

Libby Lane Well is a rock well about ___ feet deep. Its yield is about 200 gpm. This well is about ___ miles downstream of Corbin Road.

The new well is a gravel well about ___ feet deep. Its yield has been tested to about 130 gpm.

Test results.

	New well	Corbin well	Point A	B
Trichloroethene	5			
1,2 dichloroethene	8			
dichlorodifluoromethane	27			
tetrachloroethene	–			

The Libby Lane well and distribution system (Village Garage) as well as Points C and D showed no organics.

Possible sources.
Pawling STP.
This facility does not use any of the detected

chemicals but may have them appear in their influent. The plants removal efficiency is low due to problems with their Imhoff tanks and overloading of all processes. It is unlikely that this plant could remove substantial quantities of organic contaminants. The discharge of the plant is apparently downstream of the Corbin wells thus eliminating the plant itself as a source. New construction at the plant site could have introduced some chemicals but this would be unusual.

Pawling Rubber.

The Pawling Corporation owns a substantial facility just upstream of the well site. This facility has been in operation for ___ years. We toured the facility with Shayne Mitchell of DEC and found material storage to be quite sloppy.

The hazardous waste storage area is a fenced off part of the parking lot. Various colored powders have been spilled onto the ground here. Drainage is directed to a catch basin and then to the swamp. Black powder (carbon black or rubber dust) generally permeates the area.

Along the south side of the complex drums (55 gallon) of solvents are stored. Part of the storage area has a dike to contain spills, much of the area has no containment. Some of the drums are mounted horizontally and tapped with spigots. One of these which is not in the diked area is labeled trichloroethylene. There is a lock on the spigot. The building these drums are along side of is built on top of the swamp. Several large culverts allow swamp water to flow under the building. Some of the drums are stored over the gratings of these culverts. None of the drums appeared to be leaking. An interior solvent storage area did contain a leaking spigot. The excess Toluene was caught in a bucket.

The Hudson Harlem and New Haven line runs along the east side of the plant site. Along this wall airconditioner condensate and steam blowoffs dribble water through piles of debris. The village sewer main runs along here. Spent white liquid (soap?) used in the mixing department is dumped into a concrete catch basin that is allegedly connected to the village STP.

The DEC has permitted one outfall at the site. The SPDES permit limits only the temperature to <70 degrees. This limitation is not met but the company has applied to change the limitation. The outfall pipe is submerged in the swamp making accurate sampling impossible. Small amounts of oil float up in the outfall area. Company estimates the flow at 140,000 gpd but flow has never appeared that high at the outfall. Outfall water is non contact cooling water. A boiler blowdown overflow is also connected to the outfall. Recently the sump pump which normally pumps the blowdown water to the sewers failed allowing blowdown water to discharge to the swamp. This additional connection is not permitted. Oils from the

Swamp, trail shows oily and foamy surface. Could be natural.

A7-4.8

plant boiler room could enter this outfall.

By the outfall pipe is a ~12 inch CMP storm sewer that discharges a clear liquid. Where the liquid hits the ground a substantial amount of orange foam exists. This sewer drains from the other side of the south building that the solvents are stored on the other side of.

At the north west corner of the building a cooling water overflow discharges excess water which has been treated with rust inhibitors and biocides. There is no permit for this. /* find out about these chemicals */

The major cooling system for this plant uses Ammonia. Ordinary air conditioners are also present.

Railroad. — Spraying operations, oils, creosotes.

A tributary to the Swamp R. runs along the tracks. This drains the area by two grave yards, Lumalite plastics, and the village center. Over the years the tracks and the stream have been used as a dumping ground. Old batteries and aerosol cans are among the items found here.

Lumalite.

Dave Decker of Morris Associates, the Village engineer has found contaminants in the stream both up and down stream of this facility. Two chemicals, methylchloride and _____ acid are used to clean metals and the floor. A floor drain is connected directly to the stream. Peering into the doors of this facility did not reveal any chemical usage.

Laundromats.

The laundromat ~~Gasoline~~ spills in Pawling → 860304 Pawling Laundry — call S Smyth
86 5097 Sunoco
86 6478 Pawling High
867970 Pawling Tire.

Conclusion.

No explicits use of dichlorodifluoromethane was identified but air conditioning and refridgeration does occur in the area.

Pawling Rubber Company is the closest to the wells and has over the years used numerous different chemicals. They have surely been careless with these chemicals, however there is no concrete evidence of wrongdoing.

Lumalite is also a possibility.

The odd colorations of sewage encountered by the STP may stem from Pawling Rubber. They admit to discharging all sorts of waste, other than solvents which are covered by CERCLA, to the sewers. An industrial pretreatment program is being set up by the village engineer.

Other.

Pawling rubber has their own wells in addition to

owever there is no concrete evidence of wrongdoing.
Lumalite is also a possibility.

The odd colorations of sewage encountered by the STP may stem from Pawling Rubber. They admit to discharging all sorts of waste, other than solvents which are covered by CERCLA, to the sewers. An industrial pretreatment program is being set up by the village engineer. A7-5.8

Other.

Pawling rubber has their own wells in addition to using village water. The village should ensure that no cross connections exist and that private wells are allowed in the district. Sampling of the production wells may prove interesting. Would the county be notified if an independent lab tests this water?

Mitchell

DEC 621F

State Department of Environmental Conservation
Putt Corners Road
, NY 12561
255-5453

A-7-6.8

Thomas C. Jorling
Commissioner

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
P# 076 048 126

August 26, 1987

Pawling Corporation
157 Charles Colman Blvd.
Pawling, NY 12564

ATT: Mr. Richard Meyer
Plant Engineer

RE: Compliance Sampling Results
Pawling Corporation
SPDES Permit #NY-0004618
Pawling (V); Dutchess County Industrial

Dear Mr. Meyer:

Enclosed are the results of a sampling inspection performed June 2, 1987, at the above referenced facility. Samples were collected from the following locations: Pawling Corporation's cooling water sump, a storm grate near the waste material storage area, the Swamp River at Charles Colman Blvd., the Swamp River at Corbin Road, and a small tributary to the Swamp River prior to its entering a culvert under the Presray Building.

Items of concern as a result of this sampling:

1. The levels of Copper, Zinc, Trans-1,2-Dichloroethene, Tetrachloroethene, and 1,1,1-Trichloroethane found in the cooling water sump do not appear to be representative of a "typical" non-contact cooling water. Their presence indicates the discharge of unpermitted substances; this constitutes violation of your SPDES permit and Article 17 of the Environmental Conservation Law ("ECL").

2. Elevated levels of Antimony, Chromium, Copper, Lead, Zinc, 1,1,1-Trichloroethane and Bis(2-chloroisopropyl)ether were found in the storm grate. The concentrations of Antimony, Copper, Lead, and 1,1,1 Trichloroethane were in excess of 6NYCRR Part 703.6 - groundwater effluent limitations and/or Water Quality Guidance values; this constitutes violation of Article 17 of the ECL and indicates the likelihood of groundwater contamination.

A7-7.8

3. A review of in-stream heavy metals concentrations indicates the levels of Antimony, Cadmium, Copper, Chromium and Zinc increases as the Swamp River passes through the Pawling Corporation facility.

The items of concern must be addressed, I will contact you in the near future to schedule a compliance conference. Topics of that conference could include: penalties, institution of a groundwater investigation program, modification of your current SPDES permit, and methods to reduce the pollutant levels in your discharges.

Be advised that compliance with all terms and conditions of the SPDES permit and the ECL is the Permittee's responsibility. Failure to comply could be punishable by fines of up to $10,000 per day and/or one year imprisonment for <u>each</u> violation.

I can be reached at the above number if you have any questions.

Very truly yours,

Shayne A Mitchell

Shayne A. Mitchell
Junior Engineer
Region 3 Division of Water

SAM/cli

cc: Dutchess County Health Dept.
Susan Thompson, Pawling Corp.

bcc: C. Manfredi
D. Dohna/File
P. Keller/Chron

A7-8.8

lage of Pawling to quit reservoirs d rely on wells even if polluted

is Kipp
ff

NG — The Village of ill abandon its reservoirs ing water supply and will ad on ground water wells he recent discovery of pollutants in two existing ells, the mayor said Tues-

uesday, state investigators or possible sources of the tamination said they have ed illegal chemical dis- at two local businesses, Rubber Company and Lu- Plastics. Neither has been being a source of the pollut-

r Adrian H. Anderson said ision to abandon the reser- f Reservoir Road, east of the made this month by the

He said the village will continue to maintain the two reservoirs but only as emergency water supplies.

The plans were discussed Tuesday among officials of the village and the Dutchess County Department of Health. David Ruff, director of environmental health services for the health department, said the village is making satisfactory progress toward improvements.

The decision to abandon the reservoirs comes after more than a year of water-supply problems in the village. A year ago, the county health department said the village water supply was substandard because there was not enough water and the water had high levels of turbidity — suspended particles that reduce the effectiveness of chlorination. The county ordered the village to study alternatives for improving the system. Anderson said the village spent

department.

Last month, an engineer hired by the village recommended the village abandon the two reservoirs as a water supply for the village's 400 residential and business customers. The cost of the new supply system is estimated at $617,000.

During the engineer's study, traces of industrial chemicals were found in a village supply well on Corbin Road. A second, new well drilled by the village on the same site was also contaminated by the chemicals, identified as methylene chloride, trichloroethylene and 1,1,1, trichloroethane.

Ruff said the health department on Tuesday gave the village preliminary approval to use the new well, although a system for removing the chemical contamination will have to be installed.

Levels of contaminants in the existing Corbin Road supply well are

well be abandoned, according to the health department.

Cesare Manfredi, a senior sanitary engineer with the state Department of Environmental Conservation, said enforcement actions are pending against Lumelite Plastics and Pawling Rubber Company.

The announcement by Manfredi came late Tuesday and officials from Pawling Rubber and Lumelite Plastics could not be reached for comment.

Manfredi said investigators discovered that Lumelite Plastics was discharging industrial waste but has no state permit to do so. He said Pawling Rubber has a state discharge permit, but is discharging chemical solvents and copper in violation of the permit.

Manfredi said enforcement actions against the two firms are pending and that the department will likely impose fines against them.

Friday, July 24, 1987 Poughkeepsie Journal—3B

Trace of chemicals found in Pawling village water supply

By Dennis Kipp
Journal staff

PAWLING — The village's water system — called substandard a year ago by the Dutchess County Health Department — is now plagued by chemical contamination and extensive leaks.

A recently completed engineering report recommends the village abandon its two reservoirs and use wells to supply water to its 400 residential and business customers. The new supply system would cost more than $617,000, according to the report.

But while preparing the report, the engineers discovered that an existing supply well on Corbin Road contains traces of industrial chemicals.

Also, tests found that as much as 140,000 gallons of water are leaking from water mains throughout the village every day. Losses from the leaks amount to 36 percent of the water pumped into the system each day, according to the engineering firm of Morris Associates.

The New York state Department of Health has asked the village to consider installing a water storage tank. And Lee Felshin, an engineer with the Dutchess County Department of Health, says "some determination of the adequacy of the distribution network must be considered by the village."

