P Buechi

NIAGARA COUNTY
HAZARDOUS WASTE SITES

NIAGARA COUNTY HEALTH DEPARTMENT
INVOLVEMENT AND CONCERNS

...CONFIDENTIAL...

PREPARED BY: Michael Hopkins
Nov.-Dec. 1983

NIAGARA COUNTY HEALTH DEPARTMENT

MEMORANDUM

DATE: January 30, 1984

TO: Peter Buechi

FROM: Mike Hopkins

SUBJECT: NIAGARA COUNTY HAZARDOUS WASTE SITE REPORT

Attached is a copy of a report prepared by this department to provide requested information to the New York State Department of Health. This copy is provided for your information.

This report was prepared in response to a request by DOH for a summary of the involvement and concerns of this department with respect to each Niagara County site listed in the Hazardous Waste Site Registry. The following information is contained in the report:

1. A summary of the involvement of this department with each site on a site specific basis from 1981 to 1983.

2. A summary of this department's health related concerns for each site. Environmental concerns are not addressed.

3. Copies of sixty profile reports prepared by this department after preliminary site investigations are attached.

We request that this report not be released to the public without authorization from this department. It is only possible to provide one copy at this time.

Please contact me with any questions or comments.

MEH:cs

cc: Mr. J. A. Kehoe

NIAGARA COUNTY HEALTH DEPARTMENT

MEMORANDUM

DATE: December 20, 1983

TO: Mr. Ronald Tramantano

FROM: Mr. J. A. Kehoe, P.E.

SUBJECT: DISPOSAL SITE INFORMATION

This writing is a response to your memorandum of October 26, 1983, which requested information regarding the involvement and concerns of this department for all hazardous waste sites in Niagara County. Attached are statements outlining our involvement and concerns for 116 sites in Niagara County. Copies of profile reports for sixty of these sites are also attached.

The requested information is presented in individual statements for each site. Each of these statements contains two sections. The first section of each statement is a summary of this department's involvement with that site since the writing of the 1980 registry. Only major areas of involvement are included. The second section of each statement outlines this department's most significant concerns regarding that site. These concerns are based on potential health impacts only. Environmental concerns are not addressed.

The attached profile reports are provided for your information. These reports summarize information obtained from site investigations conducted by this department from 1981 to 1983. Please note that some information contained in the 1981 and 1982 reports may already be outdated.

The department has expended a considerable amount of manpower over the last three years to investigate and monitor activities at waste disposal sites. We intend to continue this involvement. We feel that we are now in a position to provide information and judgement which would be necessary in the assessment and evaluation of potential risks and exposures at these sites. We request that we be kept informed of all actions taken by your office which are related to sites in Niagara County and would be happy to provide you with assistance whenever possible.

Please feel free to contact us with any questions.

MEH/JAK:cs
Attachments..

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AIRCO SPEER CARBON-GRAPHITE DEC No. 932002

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and prepared profile report (1981).

2. Assisted USGS field personnel during boring/sampling operations for Niagara River Toxics Study (1982).

3. Review Draft USGS Report and regarded results as inconclusive (1983).

4. Inspected active Airco Carbon landfill (Witmer Road, Town of Niagara). This site is not listed in 1980 Registry.

The Niagara County Health Department has the following concerns regarding this site:

1. No evidence has been found to indicate that contaminants have migrated off-site or that public exposure has occurred; however, existing data is inconclusive.

2. This department does not consider follow-up investigation at this site to be a high priority.

NOTE: A profile report for this site is attached.

ALLIED CHEMICAL - ELBERTA WORKS DEC No. 932003

The Niagara County Health Department has had no direct involvement with this site to date. A preliminary investigation is scheduled for 1984.

This department regards this site as a low priority based on information given in the 1980 registry and the location of the site.

BASIC CARBON SITE DEC No. 932004

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile (1981).

2. Performed preliminary investigations of adjacent (possibly overlapping) sites - 64th Street and Ross Steel Company (1982).

3. Assisted USGS field crew during boring/sampling operations as part of the Niagara River Study (1982).

4. Investigated reports of illegal dumping and tank truck washing by current property owners. Alleged actions were never confirmed (1982).

