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SUPPORTING DOCUMENTS FOR ENGINEERING INVESTIGATIONS AT INACTIVE HAZARDOUS WASTE SITES

Shanco Plastics and Chemicals Site No. 915048

Town of Tonawanda Erie County

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, Jr., *Director*

By:

Rust Environment & Infrastructure of New York, Inc.
in association with
TAMS CONSULTANTS, INC.

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March 1993

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SUPPORTING DOCUMENTS

Section 1 References
Section 2 Documents Cited

SECTION 1

REFERENCES

LIST OF REFERENCES

A-1 Wehran Engineering, P.C. for NYSDEC. Phase I Investigation, Shanco Plastics, April 1986.

A-2 Federal Emergency Management Agency (FEMA). Flood Insurance Rate Map (FIRM) Town of Tonawanda (Panel 360260 0001-0009), revised November 12, 1982.

A-3 United States Department of Agriculture. Soil Survey of Erie County, New York, 1986.

A-4 Buehler, Edward, Jr., and Tesmer, Irving, H. eds. Geology of Erie County, New York. Buffalo, New York. Buffalo Society of Natural Sciences Bulletin: Volume 21, No. 3, 1963.

A-5 U. S. Geological Survey Topographic 7.5 Minute Quadrangle Maps, 1965, Buffalo, New York, northwest and Buffalo, New York, northeast; 1980 Tonawanda, New York, west and Tonawanda, New York, east.

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A-9 Sax, N. Irving, and Richard J. Lewis, Sr., Dangerous Properties of Industrial Materials., New York, New York: Van Nostrand Reinhold Company, 1984.

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Reference A-1

Wehran Engineering, P.C. for NYSDEC.
Phase I Investigation, Shanco Plastics.
April 1986.

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

SHANCO PLASTICS
TONAWANDA, ERIE COUNTY, NEW YORK
Site Code:915048

APRIL 1986

Prepared for:

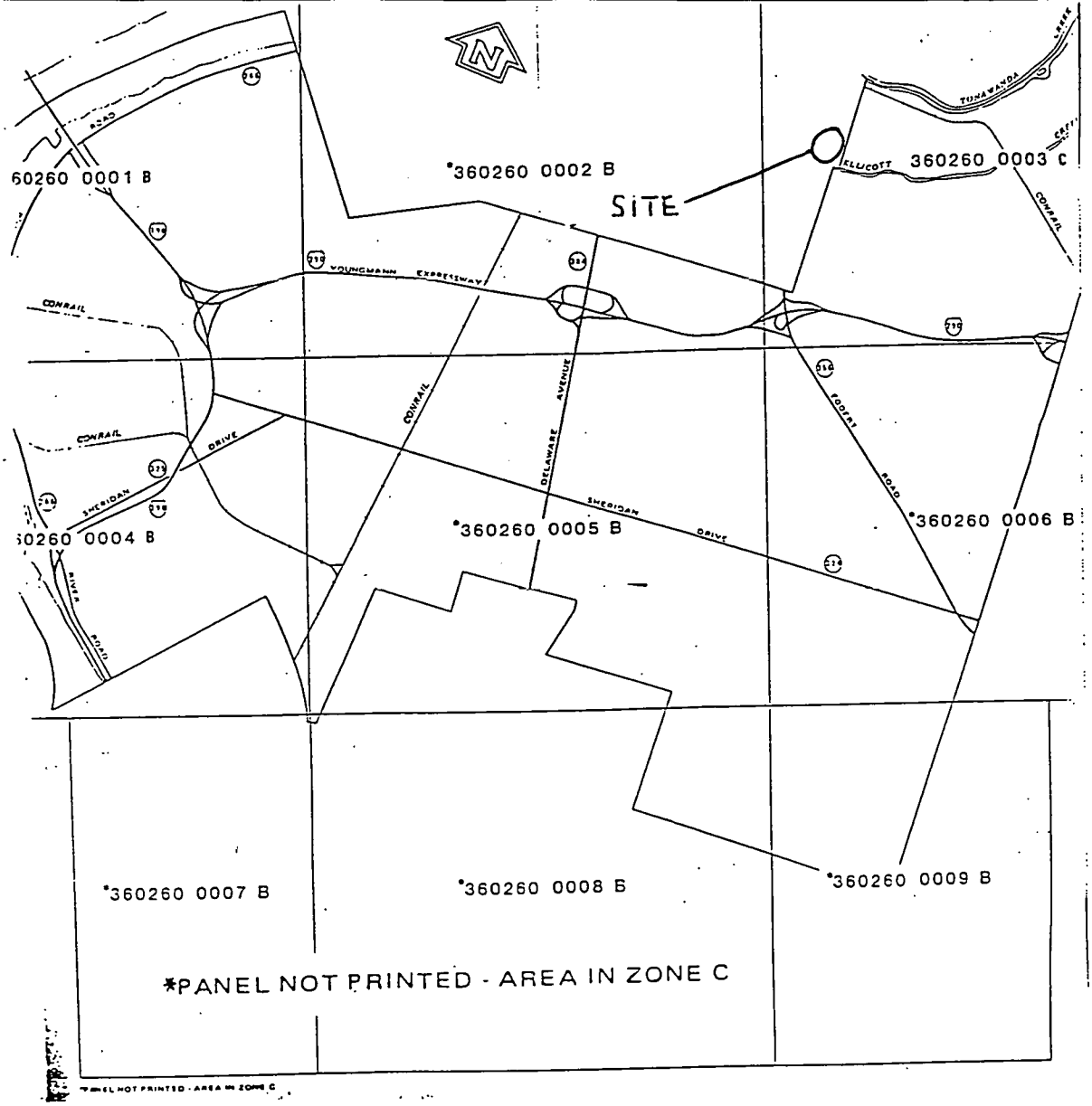
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
50 WOLF ROAD, ALBANY, NEW YORK 12233
HENRY G. WILLIAMS, COMMISSIONER

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

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

Reference A-2

Federal Emergency Management Agency (FEMA).
Flood Insurance Rate Map (FIRM)
Town of Tonawanda (Panel 360260 0001-0009)
revised November 12, 1982.



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
TONAWANDA,
NEW YORK
ERIE COUNTY

PANELS: 1, 2, 3, 4, 5, 6, 7, 8, 9

MAP INDEX
PANEL PRINTED: 1, 3, 4

COMMUNITY-PANEL NUMBER
360260 0001- 0009

MAP REVISED:
NOVEMBER 12, 1982

Federal Emergency Management Agency

KEY TO MAP

ZONE C

500-Year Flood Boundary

ZONE B

100-Year Flood Boundary

Zone Designations With Date of Identification e.g., 12/2/74

100-Year Flood Boundary

ZONE B

500-Year Flood Boundary

ZONE C

Base Flood Elevation Line With Elevation In Feet** — 513

Base Flood Elevation in Feet Where Uniform Within Zone** (EL 987)

Elevation Reference Mark RM7 ×

River Mile • M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

Reference A-3

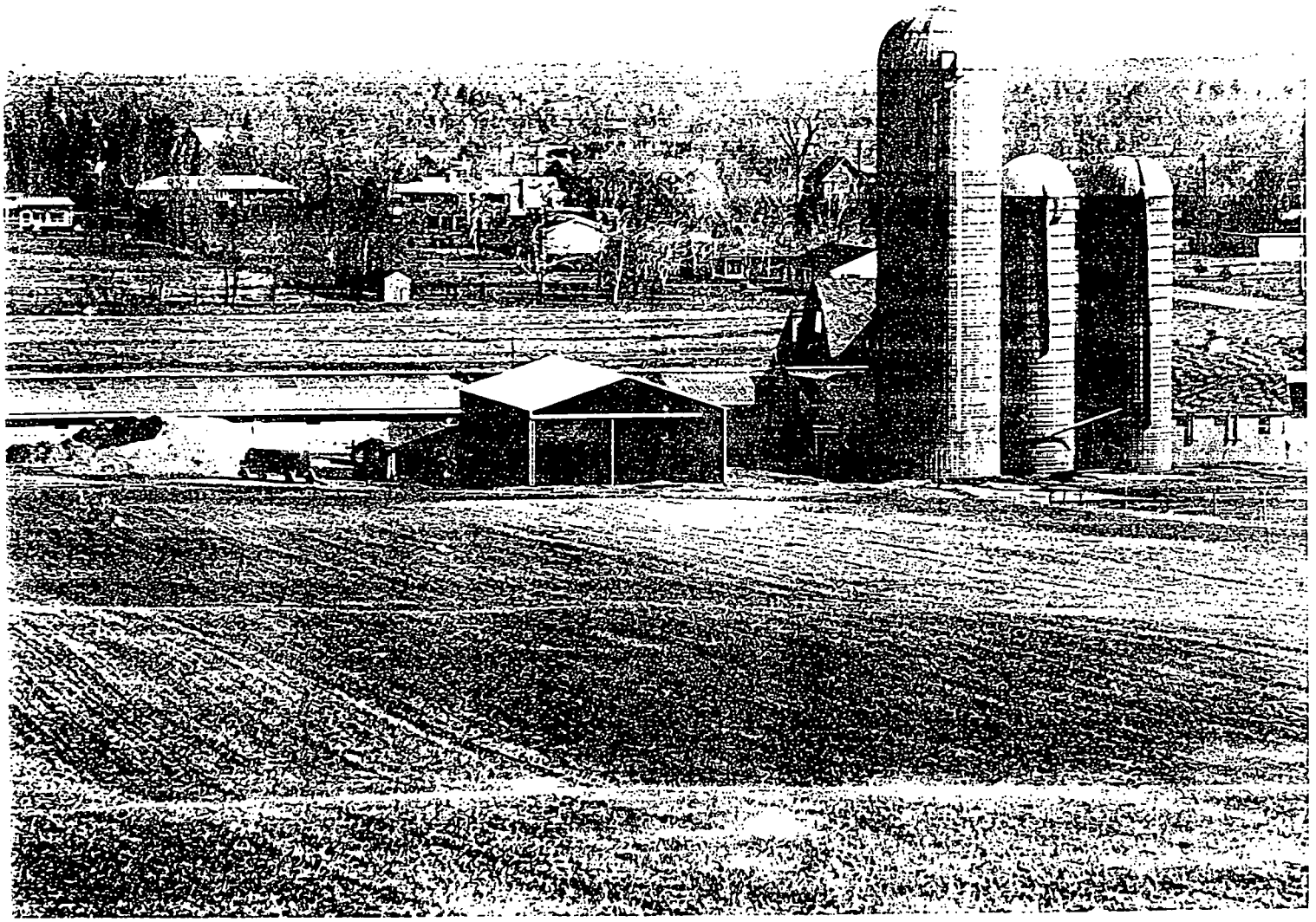
United States Department of Agriculture.
Soil Survey of Erie County, New York, 1986.

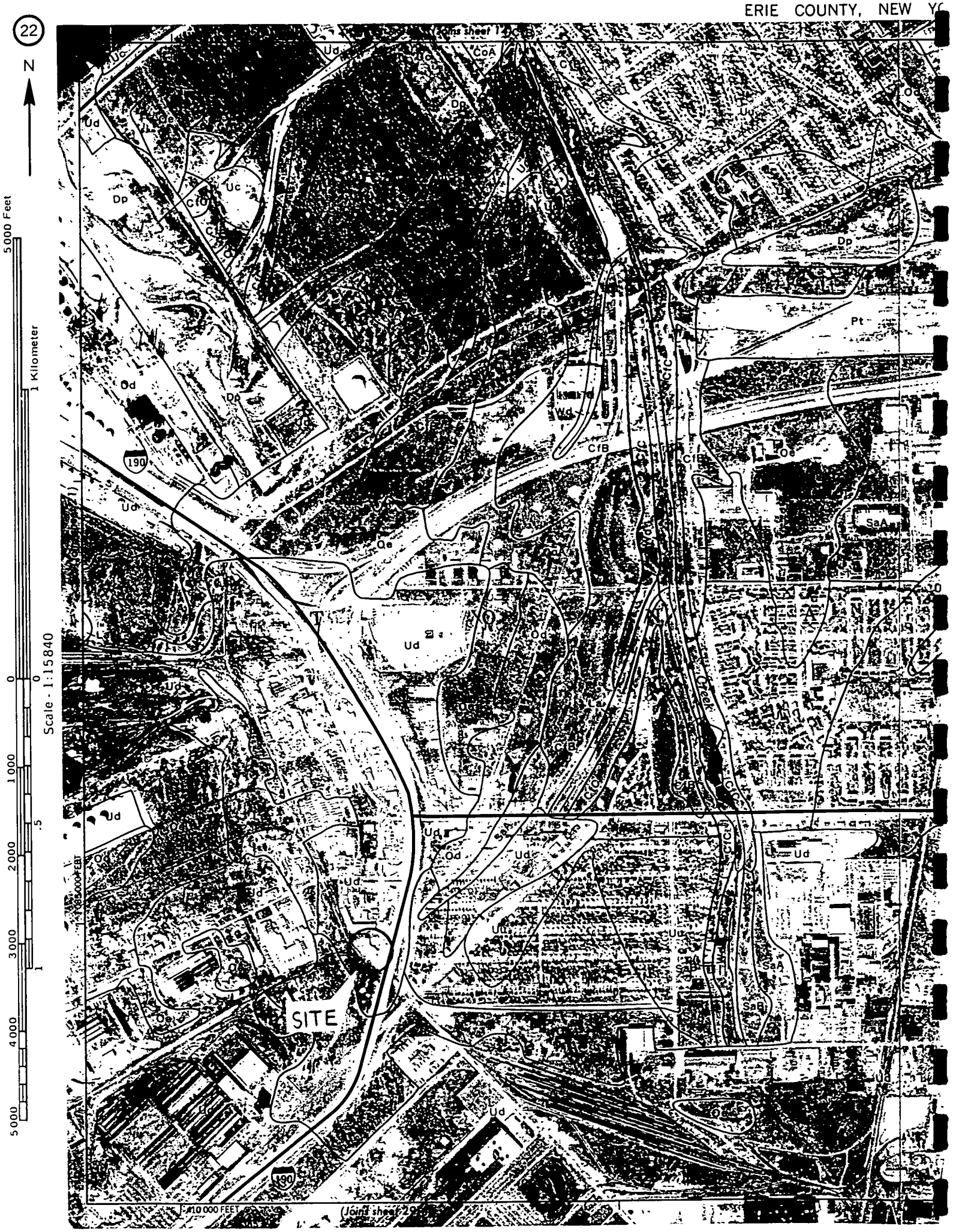
United States Department of Agriculture

Soil Conservation Service

In Cooperation with the Cornell University Agricultural Experiment Station

Soil Survey of Erie County, New York




22
N
5000 Feet
1 Kilometer
Scale - 1:15840
SITE
(Joins sheet 1)
(Joins sheet 29)
Ud
Uc
Od
Dp
Oe
CfB
CfC
CoA
Pt
SaA
SaB
Wd
190
Creek

Cover crops and sod crops in the cropping system protect the surface from scour when flooding occurs. This nearly level soil is well suited to special crops that require irrigation and a stone-free plow layer.

This soil is also well suited to pasture and hay. Overgrazing can restrict plant growth and cause the loss of the pasture seeding. Proper stocking, rotation of pastures, yearly mowing, and deferment of grazing when the soil is wet are the main management concerns. Applications of lime are needed for optimum growth of pasture grasses.

The potential of this soil for wood crops is good. Only a small acreage is wooded. There are few limitations for timber production. Trees that require acid conditions do well on this soil.

Flooding is a serious limitation for most urban uses of this soil. Where the soil is used for septic tank absorption fields, pollution of the water supply can occur because of flooding and because the substratum is moderately to rapidly permeable. Some areas are well suited to recreational uses, such as athletic fields that require a gravel- and stone-free, nearly level site. This soil is an excellent source of topsoil.

This Tioga soil is in capability class I.

Uc—Udorthents, smoothed. These soils formed in deep manmade cuts or fills. Most of these areas are near industrial sites, urban developments, or construction sites. These soils consist of various kinds of excavated earthy material that has been stockpiled for use as fill or topdressing, soil and rock material that has been trucked from other areas and leveled, or soil deposits that are left in areas that have been excavated or deeply scalped. Fill material is variable in composition, but loamy, earthy material is dominant. In some places, the fill is mixed with slag or cinders around abandoned railroad yards. In other places, the earthy fill contains up to 10 percent concrete or asphalt and other trashy wastes.

This map unit is mainly nearly level or gently sloping. Some areas are steeper, particularly at the edge of cuts and along the sides of mounded fill. The areas are variable in shape, depending mostly on ownership boundaries. They range from 5 to 700 acres or more. The larger areas are in the city of Buffalo and adjacent suburbs near the larger industrial complexes.