Village officials were not available to comment on the report findings.

The engineering report was ordered by the county health department last summer. Among the most serious problems at the time was turbidity, a condition that reduces the effectiveness of disinfection with chlorine. As a result, water users were required to boil their drinking water for several months.

Most of the village's water comes from two wells — one on Corbin Road and one on Libby Lane. Contamination in the Corbin Road well was discovered this spring when the village drilled a new well there. The chemicals — identified as methylene chloride, trichloroethylene and 1,1,1 trichloroethane — were found when water from the new well was tested.

Subsequent tests of the village supply well and surface water around the well also found traces of the chemicals. County health officials said the levels in the supply well are not high enough to require abandonment of the well. And, the officials said the chemicals have not turned up in tests of water in the village distribution system.

In a June 4 letter to the health department, Morris Associates said the contamination in the well water is apparently being diluted in the distribution system to a point that it cannot be detected.

The source of the contamination is unknown, although county health officials note that the well is downstream from the Pawling Rubber Co. and the village center.

"Years of casual disposal practices, sloppy housekeeping, or negligence appear to be the problem," according to a department report.

Telephone Conversation Record REF 8-1-1

Date: 5/10/88

Time: _____

Call by: A. Kostic (Name) of Gibbs & Hill, Inc. (Company)

Answer by: Susan Thompson (Name) of Pawling Corporation (Company)

Contract No: _____

Subject discussed: Pawling Landfill

SUMMARY OF DISCUSSION, DECISIONS AND COMMITMENTS.

Ms. S. Thompson informed me the following:

1) Company's drum storage area is diked. Area drainage conveyed to a catch basin, and removed via an EPA approved Removal/Disposal Company.

2) Monitoring wells' construction will probably start in June or July.

3) Company use no chemicals found in the potable water wells.

4) Brook runs under property in 36 in. galvanized steel pipe.

F-424, 10-68

Site Inspection Report

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	001354349

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Pawling Rubber Company	157 Charles Colman (Maple) Blvd.				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Pawling	NY	12564	Dutchess		

09 COORDINATES LATITUDE 41 34 07.0 | LONGITUDE 73° 35 53.0

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

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
6 / 29 / 87 (MONTH DAY YEAR)	☒ ACTIVE ☐ INACTIVE	_____ BEGINNING YEAR _____ ENDING YEAR — X UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR _____ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
☐ E. STATE ☒ F. STATE CONTRACTOR Gibbs & Hill, Inc. (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Leah Radko	Asst. Engineer	Gibbs & Hill	(212) 216-6107
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Lewis DeCarlo	Vice President	Pawling Corporation 157 Charles Colman Blvd	(914) 855-1000
		Pawling	( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	10:00 AM	Sunny, hot, humid.

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Gibbs & Hill, Inc.		( )

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Leah Radko		Gibbs & Hill	212-216-6107	6 / 29 / 87 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	001354349

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES *(Check all that apply)*

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

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

TONS: Unknown
CUBIC YARDS: _____
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 cited CAS Numbers)*

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	No record of hazardous substances deposited in land-fill only: construction material, blocks, boards, scrap rubber, machinery.				

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)*

EPA FORM 2070-13(7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	001354349

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 2000± — 04 NARRATIVE DESCRIPTION

Area within 1 mile on public supply from well 1/2 mile north of site and Pawling Res. 1.25 miles north east of site.

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

Brook running north through property is piped under parking lot and flows into adjacent wetlands. Source currently not used.

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

N/A - Landfill area now under paved parking lot.

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

N/A - Landfill area now under paved parking lot.

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

N/A - Landfill area now under paved parking lot.

01 ☐ F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 0.25-0.50 (Acres) — 04 NARRATIVE DESCRIPTION

Approximate area of landfill, however no record of hazardous materials being deposited at the site exist.

01 ☐ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☒ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 2,000 — 04 NARRATIVE DESCRIPTION

See ground water.

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

N/A - Landfill area now under paved parking lot.

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

N/A - Landfill area now under paved parking lot.

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NYD	001354349

II. HAZARDOUS CONDITIONS AND INCIDENTS *(Continued)*

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

None evident.

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

None evident.

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

Unlikely.

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

However supposedly, non hazardous material was used to fill in a low area in the future parking lot.

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

Unlikely, as above.

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

Pawling Rubber has a discharge of contaminated storm water to a dry well (groundwater).

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

Not known.

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

III. TOTAL POPULATION POTENTIALLY AFFECTED: 2000+

IV. COMMENTS

Storm water disdharge contains high levels of antimony, cadmium, copper, lead,iron, 1,1,1,-trichloroethane, and moderate to low levels of zink, aluminium, manganeze, trans-1,2-dichloroethene and methylene chloride.

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

Site Interview, DES Files, USGS Pawling Quad, NYS Atlas of Community Water System Sources, 1982.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	001354349

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☒ J. NONE				

III. SITE DESCRIPTION

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

04 TREATMENT (Check all that apply)

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

05 OTHER

- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE

0.25 (Acres)

07 COMMENTS

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one) Unknown

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

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

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☐ NO

02 COMMENTS

Landfill under paved parking lot.

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

Site Interview, DEC Files.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	001354349

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

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

02 STATUS

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

03 DISTANCE TO SITE

A. 1.25/0.5 (mi)
B. _____ (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

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

02 POPULATION SERVED BY GROUND WATER 2000±

03 DISTANCE TO NEAREST DRINKING WATER WELL 0.5 (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
4 (ft)	West	20 (ft)	72,000 (gpd)	☐ YES ☒ NO

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

One on site was drilled for industrial purposes in the 1940's (Du-550). The well had a yield of 50 gpm with a 10 feet . The well was screened in the stockbridge limestone formation. Total depth 145 feet.

10 RECHARGE AREA

☐ YES ☐ NO — COMMENTS: Unknown

11 DISCHARGE AREA

☒ YES ☐ NO — COMMENTS: Unknown

IV. SURFACE WATER

01 SURFACE WATER USE (Check one) Within 1 mile.

☒ 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
Unnamed Brook flowing from highland west of	☐	_____ (mi)
Pawling Res. under site into adjacent wetlands and	☐	_____ (mi)
Swamp River	☐	On-site (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 2345 NO. OF PERSONS	B. 3409 NO. OF PERSONS	C. _____ NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION On-site (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE 897

04 DISTANCE TO NEAREST OFF-SITE BUILDING 0.01 (mi)

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

Industrial, Commercial, Residential

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	001354349

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☒ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☒ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

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

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
(in)	2.85" (in)	3 %	N-W	%

09 FLOOD POTENTIAL

SITE IS IN _____ YEAR FLOODPLAIN

10 No ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE	OTHER
A. 18 (mi)	B. 0.02 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

Unknown (mi)

ENDANGERED SPECIES: Unknown

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS	
		PRIME AG LAND	AG LAND
A. On-site (mi)	B. 0.75 (mi)	C. N/A (mi)	D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

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

USGS Pawling Quad, Site Visit/Interview.
USGS Bull. GW-43.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	001354349

II. SAMPLES TAKEN No Samples Taken

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
None	

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☐ GROUND ☐ AERIAL

02 IN CUSTODY OF Gibbs & Hill
(Name of organization or individual)

03 MAPS
☒ YES
☐ NO

04 LOCATION OF MAPS
Gibbs & Hill

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

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

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	001354349

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
Pawling Corporation	

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

05 CITY	06 STATE	07 ZIP CODE
Pawling	NY	12561

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

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

12 CITY	13 STATE	14 ZIP CODE

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

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

12 CITY	13 STATE	14 ZIP CODE

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

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

12 CITY	13 STATE	14 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	001354349

II. CURRENT OPERATOR *(Provide if different from owner)*

01 NAME	02 D+B NUMBER	04 SIC CODE
Pawling Corporation		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE
157 Charles Colman Blvd.	Pawling	NY	12564

08 YEARS OF OPERATION	09 NAME OF OWNER
1945-to date	

OPERATOR'S PARENT COMPANY *(If applicable)*

10 NAME	11 D+B NUMBER	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) *(List most recent first; provide only if different from owner)*

01 NAME	02 D+B NUMBER	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 *(If applicable)*

10 NAME	11 D+B NUMBER	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	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	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	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
43	

10 NAME	11 D+B NUMBER	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	14 CITY	15 STATE	16 ZIP CODE

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

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	001354349

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
Pawling Corporation	

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

05 CITY	06 STATE	07 ZIP CODE
Pawling	NY	12564

III. OFF-SITE GENERATOR(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

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
SCA Chemical Services			

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

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
Newark	NJ	08861			

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)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NYD	001354349

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ D. SPILLED MATERIAL REMOVED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ F. WASTE REPACKAGED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION Non regulated waste solid sludge waste oil, waste solvent.	02 DATE	03 AGENCY
01 ☐ H. ON SITE BURIAL 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ L. ENCAPSULATION 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ N. CUTOFF WALLS 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ P. CUTOFF TRENCHES/SUMP 04 DESCRIPTION NONE	02 DATE	03 AGENCY
01 ☐ Q. SUBSURFACE CUTOFF WALL 04 DESCRIPTION NONE	02 DATE	03 AGENCY

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NYD	001354349

II PAST RESPONSE ACTIVITIES *(Continued)*

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

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

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

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

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

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

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

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

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

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

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

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

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

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
NYD	001354349

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

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

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

6. RECOMMENDATIONS

6.1 Adequacy of Existing Data

No records exist that indicate the waste characteristics or waste quantity disposed of in the landfill. An interview conducted during the G&H site visit indicated that only non-hazardous wastes were deposited at the site.

6.2 Recommendations

A Phase II investigation is recommended. Gibbs & Hill recommends that DEC reviews the Work Plan and obtains data from the monitoring wells which are planned to be installed in the near future by the Pawling Rubber Co. The basis for this recommendation is as follows.

The existence of contaminants is not known since there is no record of hazardous waste disposal at the site. The stream and wetland into which the piped brook flows is used for cooling water discharge. The Gibbs & Hill, Inc. (G&H) site inspection found neither evidence of stressed vegetation in the wetlands area around the plant nor record of contamination of the groundwater and the wetlands.

However, the cooling water outfall was recently sampled and found to contain moderate levels of copper and zinc, and low levels of chromium, lead and various organics. Additionally, the Pawling Rubber Company is known to have discharged contaminated stormwater to a dry well (a groundwater discharge) located on-site. These two discharges may contaminate the surface water and the groundwater respectively.

APPENDIX A

Appendix A
Bibliography

A-1 Site Photographs.

A-2 R. Vrana letter to K. MacLeod (WPRO-DEC), 11/24/78.

A-3 NYS DEC - Industrial Chemical Survey, 4/4/77.

A-4 L. DeCarlo (Pawling Corporation) letter to N. Nosenchuck (NYS DEC), 1/23/87 with attachments.

A-5 NYSDEC - "Community - Right-to-Know" Executive Order #33, Pawling Rubber Corp., 7/18/84.