5. Reviewed draft USGS Report. Results were found to be inconclusive. (1983).

6. Provided information to DEC consultant for Phase I Superfund investigation (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. Health impacts cannot be accurately assessed due to the vagueness of historical data and the inconclusiveness of available analytical data.

2. This department does not consider follow-up investigation at this site to be a high priority, primarily because of the distance to populated areas and limited site access.

NOTE: A profile report is attached.

CARBORUNDUM (COATED) ABRASIVES DIVISION DEC No. 932007

The Niagara County Health Department has had the following involvement with this site:

1. Monitored capping operations (1982).

2. Reviewed monitoring reports from Carborundum (1981, 1982, 1983).

The Niagara County Health Department feels that due to the remoteness of the site, the impermeability of the native soils, the absence of phenolics samples from wells surrounding the landfill and the recent site improvements, that no public exposure or public health impacts are anticipated. No further action except continued groundwater monitoring for phenols is deemed necessary.

CAYUGA ISLAND DEC No. 932008

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

2. Investigated reports from an area resident that samples taken from USGS were from inappropriate locations. Subsequently, advised DEC/USGS of better locations for any future sampling (1982).

3. Reviewed USGS Draft Report. Noted organic contaminants in groundwater sample (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. This site is now a residential area. Twenty-one homes have been built atop the former disposal area. Public exposure to contaminants is possible.

2. Groundwater has been found to be contaminated with organics. Groundwater is apparently in direct contact with the Niagara River. The site is upstream of the Niagara Falls water intakes.

3. Adequate data to assess health impacts is not available.

4. Follow-up study is needed.

NOTE: A profile report is attached.

CHISHOLM RYDER DEC No. 932009

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring/sampling program for Niagara River Study (1982).

3. Reviewed USGS Draft Report. Results for this site are inconclusive.

The Niagara County Health Department has the following concerns regarding this site:

1. No health impacts are apparent. The presence of toxic substances has not been confirmed; however, results are not conclusive.

2. Potential public exposure is minimal, due primarily to the location of the site.

3. Follow-up investigation at this site is a low priority to this department.

NOTE: A profile report is attached.

The Niagara County Health Department has been involved with this site as follows:

1. Inspections of the site by NCHD were performed in 1981 (3 inspections) and 1982 (1) inspection. Numerous violations found.

2. NCHD officials met with City of Lockport officials, remedial work was discussed (1981).

3. Referral forwarded to DEC requesting legal action to enact remedial work (1981).

4. Reviewed plans for Somerset Railroad construction adjacent to site. Concluded, railroad will have no impact on disposal site (1981).

5. Investigated discovery of drums (2) buried several hundred yards from landfill during railroad construction (1982).

6. Monitored railroad construction to be sure landfill area was not disturbed (1982 and 1983).

7. Provided information to DEC consultant for Phase I Superfund Study (1983).

8. Further investigation and profile report scheduled for 1984.

The Niagara County Health Department has the following concerns regarding this site:

1. Exposed wastes (including steel drums) and leachate are present. Direct contact is possible.

2. Large quantities of leachate are visible entering "The Gulf", a stream adjacent to the site. Public exposure is also possible here.

3. The site is in generally poor condition. Erosion is exposing additional waste. A potential rodent harborage is also present.

4. There are wells in use within one mile of this site.

5. This department considers follow-up work and remediation at this site to be a high priority.

DUPONT PLANT SITES (6 SITES)

DEC Nos. 932013, a,b,c,d,e & f

The Niagara County Health Department has been involved with this site as follows:

1. Preliminary investigation and profile report for Site 932013 e. (west of Hyde Park Boulevard (1981).

2. Monitored on-site well installation (52 wells), sampling of wells and man-made passageways investigation by DuPont's contractors (1983). Three to four man-months of time were spent on this activity.

The Niagara County Health Department has the following concerns regarding this site:

1. Evidence of groundwater contamination has been found; however, no users of groundwater (except industrial cooling water) are known within two miles. Also site is downstream of Niagara Falls water intakes.

2. Access to the site is restricted. No routes of public exposure have been identified.

3. Assessment of the situation is premature at this time as DuPont's final report is not yet available. This report is due in 1984.