Udorthents are too variable to have a typical profile, but in one of the more common profiles the surface layer is brown or grayish brown very gravelly loamy sand to silty clay loam 1 to 8 inches thick. The substratum is commonly light olive brown, brown, or dark yellowish brown and varies widely in texture from very gravelly loamy sand to silty clay.

Most areas are idle and support scattered weeds and grasses. A few areas have reverted to brush and tree saplings. Some areas, particularly around railroad yards, are used for urban development.

These Udorthents are mostly excessively drained to moderately well drained. Often the fill has been placed on very poorly drained to moderately well drained soils. Texture, stone content, soil reaction, and depth to bedrock vary considerably from one area to another. Bedrock, however, is usually at a depth of more than 5 feet. Depth to the seasonal high water table and permeability are variable and depend on topography, degree of compaction, soil texture, and other related factors.

These cut and fill areas are usually poorly suited to farm or recreational uses. Onsite investigation is essential to determine the feasibility of using areas for any purpose.

These Udorthents have not been assigned a capability subclass.

Ud—Urban land. This map unit is a miscellaneous area in which 80 percent or more of the soil surface is covered by asphalt, concrete, buildings, or other impervious structures. It includes parking lots, shopping and business centers, and industrial parks—in the cities of Buffalo and Lackawanna but also the business districts and adjacent shopping centers of villages in the suburban area near Buffalo. These areas generally range from 3 to 500 acres or more and are mostly nearly level to sloping.

Included in mapping are some landfills that have not been built upon or covered with asphalt. In many of these, several feet of fill has been placed over marshes and flood plains. The included areas range up to 3 acres.

It was not practical to examine and identify the soils underlying these impervious Urban land areas. Careful onsite investigation is necessary to determine the suitability and limitations of any abandoned areas for any proposed use. Some abandoned areas are suitable for asphalt-covered playgrounds or other recreation uses requiring a hard, impervious surface.

These Urban lands have not been assigned a capability subclass.

UeB—Urban land-Benson complex, 3 to 6 percent slopes. This complex is made up of gently sloping areas of Urban land and excessively drained and somewhat excessively drained Benson soils. Some areas of the Benson soils have been graded, scalped, or filled during urbanization. This complex is underlain by shallow limestone bedrock. These areas are generally about 5 to 100 acres. Slopes are long and gradual and are occasionally interrupted by ledges of rock outcrop.

A typical area of this complex is about 60 percent Urban land that is covered by concrete, asphalt, buildings, or other impervious surfaces; about 25 percent undisturbed Benson soils; and 15 percent other soils. Urban land and Benson soils occur together in such an

Reference A-4

Buehler, Edward, Jr., and Tesmer, Irving, H. eds.
Geology of Erie County, New York. Buffalo, New York.
Buffalo Society of Natural Sciences Bulletin: Volume 21, No. 3. 1963.

GEOLOGY

OF

ERIE COUNTY

New York

By

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AND

IRVING H. TESMER

Professor of Geology
State University College at Buffalo

BUFFALO SOCIETY OF NATURAL SCIENCES

BULLETIN

Vol. 21. No. 3 Buffalo, 1963

Surficial Geology

PHYSIOGRAPHY

Both the altitude and relief of the land surface tend to increase from north to south. The lowest elevation is 565 feet above sea level at the northern tip of Grand Island and the highest, 1,945 feet above sea level, is in Sardinia township, southeastern Erie County. On the basis of physiography the county may be divided into three parts: the flat Lake Tonawanda plain in the north, followed by the Lake Erie plain, and the Allegheny plateau in the south.

The Onondaga escarpment is a conspicuous topographic feature. This north-facing cliff, formed by the outcropping northern edge of the resistant Onondaga Limestone and Upper Silurian dolostone, can be traced from Buffalo eastward through Akron. In Erie County it seldom exceeds 40 feet in height. Some of the streams which cross the escarpment form waterfalls, but many of the smaller streams disappear in fissures and caves and reappear on the plain to the north.

Between the Onondaga escarpment and the parallel Niagara escarpment to the north is the Lake Tonawanda plain, so named because in late Pleistocene time it was occupied by now extinct Lake Tonawanda. This plain actually is a shallow east-west trending trough, 10 to 15 miles in width, which is drained along its axis by Tonawanda Creek.

The Lake Erie plain, so called because it was covered by glacial lakes ancestral to the present Lake Erie, is an area 6 to 12 miles in width between the Onondaga escarpment and the hilly region to the south. This plain is smooth or gently rolling and rises in elevation toward its southern border where much of it is 900 to 1,000 feet above sea level.

The southern third of the county lies within the maturely dissected Allegheny plateau, the northern border of which is sometimes referred to as the Lake Erie or Portage escarpment. The hilly topography of this region appears to be largely the result of stream erosion for there are no appreciable folds or faults. Glacial erosion has modified the shape of some of the larger valleys and has produced a general rounding of the topography. The amount of glacial drift is commonly so great as to obscure the topography of the underlying bedrock.

which continue eastward. Prominent Warren beaches are displayed at Buffalo Creek near Bullis Road. Blackmon (1956) provides an excellent account of strand lines on the East Aurora quadrangle.

Lake Grassmere which stood at an elevation of 640 feet and Lake Lundy which stood at 620 feet extended into Erie County. The beaches of these lakes, however, are scattered and difficult to correlate. Lake Lundy existed approximately 10,000 years ago.

Lake Tonawanda

As glacial ice retreats it inevitably leaves a train of small lakes. These become extinct as their outlets cut low enough to drain them. One of the largest of these in western New York was Lake Tonawanda, described by Kindle and Taylor (1913, p. 19). This lake occupied much of the area in Niagara and Erie counties which lies between the Niagara and Onondaga escarpments. It was formed as the level of Lake Lundy dropped and it drained northward over the Niagara escarpment at Lewiston, Lockport, Gasport, Medina, and Holley. The lake extended eastward from the Niagara River for a distance of about 50 miles to Holley. It was about 8 miles wide in a north-south direction and the maximum depth is estimated as approximately 35 feet. The present Oak Orchard Swamp is regarded as a remnant.

The shore line of Lake Tonawanda was traced by D'Agostino (1958). In Erie County the southern shore extended from Tonawanda through Brighton Village to Ellicott Creek just north of the junction of Forest Road and Millersport Highway. It continued eastward 1 mile north of Clarence Center and approximately 2.5 miles north of Akron.

In southern Erie County, Cuthbert (1937) by studies of topography and sedimentation outlined Lake Zoar which occupied part of the valley of Cattaraugus Creek.

Glacial Pavement and Striae

Glacial pavement and glacial striations are preserved on several outcrops of the Onondaga Limestone. The best displays are in the Federal Crushed Stone Company quarry, Cheektowaga. No systematic study of the orientation of striae has been made in this area.

Detailed Stratigraphy and Paleontology

Silurian System

UPPER SILURIAN (CAYUGAN) SERIES

SALINA GROUP

TYPE REFERENCE: Dana (1863, pp. 246-251).

TYPE LOCALITY: Vicinity of Syracuse, New York, formerly known as Salina.

TERMINOLOGY: Approximately the same as the "Onondaga salt group" of early writers. The Salina Group included three formations: the Vernon Shale (oldest), Syracuse Formation, and Camillus Shale. Only the Camillus is seen in western New York. See Fisher (1960).

AGE: Late Silurian (Cayugan).

THICKNESS: In western New York, the Salina Group is about 400 feet thick, but this unit increases considerably in thickness to the east.

LITHOLOGY: The Salina Group in Erie County is largely shale but considerable amounts of gypsum and anhydrite are also present.

PROMINENT OUTCROPS: Outcrops are rare in Erie County. The uppermost portion can be seen at the base of Akron Falls.

CONTACTS: The lower contact is not exposed near Erie County and the contact with the overlying Bertie Formation is difficult to define precisely.

ECONOMIC GEOLOGY: The Camillus Shale of the Salina Group is a source of gypsum and anhydrite in Erie County. To the east, the Salina Group also includes salt beds.

PALEONTOLOGY: No fossils have been reported from the Salina Group of Erie County.

CAMILLUS SHALE

TYPE REFERENCE: Clarke (1903, pp. 18-19).

TYPE LOCALITY: Village of Camillus, Onondaga County, New York; Baldwinsville quadrangle.

TERMINOLOGY: See Alling (1928) and Leutze (1954).

AGE AND CORRELATION: Late Silurian (Cayugan). Equivalent to lower part of Brayman Shale in eastern New York.

THICKNESS: Approximately 400 feet.

LITHOLOGY: The Camillus varies from thin-bedded shale to massive mudstone. The color is gray or brownish gray but some beds show a tinge of red or green. According to Alling (1928, pp. 24-26), the Camillus at the type locality is a massive gray magnesian-lime mudrock. Gypsum and anhydrite are present in Erie County.

It is probable that during much of Late Silurian time the northeastern United States was a desert basin. Salt and gypsum were precipitated by evaporation of the shrinking inland Salina Sea.

PROMINENT OUTCROPS: The Camillus Shale extends across Erie County in an east-west trending belt approximately six to eight miles wide. This belt is largely lowland in which outcrops are rare. The top of the formation is exposed at Akron Falls (pl. 6, upper). A small section can be seen in the valley of Murder Creek north of Akron. Houghton (1914, pp. 7-8), Luther (1906, p. 8) and others report outcrops on Grand Island but these could not be located.

CONTACTS: The lower contact of the Camillus Shale is not exposed near Erie County. The contact with the overlying Bertie Formation is difficult to define.

ECONOMIC GEOLOGY: The Camillus Shale is an important source of gypsum. National Gypsum Company has a mine at Clarence Center, Certain-Teed Company at Akron, and United States Gypsum Company at Oakfield in neighboring Genesee County.

PALEONTOLOGY: No fossils have been reported from the Camillus Shale of Erie County. Apparently animal life could not survive in the "dead sea" environment of the time.

BERTIE FORMATION

TYPE REFERENCE: Chapman (1864, p. 190).

TYPE LOCALITY: Bertie township, Welland County, Ontario, Canada.

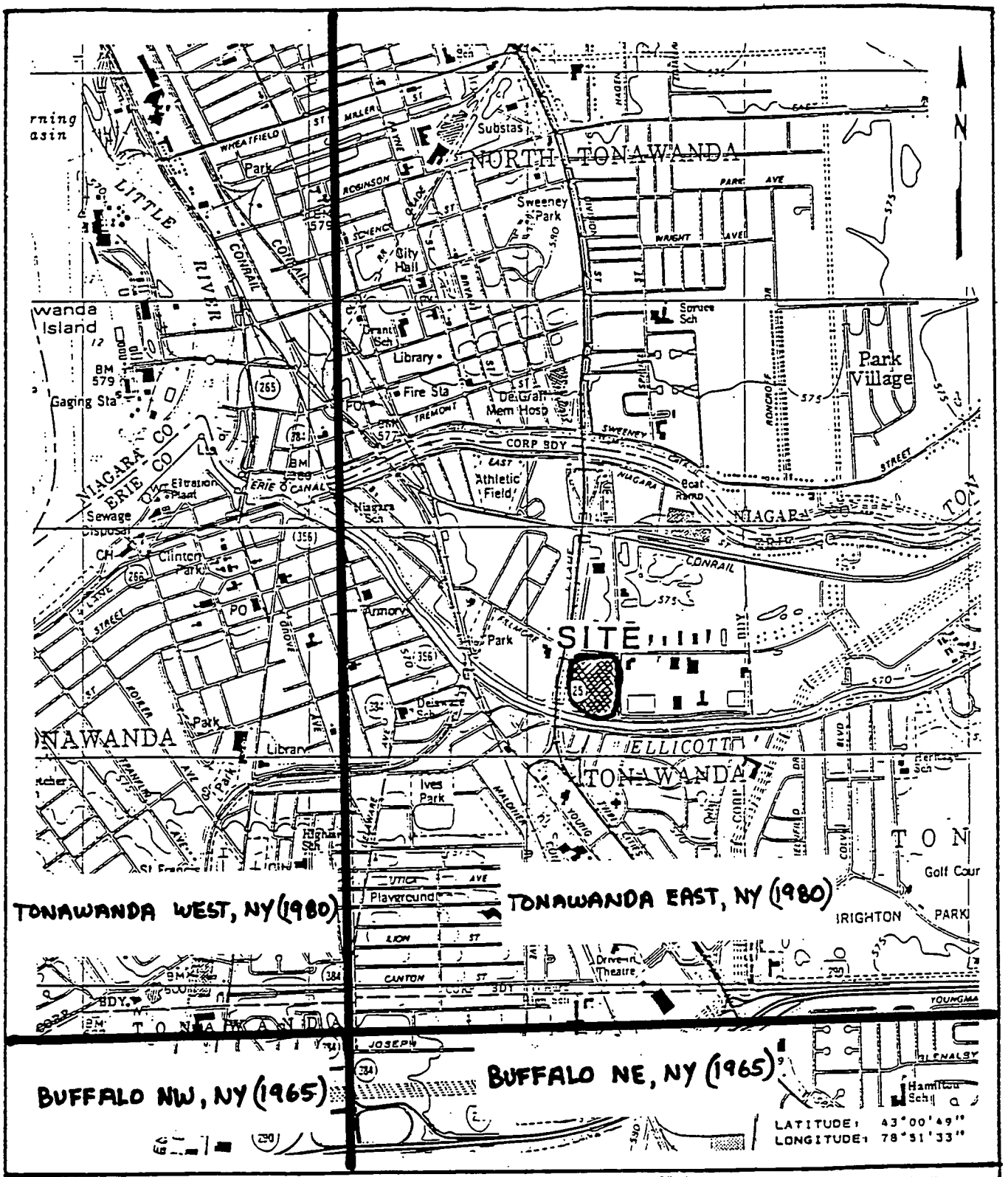
TERMINOLOGY: This unit is commonly called the Bertie Waterlime. Chadwick (1917) divided the Bertie into four units: the Oatka (oldest), Falkirk, Scajaquada, and Williamsville. The Williamsville Member was formerly called the "Buffalo cement bed" (see fig. 4).

AGE AND CORRELATION: Late Silurian (Cayugan). Equivalent to upper part of Brayman Shale in eastern New York.

THICKNESS: 50 - 60 feet total. Approximate figures for the members are Oatka 20 feet, Falkirk 20 feet, Scajaquada 8 feet, and Williamsville 6 feet.

Reference A-5

U. S. Geological Survey Topographic 7.5 Minute
Quadrangle Maps, 1965, Buffalo, New York, northwest
and Buffalo, New York, northeast; 1980, Tonawanda, New York, west
and Tonawanda, New York, east.



REFERENCE: U.S.G.S 7.5' Topographic Map Tonawanda East, NY (1980), Tonawanda West, NY (1980), Buffalo NE, NY (1965) and Buffalo NW, NY-ONT. (1965) Quadrangles

FIGURE ES-1

SITE LOCATION MAP

CHEMICAL LEAMAN TANK LINES

Reference A-6

La Sala, A.M.,
Groundwater Resources of the Erie-Niagara Basin,
New York, 1986.

GROUND-WATER RESOURCES OF THE ERIE-NIAGARA BASIN, NEW YORK

Prepared for the
Erie-Niagara Basin Regional Water Resources
Planning Board

by

A. M. La Sala, Jr.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

in cooperation with

THE NEW YORK STATE CONSERVATION DEPARTMENT
DIVISION OF WATER RESOURCES

STATE OF NEW YORK
CONSERVATION DEPARTMENT
WATER RESOURCES COMMISSION

Basin Planning Report ENB-3

1968

Many domestic-supply wells penetrate from 1 foot to a few feet into the soluble rocks and produce small but adequate yields. On the other hand, industrial wells that were intended to produce large supplies of water give a truer picture of the water-supply potential of the rocks. Data on industrial wells show that the Camillus Shale will yield as much as 1,200 gpm and the limestone unit as much as 300 gpm and probably more. But the data also show that the rocks produce low yields at places. This is shown by such wells as 301-848-1 which was drilled to obtain a large supply for an industry but which yielded only 30 gpm. The water-bearing zones obviously are unevenly distributed through the rocks. Factors that control the occurrence of the water-bearing zones cannot be evaluated at the present time to the extent necessary to predict exactly where the zones occur.

The Lockport Dolomite is the least productive unit of the soluble rocks. Within the Erie-Niagara basin yields of wells in the Lockport range from about 4 to 90 gpm. Depth of the wells range from 20 to 70 feet. Most of the deeper wells were drilled where the depth to bedrock is greatest. Domestic-supply wells generally are finished in the fracture zone at the rock surface or in a bedding joint within the uppermost 30 feet of the rock. It is usually not necessary to drill deeper into the Lockport if only a small supply is needed.