A-6 Simmons, E., Ground-Water Resources of Dutchess County, New York, USGS Bulletin GW-43, 1961.

A-7 S. Singh letter to M. Chen, (11/17/87).

REF A-1

PHOTO # 1

PHOTO # 2

PHOTO # 3

REF. A-2-1.1

Mr. Ken MacLeod, WPRO-DEC

Mr. Robert Vrana

Status of IBM, Poughkeepsie, Texaco and Pawling Rubber Corp
Waste Disposaal Facilities
November 24, 1978

As you requested during our telephone conversation of November 14, 1978, the following is the current status of each of the subject waste disposal facilities:

1) Pawling Rubber Corp - spoke with Mike Bedics, Chief Engineer. On-site landfill has been inactive for at least five (5) years. Solid Waste taken under contract by Suburban Carting Co. to Harlem Landfill Corp. (Amenia) and possibly elsewhere.

2) Texaco-Beacon - spoke with Robert Campbell, P.E. One lagoon continues to be active, taking 36,000 to 40,000 gallons/year of sewage sludge and, for 1978, 15000 (not 2000) gallons of API Separator wet sludge.

3) IBM, Poughkeepsie - spoke with A. W. Vandewinckel, Manager, Plant Engineering. Landfill for construction debris has been inactive for many years. Sludge lagoon is one lagood with two sections for heavy metal sludge, which is hauled away under permit by Chemtrol Corp. of Buffalo, N.Y. Lagoon currently being re-constructed in concrete and will be operative by January, 1979.

jrh/rjv/lb

REF. A-342

91-15-5 (12/...)

APR 5 1977

BUREAU OF INDUSTRIAL PROGRAMS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233

INDUSTRIAL CHEMICAL SURVEY

PART I

PLEASE COMPLETE AND RETURN TO THE ABOVE ADDRESS, ATTENTION: INDUSTRIAL CHEMICAL SURVEY.

COMPANY NAME		SIC CODE (If known)	OFFICE USE ONLY
PAWLING RUBBER CORP		3069	13 66297
COMPANY MAILING ADDRESS	CITY	STATE	ZIP CODE
157 MAPLE BLVD.	PAWLING	N.Y.	12564
PLANT NAME (If different)	CONTACT NAME		TELEPHONE Area
	MICHAEL A. BEDICS		914 855-10
PLANT ADDRESS (If different) Street	CITY	STATE	ZIP CODE

PRINCIPAL BUSINESS OF PLANT: EXTRUDED & MOLDED RUBBER

NOTE: (If parent company, give name and addresses of all divisions, subsidiaries, etc. located in New York State. A separate questionnaire is to be completed and submitted for each.)

PART II
Discharge Information

WATER

1. Does your plant discharge liquid wastes to a municipally owned sanitary sewer system? ☑ Yes ☐ No
   Name of System _____
2. Is your facility permitted to discharge liquid wastes under a State (SPDES) or Federal (NPDES) permit? ☑ Yes ☐ No
   Permit Number 0 0 0 4 6 1 8
3. Do you discharge liquid wastes in any other manner? ☐ Yes ☑ No
   Explain _____

If any of the above are "Yes":

a. Do you discharge process or chemical wastes – (i.e. water used in manufacturing including direct contact cooling water and scrubber water)? ☑ Yes ☐ No
b. Do you discharge non-contact cooling water? ☑ Yes ☐ No
c. Do you discharge collected storm drainage only? ☐ Yes ☐ No
d. Do you discharge sanitary wastes only? ☑ Yes ☐ No

AIR

1. Does your facility have sources of possible emissions to the atmosphere? ☑ Yes ☐ No
2. Enter Location and Facility Code as shown on your Air Pollution Control Application for Permits and Certification (If applicable) 1 3 4 0 0 1 0 1 5 8

SOLID & CONCENTRATED LIQUID WASTES

1. List Name and Address of Firm (Including yourself) removing wastes other than office and cafeteria refuse.

Name	Address	City	State	Zip Code
DUTCHESS SANITATION	273 VAN WAGNER RD.	POUGHKEEPSIE	N.Y.	

2. List Location(s) of Landfill(s) **owned** and used by your facility.

		Active	Inactive
1		☐	☐
2		☐	☐

PESTICIDES

1. Does this facility:
   Manufacture Pesticides or Pesticide Product Ingredients? ☐ Yes ☑ No
   Produce Pesticides or Pesticide Product Ingredients? ☐ Yes ☑ No
   Formulate Pesticides? ☐ Yes ☑ No
   Repackage Pesticides? ☐ Yes ☑ No
2. EPA Establishment Number ☐☐☐☐☐☐ – ☐☐ – ☐☐☐

A-3-22

66297

PART III

SUBSTANCES OF CONCERN
(Refer to attached TABLE I)

Complete all information for those substances your facility has used, produced, stored, distributed or otherwise disposed of since January 1, 1971. Do not include chemicals used only in analytical laboratory work. Enter the name and code from Table I. If facility uses a substance in any of the Classes A – F which is not specified in the list, enter it as code class plus 99, e.g. B99 with name, usage, etc.

NAME OF SUBSTANCE	CODE	AVERAGE ANNUAL USAGE	AMOUNT NOW ON HAND	(✓) GAL.	(✓) LB.	PURPOSE OF USE (State whether produced, reacted, blended, packaged, distributed, no longer used, etc.)
OPRENE S	A99	413,320	48,270		X	Base/Rubber Stocks Blend
YDRIN	A99	12,500	50		X	Base/Rubber Stocks Blend
YPALON	A99	22,000	1,600		X	Base/Rubber Stocks Blend
TBUTYL PHTHALATE	F15	0	110	X		Rubber Plasticizer Blend
OCTYL PHTHALATE	F15	900	110	X		" " "
ARAPLEX G-62	G12	165	20	X		" " "
HLOROWAX LV	A99	550	25	X		" " "
LECTRA RED	F24	0	146		X	Rubber Pigments Blend
47 - GREEN	F24	1400	820		X	" " "
40 - RED	F24	0	20		X	" " "
7 - RED	F24	0	200		X	" " "
90 - BROWN	F24	0	20		X	" " "
60 - BLUE	F24	500	200		X	" " "
30 - YELLOW	F24	200	25		X	" " "
OLIOL	D02	770	110	X		Cement Solvent Blend
ICIDE	A12	615	165	X		" " "
CCELERATOR 808	B06	0	1	X		Curing Agent Blend
ETANOX	F21	100	100		X	Antioxident Blend
HLOROWAX 70	A99	2250	630		X	Promoter/Fire Retardant
ISMUTH	C17	0	63		X	Rubber Accelerator Blend
NAPS	C17	150	150		X	" " "
THYL SELENAC	C17	0	300		X	" " "
THYL ZIMATE	C17	700	300		X	Antioxident-Antiozonant "
.P.C.	C17	440	88		X	" " "
ETHRAC	C17	1000	550		X	Rubber Accelerator Blend
verage annual usage = amount used during 1976						

If you use chemicals of unknown composition, list trade name or other identification, name of supplier and complete information.

NAME OF SUBSTANCE	AVERAGE ANNUAL USAGE	AMOUNT NOW ON HAND	(✓) GAL.	(✓) LB.	SUPPLIER	PURPOSE OF USE (State whether produced, reacted, blended, packaged, distributed, no longer used, etc.)

I hereby affirm under penalty of perjury that information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

SIGNATURE (Owner, Partner, or Officer) Roger W. Smith DATE 4/4/77

NAME (Printed or Typed) SMITH TITLE PRESIDENT

REF. A-413

PAWLING CORPORATION
157 Charles Colman Boulevard
Pawling, New York 12564-1193
Phone: 914/855-1000
Telex: 646720

An innovative manufacturer of rubber and plastic products.

January 23, 1987

New York State Department of
Environmental Conservation
Division of Solid and Hazardous Waste
Manifest Section
P.O. Box 12820
Albany, New York 12212

Attn: Norman H. Nosenchuck, P.E.
Director
Division of Solid and Hazardous Waste

Dear Mr. Nosenchuck,

I am pleased to report that the volume of waste generated and disposed of has been reduced at Pawling Corporation in 1986 considerably.

The reduction from 66 tons in 1985 to 14 tons in 1986 is an example of what "effort" can do. We have found a use in certain products for some of the waste and through Engineering and maintenance controls absolutely reduced the waste stream.

Accompanying this letter is the yearly report and a letter on our Toxicity reduction progress.

Sincerely,

Lewis De Carlo

Lewis De Carlo
V.P. Operations

LDC:wv

A-4-23

PAWLING CORPORATION

157 Charles Colman Boulevard
Pawling, New York 12564-1183
Phone: 914/855-1000
Telex: 646720

An innovative manufacturer of rubber and plastic products.

January 27, 1987

New York State Department of
Environmental Conservation
Division of Solid and Hazardous Waste
Manifest Section
P.O. Box 12820
Albany, New York 12212

Attn: Norman H. Nosenchuck, P.E.
Director
Division of Solid and Hazardous Waste

Dear Mr. Nosenchuck,

In response to USEPA requirement (40 CFR 262.41), the following program has been implemented at Pawling Corporation during 1986.

1. All present Pawling compounds have been reviewed from a toxic viewpoint. In cases where toxic chemicals were being used in powdered or liquid form, polymeric masterbatches have been specified to minimize waste generation.

2. All new Pawling compounds are reviewed for conformance to toxic waste regulation. When necessary, compounds are revised to state of the art health and safety standards.

3. All customer specified compounds are reviewed for conformance to toxic waste regulations. Customers are advised when revisions are necessary. Production trials are scheduled only after all toxic waste regulations are satisfied.

These programs have significantly reduced toxic waste generated at Pawling. Continuation of these programs and compound review during 1987 will reduce our toxic waste generation.

Very truly yours,

PAWLING CORPORATION

Maurice V. Smith
Vice President/Technical Director

MVS:wv

A-433

47-15-17 (11/85)—27c

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

GENERATOR ANNUAL REPORT

for the year ending December 31, 19 86

Page No 1 of 1

☑ GENERATOR EPA ID NUMBER NYD001354349 OR ☐ SMALL GENERATOR ☐ EXEMPT GENERATOR

NAME	Pawling Corp.	TELEPHONE NUMBER 914-855-1000
STREET	157 Chas. Coleman Blvd	
CITY	Pawling	STATE N.Y. ZIP CODE 12564

TREATMENT, STORAGE, OR DISPOSAL FACILITY (TSDF)

EPA ID NUMBER NJD060718449 3

NAME	SCA Chemical Services	TELEPHONE NUMBER 201-465-9100
STREET	100 Lister Ave.	
CITY	Newark	STATE N.J. ZIP CODE 08861

WASTE INFORMATION

WASTE DESCRIPTION	WASTE CODE	HANDLING METHOD	QUANTITY (in Tons)
Waste Solvent	D001	B	8
Waste Oil	~~D001~~	~~B~~	~~7~~
Non RECRA Regulated Waste Solid Sludge	~~NA~~	~~L~~	~~6~~

I hereby affirm under penalty of perjury that information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

PRINT OR TYPE NAME Lewis DeCarlo TITLE V.P. Operations

SIGNATURE Lewis DeCarlo DATE 1/23/87

REF. A-5-15

NYSDEC

"COMMUNITY-RIGHT-TO-KNOW" EXECUTIVE ORDER #33

ICS #: 3166297
PAWLING RUBBER CORP.
MICHAEL A. BEDICS
157 MAPLE BLVD.
PAWLING NY 12564

INDUSTRIAL CHEMICAL SURVEY (ICS)

INSTRUCTIONS

A. If you have submitted an ICS form to the Department since January 1, 1980 (1), please check the box below, sign and return (2), this sheet.