The Niagara County Health Department has been involved as follows:

1. Participated in public and private meetings with DEC and FMC regarding status of investigation (1982).

2. Reviewed results of FMC's reports on groundwater monitoring.

The Niagara County Health Department has the following concerns regarding this site:

1. Groundwater contamination could be present. FMC has proposed additional testing. Results of this testing should be reviewed prior to assessing health effects.

GREAT LAKES CARBON DEC No. 932016

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and profile report (1981).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study. (1982)

3. Reviewed USGS Draft Report. Results are regarded as inconclusive (1983).

The Niagara County Health Department has the following concerns:

1. Although existing data does not specifically show off-site migration, the data available is considered incomplete.

2. The site is adjacent to a creek which enters the Niagara River above the City water intakes via the 60th Street storm sewer.

3. Follow-up investigation at this site is regarded as a low priority.

NOTE: A profile report is attached.

HOOKER/DUREZ DIVISION

DEC No. 932018
and 932095

The Niagara County Health Department has been involved with this site as follows:

1. Investigated numerous citizens complaints regarding this site.

2. Investigation into this site has been made by State agencies. Information obtained in those investigations has not been made available to this department.

The Niagara County Health Department has the following concerns regarding this site:

1. Information regarding this site has not been made available to this department. This department, therefore, cannot assess the situation at this site and cannot respond to citizens concerns at this site.

HOOKER CHEMICAL - PLANT SITES (EIGHT SITES) DEC No. 932019 a, b,c,d,e,f,g&h

The Niagara County Health Department has had no direct involvement with the investigation of these sites.

The Niagara County Health Department has the following concerns regarding this site:

1. This department has insufficient information to assess any impacts from this site. This department is concerned that information available to State agencies has not been made available to us.

The Niagara County Health Department has had little direct involvement with this site after Federal and State agencies became involved in the investigation and remedial project.

The Niagara County Health Department has the following concerns regarding this site:

1. We are disturbed that information and results of various State and Federally sponsored studies are not provided to this department.

2. The question of future habitability of this area must be resolved.

HOOKER CHEMICAL - HYDE PARK LANDFILL DEC No. 932021

The Niagara County Health Department has been involved with this site as follows:

1. Site is inspected monthly.

2. Responded to on-site spills (leachate) and excessive runoff entering Bloody Run creek.

3. Reviewed proposed Leachate Storage/Transfer Facility plans.

4. Had fence erected around Bloody Run Creek area.

5. Had above fence repaired.

6. Attended public meetings, etc., related to work being done at this site.

The Niagara County Health Department has the following concerns regarding this site:

1. Information currently available to this department is inadequate to assess health impacts from this site.

The Niagara County Health Department has had no direct involvement with this site. This department does not have adequate information available to assess this situation.

NIAGARA COUNTY REFUSE DISPOSAL SITE DEC No. 932026

The Niagara County Health Department has been involved with this site as follows:

1. Routinely inspected site; once in 1981, three times in 1982, once in 1983.

2. Performed preliminary investigation and wrote profile report (1982).

3. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

4. Accompanied USGS personnel during conductivity survey as part of Niagara River Study (1982).

5. Monitored drilling contractor (NUS) during well placement under Federal Superfund program (1983).

6. Accompanied and assisted contractor (Weston) during field work for follow-up investigation under Federal Superfund program (1983).

7. Reviewed environmental assessment for a proposed development (commercial-residential-light industrial) adjacent to the site. Assessment was regarded as inadequate (1983).

8. Reviewed USGS Draft Report. Found results to be inconclusive (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. This site received possibly the largest volumes of municipal and industrial waste of any site in Niagara County; this alone creates potential hazard.

2. The condition of the site is deteriorating. Erosion is exposing wastes (including drums) and leachate is exposed and flowing at times. Access to the site is not adequately restricted and the area is routinely used for off-road vehicles, dirt bikes, target shooting and as a play area for children. This represents a potential public exposure.

3. The site is located within 300 feet of the Niagara River. Although impact on the River is unknown, a potential hazard exists. The Niagara River is a source of drinking water with public intakes about five miles downstream.

4. Any exposure to nearby residents is unknown.

5. This department is concerned that information obtained by EPA and its contractors has not been made available to this department.