Drilling deeper in an attempt to intersect additional bedding-plane openings at depth would provide higher yields but, generally, at the expense of lower water levels and therefore higher pump lifts. Johnston (1964) collected data on a much larger number of wells along the outcrop belt of the Lockport Dolomite than were inventoried in the Erie-Niagara basin. He found that wells drawing water from the lower 40 feet of the Lockport (the northern part of the outcrop area) yield from 1/2 to 20 gpm and have an average yield of 7 gpm. Wells finished in the upper part of the Lockport (the southern part of the outcrop area) yield from 2 to 110 gpm and have an average yield of 31 gpm. Yields of as much as 50 or 100 gpm are possible from the Lockport in the Erie-Niagara basin but would be exceptional.

CAMILLUS SHALE

Bedding and lithology

The Camillus Shale lies above the Lockport Dolomite and crops out to the south of where the dolomite is exposed. Exposures of the Camillus Shale are rare in the Erie-Niagara basin because of the low relief of the outcrop area and the cover of glacial deposits. Geologists who have studied the Camillus in the study basin agree that it consists mostly of gray shale. (For example, see Buehler and Tesmer, 1963, p. 29-30.) Subsurface data, on the other hand, indicate that a considerable amount of gray limestone and dolomite is interbedded with the shale. Along with these carbonates, gypsum comprises a significant part of the Camillus Shale. Some of the gypsum beds are as much as 5 feet thick. Gypsum also occurs in the Camillus as thin lenses and veins. Table 1,

which is a log compiled during construction of a mine slope, illustrates the occurrence of gypsum and the predominance of carbonate rocks in some parts of the Camillus.

Though the Camillus dips southward at approximately 40 feet to the mile, the dip is not uniform. Gypsum miners say the formation "rolls," to describe the gentle folding of its beds. The formation is marked by broad, low folds with amplitudes of a few feet and spacings of a few hundred feet between crests. The fold axes generally are east-west.

Water-bearing openings

The extensive beds of gypsum make the Camillus Shale unique among the shale formations of the basin. The importance of the gypsum lies in its solubility; gypsum is far more soluble than the enclosing rocks, whether shale, dolomite, or limestone. Where gypsum has been dissolved, openings exist for the passage and storage of water.

The effect of the solution of gypsum on the water-bearing properties of the Camillus Shale (and other rocks) can be readily appreciated. Where the topmost beds of the Camillus crop out at the base of the falls of Murder Creek at Akron, the Camillus seems to be an impermeable shale. If one judged the water-bearing properties of the Camillus on the basis of this outcrop alone, he would be wrong. Yields of water wells and drainage into gypsum mines prove that large volumes of water do move through the Camillus.

Clues to the nature of the water-bearing openings in the Camillus can be obtained by considering some of the circumstances where large volumes of water were obtained. About 1885, the Buffalo Cement Company located a 4-foot thick bed of gypsum only 43 feet below land surface by test drilling in Buffalo on Main Street near Williamsville. A shaft was sunk with the intention of beginning a subsurface mining operation, but when the gypsum was struck the shaft was flooded with ground water. The report is that "..... a pump with a capacity of 2,000 gallons per minute failed to make any impression upon it [the water] and the attempt was abandoned" (Newland and Leighton, 1920, 209-210).

In 1964, a gypsum mine near Clarence Center received an unexpected inflow of ground water. Several hundred gallons of water per minute continuously enters the mine at a place about midway down the entry slope. This water is pumped out by a drainage system diagrammatically shown in figure 6. Ordinarily, only small seeps occur in the remainder of the mine from roof bolts and small cracks in the roof. At a distance of more than a mile from the entry slope, the working face intersected an unplugged drill hole. Water poured into the mine at an alarming rate until the hole was plugged with much effort.

Large-yield wells, such as those at Tonawanda and North Tonawanda, obtain water from thin intervals of gypsum-bearing rock. The gypsum in the Camillus Shale obviously is related to the occurrence of large quantities of water. Gypsum is a highly soluble mineral and is

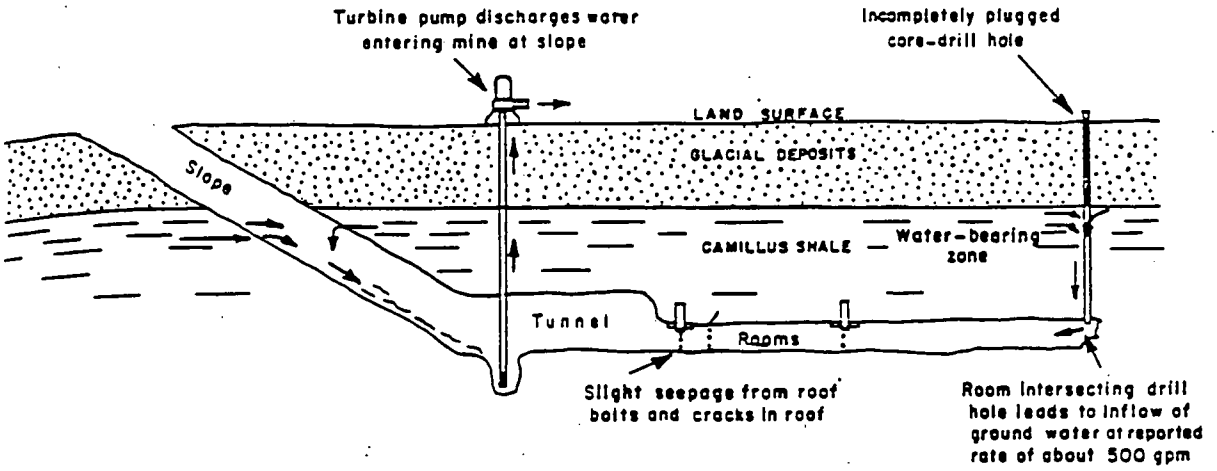


Figure 6.--Occurrence of ground water in the Camillus Shale at a gypsum mine near Clarence Center.

dissolved by circulating ground water faster than are the enclosing rocks. Very likely the openings in the Camillus that yield copious amounts of water were formed by the solution of gypsum by ground water. The water-bearing zones are mainly horizontal because most of the gypsum occurs in horizontal beds and thin zones of gypsiferous shale and dolomite. Only those gypsum zones actually exposed to circulating ground water can be widened by solution. The gypsum must be in contact with an open fracture through which the water can move. If no open fracture exists, the gypsum cannot be dissolved. The occurrence of ground water at the gypsum mine shown in figure 6 is a further illustration. The 4 1/2-foot thick bed that is mined at a depth of 66.9 feet (table 1) is dry because of the lack of vertical fractures to transmit water to it.

The solution-widened water-bearing zones occur at various depths and stratigraphic horizons in the Camillus. The existence of such zones is borne out by well data. For instance, wells 303-850-1 and -2 are 90 feet apart and obtain water from the same 2- to 3-foot thick zone at a depth of 67 to 68 feet. Such zones may be continuous for as much as 1 or 2 miles but information is not available on the extent of individual zones. The gypsum occurs principally in lenticular beds. The thicker beds may be 3 or 4 miles in lateral extent. The thinner beds can be expected to be much smaller in extent.

A zone of fracturing and solution extending several feet below the rock surface yields relatively small but sufficient water supplies for domestic use. This zone appears to be present throughout the area and is unrelated to stratigraphic position.

Hydrologic and hydraulic characteristics

The Camillus Shale forms a low topographic trough split down the axis by Tonawanda Creek. Ground water that enters the formation discharges mainly to the creek. Little water is discharged to the small, barely incised streams on the Camillus. These streams are dry much of the year.

Coefficients of transmissibility given in table 2 were computed for the Camillus Shale on the basis of specific capacities of wells penetrating a considerable thickness of the aquifer, by the method described by Walton (1962, p. 12-13).

Table 2.--Specific-capacity tests of wells finished in the Camillus Shale

Well number	Pumping rate (gpm)	Duration of pumping (hours) e: estimated	Drawdown (feet)	Specific capacity (gpm/ft)	Coefficient of transmissibility (gpd/ft)
a/ 258-853-1	1,090	e8	53	21	40,000
-2	90	--	22	4	7,000
258-855-1	500	e8	17	29	55,000
-2	1,000	e8	26	38	70,000
-3	1,500	e8	38	39	70,000
303-850-1	700	24	10	70	--
-2	660	e8	8	83	--

a/ Well also penetrates water-bearing zone in Lockport Dolomite.

The large specific capacities of wells 303-850-1 and -2 probably result in part from recharge induced from Sawyer Creek. Measurements of recovery of water levels in well 303-850-1 were made when well 303-850-2 was shut down after a year of continuous pumping. From these data, a coefficient of transmissibility of about 80,000 per foot and a coefficient of storage of 0.025 were computed. The computed transmissibility is about half the transmissibility that would have been indicated from specific capacity if recharge were not induced from Sawyer Creek.

Yields of wells

The Camillus Shale is by far the most productive bedrock aquifer in the area. Except in the vicinity of Buffalo and Tonawanda, where industrial wells produce from 300 to 1,200 gpm, no attempt has been made to obtain large supplies from the formation. However, the inflow of water to gypsum mines near Clarence Center and Akron indicate that large supplies are not necessarily restricted to the Buffalo and the Tonawanda area. Two examples of large flows of water encountered in gypsum mining have already been mentioned. Pumpage from gypsum mines near Clarence Center (including the mine mentioned previously) is substantial. The water pumped is discharged to Got Creek. On July 2, 1963, the creek had a flow of 2.1 mgd (million gallons per day) about half a mile downstream from the mines, that was due almost entirely to the pumpage. Water for industrial use is pumped from a flooded, abandoned gypsum mine at Akron. This pumpage, at a rate of 500 to 700 gpm, has had no appreciable effect on the water level in the mine.

Probably the larger solution openings are most common in discharge areas near Tonawanda Creek and its tributaries and near the Niagara River; the flow of ground water becomes concentrated as it approaches the streams to which it discharges. Other discharge areas, such as low-lying swampy areas and headwaters of small streams that have perennial flow, are likely places to drill wells.

LIMESTONE UNIT

Bedding and lithology

The term "limestone unit" in this report is applied to a sequence of limestone and dolomite overlying the Camillus Shale. The limestone unit includes the Bertie Limestone at the base, the Akron Dolomite, and the Onondaga Limestone at the top. The lithology and thickness of these units are shown in figure 7. The Bertie Limestone and the Akron Dolomite are Silurian in age and are separated from the overlying Onondaga Limestone of Devonian age by an unconformity or erosional contact.

The Bertie Limestone is mainly dolomite and dolomitic limestone but contains interbedded shale particularly in the thin-bedded lower part of the formation. The middle part is brown, massive dolomite, and the upper part is gray dolomite and shale whose beds are of variable thickness. The total thickness of the formation is about 55 feet (Buehler and Tesmer, 1963, p. 30-31).

The Akron Dolomite is composed of greenish-gray and buff dolomite beds varying from a few inches to about a foot in thickness. The upper contact of the Akron is erosional and is often marked by remnants of shallow stream channels. Thin lenses of sandy sediments lie in the bottoms of some channels. The thickness of the formation is generally between 7 and 9 feet (Buehler and Tesmer, 1963, p. 33-34).

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

Well number	County	Owner	Year completed	Type of well	Depth of well (feet)	Diameter (inches)	Depth to bedrock (feet)	Water-bearing material	Altitude above sea level (feet)	Water level: Below land surface (feet)	Water level: Date	Method of lift	Estimated pumpage or flow (gallons per day)	Use	Remarks
258-815-1	Genesee	F. Peck	--	Drl	31	6	--	Shale	920	8.1	6-26-63	Sw	50	D	Anal; iron; temp 49.0; yield 12 gpm (r).
258-822-1	do.	E. Lewis	1964	Drl	41.6	6	41.6	Sand	870	9.1	8-19-64	Sw	400	Ag	Anal; H_2S; yield 11 gpm (r).
258-827-1	do.	E. Powenski	1952	Drl	36.5	6	a34	Limestone	835	31.3	8-19-64	Jet	250	D	H_2S; yield 7 gpm (r).
258-833-1	Erie	B. Fields	1960	Drl	62.6	6	a13	do.	775	p22.7	8-18-64	Sub	300	D	Anal.
258-837-1	do.	R. Bowman	1956	Drl	76.2	6	a22	do.	740	19.4	8-18-64	Jet	300	D	Do.
258-843-1	do.	W. Voss	--	Drl	62	8	--	Camillus Shale	615	Flow	--	--	5,000	A	Anal; H_2S; temp 50.8, 8-14-64; flows about 5 gpm at LS.
258-853-1	do.	Linde Div., Union Carbide Corp.	1944	Drl	r375	8	87	Camillus Shale and Lockport Dolomite	600	r,p115	1944	Tur	--	U	H_2S; drilled to 130-ft depth in 1943 and deepened in 1944; "black" water entering from Lockport Dolomite after deepening made well unusable; yield 3,000 gpm (r); pumping test, 1,090 gpm, dd 53 ft.
-2	do.	do.	1944	Drl	r375	8	86	do.	600	r,p82	1944	Tur	--	U	H_2S; drilled to 157-ft depth in 1943 and deepened in 1944; water obtained at 90 ft from a gypsiferous zone in Camillus Shale and "black" water at 312 ft from the Lockport Dolomite which was first penetrated at 288 ft; yield from upper water-bearing zone 90 gpm, dd 22 ft; lower zone was not tested.
258-855-1	do.	Dunlop Tire & Rubber Co.	1943	Drl	r137	12	69	Camillus Shale	590	p36	10-27-52	Tur	--	I	H_2S; pumping rate 1,000 gpm (r); pumping test 500 gpm, swl 36 ft, dd 17 ft; this well and well 258-855-2 yield a combined total of 600,000 gpd.
-2	do.	do.	1943	Drl	r139.7	--	71	do.	590	p54.3	7-16-64	Tur	--	I	H_2S; pumping rate about 1,000 gpm (r); pumping test 1,000 gpm, swl 36 ft, dd 26 ft; this well and well 258-855-1 yield a combined total of 600,000 gpd.
-3	do.	do.	1952	Drl	r120	--	--	do.	592	p39	10-27-52	Tur	--	I	H_2S; pumping test 1,500 gpm, swl 39 ft, dd 38 ft.
259-809-1	Genesee	O-AT-KA Milk Products Cooperative, Inc.	1963	Drl	r60	20, 16	--	Sand and gravel	890	r15	4-27-62	Tur	1,000,000	I	Anal; screen, 13 1/8-inch diameter, 10 ft of 60-slot, 10 ft of 125-slot, from 40-60 ft; pumping rate about 1,200 gpm (r); pumping test 600 gpm, swl 15 ft, dd 1.5 ft (r).
-2	do.	City of Batavia	1963	Drl	r69	16	--	do.	890	14.0	5- 8-63	Tur	--	PS	Anal; H_2S; screen, 16-inch telescope, 125-slot, 52.9-69 ft; pumping rate 1,000 gpm.
-3	do.	do.	1962	Drl	54.1	8	--	do.	890	11.7	5- 6-63	--	--	T	Depth 61 ft (r); screen, 6-inch diameter, 100-slot, from 51-61 ft; pumping test 235 gpm, swl 18.3 ft, dd 0.5 ft (r); OW.
-4	do.	O-AT-KA Milk Products Cooperative, Inc.	1963	Drl	52.2	8	--	do.	890	p13.0	5- 7-63	--	--	T	
-5	do.	City of Batavia	1962	Drl	60.2	8	--	do.	890	13.7	5- 8-63	--	400,000	T	Depth 70 ft (r); screen, 6-inch diameter, 100-slot, from 60-70 ft; pumping test (r), 235-259 gpm, swl 18.5 ft, dd 0.5 ft after 24 hours discharge.
-6	do.	do.	1963	Drl	r75	16	--	do.	895	r14.2	5-27-63	Tur	--	PS	Screen, 16-inch diameter; test pumped at 1,000 gpm.
-7	do.	do.	1963	Drl	r60	8	--	do.	890	r13.7	2-15-62	--	400,000	X, T	H_2S (r); pumping test 200 gpm, swl 13.7 ft, dd 4.4 ft after 24 hours discharge.
259-817-1	do.	D. Beals	1960	Drl	r33	--	--	do.	865	r3	1960	Sw	100	D	Anal; H_2S; yield 4 gpm (r).
259-818-1	do.	Bitterman Bros., Inc.	--	Drl	18.3	12, 6	--	do.	--	6.6	9-17-63	Sw	--	C, D	
259-820-1	do.	A. Winters	1960	Drl	22.6	6	--	Limestone	880	7.4	9-17-63	Sw	500	C, D	
259-822-1	do.	J. Daley	1956	Drl	70	6	--	Sand	900	27.1	8-19-64	Jet	200	D	Anal; H_2S.