☑ ICS submitted since January 1, 1980 (1/12/83)

Louis L. Lulli V.P. 7/18/84

Signature Date

B. If you have not submitted an ICS form to the Department since January 1, 1980, please complete and return (2) the attached ICS form.

NOTE: (1) If you wish to update the ICS currently on file you may do so by completing and returning the enclosed forms.

(2) All materials are to be returned in the enclosed self-addressed envelope.

A-5-25

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

GENERATOR FORM
PART - I

50 WOLF ROAD
ALBANY, NEW YORK 12233

HAZARDOUS WASTE DISPOSAL QUESTIONNAIRE

PLEASE COMPLETE AND RETURN TO THE ABOVE ADDRESS, ATTENTION: RTK PROCESSING UNIT, ROOM 525

COMPANY NAME		ICS CODE EPA ID NUMBER	
ICS #: 3177275 PRESRAY CORP.	CITY	STATE	ZIP CODE
	CONTACT NAME		TELEPHONE
159 MAPLE BLVD. PAWLING NY 12564	CITY	STATE	ZIP CODE
PRINCIPAL BUSINESS OF PLANT			

PLEASE ANSWER THE FOLLOWING QUESTIONS:

CHECK ONE

1. SINCE JANUARY 1, 1952 THRU DECEMBER 31, 1981, HAVE YOU OR ANY PREVIOUS OWNERS/OPERATORS OF THIS FACILITY GENERATED ANY HAZARDOUS WASTE (SEE INSTRUCTIONS) AT YOUR PRESENT FACILITY, PLANT, PROPERTY, ETC?

☐ YES

☐ NO

IF THE ANSWER IS **YES** COMPLETE QUESTIONS **1, 2, 3, 4** AND **GENERATOR FORM PART - II**
IF THE ANSWER IS **NO** COMPLETE QUESTIONS 1 AND 4 AND RETURN THIS FORM

2. HAS THE FACILITY AT THIS LOCATION CHANGED ITS NAME OR IDENTIFICATION BECAUSE THERE WAS A CHANGE IN OWNERSHIP, CORPORATE NAME OR OPERATOR NAME, ETC. IF YES LIST THE NAMES BY WHICH THIS FACILITY HAS BEEN IDENTIFIED SINCE JANUARY 1, 1952 TO THE PRESENT.

☐ YES

☐ NO

NAME, ADDRESSES, AND TELEPHONE NUMBERS — DATES

3. DESCRIBE THE DOCUMENTS FROM WHICH DATA THAT IS INCLUDED ON PART-II WAS OBTAINED (SEE INSTRUCTIONS).

DOCUMENT DESCRIPTION — DATES

4. I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT INFORMATION SUPPLIED IS TRUE AND COMPLETE. FALSE STATEMENTS SUBMITTED ON THIS DOCUMENT ARE PUNISHABLE PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

Lewis De Carlo — V.P. — 2/18/94

NAME OF OWNER/OPERATOR, PARTNER OFFICER OR AUTHORIZED REPRESENTATIVE — TITLE — DATE

Lewis De Carlo — 914-XXX-1600

SIGNATURE — BUSINESS PHONE

NAME	ICS NUMBER - EPA ID NUMBER	
ADDRESS		
CITY	STATE	ZIP

GENERATOR FORM

PART - II

G

DATE _____

1. HAZARDOUS WASTE DISPOSAL SITE (SEE INSTRUCTIONS)	2. DESCRIPTION OF HAZARDOUS WASTES DEPOSITED AT THIS LOCATION (SEE INSTRUCTIONS)	3. EPA WASTE CODE	4. WASTE DISPOSED OF QUANTITY OF WASTE (TONS)	FORM			5. WASTE DISPOSAL DATES	6. TRANSPORTER OF HAZARDOUS WASTE (SEE INSTRUCTIONS)
				LIQUID	SOLID	DRUMS		

A-5-3,5

A-5-45

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

GENERATOR FORM
PART - I

50 WOLF ROAD
ALBANY, NEW YORK 12233

HAZARDOUS WASTE DISPOSAL QUESTIONNAIRE

PLEASE COMPLETE AND RETURN TO THE ABOVE ADDRESS, ATTENTION: RTK PROCESSING UNIT, ROOM 525

COMPANY NAME		ICS CODE / EPA ID NUMBER	
Pawling Rubber Corp. 157 Chas. Coleman		ICS 3166297 NYD 013-54-349	
COMPANY MAILING ADDRESS	CITY	STATE	ZIP CODE
ICS #: 3166297 PAWLING RUBBER CORP. MICHAEL A. BEDICS 157 ~~MAPLE BLVD.~~ PAWLING NY 12564	Blvd. Pawling	N.Y.	12564
157 Chas. Coleman Blvd.	CONTACT NAME Louis DeCarlo	TELEPHONE 914-855-1000	
	CITY Pawling	STATE N.Y.	ZIP CODE 12564

PRINCIPAL BUSINESS OF PLANT
Rubber Extrusion Mfg.

PLEASE ANSWER THE FOLLOWING QUESTIONS:

CHECK ONE

1. SINCE JANUARY 1, 1952 THRU DECEMBER 31, 1981, HAVE YOU OR ANY PREVIOUS OWNERS/OPERATORS OF THIS FACILITY GENERATED ANY HAZARDOUS WASTE (SEE INSTRUCTIONS) AT YOUR PRESENT FACILITY, PLANT, PROPERTY, ETC?

☑ YES
☐ NO

IF THE ANSWER IS **YES** COMPLETE QUESTIONS **1, 2, 3, 4** AND **GENERATOR FORM PART - II**
IF THE ANSWER IS **NO** COMPLETE QUESTIONS 1 AND 4 AND RETURN THIS FORM

2. HAS THE FACILITY AT THIS LOCATION CHANGED ITS NAME OR IDENTIFICATION BECAUSE THERE WAS A CHANGE IN OWNERSHIP, CORPORATE NAME OR OPERATOR NAME, ETC. IF YES LIST THE NAMES BY WHICH THIS FACILITY HAS BEEN IDENTIFIED SINCE JANUARY 1, 1952 TO THE PRESENT.

☐ YES
☑ NO

NAME, ADDRESSES, AND TELEPHONE NUMBERS	DATES
Pawling Rubber Corp.	Since 1946

3. DESCRIBE THE DOCUMENTS FROM WHICH DATA THAT IS INCLUDED ON PART-II WAS OBTAINED (SEE INSTRUCTIONS).

DOCUMENT DESCRIPTION	DATES

4. I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT INFORMATION SUPPLIED IS TRUE AND COMPLETE. FALSE STATEMENTS SUBMITTED ON THIS DOCUMENT ARE PUNISHABLE PURSUANT TO SECTION 210.45 OF THE PENAL LAW.

Lewis DeCarlo — NAME OF OWNER/OPERATOR, PARTNER OFFICER OR AUTHORIZED REPRESENTATIVE
V.P. — TITLE
7/18/84 — DATE

Lewis DeCarlo — SIGNATURE
914-855-1000 — BUSINESS PHONE

NAME	ICS NUMBER - EPA ID NUMBER
Pawling Rubber Corp	NYD 0013-54-349
ADDRESS	
157 Chas. Coleman Blvd.	
CITY	STATE / ZIP
Pawling	N.Y. / 12564

ICS # 316297

GENERATOR FORM
PART - II

G

DATE July 18, 1984

1. HAZARDOUS WASTE DISPOSAL SITE (SEE INSTRUCTIONS)	2. DESCRIPTION OF HAZARDOUS WASTES DEPOSITED AT THIS LOCATION (SEE INSTRUCTIONS)	3. EPA WASTE CODE	4. WASTE DISPOSED OF QUANTITY OF WASTE (TONS)	FORM LIQUID	FORM SOLID	FORM DRUMS	5. WASTE DISPOSAL DATES	6. TRANSPORTER OF HAZARDOUS WASTE (SEE INSTRUCTIONS)
Pawling Rubber 157 Chas. Coleman Blvd. Pawling N.Y. 12564	VARIOUS Solvents (SPENT)	U159 U220 U228 U239	15 TONS	✓			CONTINUOS	NONE
	* UNTIL 1981 SPENT SOLVENTS WERE PROPERLY IN A SAFE CONTROLED PROCEDURE AND SINCE JAN 1, 1981 WE HAVE USED AN EPA DISPOSAL Company (EPA APPROVED) AND STOPPED ALL BURNING.						BURNED ON PAWLING RUBBER-BURNINGS TOOK PLACE REGULARLY	PAWLING RUBBER-TRANSPORTER (LOCAL)
PAWLING TOWN DUMP SWAMP ROAD PAWLING N.Y. APPROX 500 YDS WEST OF N.Y. ROUTE 22 ON NORTH SIDE OF SWAMP RD.	SEMI-SOLIDIFIED COMBINATION OF LUBRICATING OIL AND RUBBER MAKING CHEMICALS WHICH ESCAPE DURING THE MIXING PROCESS	NA 127C	PREVIOUS TO 1978 OUR MIXING OPERATION WHICH GENERATES THIS WASTE WAS MINIMAL	✓	✓		CONTINUOS UNTIL 1981	VARIOUS HAULERS LOCAL TRASH REMOVAL COMPANY
	PLACED IN DRUMS AND WERE LAND FILED IN TOWN DUMP SITE. WE HAVE SINCE GIVEN THIS WASTE TO A EPA REMOVAL/DISPOSAL Company TO DEAL WITH AT GREAT EXPENSE. THE MATERIAL HAS BEEN CLASSIFIED AS NON-HAZARDOUS BUT PAWLING RUBBER HAS ALWAYS HANDLED AS SUCH. WITH THE USE OF A REMOVAL - DISPOSAL COMPANY WE HAVE STOPPED SEPERATING THE OIL FROM THE SLUDGE AND RE-USING IT AND DISPOSE OF ALL GENERATED AS A SLUDGE / OIL COMBINATION		AS COMPARED TO PRESENT CAPACITY. SO FOR THIS REQUESTED 300 TONS TOTAL WAS DISPOSED OF.					