WITMER ROAD SITE DEC No. 932027

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983). Results presented are considered inadequate.

The Niagara County Health Department has the following concerns regarding this site:

1. This department is not aware of any evidence that toxic wastes are present at this site. (This was an open burning area for municipal wastes.) Until the presence or absence of toxics is confirmed, no assessment is possible.

2. Due to the location of the site, the potential for public exposure to toxics, if present, is minimal.

3. This department considers follow-up at this site to be a low priority.

NOTE: A profile report is attached.

TAM CERAMICS DEC No. 932028

This department has had no direct involvement with this site. The site is an industrial property away from surface water or populated areas.

NORTON LABS DEC No. 932029

The Niagara County Health Department has been involved with this site as follows:

1. Investigated reports of waste uncovered during construction of Somerset Railroad (1982). Found waste to be part of Norton Labs Landfill.

2. Performed preliminary investigation and wrote profile report (1983).

3. Reinspected site after completion of railroad construction (1983). Site was suitably covered.

The Niagara County Health Department has the following concerns regarding this site:

1. This site is not suspected to contain large volumes of toxic substances; however, at least one drum of solvent containing sludge (probably paint sludge) was found here. The identity of wastes in the landfill and any substance in the leachate should be verified by sampling and analysis.

2. The Railroad cut adjacent to the site is a potential route for conducting seepage, if any, from the site. The railroad has provisions for collecting drainage water and conveying it to 18-Mile Creek. 18-Mile Creek is not used for drinking water; however, it is used for fishing, etc.

3. Follow-up at this site is not considered a high priority.

NOTE: A profile report is attached.

NOURY CHEMICAL (3 SITES)

DEC No.932030, a,b & c

This department had had no direct involvement with these sites. Preliminary investigation is scheduled for 1984.

OLIN 102ND STREET LANDFILL DEC No. 932031

This department has had no direct involvement with this site. It is noted that this site is located adjacent to the Niagara River, upstream of the Niagara Falls water intakes.

HOLIDAY PARK DEC No. 932033

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation, well sampling and wrote profile report (1981).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983). Disagreed with conclusions drawn by USGS.

4. Inspected site (routine) in 1982 and 1983.

The Niagara County Health Department has the following concerns regarding this site:

1. This site is now used as a Golf Course and therefore is publically accessible. Residential areas are adjacent to the site. Public exposure is possible.

2. Data available at this time is inconclusive as to whether or not migration of toxics from the site has occurred.

3. Historical information and the exact locations of burial of toxic wastes within the site is only vaguely known. Considering the large area involved, this makes additional testing difficult.

4. This department feels that further investigation at this site should be given a medium priority. It is noted that Phase II State Superfund study is expected and should make additional information available.

NOTE: A profile report is attached.

STAUFFER CHEMICAL - NORTH LOVE CANAL DEC No. 932034

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1981).

The Niagara County Health Department has the following concerns regarding this site:

1. This site is directly beneath a residential subdivision. This provides a potential for public exposure.

2. It is noted that a 1979 EPA report concluded that this site does not present a health hazard.

NOTE: A profile report is attached.

OLIN CHEMICAL - DEEP WELL DEC No. 932037

The Niagara County Health Department has not formally investigated this well. However, based on background information available, it does not appear that a potential health problem exists here, primarily because no route of public exposure is apparent.

OLIN CHEMICAL - MERCURY ROAD DEC No. 932038

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed Draft USGS Report (1983). Found results to be inadequate to draw valid conclusions.

The Niagara County Health Department has the following concerns regarding this site:

1. It is noted that most or all of the area occupied by this site has reportedly been excavated and removed prior to construction of new plant buildings here. However, no data is available to assess the effectiveness or extent of the removal of waste material. Results of previous sampling, (USGS) are regarded as inadequate.

2. This site is located on industrial property and public exposure risks appear to be minimal.

3. This department considers follow-up work at this site to be a low priority.

NOTE: A profile report is attached.

REICHHOLD - VARCUM CHEMICAL DIVISION DEC No. 932040

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1981).