Reference A-7

State of New York Official Compilation of Codes,
Rules and Regulations, Department of State, Title 6C.

STATE OF NEW YORK

OFFICIAL COMPILATION

OF

CODES, RULES AND REGULATIONS

MARIO M. CUOMO
Governor

GAIL S. SHAFFER
Secretary of State

Published by
DEPARTMENT OF STATE
162 Washington Avenue
Albany, New York 12231

1/83

PART 837

LAKE ERIE (EAST END)—NIAGARA RIVER DRAINAGE BASIN

(Statutory authority: Public Health Law, art. 12)

Sec.		Sec.	
837.1	Adopting order	837.4	Table I
837.2	Definitions and conditions	837.5	Map A
837.3	Assigned classifications and standards of quality and purity	837.6	Map B
		837.7	Quadrangle maps

Section 837.1 Adopting order. Pursuant to the authority contained in article 12 of the Public Heatlh Law, the Water Pollution Control Board having made proper studies and having held public hearings on due notice with reference thereto, hereby adopts and assigns the following classifications and standards of quality and purity to the various waters as specifically designated and described below and subject to the definitions and conditions as stated.

837.2 Definitions and conditions. The several terms, words or phrases hereinafter mentioned shall be construed as follows:

(a) *Class* as appearing in table I, as the letters A, A-special (International boundary waters), B, C, D or E opposite each specifically designated waters means Class A, A-special (International boundary waters), B, C, D or E, as the case may be, as set forth in Part 701 and 702, *supra*.

(b) *Standards* as appearing in table I, as the letters A, A-special (International boundary waters), B, C, D or E opposite each specifically designated waters shall mean the standards of quality and purity established for class A, A-special (International boundary waters), B, C, D or E, as the case may be, as set forth in Part 701 and 702, *supra*. The symbol (T) after any class designation shall mean that the designated waters are trout waters and that the dissolved oxygen specification for trout waters shall apply thereto.

(c) *Waters index number* as appearing in table I shall mean that number which has been applied to any specifically designated waters as appearing on the maps set forth in section 837.7, *infra*.

(d) *Name* as appearing in table I shall mean the name, if any, by which the specifically designated waters are generally known and which name, if any, appears on the reference maps. In cases of specifically designated waters which have no name, the named tributary to which the unnamed waters are tributary is indicated so far as possible. In the table, an item number is assigned consecutively to each specifically designated waters.

(e) *Description* as appearing in table I shall mean a brief indication as to the location of the specifically designated waters so that by reference to reference maps such waters may be located without reference to their waters index numbers. Entries under column headed "Description" also include designations of sections of a stream to which a particular assignment of a class and standards shall apply.

(f) *Map ref. no.* The numbers appearing in the table under the heading designate the following maps which have been partially reproduced as maps 1 to 13, inclusive, with superimposed tracing in black of streams and other waters and waters index numbers in section 837.7, *infra*.

837.4 Table I.

TABLE I

Classifications and Standards of Quality and Purity Which Are Assigned to All Surface Waters within the Lake Erie (East End) - Niagara River Drainage Basin; Erie, Niagara, Genesee, Orleans and Wyoming Counties, New York

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
1	0-158	Niagara River American side	Waters from international boundary to American shore between confluence with Lake Ontario and Lake Erie. La tter point is defined as a line running due west from south end of Bird Island ier to international boundary. These waters include all bayo, arms, and inlets thereof, but not trib. streams or Black Rock Canal.	1,2,6	A-Special (international boundary waters)	A-Special (international boundary waters)
2	Black Rock Canal	Black Rock Canal	Waters east of Sqaw Island and Bird Island ier between canal locks and a line from south end of Bird Island ier to Buffalo harbor light #6.	6	C	C
3	0-158-1 and 2	Tributaries of Niagara River	Enter Niagara River from east in Town of Lewiston approximately 4.5 and 7.0 miles respectively from mouth.	1	C	C
4	0-158-3	Fish Creek	Enters Niagara River from east approximately 2.0 miles north of Niagara-Lewiston town line.	1,2	D	D
5	0-158-4 and P 1	Tributary of Niagara River	Enters Niagara River from east approximately 0.7 mile north of Niagara-Lewiston town line.	1	D	D

TABLE I (contd.)

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
111	0-158-12-77-3 and trib. and 4 as shown on reference map	Tribs. of East Fork	Enter East Fork between Engine Creek, item no. 110, and source.	12	A	A(T)
112	0-158-12-78	Perry Brook	Enters Tonawanda Creek from south approximately 2.8 miles southwest of Johnsonburg.	12	A	A
113	0-185-12-79 and trib. and 80	Tribs. of Tonawanda Creek	Enter Tonawanda Creek between Perry Brook, item no. 112, and source.	12	A	A
114	0-158-13 and tribs. including P 22 as shown on reference map	Two Mile Creek	Enters Niagara River (East Channel) at Two Mile Creek Road in City of Tonawanda.	2,6	B	B
115	0-158-14 and tribs. as shown on reference map	Trib. of Niagara River	Enters Niagara River approximately opposite intersection of Ontario Street and Niagara Street, City of Buffalo.	6	D	D
116	0-158-15 portion as described including P 24 and P 25	Scajaquada Creek	Enters Niagara River approximately opposite intersection of Niagara Street and Tonawanda Street, City of Buffalo. Mouth to crossing of Main Street, City of Buffalo.	6	B	B

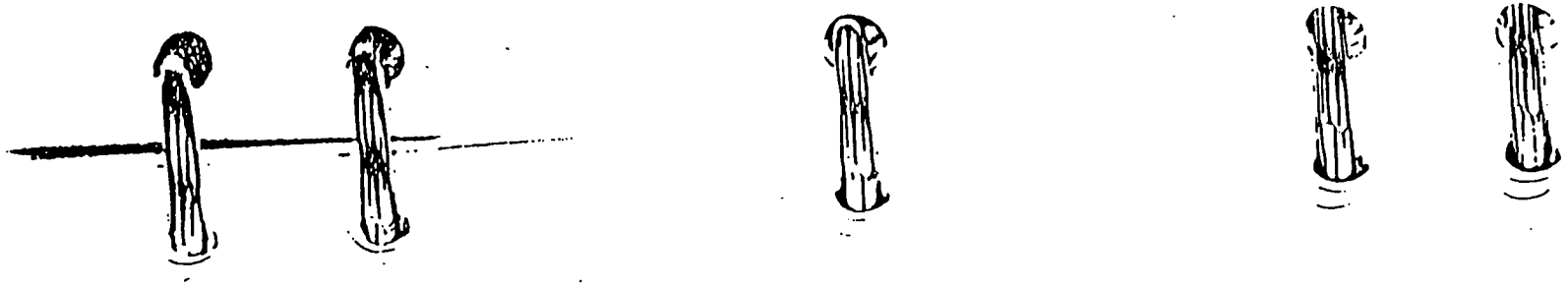


TABLE I (contd.)

Item	Waters Index	Name	Description	Map Ref. No.	Class	Standards

Reference A-8

Settig, Marshall, Handbook of Toxic and
Hazardous Chemicals and Carcinogens.
Park Ridge, New Jersey: Noyles Publications, 1985.

Handbook of Toxic and Hazardous Chemicals and Carcinogens

Second Edition

Marshall Sittig

np

Reference A-9

Sax, N. Irving, and Richard J. Lewis, Sr.,
Dangerous Properties of Industrial Materials,
New York, New York: Van Nostrand Reinhold Company, 1984.

Dangerous Properties of Industrial Materials

Seventh Edition

Volume I

N. IRVING SAX

and

RICHARD J. LEWIS, SR.

VNR VAN NOSTRAND REINHOLD
NEW YORK

Reference A-10

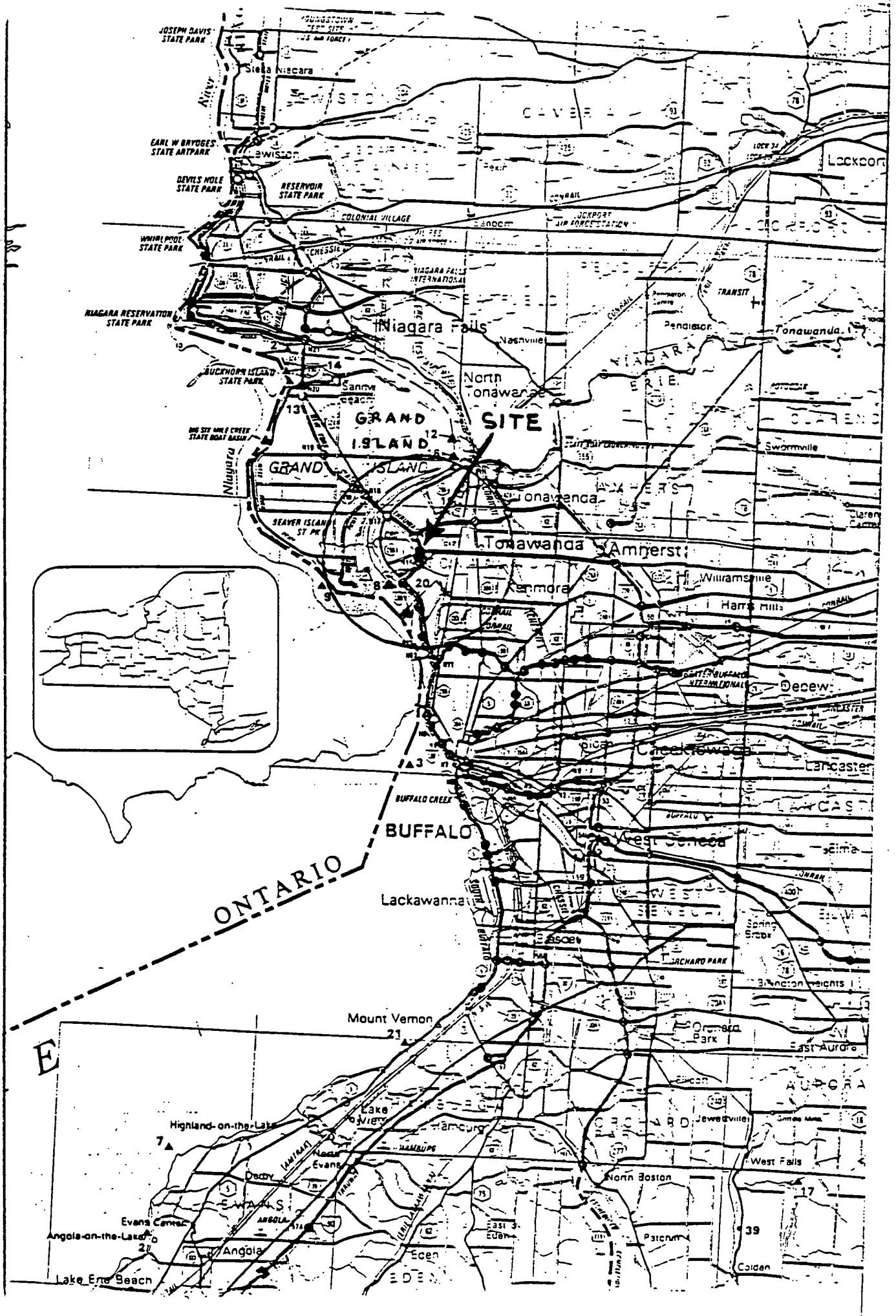
New York State Department of Health,
New York State Atlas
of Community Water System Sources, 1982.

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

ERIE COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
	Akron Village (See No 1 Wyoming Co, Page 10).	3640	
1	Alden Village.	3460.	Wells
2	Angola Village.	8500.	Lake Erie
3	Buffalo City Division of Water.	357870.	Lake Erie
4	Caffee Water Company.	210.	Wells
5	Collins Water District #3.	704.	Wells
6	Collins Water Districts #1 and #2.	1384.	Wells
7	Erie County Water Authority (Sturgeon Point intake).	375000.	Lake Erie
(8)	Erie County Water Authority (Van DeWater Intake).	NA.	Niagara River - East Branch
9	Grand Island Water District #2.	9390.	Niagara River
10	Holland Water District.	1670.	Wells
11	Lawtons Water Company.	138.	Wells
(12)	Lockport City (Niagara Co).		Niagara River - East Branch
13	Niagara County Water District (Niagara Co).		Niagara River - West Branch
14	Niagara Falls City (Niagara Co).		Niagara River - West Branch
15	North Collins Village.	1500.	Wells
16	North Tonawanda City (Niagara Co).		Niagara River - West Branch
17	Orchard Park Village.	3671.	Pipe Creek Reservoir
18	Springville Village.	4169.	Wells
(19)	Tonawanda City.	18538.	Niagara River - East Branch
(20)	Tonawanda Water District #1.	91269.	Niagara River
21	Wanakah Water Company.	10750.	Lake Erie
Non-Municipal Community			
22	Aurora Mobile Park.	125.	Wells
23	Busn Gardens Mobile Home Park.	270.	Wells
24	Circle B Trailer Court.	50.	Wells
25	Circle Court Mobile Park.	125.	Wells
26	Creekside Mobile Home Park.	120.	Wells
27	Donnelly's Mobile Home Court.	99.	Wells
28	Gowanda State Hospital.	NA.	Clear Lake
29	Hillside Estates.	160.	Wells
30	Hunters Creek Mobile Home Park.	150.	Wells
31	Knox Apartments.	NA.	Wells
32	Maple Grove Trailer Court.	72.	Wells
33	Millgrove Mobile Park.	100.	Wells
34	Perkins Trailer Park.	75.	Wells
35	Quarry Hill Estates.	400.	Wells
36	Springville Mobile Park.	114.	Wells
37	Springwood Mobile Village.	132.	Wells
38	Taylors Grove Trailer Park.	39.	Wells
39	Valley View Mobile Court.	42.	Wells
40	Villager Apartments.	NA.	Wells


JOSEPH DAVIS STATE PARK
Youngstown Test Site
U.S. Air Force
Model Niagara
Niagara River
EARL W BRYDGES STATE ARTPARK
Lewiston
DEVILS HOLE STATE PARK
RESERVOIR STATE PARK
COLONIAL VILLAGE
Lockport
Lockport Fish Hatchery
WHIRLPOOL STATE PARK
Chesapeake & Ohio Railroad
Niagara Falls International Airport
NIAGARA RESERVATION STATE PARK
Niagara Falls
Nashville
Penfield
Tonawanda
Transit
Conrail
BUCKHORN ISLAND STATE PARK
Sanborn
North Tonawanda
GRAND ISLAND
SITE
Niagara River
BIG SIX MILE CREEK STATE BOAT BASIN
Swormville
Tonawanda
Tonawanda
Amherst
SEAVER ISLAND ST PK
Kenmore
Williamsville
Harris Hills
Depew
Cheektowaga
Lancaster
BUFFALO CREEK
BUFFALO
West Seneca
Lackawanna
ONTARIO
Elma
Mount Vernon
Orchard Park
East Aurora
Lake View
Hamburg
Highland-on-the-Lake
Evans
Derby
West Falls
North Boston
Evans Center
Angola-on-the-Lake
Angola
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SECTION 2

DOCUMENTS CITED

LIST OF DOCUMENTS CITED

B-1 Letter from Joyce Pomerance, Controller for Synres Chemical Company to Judith S. Schreiber, Interagency Task Force on Hazardous Wastes, January 12, 1979.

B-2 Correspondence concerning Drum Removal and Cleanup of Site, May 1979 - March 1980.

B-3 Memorandum, Erie County Department of Environment and Planning, from Don Campbell, P.E. to Lawrence G. Clare, P.E., June 5, 1981.

B-4 1990 Census Figures for Buffalo Area Cities and Towns, The Buffalo News, January 25, 1991.

B-5 Groundwater Resources of the Erie Niagara Basin, New York prepared by USGS in cooperation with the New York State Conservation Department, Division of Water Resources, 1968.

B-6 Memorandum, NYSDEC, to Barbara Guibord from Glenn Bailey, January 24, 1983.

B-7 Industrial Chemical Survey List of Chemicals Used On-Site, August 25, 1978.

B-8 Analytical Results from a Soil Sample Collected June 24, 1976.

B-9 Letter to Steven Polowitz, from Peter Buechi, P.E., Associate Sanitary Engineer, NYSDEC, January 13, 1984.

B-10 Memorandum, Erie County Department of Environmental Quality, to Anthony T. Voel, from Fuad L. El Ibeashi, March 16, 1977.

B-11 Environmental Site Assessment, North American Environmental Services Corporation, July 16, 1990.

B-12 Reports of calls made to various individuals for this PSA.

Document B-1

Letter from Joyce Pomerance,
Controller for Synres Chemical Company
to Judith S. Schreiber, Interagency Task Force
on Hazardous Wastes, January 12, 1979.