A-55

STATE OF NEW YORK
DEPARTMENT OF CONSERVATION
WATER RESOURCES COMMISSION

Ground-Water Resources of Dutchess County, New York

By

E. T. SIMMONS, I. G. GROSSMAN, AND R. C. HEATH
Geologists, U. S. Geological Survey

Prepared by the
U. S. GEOLOGICAL SURVEY
in cooperation with the
NEW YORK WATER RESOURCES COMMISSION

BULLETIN GW-43
ALBANY, N. Y.
1961

A-6-29

GEOGRAPHY

Location and Setting

Dutchess County is in southeastern New York State, about halfway between New York City and Albany. It is one of a row of counties east of the Hudson River that border on the New England States. The county is bordered on the east by the State of Connecticut, on the south by Putnam County, on the west by the Hudson River, and on the north by Columbia County and the Commonwealth of Massachusetts.

Dutchess County is rectangular in outline and has an area of 816 square miles. It extends about 34 miles in a north-south direction and 22 miles in an east-west direction. Most of it lies between meridians 73°30' and 73°52' west longitude and parallels 41°30' and 42°04' north latitude. The population of the county in 1950 was 136,781, about 40 percent of which was concentrated in the cities of Poughkeepsie and Beacon.

Topography

The surface of Dutchess County is moderately irregular, consisting of an almost continous alternation of hills and valleys (pl. 1). Flat areas, though present in most parts of the county, are generally small and occupy a minor proportion of the area. The county is divided on the basis of topography into two relatively distinct parts. The smaller of these consists of the area in the northwestern part of the county west of Wappinger Creek and longitude 73°45'W. This area is characterized by numerous small, irregularly shaped hills, most of which range in height from about 20 to about 100 feet above the intervening valleys. Scattered throughout the area, however, are a few small, regularly shaped hills that rise 200 to 300 feet or more above the adjacent valleys. Altitudes in this area range from about 40 feet above sea level near the Hudson River to about 900 feet above sea level at Old Round Top. Drainage is not so well developed as in the remainder of the county, as indicated by the presence of numerous swamps.

The remainder of the county--that is, east of longitude 73°45' W. in the northern part of the county and east and south of Wappinger Creek in the central and southern parts of the county--is characterized by numerous regularly shaped hills and low mountains. These are larger and generally higher than those in the northwestern part. Many of the hills in this area range in altitude from 500 to 1,000 feet above the floors of the valleys. The highest altitudes generally occur along the southern and eastern boundaries of the county. South Beacon Mountain, near the southwest corner of the county reaches an altitude of 1,602 feet above sea level. Brace Mountain, in the extreme northeast corner, reaches an altitude of 2,311 feet above sea level, the highest point in the county. South Beacon Mountain and the other mountains in the southern part of the county mark the northern limit of the Hudson Highlands, a belt of northeast-trending mountains under-

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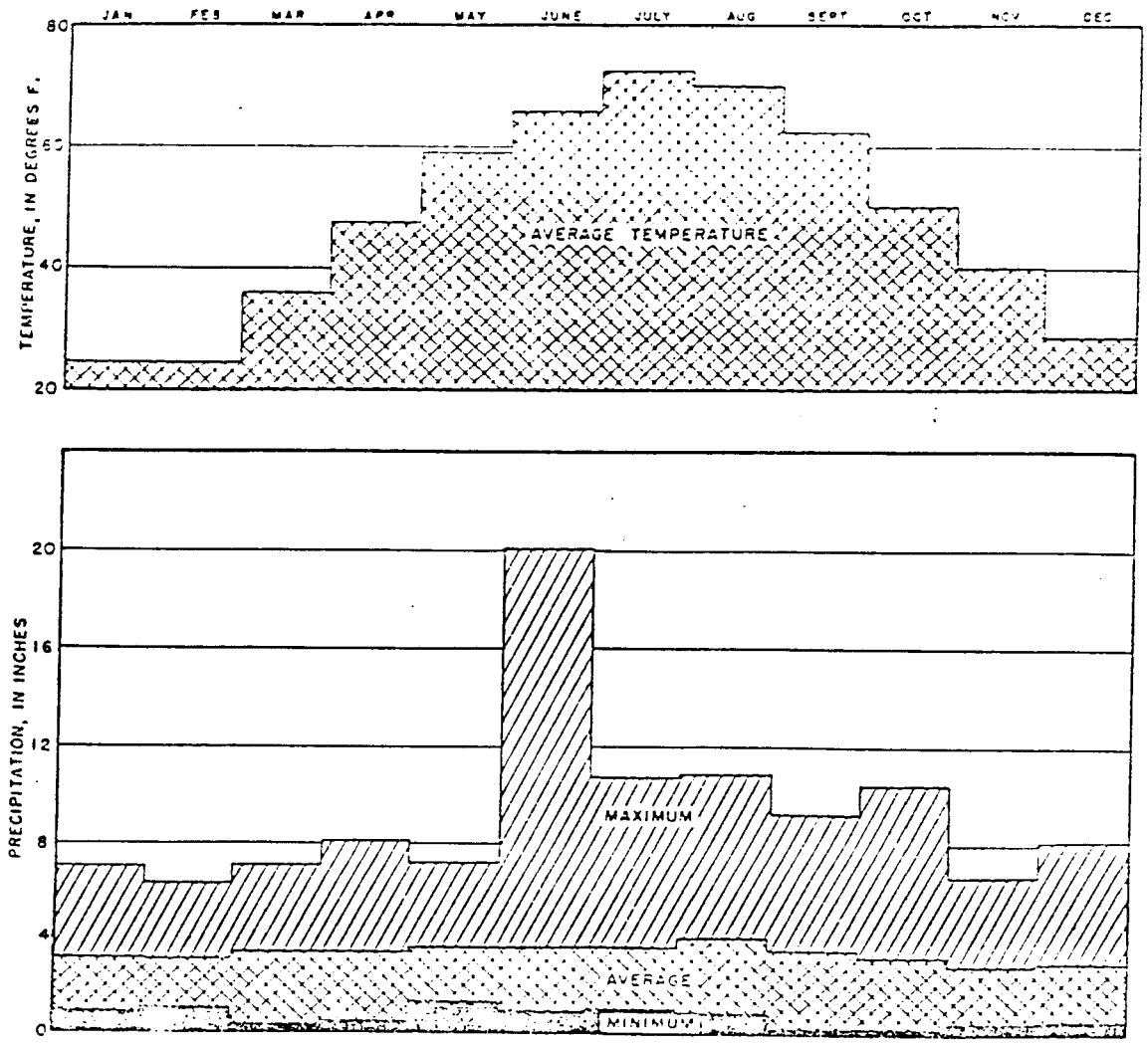

Figure 3.--Average monthly temperature and maximum, average, and minimum monthly precipitation at Wappingers Falls for the period 1893-1950.

GEOLOGY

Ground water occurs in all the geologic formations in Dutchess County and most of these are important sources of water. With respect to the principal kinds of openings in which the water occurs, these formations are placed in two major groups: (1) consolidated rocks that range in age from Precambrian to Ordovician, and (2) unconsolidated deposits of Pleistocene and Recent age. The areal extent of the different bedrock formations is shown on plate 2. These rocks underlie the entire county and crop out at the surface principally on hillsides and hilltops. In most of the county, however, the bedrock is overlain by unconsolidated deposits, which range in thickness from less than a foot on steep hills to more than 100 feet in some of the larger valleys. The areal extent of the different types of unconsolidated deposits is shown on plate 3. The principal events leading to the present-day distribution of the consolidated rocks and unconsolidated deposits in the county are described briefly in the following paragraphs. Although this report is a cooperative product of the New York Water Resources Commission and the U. S. Geological Survey, the geologic nomenclature does not necessarily follow that of the U. S. Geological Survey.

Geologic History

The oldest known strata in the county were laid down as clayey and limy mud and sand in a sea which covered the area in Precambrian time, more than 500 million years ago. After deposition, these strata were subjected to great heat and pressure which accompanied the intrusion of extensive masses of granite. The sediments were metamorphosed to a gneiss by the heat and pressure, and the gneiss is now so completely penetrated by the granite that the two look very much alike and hence are referred to on the bedrock map (pl. 2) as "undifferentiated granite and gneiss." The intrusion of the granite was followed by a long period of erosion during which the area was reduced to a low plain.

During the Cambrian, the first period of the Paleozoic era, the sea once again advanced over the area. A thick mass of sediments, consisting chiefly of sand and limy mud, collected on the sea floor. Deposition of limy mud and of clay and sandy clay continued into the succeeding Ordovician period. All these sediments were subsequently consolidated into beds of sandstone, limestone, and shale. At the end of the Ordovician, these beds were folded, metamorphosed, and raised above sea level during an episode of mountain-making known as the Taconic orogeny. During this orogeny the sandstone, limestone, and shale in the southern and eastern parts of the county were converted, through metamorphism, to quartzite, marble, and phyllite and schist. During and following the Taconic orogeny the area was subjected to another long period of erosion. Some deposition may have occurred in the general area during subsequent periods of the Paleozoic era, although no bedrock younger than Ordovician is known to occur. Crustal movements near the end of Devonian time known as the Acadian disturbance, during which rocks in areas to the north and west were faulted, also may have affected the rocks in Dutchess County.

Table 2.--Geologic units in Dutchess County and their water-bearing properties

Class	Age	Geologic Unit		Maximum thickness (feet)	Character of material	Water-bearing properties
Unconsolidated deposits	Recent	Alluvium		30±	Clay, silt sand, and gravel deposited by present-day streams in lakes, swamps, and on flood plains.	Not important as source of water because of limited thickness and restriction to discontinuous areas adjacent to streams. Potentially important, however, in larger valleys where coarse-grained material permits induced infiltration from nearby streams.
	Pleistocene	Stratified drift	Sand and gravel	200	Irregularly interbedded and interlensing sand and gravel formed by glacial melt-water streams.	Most productive source of ground water in county, though restricted in areal extent to portions of main stream valleys. Yields moderate to large supplies from properly constructed wells. Water moderately hard in parts of the valleys underlain by Stockbridge limestone
			Lacustrine deposits	200	Clay and silt deposited in glacial lakes.	Yields little water. Generally acts as a confining bed where underlain by permeable deposits.
		Unstratified drift	Till	150	Heterogeneous mixture of boulders and clay deposited by glacial ice. In places, contains small lenses of sand and gravel. Locally called "hardpan."	Generally thin and impermeable but yields small supplies to wells of large diameter.
Consolidated rocks	Late (?) and Middle Ordovician	Hudson River formation		3,000+	Shale or slate, chiefly gray or black but locally red, purple, and green. Contains beds of grit, limestone, limestone conglomerate, and black chert. Metamorphosed to phyllite and in east to schist.	Most extensive bedrock formation in county. Yields average 16 gpm. Water moderately soft and fairly low in dissolved solids, but hydrogen sulfide reported in some wells.
	Ordovician and Cambrian	Stockbridge limestone		1,000±	White, blue, and gray limestone and dolomite metamorphosed to marble in east. Veins of calcite and quartz common.	Chiefly restricted to valley areas. Most productive bedrock formation; yields average 22 gpm and range widely from 0 to 220 gpm. Water moderately hard and relatively high in dissolved solids.
	Early Cambrian	Cheshire quartzite		600±	Strong, compact rock composed almost entirely of quartz. Generally white except locally, where impurities result in buff or pink color.	Unimportant as a source of ground water because of small areal extent. Yields of five wells in southern part of county average 10 gpm.
	Precambrian	Undifferentiated granite and gneiss		Unknown	Banded black and white gneiss and gray or pink granite. Chief minerals feldspar and quartz. Locally contains basic dikes, quartz veins, and minor amounts of schist and marble.	Principally restricted to southern part of county. Yields of wells average 11 gpm. Water generally soft and low in dissolved solids.