2. Reviewed Varcum/DEC correspondence (1982 - 1983).

The Niagara County Health Department has the following concerns regarding this site:

1. Monitoring data indicates that groundwater contamination is still present even after removal of former lagoons. However, the probability of public exposure seems remote, primarily due to the location of the site which is remote from any populated area.

2. Further investigation at this site is not considered a high priority by this department.

NOTE: A profile report is attached.

WURLITZER DEC No. 932041

The Niagara County Health Department has been unable to locate this site. It is not confirmed whether or not this site actually exists. The investigation into this site is on-going.

FRONTIER CHEMICAL - PENDLETON DEC No. 932043

The Niagara County Health Department has been involved with this site as follows:

1. Over 50 site inspections have been made since 1981, primarily to monitor remedial work under agreement with DEC.

2. Investigated several citizens complaints regarding odors and discoloration in drainage water (1981 and 1982).

3. Performed preliminary investigation and wrote profile report (1982).

4. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

5. Reviewed Draft USGS Report (1983). Results given with respect to this site are regarded as inconclusive.

6. Reviewed DEC/Frontier correspondence regarding remedial work.

The Niagara County Health Department has the following concerns regarding this site:

1. The only apparent route by which significant contamination could migrate from the site is via runoff entering Bull Creek. Proposed remedial work, if completed, should minimize or eliminate this risk.

2. Public access to this site must be prevented unless it is shown conclusively that no toxic materials are present on-site.

NOTE: A profile report is attached.

BUFFALO PUMPS DIVISION - BUFFALO FORGE CO. DEC No. 932044

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. There is no evidence that toxic materials are present and no wastes are presently exposed. The potential for public exposure to toxics, if present, is considered small.

2. Follow-up investigation at this site is considered a very low priority.

NOTE: A profile report is attached.

The Niagara County Health Department has been involved with this site as follows:

1. Accompanied USGS personnel conducting conductivity study as part of Niagara River Study.

2. Observed activities at this site (well boring, drainage improvements, etc.) while conducting routine monthly inspections at any adjacent facility.

The Niagara County Health Department has the following concerns regarding this site:

1. Two routes of contaminant migration off-site are possible; via drainage water and via groundwater. Drainage water passes through an outfall operated by another firm under SPDES permit. Groundwater contamination has not apparently travelled far enough to affect drinking water sources. It is this department's opinion that if effective remedial action is taken now, no public exposure via groundwater will occur. Investigation and remedial work now being done should be evaluated as to effectiveness upon completion.

CARBORUNDUM - SOUTH OF BUILDING NO. 89 DEC No. 932048 a.

The Niagara County Health Department has had no direct involvement with this site. The site is on plant property and away from populated areas.

STAUFFER CHEMICAL - ARTPARK SITE DEC No. 932049

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1981).

2. Performed routine inspections (1981, 1982, 1983).

3. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

4. Accompanied USGS personnel during conductivity study as part of Niagara River Study (1982).

5. Reviewed USGS Draft Report (1983). Data in report is considered inadequate.

The Niagara County Health Department has the following concerns regarding this site:

1. Leachate is exposed at times. Since this site is now a State Park, public exposure is possible.

NOTE: A profile report is attached.

OLIN CORPORATION - INDUSTRIAL WELDING SITE DEC No. 932050

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1981).

2. Observed soil boring/sampling contracted by Olin (1982).

3. Reviewed Olin report and Olin/DEC correspondence (1981, 1982).

4. Accompanied USGS personnel during conductivity study as part of Niagara River Study.

The Niagara County Health Department has the following concerns regarding this site:

1. Direct contact is possible. Site is accessible and mercury sludges (up to 100 ppm Hg) are exposed on surface. HCB up to 80 ppm found was found at depth of 6" below surface and 9 ppm at surface.

2. Remedial plan proposed by Olin is not adequate.

3. This department considers follow-up at this site to be a high priority.

NOTE: A profile report is attached.

OLIN CORPORATION - PARKING LOT SITE DEC No. 932-051 a.

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1981).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983). Results are not adequate to draw conclusions.

The Niagara County Health Department has the following concerns regarding this site:

1. Due to the sporadic pattern of disposal at this site, obtaining valid data is difficult. Data available is not considered adequate to evaluate this site.