SYNRES CHEMICAL CORPORATION

P. O. BOX 3112. 1036 COMMERCE AVENUE. UNION. NEW JERSEY 07083
TELEPHONE 201-964-5280 TELEX 138293 CABLE ADDRESS: SYNRESFCD UNON

RECEIVED
JAN 18 1979
OFFICE OF
GENERAL COUNSEL

January 12, 1979

Ms. Judith S. Schreiber
Interagency Task Force on
Hazardous Wastes
Main Post Office Box 561
Niagara Falls, New York 14302

Dear Ms. Schreiber:

This is in answer to your communication dated November 30, 1978. In response to questions numbered:

1. You will find attached hereto as Appendix "A" a detailed company history.

2. & 3. Attached hereto as Appendix "B" are:

a) Excerpt of memorandum of Mr. R. Rijnart dated July 7, 1976, and
b) Copies of proposal from, invoiced by, and check payable to Knab Bros., Inc.

which are self-explanatory.

R. Rijnart is Vice President Operations of Synres Chemical Corporation, T. O'Connor was General Manager of our Shanco division until May 5, 1978, and N. Orbanac was Manager of the Tonawanda plan until October, 1977.

Mr. Orbanac recently volunteered the information that in the early 1950's, prior to the construction of the present warehouse at the Tonawanda plant, a hole was dug on the site on which the warehouse now stands, and drummed wastes were deposited therein.

4. Our records go back as far as 1970. For any time before that, we are unable to comment as to the waste haulers used by Shanco Plastics and Chemicals.

Attached hereto as Appendix "C" are lists of invoices, dates, numbers and amounts covering waste disposals by a) Chem-Trol and b) Frontier.

The Tonawanda plant produced and the waste haulers removed:

a) water with phenol rests and possibly traces of sulfuric acids, and
b) rosin and resin dusts from sweeping of floors.

Cordially yours,

Joyce Pomerance
Controller

smg
enclosures
cc: Mr. James Nesper
Mr. William Bowden

APPENDIX 'A'

HISTORY SHANCO PLASTICS & CHEMICALS, INC.

1.	FOUNDED:	May 7, 1948
2.	INCORPORATED:	May 7, 1948 State of Delaware
3.	PURCHASE BY SYNRES:	January 15, 1975
4.	STATUS OF DIVISION:	On December 31, 1976, Shanco Plastics & Chemicals, Inc., was merged into Synres Chemical Corporation and continued as: Shanco Plastics & Chemicals, Division of Synres Chemical Corporation.
5.	OFFICES:	(1) Through December 31, 1976 at: 111 Wales Avenue Tonawanda, New York, and (2) from January 1, 1977 on at: 1036 Commerce Avenue Union, New Jersey 07083
6.	PRODUCTION:	(1) Company started production after its incorporation at 2716 Kenmore Avenue, Tonawanda. Products manufactured were modified rosin esters used in floor polishes, adhesives, printing inks. (2) After acquisition, Synres continued production until October, 1977, when it ceased manufacture at Kenmore Avenue to relocate manufacture of the resins to Kenilworth, New Jersey. The Kenmore Avenue plant has been inactive since October, 1977.

Copy Frances Stuck

KNAB BROS., INC.

1888 MILITARY ROAD • TELEPHONE: 876-1245 - KENMORE

August 12, 1976

b

Shanco Plastics
2716 Kenmore Avenue
Kenmore, New York 14217

Proposal

Excavate for sludge pit, approximate size is 75' x 20' and 8' deep.

$500.00

Clear entire lot in rear of building, clearing sludge, plastic, rubble etc., place in sludge pit with bulldozer.

$280.00

Load and haul excess fill from south side of lot to form two piles and then place into pit. Backfill pipe along Kenmore Avenue (installed by town) and grade to existing surroundings. Furnish and deliver one tandem load of stone, level and grade drive.

$420.00

Level, grade and clear fill from sludge pit excavation over entire lot at rear of building.
Level and grade lot and drive south of building.

$480.00

Total price of job: $1,680.00

KNAB BROTHERS, INC.

Edward J. Knab
Secretary/Treasurer

Edward J. Knab

EDWARD J KNAB
873-1293

ALBERT E. KNAB
773-3955

544 04960

KNAB BROS. INC.
Excavating Contractors

1800 MILITARY ROAD
KENMORE, NEW YORK 14217
OFFICE: 876-1245

HYDRAULIC BACK HOE
TRENCHING
HYLIFT RENTAL
TRUCKING
BULLDOZING
SEWER CONSTRUCTION
WATER LINES

No. 9156

To Shanco Plastics

Job 2716 Kenmore Ave.

Invoice Date August 19, 1976

8/16-8/18	Excavate for sludge pit, approx size is 75' x 20', 8' deep.	$ 500 00
	Clear entire lot in rear of building, clearing sludge, plastic, rubble etc., place in sludge pit with bulldozer.	280 00
	Load and haulexcess fill from south side of lot (two piles) and place into sludge pit. Backfill pipe along Kenmore Ave. (installed by Town) and grade to existing surroundings. Furnish and deliver one tandem load of stone, level and grade drive.	420 00
	Level and grade clean fill (from sludge pit excavation) over entire lot at rear of building. Level and grade lot and drive south of building.	480 00
	Total	$1,680 00

ENTERED AUG 0 6 1976

SHANCO PLASTICS & CHEMICALS, INC.

VENDOR	VOUCHER NO.	INVOICE NO.	AMOUNT	DISCOUNT	NET AMOUNT
04940	005831	9150	1,680.00	.00	1,680.00
CK NUMBER					
03293			1,680.00 *	.00 *	1,680.00

DETACH BEFORE DEPOSITING

SHANCO PLASTICS & CHEMICALS, INC.

111 WALES AVENUE
TONAWANDA, NEW YORK 14150

10-4
220

CHECK NUMBER	DATE MO.	DAY	YR.
03293	09	20	76

PAY ***1,680 DOLLARS 00 CENTS

DOLLARS	CTS.
$ **1,680.00	

TO KNAB BROS INC
1800 MILITARY ROAD
KENMORE NEW YORK 14217

AUTHORIZED SIGNATURE

NON-NEGOTIABLE

AUTHORIZED SIGNATURE

BROAD STREET OFFICE
MANUFACTURERS AND TRADERS
TRUST COMPANY
TONAWANDA, N.Y.

:0220=0004: B=790 8

APPENDIX "C"

CHEM-TROL

4a.

Date Rec'd.	Invoice No.	Invoice Date	Amount
7/13/70	1006-D	7/09/70	$127.05
1/25/71	1090-D	1/15/71	268.80
11/10/71	A-1533-D	10/30/71	271.36
11/10/71	A-1533-D	10/30/71	271.36
1/16/72	A-2019	5/31/72	676.24
6/16/72	A-2019	5/31/72	676.24

Document B-2

Correspondence concerning Drum Removal
and Cleanup of Site, May 1979 - March 1980.

COUNTY OF ERIE
DEPARTMENT OF ENVIRONMENT & PLANNING
DIVISION OF ENVIRONMENTAL CONTROL

MEMORANDUM

FROM Ronald D. Koczaja DATE May 4, 1979

TO FILE - Complaint No. 985 ✓

SUBJECT Illegally Dumped Garbage and Spilled Drums at the Former
Shanco Plastics
2716 Kenmore Avenue
Tonawanda, New York

The writer inspected the site on May 2, 1979 after receiving notification from Mr. Mitrey, New York State DEC.

Prior to the inspection, the complainant, Mr. Gfroerer of Hartwood Realty (874-6670) was contacted. Mr. Gfroerer reported an apparent act of vandalism whereby the plant grounds were broken into, garbage dumped, and a number of drums overturned. Mr. Gfroerer indicated that he is responsible for the property and objected to conducting a joint inspection.

The inspection found drums labeled Carbolic Acid, Class B Poison and Glycerine outside of the fenced yard. The glycerine drums were uncapped and full of liquid which did not appear to be glycerine. The carbolic acid drums were capped, on their side, and partially full. Numerous abandoned drums, wood, and pallets were visible inside the fenced yard. The contents and quantity of material in the drums is unknown. In an area between the building and northern fence were rusted drums, some of which had broken open spilling their contents on the ground. The material appeared to be resin.

Mr. Groerer was notified by certified mail that the abandoned materials must be identified and disposed of properly.

RDK/jk

cc: Mr. Clare
Mr. Campbell
Mr. Mitrey, NYSDEC

To file

From RTC

Shinco Plastics
complaint 00985

Subject

MESSAGE

Site Reinspected 5/15/79 - drums labeled caebolic acid class B' prop not secured as requested. other drums not secured well. No response received to letter of 5/4

RTC

Date 5/15/79 Signed

REPLY cc D.C.

Date Signed

Wilson Jones Company

RECIPIENT—RETAIN WHITE COPY, RETURN PINK C

SYNRES CHEMICAL CORPORATION

P. O. BOX 3112. 1036 COMMERCE AVENUE. UNION. NEW JERSEY 07083
TELEPHONE 201-964-5280 TELEX 138293 CABLE ADDRESS: SYNRESFCD UNON

T. Tona

May 29, 1979

Mr. Ronald D. Koczaja
Environmental Quality Engineer
Bureau of Water Resources
Department of Environment and Planning
95 Franklin Street
Buffalo, New York 14202

Re: Your letter of 5/23/79
Waste Materials
Shanco Plastics Facility

Dear Mr. Koczaja:

In December, 1978 and January, 1979 we contracted with Newco Chemicals Waste Systems, Inc. to remove the waste materials at our Tonawanda facility. In the course of the removal by Newco, the drums mentioned in your letter were inadvertently missed.

We have requested that Newco take samples of the material and we expect to have an answer from them by the end of next week as to the exact method of disposal.

We apologize for the fact of these drums still being on our property, but it had really been our impression that Newco had done the waste removal job completely in January. If you require any further information about the nature of the drums, Mr. Zawadsky of Newco Chemicals Waste Systems, Inc. has the responsibility for the analysis at this time.

Very truly yours,

Joyce Pomerance

JOYCE POMERANCE

JP/dlb

June 20, 1979

4 Seasons Automotive Products
2716 Kenmore Avenue
Tonawanda, New York 14217

Attn: Mr. Peter Fleischer

Re: Abandoned Chemicals and Waste - former Shanco Plastics facility

Dear Mr. Fleischer:

This letter will confirm our discussions during my June 18, 1979 inspection.

It is our understanding that Newco Chemical Waste Systems evaluated and removed approximately 140 drums of material for disposal. A small number of the drums which had apparently been abandoned were retained by your firm.

Our inspection found that a small number of drums and a quality of waste material had been overlooked during the removal operation. Specifically two drums, partially hidden under wood pallets, labeled 100% phenol must be removed an addition to a substantial accumulation of rusted drums and resinous materials. You indicated that this would be taken care of.

The inspection found that substantial work has been accomplished and efforts are under way to effect total clean-up. Please inform this office when the clean up has been completed.

Very truly yours,

Ronald D. Koczaja
Environmental Quality Engineer
Bureau of Water Resources

RDK:ao

cc: R. Mitrey
L. Clare
D. Campbell

COUNTY OF ERIE
DEPARTMENT OF ENVIRONMENT & PLANNING
DIVISION OF ENVIRONMENTAL CONTROL

MEMORANDUM

FROM Ronald D. Koczaja DATE June 21, 1979

TO File

SUBJECT Industrial Waste Disposal

Shanco Plastics
2716 Kenmore Avenue, Tonawanda

Shanco Plastics, which ceased operations at this facility in 1977, was reported by the IATF to dispose of waste material on plant grounds. During a complaint investigation the grounds were inspected to determine if visual evidence of potential environmental problems or nuisances were created by the past disposal practices. The buildings are now occupied by 4 Seasons Automotive Products.

Waste resinous materials were observed drummed and in piles along the northern edge of the building. The stacked drums were severly rusted and in many cases had split open spilling the material on to the ground.

There was no visual evidence of a landfill operation on or adjacent to the plant grounds. No leachate or seapage was observed on or surrounding the facility.

Efforts have been made to remove the waste materials abandoned by Shanco Plastics at the time of closing. This activity should eliminate any immediate hazard associated with on site disposal methods practiced at this plant.

RDK:dg

cc: J. Tygert
D. Campbell
L. Clare

Speed Letter

To file - Shamo Plastic complaints

From [illegible]

Subject

MESSAGE

MR Zawadsky of Nasco Waste Systems reported that Dustpan will be returning to the Shamo site to remove the remaining wastes in the near future. An itemized report of the material removed, date, and disposal will be submitted upon 7-7-79

Date 6/20/79 Signed [illegible]

REPLY D. C.

Date Signed

Wilson Jones Company

RECIPIENT—RETAIN WHITE COPY. RETURN PINK CO

November 29, 1979

Synres Chemical Corporation
1036 Commercial Street
Union, New Jersey 07083

Attn: Ms. Joyce Pomerance

Re: Waste Materials
Shanco Plastics Facility
(Former)
2716 Kenmore Avenue
Tonawanda, New York

Dear Ms. Pomerance:

We have been working since May of this year to have materials abandoned by Shanco Plastics removed from the site. Your May 29, 1979 letter stated Newco Chemical Waste Systems Incorporated was acting on your behalf for the removal of waste.

To date the majority of material has been removed, however an estimated 20 drums many deteriorated, containing a resinous material remain. Efforts through the facility occupants, "4" Seasons Automotive Products, has not resulted in the proper disposal of this material. We are therefore requesting that Synres Chemical Corporation take an active interest in this problem to ensure the complete clean up of the site. This should be completed by January 1, 1980. If at all possible, we would like to avoid a legal referral to the New York State Department of Environmental Conservation and are looking forward to your continued cooperation.

Very truly yours,

Ronald D. Koczaja
Environmental Quality Engineer
Bureau of Water Resources

RDK:jk

cc: J. Tygert, NYSDEC

December 10, 1979

Synres Chemical Corporation
1036 Commercial Street
Union, New York 07088

Attn: Ms. Joyce Pomerance

Re: Waste Materials
Shanco Plastics Facility
(Former)
2716 Kenmore Avenue
Tonawanda, New York

Dear Ms. Pomerance:

Thank you for your prompt response to our November 29, 1979 letter.

It is my understanding that Synres Chemical will apply for a N.Y.S. Industrial Waste Scavenger hauler's permit and intends to remove the remaining material for disposal in New Jersey.

We request that you notify this office the date for clean-up and removal so that we may monitor the action.

Very truly yours,

Ronald D. Koczaja
Env. Quality Engineer
Bureau of Water Resources

RDK:ao

cc: J. Tygert
D. Campbell

COUNTY OF ERIE
DEPARTMENT OF ENVIRONMENT & PLANNING
DIVISION OF ENVIRONMENTAL CONTROL

MEMORANDUM

FROM Ronald D. Koczaja DATE January 21, 1980

TO Donald Campbell

SUBJECT Formal Shanco Plastic Site, abandoned waste disposal

Following discussions with Mr. Daniel Serianni of Newco Waste System Inc. the writer met two of Newco personnel at the Shanco Plastic site. The Newco people were directed to the remaining waste to be removed. Samples were taken of both solid and liquid wastes for Newco analysis. Approximately 40 drums in deteriorated condition are involved. This office will be notified when removal is complete and Mr. Serianni and the writer will conduct a final inspection.

RDK:pd

cc: J. Tygert

COUNTY OF ERIE

EDWARD J. RUTKOWSKI
COUNTY EXECUTIVE

DEPARTMENT OF ENVIRONMENT AND PLANNING
95 Franklin Street - Buffalo, New York 14202

JOAN E. LORING
COMMISSIONER
(716) 846-6725

DIVISION OF ENVIRONMENTAL CONTROL
ANTHONY T. VOELL, P.E.
DEPUTY COMMISSIONER
(716) 846-6570

March 4, 1980

file

Cecos International
4626 Royal Avenue
Niagara Falls, New York

Attn: Mr. D. Serianni

Re: Former Shanco Plastic
facility, Kenmore Ave., Tonawanda
Abandoned Waste disposal

Dear Mr. Serianni:

As discussed during the February 28, 1980 site inspection it appeared that the abandoned waste materials for which proper disposal was requested in May 1979 had been removed. The clean up effort involved numerous drums of unknown content and resinous material. Investigation of past waste burial on site was not addressed or requested as part of this action.

Drummed material on site at the time of inspection were not those identified for removal but assumed to be associated with activities of the current property leasee, 4 Seasons Automotive Products Inc.

Should you have any questions or comments feel free to contact this office.

Very truly yours,

Ronald D. Koczaja
Env. Quality Engineer
Bureau of Water Resources

RDK:ao

cc: J. Tygert
D. Campbell
Synres Chemical

Document B-3

Memorandum, Erie County Department
of Environment and Planning, from Don Campbell, P.E.
to Lawrence G. Clare, P.E., June 5, 1981.