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Consolidated Rocks

The bedrock underlying the county is composed of highly metamorphosed rocks of Precambrian age, and partially metamorphosed rocks of Paleozoic age. The older rocks, those of Precambrian age, consist mainly of granite and gneiss. The younger rocks, of Paleozoic age, consist of a larger variety of rock types, including quartzite, limestone, dolomite, marble, shale, phyllite, slate, and schist. Differences in age, degree of metamorphism, and lithology influence the water-bearing properties of the consolidated rocks. Thus, as an aid in understanding the occurrence of ground water in these rocks in different parts of the county, each of the principal types, as differentiated in table 2, is discussed separately in the following paragraphs.

Undifferentiated granite and gneiss.--Almost a tenth of Dutchess County is underlain at or near the surface by masses of northeast-trending igneous and metamorphic rocks of Precambrian age consisting chiefly of granite and gneiss. The largest mass underlies the southern part of the county from the Hudson River to the Connecticut State line. This mass ends abruptly 2 to 3 miles north of the southern border of the county against a series of sub-parallel major faults (pl. 2). Erosion of less resistant Paleozoic rocks north of the faults has resulted in a row of granite and gneiss spurs which are prominent topographic features in the southern part of the county.

The second largest mass of granite and gneiss underlies the group of prominent hills east of Dover Plains. Smaller bodies of granite and gneiss crop out at Corbin Hill, north of Pawling; at Stissing Mountain, west of Pine Plains; northeast of Beacon; and south of Sprout Creek, a few miles southeast of Poughkeepsie (pl. 2). The elongate mass northeast of Beacon has been called the Matteawan granite (Mather, 1843, pl. 18) and the Glenham gneiss (Gordon, 1911, p. 18). In the southwestern part of the county, the granite was subdivided into the Canada Hill granite and Storm King granite by Berkey and Rice (1921). The gneiss, which contains some schist and limestone, was called "Grenville gneiss and schists" by Berkey and Rice. However, in an earlier study of the southwestern part of the county, Gordon (p. 11) grouped together all the granite and gneiss along the southwestern border of the county under the term "Precambrian gneisses."

Balk (1932 and 1936) mapped the same rocks in the eastern part of the county and made a detailed study of their structure. In his reports, and in a report by Barth (1936), the granite and gneiss were combined into one major group, undifferentiated Precambrian gneiss. Because these rocks have not been further subdivided in the eastern part of the county and because there appear to be no significant differences in their water-bearing properties, the granites and the gneisses are grouped together in this report as "undifferentiated granite and gneiss."

In physical appearance, most of the granite and gneiss consists of light and dark minerals presenting a speckled appearance (granite) or arranged in layers (gneiss). The light minerals consist chiefly of quartz, feldspar, and white mica (muscovite). The dark minerals include black mica (biotite), garnet, and hornblende. Extensive and readily accessible exposures of gneiss can be seen in road cuts along the Taconic State Parkway near the Putnam County line. These rocks are more resistant to weathering than the younger Paleozoic rocks, as is reflected by the more rugged topography and higher altitudes in areas where they crop out. Most of the layers (foliation) in the granite and gneiss strike northeast, approximately parallel to the long axis of the Hudson Highlands, and dip steeply to the southeast. Exceptions occur near thrust faults where the strike and dip of the foliation parallel the faults. Most of the large and prominent spurs underlain by granite and gneiss in the southern part of the county point northeastward, and the long axes of the smaller bodies also are alined in that direction.

Cheshire quartzite.--A compact, strong quartzite, which is so tough that it is deliberately avoided by some drillers, crops out at a few localities in Dutchess County. This quartzite has been called the Poughquag quartzite by Berkey and some other geologists working in New York. It is called the Cheshire quartzite in this report, after its type locality at Cheshire, Berkshire County, Mass. (Emerson, 1917, p. 32-34). The quartzite unconformably overlies the Precambrian granite and gneiss and is the oldest Paleozoic rock in the county. In the southern and eastern parts of the county the quartzite forms the flanks of the higher ridges that are underlain by granite and gneiss. In the east-central part of the county, quartzite underlies several areas along the southern and western borders of the granite and gneiss in the vicinity of Dover Plains. Quartzite is present also in the southern part of Stissing Mountain in the north-central part of the county.

The Cheshire quartzite ranges in thickness from a few feet to about 600 feet. A thickness of about 250 feet has been reported at Stissing Mountain (Knopf, 1956, p. 11). The base of the formation may be conglomeratic and the top contains shaly beds in some places. In general, the quartzite is less strongly metamorphosed in the west than in the east. Some outcrops in the western part of the county still retain original sedimentary features, including bedding, crossbedding, and ripple marks. In the southeast, however, the original bedding has been destroyed by fracturing and recrystallization.

Where the Cheshire quartzite is composed almost entirely of quartz, it is white. Where small amounts of feldspar, mica, and other impurities are mixed with the quartz, it is pink or buff.

The Cheshire is not important as a source of ground water because of its small areal extent and because it underlies steeply sloping hillsides which are sparsely settled. Only five wells in the county are known to tap quartzite; these are listed in table 13.

Stockbridge limestone.--Over the Cheshire quartzite is a thick sequence of carbonate rocks, which underlie a much greater part of the county than the quartzite. In the east, carbonate rocks lie beneath the broad Harlem Valley, which contains Tenmile River and its principal tributaries and which extends almost without interruption from the Putnam County line to the Columbia County line. In the south, the valley of Fishkill Creek is underlain by limestone which extends from Beacon northeastward to the head of the creek. Other areas in the western and central parts of the county also are underlain by elongate masses of carbonate rocks (pl. 2).

Several different names have been applied to the carbonate rocks in different parts of the county, including Barnegat limestone (Mather, 1843, p. 410), Fishkill limestone (Gordon, 1911, p. 70), and Wappinger limestone (Gordon, p. 48). Knopf (1956, p. 1817) found that the carbonate rocks near Stissing Mountain range in age from Early Cambrian to Early Ordovician and divided them into the Stissing dolomite, Pine Plains formation, Briarcliff, dolomite, Halcyon Lake formation, and Rochdale limestone. Because there appear to be no essential differences in the water-bearing properties of the carbonate rocks, all are included in this report under the Stockbridge limestone, after the locality in Massachusetts where they were first described (Emmons, 1842, p. 154-156).

The carbonate rocks range in composition from almost pure calcium carbonate (limestone) to almost pure calcium-magnesium carbonate (dolomite). Limestone is more abundant in the upper part of the sequence and dolomite is more common in the lower part. Table 3 lists an analysis of a typical sample of dolomite from the Stockbridge limestone.

This analysis shows that more than 10 percent of the dolomite consists of impurities, chiefly silica and alumina. In some localities these impurities are abundant enough to form sandy and shaly beds in the Stockbridge.

Du 519 | 14Y, 13.0S, 5.0E | Senita Hills Camp | 900 | Drl | 185 | 6 | 0 | Hudson River formation | 37 | Force | 20 | Dom | Three other abandoned wells on property.
Du 524 | 14Y, 13.3S, 4.3E | Interchurch Camp Society, Inc. | 740 | Drl | 52 | 8 to 6 | 20 | Cheshire quartzite and granite and gneiss, undiff. | 18 | do. | 8 | Dom | Drawdown 30 ft after pumping 8 gpm for 8 hrs.
Du 525 | 14Y, 12.8S, 4.5E | Whaley Lake Inn | 720 | Drl | 72 | 6 | 62 | Granite and gneiss, undiff. | 24 | do. | -- | Dom |
Du 526 | 15Y, 2.0N, 8.6W | Robert Lyons | 220 | Drl | 30 | 6 | -- | Pleistocene sand and gravel | 4 | Suction | 25 | Dom |
Du 527 | 14Y, 7.2S, 9.5E | Wingdale Hotel | 430 | Drl | 130 | 6 | 0 | Stockbridge limestone | -- | -- | -- | Dom |
Du 529 | 14Y, 6.2S, 10.0E | Brookshire Manor | 330 | Drl | 180 | 6 | 80 | do. | 7 | Suction | -- | Dom |
Du 529 | 15Y, 8.0N, 2.6W | Harry Sickle | 400 | Drl | 87 | 6 | 30 | Hudson River formation | 16 | do. | 6 | Dom | (b).
Du 530 | 14Y, 15.4S, 10.7E | G. O'Hara | 1,260 | Drl | 185 | 6 | 2 | do. | -- | Jet | 30 | Dom | Yield 20 gpm when well was 150 ft deep. Temperature 50°F, June 1969.
Du 531 | 14Y, 13.9S, 7.3E | Charles Utter | 520 | Drl | 300 | 6 | 8 | Stockbridge limestone | 8 | Suction | 6 | Dom |
Du 532 | 14Y, 15.5S, 6.7E | H. Krajalis | 700 | Dug | 12 | 48 | -- | Pleistocene sand and gravel | -- | do. | -- | Dom |
Du 533 | 14Y, 15.0S, 8.5E | Ralph Gwinn | 450 | Drl | 330 | 6 | 28 | Stockbridge limestone | 26 | Turbine | 40 | Com | Temperature 54°F, June 1969.
Du 534 | 14Y, 15.6S, 7.2E | A. Pennell | 530 | Dug | 22 | 48 | -- | Pleistocene sand and gravel | 14 | Suction | -- | Farm |
Du 535 | 14Y, 11.4S, 7.8E | H. J. Kurris | 460 | Drl | 130 | 6 | -- | Pleistocene deposit | -- | Jet | -- | Farm |
Du 536 | 14Y, 10.8S, 7.3E | George Dykeman | 530 | Dug | 21 | 48 | -- | Pleistocene till | 6 | Suction | -- | Dom |
Du 537 | 14Y, 9.0S, 7.3E | William Greimer | 500 | Dug | 15 | 57 | -- | do. | 10 | do. | -- | Farm |
Du 539 | 14Y, 5.7S, 1.3E | J. B. Walsh | 540 | Dug | 29 | 48 | -- | do. | 13 | do. | -- | Dom | Well used only in summer.
Du 540 | 14Y, 5.1S, 2.1E | A. Broome | 750 | Dug | 34 | 53 | 34 | Pleistocene sand | 18 | Hand | -- | Dom | do.
Du 541 | 14Y, 3.9S, 1.6E | E. F. Ackon | 730 | Drl | 102 | 6 | 50 | Hudson River formation | 14 | Jet | 5 | Farm | Yield 2 gpm when well was 75 ft deep.
Du 542 | 14Y, 1.9S, 0.8E | El Rancho | 520 | Drl | 98 | 6 | 21 | do. | 18 | do. | 7 | Com | Yield did not increase below depth of 81 ft.
Du 543 | 14Y, 3.1S, 0.7E | Paul Berger | 720 | Drl | 293 | 6 | 12 | do. | -- | Force | 10 | Farm |
Du 545 | 14Y, 4.9S, 1.1E | W. A. Parliman | 580 | Drl | 64 | 6 | 6 | do. | 4 | Suction | 8 | Farm |
Du 546 | 15Y, 0.9S, 10.2W | Dutchess County Broadcasting Co. | 1,305 | Drl | 185 | 6 | 0 | Granite and gneiss, undiff. | -- | -- | 5 | Dom |
Du 547 | 14Y, 0.2S, 8.6E | Carl Sabo | 400 | Drl | 184 | 6 | -- | Pleistocene deposit | -- | None | 2.5 | Dom | Well abandoned; water contained clay.
Du 548 | 15Y, 11.7N, 1.4W | Dutchess Hatchery | 330 | Drl | 115 | 6 | 16 | Hudson River formation | -- | -- | 11 | Farm | Two other wells on property, 415 ft and 385 ft deep, produced no water.
Du 549 | 13Y, 12.1S, 8.7E | F. Schern | 400 | Drl | 155 | 6 | 110 | Stockbridge limestone | 38 | Jet | 40 | Dom |
Du 550 | 14Y, 12.5S, 7.9E | Pawling Rubber Corp. | 440 | Drl | 145 | 6 | 20 | do. | 4 | do. | 50 | Ind | Drawdown 10 ft after pumping 50 gpm for 10 hrs. Temperature 51°F, June 1969. Average consumption is 10,000 gpd. (a).
Du 551 | 14Y, 11.9S, 0.7E | Peter O'Brien | 360 | Dug | 10 | 36 | 10 | Pleistocene gravel | 9 | Suction | 14 | Dom | Well supplies 5 families and small airport.
Du 552 | 14Y, 11.5S, 1.7E | Samuel Sottile | 380 | Drl | 96 | 6 | -- | do. | -- | Jet | 40 | Dom | Well flows; supplies restaurant and 15 families. (a) (b).

A-6-69

REF. A7-1.8

15 (12/75)

New York State Department of Environmental Conservation

MEMORANDUM

TO: Marsden Chen - Albany
FROM: Shaminder Singh - Region 3 - New Paltz SPS
SUBJECT: PHASE I - PAWLING RUBBER COMPANY - COMMENTS

DATE: November 17, 1987

A copy of the draft Phase I report was sent to David Ruff-Dutchess Co. Health Department, who returned it with no comments.

A review of the report suggests that the site, location and the history is correct but the report is incomplete in itself.

Village of Pawling Water Supply Wells near the Pawling Rubber Company site were found to contain:

Trichloroethene	6 PPb
Dichlorodifluoromethane	27 PPb
Benzene	1 PPb
Trans - 1,2 - Dichloroethylene	8 PPb

Pawling Rubber's permitted SPDES outfall 001 (cooling water - as mentioned in the draft report) was recently sampled and found to contain moderate levels of copper and zinc and low levels of chromium; lead; Trans-1,2-Dichloroethene; Tetrachloroethene; 1,1,1-Trichloroethane. The source of this cooling water is a well, therefore the solvents are probably being pumped from the groundwater.

Pawling Rubber also has a discharge of contaminated stormwater to a dry well (groundwater). This discharge contains high levels of antimony, cadmium, chromium, copper, lead, iron, 1,1,1-Trichloroethane and moderate to low levels of zinc, aluminum, manganese, Trans - 1,2 -Dichloroethene and methylene chloride.

In a recent meeting, the company has agreed to install monitoring wells to see if any of its discharges are seriously impacting the groundwater.

It has come to my knowledge that a long time ago, the Pawling Rubber Company shipped its waste to the 7th Day Adventist Church (Site #314010) where DEC did Phase I investigation and recommended the site for Phase II. Also, the Village of Pawling Landfill (Site #314036) had received its waste and the DEC is doing Phase I there.

Since this site is completely covered by an asphalt parking lot, I suggest to def any further investigation at this time. We should make a decision on this site after reviewing the company's monitoring wells data (which should be available very soon).

I am holding one draft copy in the Region 3 office for our reference.

If you have any questions or you wish to obtain any of the above sampling results, please contact me.

SS/di
cc: L. Alden

A7-2.8

To: David Ruff
Re: Village of Pawling well contamination
Date: May 20, 1987
From: Lee Felshin

Overview.
Because of supply shortages the Village has drilled a new 10 inch well beside the Corbin Road well. Normally required sampling of this new well revealed three organic contaminants. Subsequent sampling of the other supply wells showed that the Corbin Road well also is contaminated to some degree.

Area.
The basin divide between the Housatonic and the Croton Rivers runs through the middle of the village, thus half of the village drains south into the New York City watershed and the other half drains north via the Swamp River to the Ten Mile and eventually Long Island Sound. The village wells are located at the northern boundary of the village along the Swamp River. The new well is ~30 feet from the River. See attached map. Several smaller streams drain through some wet areas and join the Swamp river upstream of the wells. Along the Swamp and these feeders are several possible pollution sources. These include grave yards, laundromats, the village sewer plant, Pawling Rubber Co., Lumalite Plastics, and the village itself.

The wells.
Corbin Road Well is a rock well about ___ feet deep. Its original yield was 150gpm but has dropped to 45gpm. This well has already been redeveloped once. 60' from stream.

Libby Lane Well is a rock well about ___ feet deep. Its yield is about 200 gpm. This well is about ___ miles downstream of Corbin Road.

The new well is a gravel well about ___ feet deep. Its yield has been tested to about 130 gpm.

Test results.

	New well	Corbin well	Point A	B
Trichloroethene	5			
1,2 dichloroethene	8			
dichlorodifluoromethane	27			
tetrachloroethene	-			

The Libby Lane well and distribution system (Village Garage) as well as Points C and D showed no organics.

Possible sources.
Pawling STP.
This facility does not use any of the detected

chemicals but may have them appear in their influent. The plants removal efficiency is low due to problems with their Imhoff tanks and overloading of all processes. It is unlikely that this plant could remove substantial quantities of organic contaminants. The discharge of the plant is apparently downstream of the Corbin wells thus eliminating the plant itself as a source. New construction at the plant site could have introduced some chemicals but this would be unusual.

Pawling Rubber.

The Pawling Corporation owns a substantial facility just upstream of the well site. This facility has been in operation for ___ years. We toured the facility with Shayne Mitchell of DEC and found material storage to be quite sloppy.

The hazardous waste storage area is a fenced off part of the parking lot. Various colored powders have been spilled onto the ground here. Drainage is directed to a catch basin and then to the swamp. Black powder (carbon black or rubber dust) generally permeates the area.

Along the south side of the complex drums (55 gallon) of solvents are stored. Part of the storage area has a dike to contain spills, much of the area has no containment. Some of the drums are mounted horizontally and tapped with spigots. One of these which is not in the diked area is labeled trichloroethylene. There is a lock on the spigot. The building these drums are along side of is built on top of the swamp. Several large culverts allow swamp water to flow under the building. Some of the drums are stored over the gratings of these culverts. None of the drums appeared to be leaking. An interior solvent storage area did contain a leaking spigot. The excess Toluene was caught in a bucket.

The Hudson Harlem and New Haven line runs along the east side of the plant site. Along this wall airconditioner condensate and steam blowoffs dribble water through piles of debris. The village sewer main runs along here. Spent white liquid (soap?) used in the mixing department is dumped into a concrete catch basin that is allegedly connected to the village STP.

The DEC has permitted one outfall at the site. The SPDES permit limits only the temperature to <70 degrees. This limitation is not met but the company has applied to change the limitation. The outfall pipe is submerged in the swamp making accurate sampling impossible. Small amounts of oil float up in the outfall area. Company estimates the flow at 140,000 gpd but flow has never appeared that high at the outfall. Outfall water is non contact cooling water. A boiler blowdown overflow is also connected to the outfall. Recently the sump pump which normally pumps the blowdown water to the sewers failed allowing blowdown water to discharge to the swamp. This additional connection is not permitted. Oils from the

Swamp, fault shows oily [illegible] natural.

A7-4.8

plant boiler room could enter this outfall.
By the outfall pipe is a ~12 inch CMP storm sewer that discharges a clear liquid. Where the liquid hits the ground a substantial amount of orange foam exists. This sewer drains from the other side of the south building that the solvents are stored on the other side of.
At the north west corner of the building a cooling water overflow discharges excess water which has been treated with rust inhibitors and biocides. There is no permit for this. /* find out about these chemicals */
The major cooling system for this plant uses Ammonia. Ordinary air conditioners are also present.

Railroad. — spraying operations, oils, creosotes.
A tributary to the Swamp R. runs along the tracks. This drains the area by two grave yards, Lumalite plastics, and the village center. Over the years the tracks and the stream have been used as a dumping ground. Old batteries and aerosol cans are among the items found here.

Lumalite.
Dave Decker of Morris Associates, the Village engineer has found contaminants in the stream both up and down stream of this facility. Two chemicals, methylchloride and _____ acid are used to clean metals and the floor. A floor drain is connected directly to the stream. Peering into the doors of this facility did not reveal any chemical usage.

Laundromats.

The laundromat ~~Goodrich~~ spills in Pawling → 860304 Pawling laundry — call S Smyth
86 5097 Sunoco
86 6478 Pawling High
867970 Pawling tire.

Conclusion.
No explicits use of dichlorodifluoromethane was identified but air conditioning and refridgeration does occur in the area.
Pawling Rubber Company is the closest to the wells and has over the years used numerous different chemicals. They have surely been careless with these chemicals, however there is no concrete evidence of wrongdoing.
Lumalite is also a possibility.
The odd colorations of sewage encountered by the STP may stem from Pawling Rubber. They admit to discharging all sorts of waste, other than solvents which are covered by CERCLA, to the sewers. An industrial pretreatment program is being set up by the village engineer.

Other.
Pawling rubber has their own wells in addition to

Lumalite is also a possibility.

The odd colorations of sewage encountered by the STP may stem from Pawling Rubber. They admit to discharging all sorts of waste, other than solvents which are covered by CERCLA, to the sewers. An industrial pretreatment program is being set up by the village engineer. A7-5.8

Other.

Pawling rubber has their own wells in addition to using village water. The village should ensure that no cross connections exist and that private wells are allowed in the district. Sampling of the production wells may prove interesting. Would the county be notified if an independent lab tests this water?

Mitchell

A-7-6.8

State Department of Environmental Conservation
Route Putt Corners Road
New Paltz, NY 12561
(914) 255-5453

Thomas C. Jorling
Commissioner

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
P# 076 048 126

August 26, 1987

Pawling Corporation
157 Charles Colman Blvd.
Pawling, NY 12564

ATT: Mr. Richard Meyer
Plant Engineer

RE: Compliance Sampling Results
Pawling Corporation
SPDES Permit #NY-0004618
Pawling (V); Dutchess County Industrial

Dear Mr. Meyer:

Enclosed are the results of a sampling inspection performed June 2, 1987, at the above referenced facility. Samples were collected from the following locations: Pawling Corporation's cooling water sump, a storm grate near the waste material storage area, the Swamp River at Charles Colman Blvd., the Swamp River at Corbin Road, and a small tributary to the Swamp River prior to its entering a culvert under the Presray Building.