COUNTY OF ERIE
DEPARTMENT OF ENVIRONMENT & PLANNING
DIVISION OF ENVIRONMENTAL CONTROL

MEMORANDUM

FROM Don Campbell, P.E. DATE June 5, 1981

TO Lawrence G.Clare, P.E.

SUBJECT SHANCO PLASTICS

Inspection Date: June 4, 1981

Site # 915048, page B-9-115. Reference site appeared devoid of any drums observed in earlier inspections.

Property use is that of diesel engine repair shop.

Present owner (Larry LaPaglia) arranged with realtor to have all drums hauled away by CECOS.

No Leachate observed. No evidence of prior Leachate conditions.

Sampling not recommended.

The appropriate section of aerial photograph # 19N311, dated 1972, is enclosed with this report.

DC:rb

Enc.

Document B-4

1990 Census Figures for Buffalo Area Cities and Towns,
The Buffalo News, January 25, 1991.

Area lost 4.3% of residents since '80, census shows

Erie County's decline of 4.62% ranks as the largest in the state

By DOUGLAS TURNER
News Washington Bureau Chief

WASHINGTON — Driven by the continuing flight of residents from Buffalo and Niagara Falls, the Buffalo metropolitan area lost 53,358, or 4.3 percent, of its residents in the last 10 years, according to the final 1990 census figures released Thursday.

The metropolitan area is made up of Erie County, which suffered the largest percentage decrease of any county in the state (4.62 percent), and Niagara County, which lost 2.9 percent of its population.

Combined, those two counties have dropped from 1,232,826 residents in 1980 to 1,189,288 in 1990.

Separately, Niagara County's population has gone from 227,354 to 220,756.

And Erie County's population has fallen from 1,015,472 to 968,532, the first time it has gone below the 1 million mark since 1950. It hit a high in 1970, with a count of 1,113,491.

County Executive Gorski could not be reached to comment. He is on his way to Tampa. Deputy County Executive David R. Smith said the population loss is not unexpected.

"I think the numbers verify something we've known for quite a while," he said. "Obviously, we lost people in the early part of the decade when plants were closing and jobs were evaporating."

While the county stands to lose some amount of federal and state aid, which is based on the local head count, the reduction should be modest, Smith said. State and local revenue sharing, which is tied directly to population tallies, already has been scaled back.

"We've already lost the big categories of aid that are populaton-driven, so I don't expect any major negative impact from the census numbers," he said.

The Census Bureau said 328,123 people now live in Buffalo, down 8.3 percent from the 357,870 recorded in 1980 — the largest decrease among the state's five major upstate cities, which include Albany, Rochester, Syracuse and Yonkers.

POPULATION DROPPING

Census figures down

	1980	1990
Erie, Niagara	1,232,826	1,189,288
Erie County	1,015,472	968,532
Niagara County	227,354	220,756
Niagara Falls	71,384	61,840
Buffalo	357,870	328,123

Niagara Falls declined 13.4 percent to 61,840.

The only significant gains in the Buffalo metropolitan area were in towns close to the University at Buffalo North Campus — Amherst, up 2.8 percent to 111,711; Clarence, up 10.4 percent to 20,041, and the Niagara County Town of Lockport, up 28.2 percent to 16,536.

However, nearly every large community in the eight Western New York counties that once had a major industry — or was home for employees of those industries — experienced radical losses.

The four counties in the industrial grid stretching from the Niagara Frontier to the Pennsylvania line — Erie, Niagara, Chautauqua and Cattaraugus — had 60,031 fewer residents than in 1980. All the cities in Western New York experienced declines, ranging from 2 percent in Batavia to 9.2 percent in Dunkirk.

Al Price, acting dean of planning and design at UB, said the losses paralleled the decline of heavy industry in the region, which he said was mainly caused by dramatic changes in the global economy and poor investment decisions by those who controlled these American-owned exporting companies.

This shrinkage has clearly had an impact on the region's retail industry, Price said.

Niagara Falls Mayor Michael Michael C. O'Laughlin said he was surprised to see his city's population had dropped from 71,384 to 61,840.

The only large city in the state

See **Census** *Page* **C4**

THE BUFFALO NEWS
Local News
Friday, January 25, 1991

Census: State population is 17.9 million

Continued from Page C1

that gained was New York City, with 250,925 more residents than it had in 1980. The census reported 7,322,564 people lived in New York City in 1990.

Statewide, New York's population increased from 17,558,165 in 1980 to 17,990,455 in 1990, according to the bureau. But as a result of population shifts to the South and West, New York is expected to lose three House seats after redistricting.

The figures released Thursday are, for the most part, final. The Census Bureau has until July 15 to announce whether it will make any adjustment.

New York State is involved in a federal lawsuit to force the Commerce Department to make a statistical adjustment.

The 1990 census totals for Western New York cities and the percentage of change follow:

Batavia — 16,310, down 2 percent.

Dunkirk — 13,898, down 9.2 percent.

Jamestown — 34,681, down 3 percent.

Lackawanna — 20,585, down 9.3 percent.

Lockport — 24,426, down 1.8 percent.

North Tonawanda — 34,989, down 2 percent.

*City of Tonawanda — 17,284, down 7.5 percent.

Olean — 16,946, down 6.9 percent.

Salamanca — 6,556, down 4.8 percent.

The totals for Erie County towns and their percentage of change follow:

Alden — 10,372, up 2.8 percent.

Aurora — 13,433, down 3.2 percent.

Boston — 7,445, down 3.1 percent.

Brant — 2,119, down 13 percent.

Cheektowaga — 99,314, down 9.3 percent.

Colden — 2,899, down 7.3 percent.

Collins — 6,020, up 19.5 percent.

Concord — 8,387, up 2.6 percent.

Eden — 7,416, up 1.2 percent.

Elma— 10,355, down 2.1 percent.

Evans — 17,478, down 2.7 percent.

Hamburg — 53,735, up 0.9 percent.

Holland — 3,572, up 3.7 percent.

Lancaster — 32,181, up 6.8 percent.

Marilla — 5,250, up 8 percent.

Newstead — 7,440, up 2.9 percent.

North Collins — 3,502, down 7.6 percent.

Orchard Park — 24,632, up 1.1 percent.

Sardinia — 2,667, down 4.5 percent.

* Town of Tonawanda — 82,464, down 9.6 percent.

Wales — 2,917, up 2.6 percent.

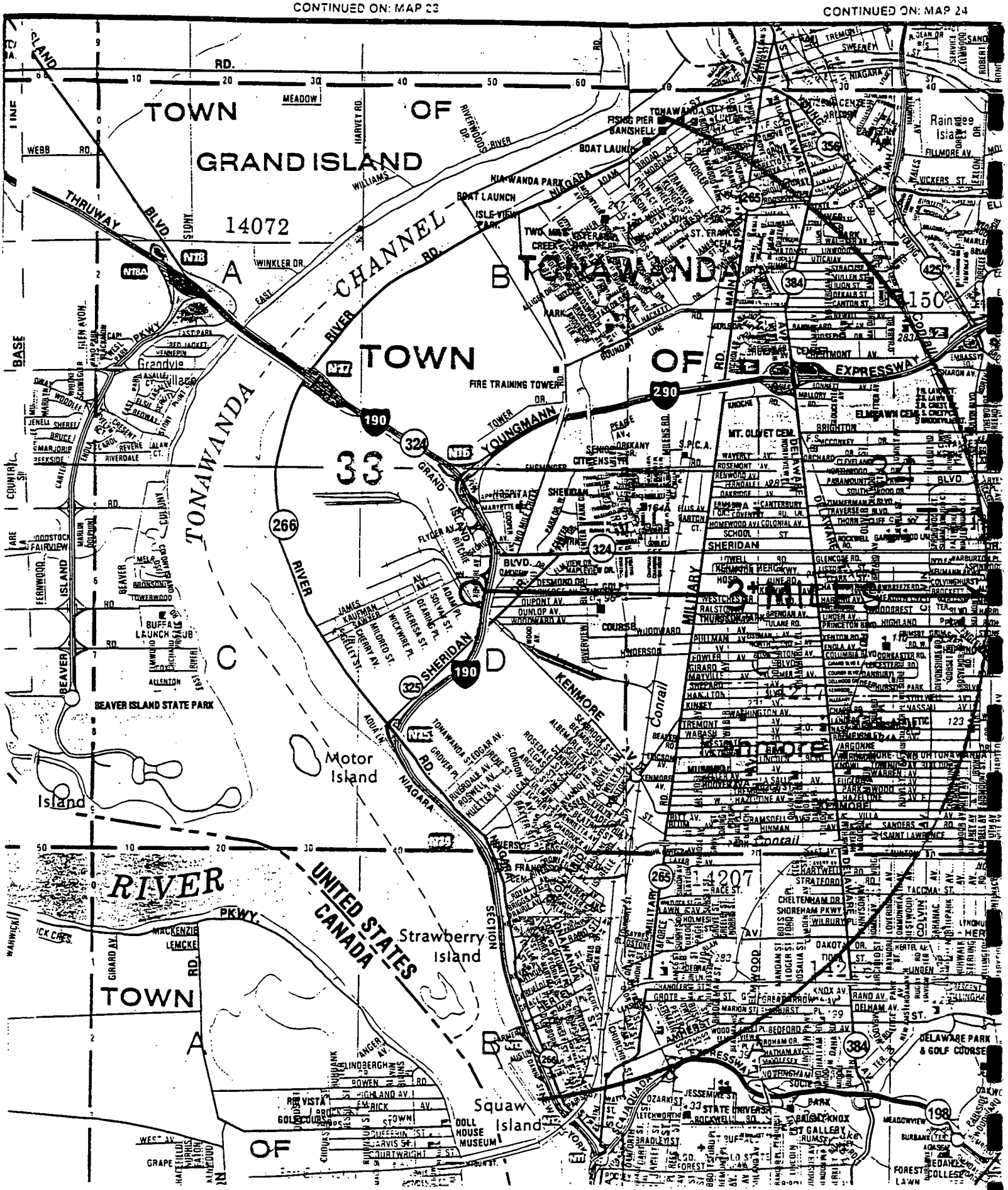
West Seneca — 47,830, down 6.6 percent.

* AREAS WITHIN 3 MILES OF SHANCO PLASTICS

TONAWANDA	35%	× 82 464	=	28862
CITY OF TONAWANDA	50 %	× 17 284	=	8642
CITY OF BUFFALO	5 %	× 328 123	=	16406
TOWN OF GRAND ISLAND	10 %	× 15000	=	1500
				55410

CONTINUED ON: MAP 23

CONTINUED ON: MAP 24



Document B-5

Groundwater Resources of the Erie Niagara Basin, New York prepared by USGS in cooperation with the New York State Conservation Department, Divsion of Water Resources, 1968.

GROUND-WATER RESOURCES OF THE ERIE-NIAGARA BASIN, NEW YORK

Prepared for the
Erie-Niagara Basin Regional Water Resources
Planning Board

by

A. M. La Sala, Jr.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

in cooperation with

THE NEW YORK STATE CONSERVATION DEPARTMENT
DIVISION OF WATER RESOURCES

STATE OF NEW YORK
CONSERVATION DEPARTMENT
WATER RESOURCES COMMISSION

Basin Planning Report ENB-3

1968

... 813-1		land	--												
-2	ea.	do.	--	...	33	3	do.	...	1	6-26-6.		U	Iron;	I.D.	

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

Well number	County	Owner	Year completed	Type of well	Depth of well (feet)	Diameter (inches)	Depth to bedrock (feet)	Water-bearing material	Altitude above sea level (feet)	Water level: Below land surface (feet)	Water level: Date	Method of lift	Estimated pumpage or flow (gallons per day)	Use	Remarks
258-815-1	Genesee	F. Peck	--	Drl	31	6	--	Shale	920	8.1	6-26-63	Sw	50	D	Anal; Iron; temp 49.0; yield 12 gpm (r).
258-822-1	do.	E. Lewis	1964	Drl	41.6	6	41.6	Sand	870	9.1	8-19-64	Sw	400	Ag	Anal; H_2S; yield 11 gpm (r).
258-827-1	do.	E. Pawenski	1952	Drl	36.5	6	e34	Limestone	835	31.3	8-19-64	Jet	250	D	H_2S; yield 7 gpm (r).
258-833-1	Erie	B. Fields	1960	Drl	62.6	6	e13	do.	775	p22.7	8-18-64	Sub	300	D	Anal.
258-837-1	do.	A. Bowman	1956	Drl	76.2	6	e22	do.	740	19.4	8-18-64	Jet	300	D	Do.
258-843-1	do.	W. Voss	--	Drl	62	8	--	Camillus Shale	615	Flow	--	--	5,000	A	Anal; H_2S; temp 50.8, 8-14-64; flows about 5 gpm at LS.
258-853-1	do.	Linde Div., Union Carbide Corp.	1944	Drl	r375	8	87	Camillus Shale and Lockport Dolomite	600	r,p115	1944	Tur	--	U	H_2S; drilled to 130-ft depth in 1943 and deepened in 1944; "black" water entering from Lockport Dolomite after deepening made well unusable; yield 3,000 gpm (r); pumping test, 1,090 gpm, dd 53 ft.
-2	do.	do.	1944	Drl	r375	8	86	do.	600	r,p82	1944	Tur	--	U	H_2S; drilled to 157-ft depth in 1943 and deepened in 1944; water obtained at 90 ft from a gypsiferous zone in Camillus Shale and "black" water at 312 ft from the Lockport Dolomite which was first penetrated at 288 ft; yield from upper water-bearing zone 90 gpm, dd 22 ft; lower zone was not tested.
258-855-1	do.	Dunlop Tire & Rubber Co.	1943	Drl	r132	12	69	Camillus Shale	590	p36	10-27-52	Tur	--	I	H_2S; pumping rate 1,000 gpm (r); pumping test 500 gpm, swl 36 ft, dd 17 ft; this well and well 258-855-2 yield a combined total of 600,000 gpd.
-2	do.	do.	1943	Drl	r139.7	--	71	do.	590	p54.3	7-16-64	Tur	--	I	H_2S; pumping rate about 1,000 gpm (r); pumping test 1,000 gpm, swl 36 ft, dd 26 ft; this well and well 258-855-1 yield a combined total of 600,000 gpd.
-3	do.	do.	1952	Drl	r120	--	--	do.	592	p39	10-27-52	Tur	--	I	H_2S; pumping test 1,500 gpm, swl 39 ft, dd 38 ft.
259-809-1	Genesee	O-AT-KA Milk Products Cooperative, Inc.	1963	Drl	r60	20, 16	--	Sand and gravel	890	r15	4-27-62	Tur	1,000,000	I	Anal; screen, 13 1/8-inch diameter, 10 ft of 60-slot, 10 ft of 135-slot, from 40-60 ft; pumping rate about 1,200 gpm (r); pumping test 600 gpm, swl 15 ft, dd 1.5 ft (r).
-2	do.	City of Batavia	1963	Drl	r69	16	--	do.	890	14.0	5- 8-63	Tur	--	PS	Anal; H_2S; screen, 16-inch telescope, 135-slot, 52.9-69 ft; pumping rate 1,000 gpm.
-3	do.	do.	1962	Drl	54.1	8	--	do.	890	11.7	5- 6-63	--	--	T	Depth 61 ft (r); screen, 6-inch diameter, 100-slot, from 51-61 ft; pumping test 235 gpm, swl 18.3 ft, dd 0.5 ft (r); OW.
-4	do.	O-AT-KA Milk Products Cooperative, Inc.	1963	Drl	52.2	8	--	do.	890	p13.0	5- 7-63	--	--	T	
-5	do.	City of Batavia	1962	Drl	60.2	8	--	do.	890	13.7	5- 8-63	--	400,000	T	Depth 70 ft (r); screen, 6-inch diameter, 100-slot, from 60-70 ft; pumping test (r), 235-259 gpm, swl 18.5 ft, dd 0.5 ft after 24 hours discharge.
-6	do.	do.	1963	Drl	r75	16	--	do.	895	r14.2	5-27-63	Tur	--	PS	Screen, 16-inch diameter; test pumped at 1,000 gpm.
-7	do.	do.	1963	Drl	r60	8	--	do.	890	r13.7	2-15-62	--	400,000	H, T	H_2S (r); pumping test 200 gpm, swl 13.7 ft, dd 4.4 ft after 24 hours discharge.
259-817-1	do.	D. Beals	1960	Drl	r33	--	--	do.	865	r3	1960	Sw	100	D	Anal; H_2S; yield 4 gpm (r).
259-818-1	do.	Bitterman Bros., Inc.	--	Drl	18.3	12, 6	--	do.	--	6.6	9-17-63	Sw	--	C, D	
259-820-1	do.	A. Winters	1960	Drl	22.6	6	--	Limestone	880	7.4	9-17-63	Sw	500	C, D	
259-822-1	do.	J. Daley	1956	Drl	70	6	--	Sand	900	27.1	8-19-64	Jet	200	D	Anal; H_2S.