Items of concern as a result of this sampling:

1. The levels of Copper, Zinc, Trans-1,2-Dichloroethene, Tetrachloroethene, and 1,1,1-Trichloroethane found in the cooling water sump do not appear to be representative of a "typical" non-contact cooling water. Their presence indicates the discharge of unpermitted substances; this constitutes violation of your SPDES permit and Article 17 of the Environmental Conservation Law ("ECL").

2. Elevated levels of Antimony, Chromium, Copper, Lead, Zinc, 1,1,1-Trichloroethane and Bis(2-chloroisopropyl)ether were found in the storm grate. The concentrations of Antimony, Copper, Lead, and 1,1,1 Trichloroethane were in excess of 6NYCRR Part 703.6 - groundwater effluent limitations and/or Water Quality Guidance values; this constitutes violation of Article 17 of the ECL and indicates the likelihood of groundwater contamination.

A7-7.8

3. A review of in-stream heavy metals concentrations indicates the levels of Antimony, Cadmium, Copper, Chromium and Zinc increases as the Swamp River passes through the Pawling Corporation facility.

The items of concern must be addressed, I will contact you in the near future to schedule a compliance conference. Topics of that conference could include: penalties, institution of a groundwater investigation program, modification of your current SPDES permit, and methods to reduce the pollutant levels in your discharges.

Be advised that compliance with all terms and conditions of the SPDES permit and the ECL is the Permittee's responsibility. Failure to comply could be punishable by fines of up to $10,000 per day and/or one year imprisonment for <u>each</u> violation.

I can be reached at the above number if you have any questions.

Very truly yours,

Shayne A. Mitchell
Junior Engineer
Region 3 Division of Water

SAM/cli

cc: Dutchess County Health Dept.
Susan Thompson, Pawling Corp.

bcc: C. Manfredi
D. Deyna/File
P. Keller/Chron

A7-8.8

lage of Pawling to quit reservoirs d rely on wells even if polluted

is Kipp
aff

NG — The Village of ill abandon its reservoirs ing water supply and will ad on ground water wells he recent discovery of pollutants in two existing ells, the mayor said Tues-

uesday, state investigators or possible sources of the tamination said they have ed illegal chemical dis- at two local businesses, Rubber Company and Lu- Plastics. Neither has been being a source of the pollut-

r Adrian H. Anderson said ision to abandon the reser- f Reservoir Road, east of the made this month by the hething that

He said the village will continue to maintain the two reservoirs but only as emergency water supplies.

The plans were discussed Tuesday among officials of the village and the Dutchess County Department of Health. David Ruff, director of environmental health services for the health department, said the village is making satisfactory progress toward improvements.

The decision to abandon the reservoirs comes after more than a year of water-supply problems in the village. A year ago, the county health department said the village water supply was substandard because there was not enough water and the water had high levels of turbidity — suspended particles that reduce the effectiveness of chlorination. The county ordered the village to study alternatives for improving the system. Anderson said the village spent

department.

Last month, an engineer hired by the village recommended the village abandon the two reservoirs as a water supply for the village's 400 residential and business customers. The cost of the new supply system is estimated at $617,000.

During the engineer's study, traces of industrial chemicals were found in a village supply well on Corbin Road. A second, new well drilled by the village on the same site was also contaminated by the chemicals, identified as methylene chloride, trichloroethylene and 1,1,1, trichloroethane.

Ruff said the health department on Tuesday gave the village preliminary approval to use the new well, although a system for removing the chemical contamination will have to be installed.

Levels of contaminants in the existing Corbin Road supply well are

well be abandoned, according to the health department.

Cesare Manfredi, a senior sanitary engineer with the state Department of Environmental Conservation, said enforcement actions are pending against Lumelite Plastics and Pawling Rubber Company.

The announcement by Manfredi came late Tuesday and officials from Pawling Rubber and Lumelite Plastics could not be reached for comment.

Manfredi said investigators discovered that Lumelite Plastics was discharging industrial waste but has no state permit to do so. He said Pawling Rubber has a state discharge permit, but is discharging chemical solvents and copper in violation of the permit.

Manfredi said enforcement actions against the two firms are pending and that the department will likely impose fines against them.

Trace of chemicals found in Pawling village water supply

By Dennis Kipp
Journal staff

PAWLING — The village's water system — called substandard a year ago by the Dutchess County Health Department — is now plagued by chemical contamination and extensive leaks.

A recently completed engineering report recommends the village abandon its two reservoirs and use wells to supply water to its 400 residential and business customers. The new supply system would cost more than $617,000, according to the report.

But while preparing the report, the engineers discovered that an existing supply well on Corbin Road contains traces of industrial chemicals.

Also, tests found that as much as 140,000 gallons of water are leaking from water mains throughout the village every day. Losses from the leaks amount to 36 percent of the water pumped into the system each day, according to the engineering firm of Morris Associates.

The New York state Department of Health has asked the village to consider installing a water storage tank. And Lee Felshin, an engineer with the Dutchess County Department of Health, says "some determination of the adequacy of the distribution network must be considered by the village."

Village officials were not available to comment on the report findings.

dered by the county health department last summer. Among the most serious problems at the time was turbidity, a condition that reduces the effectiveness of disinfection with chlorine. As a result, water users were required to boil their drinking water for several months.

Most of the village's water comes from two wells — one on Corbin Road and one on Libby Lane. Contamination in the Corbin Road well was discovered this spring when the village drilled a new well there. The chemicals — identified as methylene chloride, trichloroethylene and 1,1,1 trichloroethane — were found when water from the new well was tested.

Subsequent tests of the village supply well and surface water around the well also found traces of the chemicals. County health officials said the levels in the supply well are not high enough to require abandonment of the well. And, the officials said the chemicals have not turned up in tests of water in the village distribution system.

In a June 4 letter to the health department, Morris Associates said the contamination in the well water is apparently being diluted in the distribution system to a point that it cannot be detected.

The source of the contamination is unknown, although county health officials note that the well is downstream from the Pawling Rubber Co. and the village center.

"Years of casual disposal practices, sloppy housekeeping, or negligence appear to be the problem"

APPENDIX B

INTERVIEW ACKNOWLEDGEMENT FORM

Site Name: Pawling Rubber Company

I.D. Number: 314002

Date: 6/29/87

Person Contacted: Lewis DeCarlo

Title: Vice President/Operations

Affiliation: Pawling Corporation

Address & Phone No.: Pawling Corporation
157 Charles Colman Blvd.
Pawling, NY 12564-1188
914-855-1000

Type of Contact: In person

Person(s) Making Contact: L. Radko

Interview Summary:

Years ago there was landfilling of a low area with construction material, blocks, boards, scrap rubber, and machinery. Now the area is a paved parking lot. Underneath the elevated areas of the parking lot is ledgerock. Lowlands had been filled in and rock blasted out to level off the parking lot.

Because the property is surrounded by wetlands, the company has a wetlands restriction. A brook runs under the property in a pipe and along the property. Plant cooling water is discharged into the brook. The NYS DEC checks the temperature and quality of the brook because of this. Surface and roof drainage also go into the brook. The brook is a natural spring. Beaver are prominent in this area.

The Pawling Corporation is 42 years old. The Pawling Corporation has 425 employees, and is made up of 2 companies, Pawling Rubber and Preray. In the past, the site had been a button factory, a milk processing plant and a leather processing factory.

Until 1981, they burned waste solvents. Now, they use a disposal company to comply with EPA law. They had used Environmental Control, in Waterbury Conn., but now use SCA.

There is a security service on the premises from 11 PM to 7 AM.

Acknowledgement:

I have read the above transcript and I agree that it is an accurate summary of the information verbally conveyed to Gibbs & Hill, Inc. interviewers, or as I have revised below, is an accurate account.

Revisions (please write in corrections to above transcript):

No Revisions

Signature: Louis DeLucia V.P. Date: 12/18/87

cc: Rels
S.T.

APPENDIX C

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

CLASSIFICATION CODE: 2a REGION: 3 SITE CODE: 314002
EPA ID: NYD980528558

NAME OF SITE: Pawling Rubber Company
STREET ADDRESS: 157 Maple Blvd.
TOWN/CITY: COUNTY: Dutchess ZIP: 11569

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

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME.....: Pawling Rubber Company
CURRENT OWNER ADDRESS..: 157 Charles Colman Blvd., Pawling, NY 12564
OWNER(S) DURING USE....: Pawling Rubber Company
OPERATOR DURING USE....: Pawling Rubber Company
OPERATOR ADDRESS.....:
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From Unknown To Early 1970's

SITE DESCRIPTION:

Inactive landfill possibly covered by a parking lot or building expansions. Additional monitoring well sampling needed.

During the G&H site visit, Lewis DeCarlo, Vice President of Operations for the Pawling Corporation, stated that many years ago a low area on the property was landfilled using construction material, blocks, boards, scrap rubber and scrap machinery. The landfill is now under a paved parking lot. A low area adjacent to this parking lot was filled in with soil. A brook, which is piped under the parking lot and through the landfill area, joins the Swamp River running north through the wetlands along the west side of the property (Figure 2). Contaminated surface and roof runoff runs through an adjacent pipe and into the dry well. The plant discharges its cooling water into the Swamp River. Waste solvent drum area is diked. Area drainage is conveyed to a catch basin.

HAZARDOUS WASTE DISPOSED: TYPE	Confirmed-	QUANTITY	Suspected-X (units)
1) Construction material: blocks, boards, scrap rubber, and scrap machinery.	Yes	Unknown	
2) Cooling water discharge: copper, zinc, chromium, lead, organics.	Yes	Unknown	
3) Stormwater discharge: antimony, copper, chromium, organics.	Yes	Unknown	

ANALYTICAL DATA AVAILABLE:
Air___ Surface Water_X_ Groundwater___ Sediment___ None____

CONTRAVENTION OF STANDARDS:
Groundwater____ Drinking Water____ Surface Water____ Air____

LEGAL ACTION:

TYPE..: State____ Federal____
STATUS: Negotiation in progress Progress____ Order Signed____

REMEDIAL ACTION: None

Proposed____ Under design____ In Progress____ Completed____
NATURE OF ACTION:

GEOTECHNICAL INFORMATION: None
SOIL TYPE: Stockbridge limestone aquifer.
GROUNDWATER DEPTH: 20 ft.

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

No evidence of leachate. Potential for ground and surface water contamination due to storm and cooling water discharge.

ASSESSMENT OF HEALTH PROBLEMS:

Medium	Contaminants Available	Migration Potential	Potentially Exposed Population	Need for Investigation
Air	Likely	Likely	Yes	High
Surface Soil	Unlikely	Unlikely	Yes	Low
Groundwater	Likely	Likely	Yes	High
Surface Water	Likely	Highly Likely	Yes	High

Health Department Site Inspection Date:

MUNICIPAL WASTE ID: N/A