Document B-6

Memorandum, NYSDEC, to Barbara Guibord
from Glenn Bailey, January 24, 1983.

15(12/75)

New York State Department of Environmental Conservation

MEMORANDUM

TO: Barbara Guibord
FROM: Glen Bailey
SUBJECT: Shanco Plastics
DATE: 1/24/83

On Monday, January 24, 1983 I talked with Dick Shanley of the OCTF. Shanley said that he had been contacted by a former employee of Shanco, who stated that in 1977 he participated in the burial of 105 or 106 drums of wastes on the Shanco property. The wastes included phenolic resin wastes, sulfuric acid wastes and caustic wastes.

Shanley said that his information was that Shanco Plastics had been purchased by Centrex Corporation of New Jersey, which is the U. S. subsidiary of a European chemical corporation. The former Shanco site at Wales and Kenmore Avenues is currently the location of Larry's Collision Shop.

The inventory of Hazardous Waste Disposal Sites in New York State lists Shanco Plastics & Chemicals at Volume 3, Page 8 - 9 - 115, site code 915048. The site narrative indicates that some abandoned materials had been removed, but that there was no information to confirm that wastes had been buried at the site.

GB:jar

cc: John Greenthal
Peter Bucchi

Document B-7

Industrial Chemical Survey List of Chemicals
Used On-Site, August 25, 1978.

COMPANY NAME			ICS NO.	REGION	BASIN	COUNTY	SIC CODE
HANCO PLASTICS & CHEMICALS INC.			77586	09	01-01	14	2821

ADDRESS	CITY	STATE	ZIP CODE	PRINCIPAL BUSINESS OF COMPANY
2716 KENMORE AVE.	TONAWANDA	NY	14150	RESIN MFG.

IND.PERMIT NO.	MUNI PERMIT NO.	AIR FACILITY CODE	EPA ESTAB. NO.
0000000	0026395	141600 1290	- -

RECEIVING WATER	WATER BODY I.D.	USGS QUAD.
NIAGARA RIVER	0101 0001	I-05-4

NYDEC-BY JOHN PULASKI
DATE:8/25/78

INDUSTRIAL CHEMICAL SURVEY -POSITIVE RESPONDERS TO ICS
FOR REGION NO.9

CHEMICAL NAME	CAS NO.	AVG.ANNUAL USE	UNITS:G=GALLONS,L=POUNDS	USECODE
PHTHALIC ANHYDRIDE	000085-44-9	46,925	L	REA
P-TERT BUTYL PHENOL	000098-54-4	-1	L	REA
MALEIC ANHYDRIDE	000108-31-6	77,564	L	REA
PHENOL	000108-95-2	75,980	L	REA
OCTYLPHENOL	027193-28-8	-1	L	REA
BISPHENOL ANHYDRIDE (7)	F99000-00-0	-1	L	REA

Document B-8

Analytical Results from a Soil Sample Collected June 24, 1976.

The Following Image(s) are the Best Copy Available

BIEL'S

(Shanco Plastics & Chemicals)

June 28, 1976

REPORT OF ANALYTICAL TESTING

Date Received: 6/24 Requested By: Mr. Orbanac
Shanco Plastics & Chemicals
Code Number: 0018 (soil sample) Town of Tonawanda, N.Y.

ANALYTICAL RESULTS

Parameter-mg/kg	Wet Basis	Dry Basis
pH	7.45	-
Acidity	147.9	191.8
Phenol	45.3	58.8

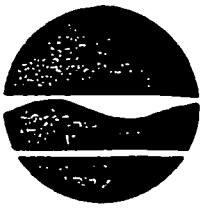
The analytical procedures are in accordance with "Methods for Chemical Analysis of Water and Wastes", 1974, EPA, and "Standard Methods for the Examination of Water and Wastewater", 13th edition.

John C. Gorton, Jr.
Laboratory Director

Document B-9

Letter to Steven Polowitz, from Peter Buechi, P.E.,
Associate Sanitary Engineer, NYSDEC, January 13, 1984.

New York State Department of Environmental Conservation
600 Delaware Avenue, Buffalo, NY 14202-1073



Henry G. Williams
Commissioner

January 13, 1984

Mr. Steven Polowitz
Abbate & Polowitz
396 Ellicott Square Building
Buffalo, New York 14203

Re: Shanco Plastics Site, #915048

Dear Mr. Polowitz:

In response to our telephone conversation of this date, find enclosed the results from the sampling conducted by the U.S. Geological Survey at the subject site under the Niagara River Toxics Investigation.

You will note that the enclosed data is still in a draft form as it has not been subject to the full review process required prior to USGS publication.

Should you have questions regarding the enclosed material, feel free to contact this office at 847-4590.

Yours truly,

Peter J. Buechi, P.E.
Associate Sanitary Engineer

PJB:cag
Enc.

cc: John McMahon

Table .--Analyses of substrate samples from Sifco Plastics, Tonawanda, N.Y., May 31, 1983. (Locations shown in fig. . Concentrations are in ng/g; dashes indicate that constituent or compound was not found, LT indicates it was found but below the quantifiable detection limit.)

	Sample number and depth below land surface (ft)			
	1 3.5	2 2.0	3 3.0	4 4.0
Inorganic constituents				
Molecular sulfur[1]	--	--	--	7,000
Organic compounds				
Priority pollutants				
Phenol *	170,000 LT/billion	--	--	--
Naphthalene	--	--	--	--
Fluoranthene	--	--	LT	--
Pyrene	--	--	LT	--
Nonpriority pollutants				
1,2,3,4,4A,9,10,10A-Octahydro-1,4A-dimethyl-7-isopropyl-1-phenanthrene carboxylic acid, methylester[1]	100,000	--	--	--
Fenchone[1]	200	--	--	--
Unknown hydrocarbons[1]	400,000	--	--	--
Possibly naturally occurring compounds				
Dodecane[1]	200,000	--	--	--
Tridecane[1]	400,000	--	--	--
Tetradecane[1]	500,000	--	--	--
Pentadecane[1]	500,000	--	--	--
Hexadecane[1]	500,000	--	--	--
Heptadecane[1]	400,000	--	--	--
Octadecane[1]	200,000	--	--	--

very elevated - either Fill LT area w/residual or LT Migration LT

will require further analysis @ the property.

relatively clean

is waiting for Final report from Geological Survey

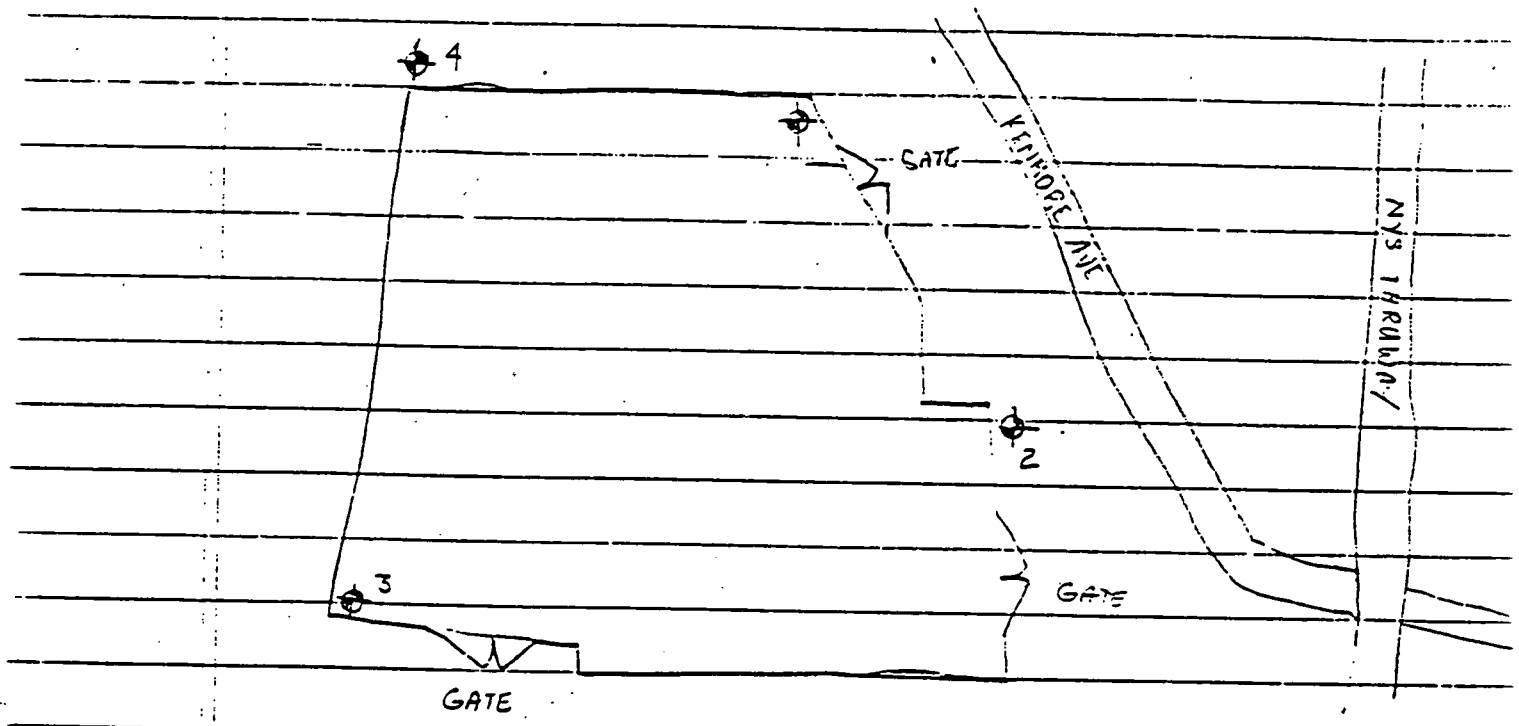
DRAFT

[1] Tentative identification based on comparison with the National Bureau of Standards (NBS) library. No external standard was available. Concentration reported is semiquantitative and is based only on an internal standard. GC/MS spectra were examined and interpreted by GC/MS analysts.

USGS NIAGARA ... FOR[illegible] INVESTIGATION

NYSDEC REGION 9 FILES

SHANCO CHEMICALS



- SITE USED TO DISPOSE: PHENOLS, PHENOLIC RESINS AT RATE OF 30 TONS/YR TILL 1976
- UNK. AMOUNTS OF POLYMERIZERS, CARBOLIC ACIDS, AND DRUMMED CHEMICAL WASTES.
- DRUMMED MATERIALS REMOVED FOR PROPER DISPOSAL
- 4 TEST BORINGS DRILLED IN 1973 BY USGS

BOREHOLE	DEPTH	DESCRIPTION
1	0-3.5 (3.5)	TOPSOIL, CLAY SAMPLE 3.5
2	0-2.0 (2.0)	TOPSOIL, CLAY SAMPLE 2.0
3	0-3.0 (3.0)	FILL, CLAY (RED), SAMPLE 3.0
4	0-4.0 (4.0)	FILL (BLOCK); CLAY (RED) SAMPLE 4.0

USGS Niagara River Toxics

Document B-10

Memorandum, Erie County Department of Environmental Quality, to Anthony T. Voel, from Fuad L. El Ibeashi, March 16, 1977.

SPCC Plan

The company has:

Two 275 gallon #2 fuel tanks above ground

One 8000 gallon #2 fuel tank below ground

Therefore no SPCC plan is necessary.

Production

The company is mainly in the business of manufacturing resins. These fall into two main categories: -

I. Alkali soluble resins, and these constitute about 70% of the total production. They are used mainly for:

a) servicing the floor finish industry

b) in the paint industry

c) in the ink industry

These alkali soluble resins are used in aqueous systems because they can be easily cleaned just by water rinsing.

II. Resins based upon modified phenolics, and these constitute about 30% of the total production. They are mainly used in the formulation of: -

a) adhesives

b) inks

Total production of all resins amounts at present to about 130 tons/month.

Process

All processes in this plant are done in batches. They do not have a continuous line of production.

1. Rosin (wood rosin, gum rosin and tall oil rosin) is charged into a kettle, which is a large cylindrical tank of 2800 gallons capacity.

- continued -

2. This is heated to 350°F. There are over a 100 different formulas they work with according to the end product desired. However, they are mainly based upon the addition of dibasic acids and glycols.

3. The temperature is then further raised to 450°F for a period of 3 to 18 hours depending upon the degree of polymerization required.

4. After that the batch is discharged into a flaker. The flaker consists of a continuous steel belt conveyor that is cooled by water.

5. The water drops down into a trough. The solids settle at the bottom and the clearer water can be recycled or discharged into any sewers. In the Shanco Company, the water is not recycled, but discharged directly into the sanitary sewers on Kenmore Avenue.

6. From the conveyor, the final flaked resin is packed in 50 lb. bags for sale.

7. In another line of production, a similar type of process as described above is followed, but with a difference. In this case the final resin is collected in large pans. From there, they are sent to a grinder where they are ground to a fine mesh. After that they are bagged in 50 lb. bags for shipment.

8. Wax There used to be a line of operation to produce an oxidized micro crystalline wax. But this operation has been discontinued.

Water Pollution Aspects

a) All floor drains and process waters go to the sanitary sewers on Kenmore Avenue. Therefore no water pollution problems will be caused, at least in the foreseeable future.

b) All rain spouts, as can be expected, are connected to the storm sewer on Kenmore Avenue. No problems are caused from them either.

- continued -

c) There can be a problem from rosin and resin dust particles that escape from the dust collection bags and fall onto the yard. In case of heavy rains, some of this stuff may be washed into the storm sewers on Kenmore Avenue.

d) Like any other industry, one can expect that once in a while a batch goes wrong. Mr. Orbanac said that that doesn't usually happen more than once or twice a year. However, when that does happen, they have to weigh the matter before they take a final decision on how to dispose of it. The first thing they do, is to put the faulty batch in a suitable place in the yard, and then the salesperson takes over. They try to find a buyer who will be willing to pay a reduced price for it. That may take up to a month, during which the resin will be laying in the yard, partially exposed to the elements. This could cause a water pollution problem in case of rains. And apparently this what happened a short while ago, and prompted the complaint from Mr. Henry of the Highway Department.

To eliminate the problem, and to prevent any such pollution in the future, the Shanco Company has started to store any such faulty batches in suitable metal containers to save them from the elements, and from being washed into the sewers by rain. This should prevent any <u>major</u> pollution problems from their waste resins.

However, inherent in this industry is another aspect of it that could contribute to a minor water pollution problem. The ground resin is so fine, that a portion of it is carried away by the air and escapes the dust collection bags. These fine particles of resin, as fine as fine dust, settle all over the place. They settle on floors, walls and in the yard. With normal rain runoff some of this fine material will inevitably be washed away.

I phoned the Highway Department about this matter and Mr. Henry said, in effect, that these dust like particles won't worry him as long as no large sized materials are washed away into his sewers. Mr. Orbanac promised to clean up the yard completely from all waste drums, garbage, debris and other material. We agreed upon March 31, 1977 as a reasonable deadline.

- continued -

Conclusion:

1. This company is mainly in the business of manufacturing resin.
2. All water is purchased from the Town of Tonawanda.
3. All sanitary sewage is discharged into the sanitary sewers on Kenmore Avenue.
4. All other waters from floor dains, and those used for cooling the conveyor belt, are discharge into the sanitary sewers.
5. Therefore no SPDES permit should be required.
6. There could be some contamination of rain water from the resin dust in the yard, but good housekeeping should eliminate this matter.
7. There could be an air pollution problem of sorts, but I didn't investigate this matter as it is outside the Water Resources Bureau's responsibility.
8. No SPCC plan is necessary.
9. As usual a letter shall be sent to the company.

FLE:jk

cc: Mr. Sweeney, NYSDEC
Mrs. G. Kotas (Air Resources)

File: Industrial

Document B-11

Environmental Site Assessment,
North American Environmental Services Corporation,
July 16, 1990.

FILE

New York State Department of Environmental Conservation
600 Delaware Avenue, Buffalo, New York 14202

Thomas C. Jorling
Commissioner

MEMORANDUM

To: Dennis Farrar, Haz. Waste Remediation Sec.
From: John W. Hyden
Ref: Shanco Plastics Co.
DEC Site No. 915048
Date: October 30, 1990

Enclosed is a copy of an Environmental Audit Report by North American Environmental Services Corp., along with their transmittal letter requesting that the referenced site be delisted. As noted in our October 22 telephone conversation, the findings of the environmental audit will be incorporated into the ongoing PSA investigation for this site, to whatever extent they can. I will inform North American Environmental Services of the fact that this site is currently undergoing a PSA, and will also send you a copy of my correspondence to them.

NORTH AMERICAN ENVIRONMENTAL SERVICES CORP
P.O. BOX 66
2321 KENMORE AVENUE
BUFFALO, N.Y. 14207-0066
TEL. (716) 875-2903
FAX (716) 875-2374

07/16/90

NYSDEC, Region 9 Office
600 Delaware Ave.
Buffalo, NY 14202

Attn: Mr. Jack Heyden

Re: *Delisting of Shanco Plastics Site at 2716 Kenmore Ave Tonawanda, NY.*

Dear Mr. Heyden:

North American has conducted a Phase II Environmental Audit for property located at 2716 Kenmore Ave, Tonawanda, NY. Please find enclosed, a copy of that report for your review and files.

Analysis of a composite soil sample prepared from surface soil samples collected from five different locations on the site revealed no significant contamination of the surface soil by Phenol, cyanide, Sulfide, Heavy Metals, or Volatile Organic Compounds.

Based upon the results of our investigations, the site appears to present no danger or threat to the environment. Therefore, North American would like the Department of Environmental Conservation to delist Site # 915048 from the NYS Inactive Hazardous Waste Site Registry List, Volume 9.

If you have any questions or require additional information please contact our office at your convenience.

Very Truly Yours

John D. Bradshaw

Enclosure

NORTH AMERICAN ENVIRONMENTAL SERVICES CORP
P.O. BOX 66
2321 KENMORE AVENUE
BUFFALO, N.Y. 14207-0066
TEL. (716) 875-2903
FAX (716) 875-2374

EXHIBIT A

PROPERTY INSPECTION GUIDE

SITE Exterior of SITE located at 2716 Kenmore Ave., Tonawanda New York

OTHERS PARTICIPATING IN SITE INVESTIGATION: Jim Alaimo, N.A.E.S.

PROPERTY CONDITION	LOCATION	SIGNIFICANCE
UNDEVELOPED PROPERTY		
1) Stained or discolored ground	Yes	Oil Spills
2) Absence of vegetation or dead vegetation	Exposed Soil	Westerly portion of SITE.
3) Hills, mounds, depressions	None	
4) Liquids, (flowing, standing, ponded) - discolored, odorous	Yes	Petroleum
5) Odors (solvent, petroleum, etc.)	Yes	Petroleum
6) Containers (drums, pails, bags, boxes, barrels)	Yes	Empty metal drums and oil tanks.
7) Fill pipes (pipes sticking out of the ground	None	Requires further study.
8) Roads, paths, trails railroad tracks or railroad track bedding	Yes	Railroad track is West property boundary.
9) Manholes, drainage ditches, culverts, gullies	Yes	Sanitary manhole, possible oil separator manholes.

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BUFFALO, N.Y. 14207-0066
TEL. (716) 875-2903
FAX (716) 875-2374

PROPERTY CONDITION	LOCATION	SIGNIFICANCE
10) Discolored water, oil film, foaming, etc.	None	
11) Stock-piled materials (road salt, coal, etc.)	None	
12) Buildings	Yes	One vacant building.
13) Stained or discolored walls, floors, ceilings	N/A	
14) Unpaved parking lots	Yes	Westerly portion of SITE.
15) Pollution control equipment	N/A	
16) Raw material receiving and storage areas	N/A	
17) Sanitary, process waste and storm sewers and pump stations	N/A	
18) Electrical transformers	N/A	
19) Fuel storage and transfer lines	None	Requires further study.
20) Process tanks, vats, pits, ponds, lagoons		
21) Waste disposal areas	Yes	Pile of burned debris.
22) Indications of asbestos and other similar materials	N/A	
23) Other (Describe)		
24) Other		
25)		

FRONTIER ENVIRONMENTAL LABORATORIES, INC.

4626 Royal Avenue • M.P.O. Box 309 • Niagara Falls, New York 14302 • Phone (716) 285-2587 — FAX (716) 285-3521

Date: June 26, 1990

ANALYTICAL RESULTS
FOR

North American Environmental Services
P. O. Box 66
Buffalo, New York 14207

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM (ELAP)
CERTIFICATION #10797

FIELD INFORMATION

Name of Collector: Jack Bradshaw

ASSIGNED FEL# I.D.	SAMPLE I.D.#	SAMPLE TYPE	Site, Date and Time of Collection
4359-01	90790	Soil	Site: 2716 Kenmore Date: June 16, 1990 Time: Not Available

Laboratory Information

Sample ID	Preservation Status Upon Acceptance	Date/Time Received
90790	Properly preserved and collected.	Date: June 13, 1990 Time: 1710 hrs

REPORT RELEASED BY: B. J. Fuga

FRONTIER ENVIRONMENTAL LABORATORIES, INC.

4626 Royal Avenue • M.P.O. Box 309 • Niagara Falls, New York 14302 • Phone (716) 285-2587 — FAX (716) 285-3521

DATE: June 26, 1990
ELAP# 10797
ANALYSIS FOR: North American Environmental Services
FEL# 4359-01 SAMPLE ID: 90790

PARAMETER	DETECTION LIMIT ug/kg	RESULTS ug/kg
Chloromethane	4.0	<DL
Bromomethane	4.0	<DL
Vinyl Chloride	4.0	<DL
Chloroethane	4.0	<DL
Methylene Chloride	4.0	<DL
Acetone	4.0	<DL
Carbon Disulfide	4.0	<DL
1,1-Dichloroethene	4.0	<DL
1,1-Dichloroethane	4.0	<DL
Trans-1,2-Dichloroethylene	4.0	<DL
Chloroform	4.0	<DL
1,2-Dichloroethane	4.0	<DL
2-Butanone	4.0	<DL
1,1,1-Trichloroethane	4.0	<DL
Carbon Tetrachloride	4.0	<DL
Vinyl Acetate	4.0	<DL
Bromodichloromethane	4.0	<DL
1,2-Dichloropropane	4.0	<DL
Trans-1,3-Dichloropropene	4.0	<DL
Trichloroethene	4.0	<DL
Benzene	4.0	<DL
Dibromochloromethane	4.0	<DL
Cis-1,3-Dichloropropene	4.0	<DL
1,1,2-Trichloroethane	4.0	<DL
2-Chloroethylvinyl Ether	4.0	<DL
Bromoform	4.0	<DL
4-Methyl-2-Pentanone	4.0	<DL
Tetrachloroethene	4.0	<DL
1,1,2,2-Tetrachloroethane	4.0	<DL
2-Hexanone	4.0	<DL
Toluene	4.0	<DL
Chlorobenzene	4.0	<DL
Ethylbenzene	4.0	<DL
Styrene	4.0	<DL
Total Xylenes	4.0	<DL

SURROGATE RECOVERIES	% RECOVERY
1,2-Dichloroethane D4	105
Toluene D8	93
4-Bromofluorobenzene	105

Method: EPA SW-846 (8240)
DL = DETECTION LIMIT

FRONTIER ENVIRONMENTAL LABORATORIES, INC.

4626 Royal Avenue • M.P.O. Box 309 • Niagara Falls, New York 14302 • Phone (716) 285-2587 — FAX (716) 285-3521

Date: June 26, 1990

ELAP # 10797

ANALYSIS FOR: North American Environmental Services

FEL# 4359-01

Sample ID	Test Method	Detection limit ppm	Results ppm
90790	Arsenic EPA SW-846 (7060)	0.001	0.006
	Barium " " (7080)	0.10	0.80
	Cadmium " " (7130)	0.01	<DL
	Chromium " " (7190)	0.01	<DL
	Lead " " (7420)	0.01	0.06
	Mercury " " (7470)	0.0002	<DL
	Selenium " " (7740)	0.001	0.002
	Silver " " (7760)	0.01	<DL

DL = Detection Limit

Extraction Method Reference: EPA SW-846 1310 (EP Toxicity)

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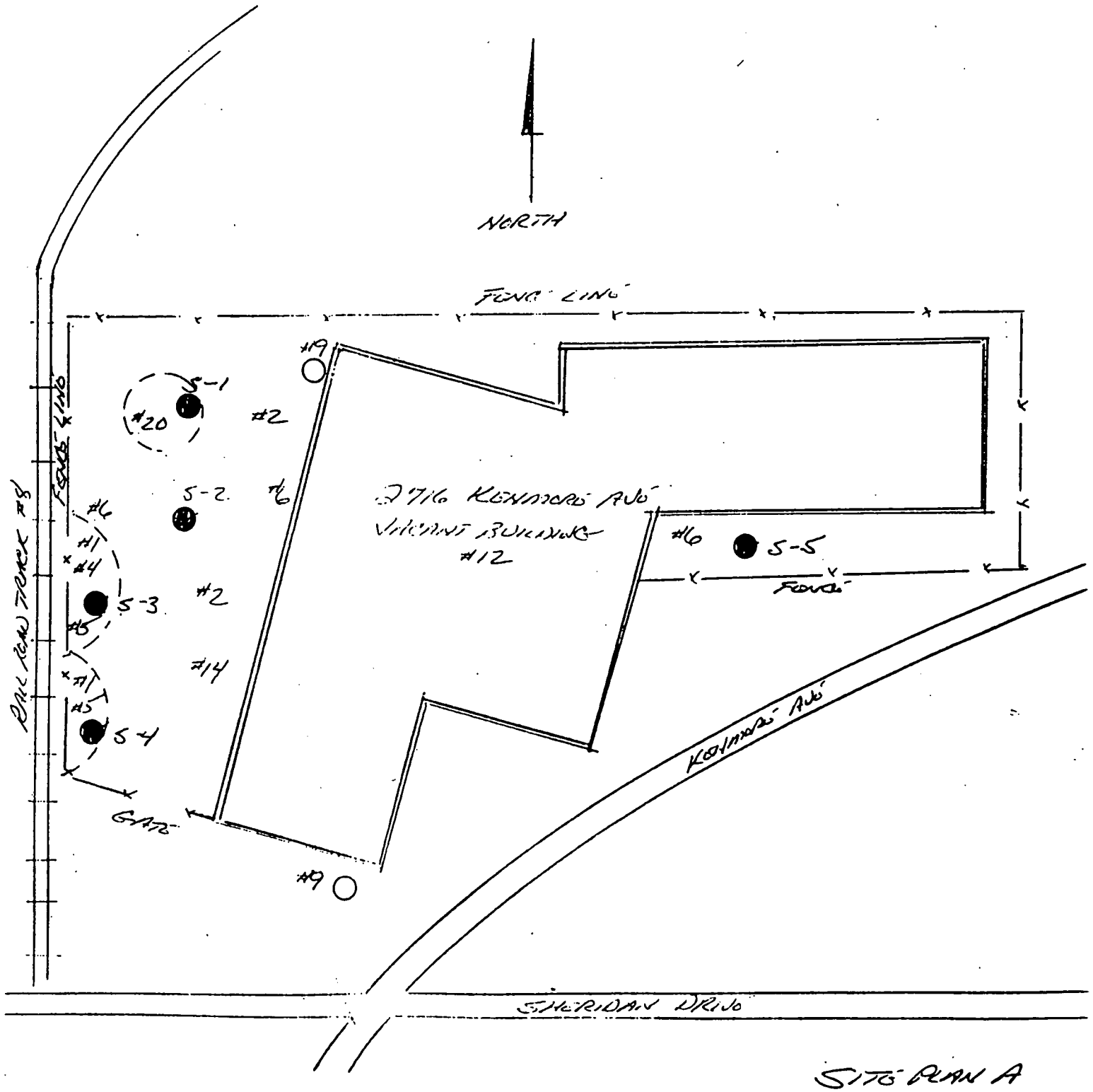
2321 KENMORE AVENUE
BUFFALO, N.Y. 14207-0066
TEL. (716) 875-2903
FAX (716) 875-2374



Document B-12

Reports of calls made to various individuals for this PSA.

DUNN GEOSCIENCE CORP

REPORT OF CALL

TO: FILE FROM: GEORGE C MORETTI

DATE: 7-24-90 TIME:

RE: OWNERSHIP OF 2716 KENMORE AVE.

PERSON CONTACTED: GENE DANIELS BRONDY REALESTATE

PHONE #: 875-2900 or 895-1880 (SCHECTMAN) PROJECT #: 00296-01696

DESCRIPTION OF CONVERSATION: ACTION/ REMARKS:

7/24/90 (CALLED: PYRAMID BROKERAGE. THEY GAVE BRONDY REALESTATE AS THE OWNER AND GENE DANIELS AS A CONTACT.)

7-24-90 1455 MR. DANIELS RETURNED MY CALL SAID THAT HE THOUGHT THE SITE WAS DELISTED. HE SAID HE HAD TO TALK TO HIS PEOPLE AND GET BACK TO ME.

2/6/91 ASKED HOW HAROLD SCHECTMAN WAS ASSOCIATED WITH THE PROPERTY. GENE DANIELS SAID SCHECTMAN WAS THE OWNER WHILE HE (DANIELS) SOLD THE PROPERTY FOR SCHECTMAN THROUGH BRONDY REALTY (HE THOUGHT) (NOTE: APPARENTLY G.D. IS AN INDEPENDENT REAL ESTATE BROKER WHO IS ASSOCIATED WITH SEVERAL COMPANIES HE WASN'T COMPLETELY CERTAIN THAT THE PROPERTY WAS SOLD THROUGH BRONDY BUT THOUGHT SO) G.D. GAVE ME SCHECTMAN'S PHONE NUMBER AND ASKED THAT I CALL H.S. FOR FURTHER INFORMATION OR CLARIFICATIONS

COPIES TO: CIRCULATE TO: File

project\callrpt

GEOSCIENCE CORP

REPORT OF CALL

TO: FILE FROM: GEORGE MORETTI

DATE: 7-29-90 TIME: 1630

RE: SHANCO PROPERTY OWNER.

PERSON CONTACTED: JOHN J. GIARDINO (ATTY)

PHONE #: 885-4000 PROJECT #: 00296-01696

DESCRIPTION OF CONVERSATION: ACTION/ REMARKS:

J.G. RETURNED MY CALL. SAID LARRY LAPAGLIA (HIS FORMER CLIE
(THE LISTED OWNED OF THE PROPERTY) IS NOT THE OWNER
J.G. BELIEVED A DEVELOPER HARALD SCHECTMAN
NOW OWNS THE PROPERTY AND IS NOW TRYING TO
SELL IT. JG BELIEVED IT WAS LISTED WITH SEVERAL
REALTORS INCLUDING (DAVE) JOHNSON REALTY, SAPERSTON
AND PERIMID

COPIES TO: ____ CIRCULATE TO: File 00296-01696

____ ____

____ ____

project\callrpt

GEOSCIENCE CORP

REPORT OF CALL

TO: PROJECT FILE FROM: GEORGE C MORETTI

DATE: JAN 14, 1991 TIME: 2:35 pm

RE: TOWN OF TONAWANDA TAX ASSESSOR OFFICE

PERSON CONTACTED: DELORIS STRASSER

PHONE #: 877-8800 PROJECT #: 00296-01696

DESCRIPTION OF CONVERSATION: ACTION/ REMARKS:

ASKED ABOUT THE OWNERSHIP OF PROPERTY A 2716 KENMORE AVENUE:

PRIOR TO 1976 — NO RECORD

1976 - MAY 14 1981 — SYNNES CHEMICAL CORP

MAY 15, 1981 — JUNE 3, 1981 — 2716 KENMORE AVE INC

JUNE 3, 1981 — MAY 4, 1991 — LARRY LAPAGLIA

MAY 4 1990 — PRESENT MARY ANNE MILLER TRUSTEE
SCHECKMANS CHILDRENS TRUST
1800 BROADWAY
PO BOX 1011
BUFFALO NEW YORK 14240

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____ ____

____ ____

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DUNN
GEOSCIENCE CORP

REPORT OF CALL

TO: FILE FROM: GEORGE MORETTI

DATE: 2/6/91 TIME: 10:30 A

RE: TOWN OF TONAWANDA - ENGINEERING

PERSON CONTACTED: ROBERT MORRIS (ELECTRICAL ENGINEER FOR TOWN)

PHONE #: 877 8800 PROJECT #: 00296-0696

DESCRIPTION OF CONVERSATION: ACTION/ REMARKS:

ASKED IF THERE WERE ANY ACTION PENDING AGAINST THE SITE IN THE RECENT PAST. HE SAID THAT IN THE RECENT PAST (LAST 1 OR 2 YRS) THE TOWN HAS PURSUED NOTHING AT THE SITE.

COPIES TO: ____ CIRCULATE TO: File

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