2. Public exposure is possible but not considered a significant threat since this site is a parking lot located away from residential areas.

3. The department feels that follow-up at this site should be given a medium priority.

NOTE: A profile report is attached.

OLIN PLANT SITE DEC No. 932051 b.

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1981).
2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).
3. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. Due to the sporadic pattern of disposal, valid sampling is difficult.
2. The site is on plant property; public access is not available. The site is away from populated areas.
3. Follow-up at this site is considered a low priority.

NOTE: A profile report is attached.

STAUFFER CHEMICAL PLANT - PASNY SITE DEC No. 932053

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1981).

2. Monitored demolition of former Stauffer Plant (1981 and 1982).

3. Conducted radiation survey with NYSDOH personnel (1981). Levels of 10 to 30 μR/hour found at 1 meter above surface. Samples of subgrade material (slag) delivered to NYS Health Department, Division of Laboratories. Radiation levels ranged up to 75 μR/hour.

4. Accompanied USGS personnel during boring/sampling phase of Niagara River Study (1982).

5. Accompanied USGS personnel during conductivity study as part of Niagara River Study (1982).

6. Participated in meetings with PASNY, DEC and Bechtel regarding proposed groundwater study (1983).

7. Reviewed PASNY/Bechtel groundwater study plan (1983).

8. Observed well boring operation (1983).

9. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. This site is located remotely from any public area. There is no apparent route for public exposure at this time.

2. Migration of contaminants to forebay and therefore Niagara River is possible. Study is underway to evaluate this possibility; however, this is not considered a public health problem at this time.

3. Radioactive slag on site may have to be excavated during construction of proposed PASNY expansion in former plant area. If this slag is exposed, disturbed or removed from the site, suitable precautions will be needed and final disposition of excavated material must be approved.

4. This site should be monitored during major construction operations to be assured that any light organics present (i.e., carbon tetrachloride) are not exposed and volatilized.

NOTE: A profile report is attached.

NIAGARA SANITATION SITE DEC No. 932054

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1981).

2. Performed routine site inspections (1981, 1982, 1983).

3. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

4. Accompanied USGS personnel during conductivity study as part of Niagara River Study (1982).

5. Review USGS Draft Report (1983).

6. Investigated reports that waste excavated from Love Canal in 1978 were disposed of at this site (1983). Follow-up investigations were made.

The Niagara County Health Department has the following concerns regarding this site:

1. This site is used by children as a play area. A potential for direct contact exists. Consideration should be given to restricting access.

2. Additional testing to confirm whether or not contaminants have migrated from the site toward homes on Forbes Street and Terrace.

3. This department considers follow-up at this site to be a high priority.

NOTE: A profile report is attached.

NIAGARA RIVER - BELDEN SITE DEC No. 932055

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. Visible leachate has been seen entering the Niagara River. Direct contact is possible. The site is upstream of Niagara Falls water intakes.

2. Additional data is needed. Follow-up at this site is considered a medium priority.

NOTE: Profile report is attached.

DIBACCO SITE NO. 1 - OLD CREEK BED DEC No. 932056 a.

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1981).

2. Assisted USGS field personnel during sampling for Niagara River Study (1982).

3. Accompanied USGS personnel during conductivity study for Niagara River Study (1982).

4. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. Public exposure to wastes does not appear to be a a significant threat. It is not confirmed whether or not toxic substances are present.

2. More detailed study should be undertaken prior to any further development on this site.

3. If toxics are present, a potential for leaching to Cayuga Creek may exist.

NOTE: A profile report is attached.

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report for site at 3640 Packard Road (address given in 1980 registry). During investigation, no evidence of disposal was found.

2. In 1983, it was learned that 6421 Packard Road is suspected to be the actual location of the Dibacco No. 2 site.

3. Follow-up and profile report for the 6421 Packard Road site are scheduled for 1984.

The Niagara County Health Department has the following concerns regarding this site:

1. No evidence has been found by this department to indicate that toxic substances are present at either 6421 or 3640 Packard Road; therefore, no health hazards are known. However, without sampling and analyses, this cannot be confirmed.

PASNY - ROBERT MOSES PARKWAY DEC No. 932057

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary study and wrote profile report.

The Niagara County Health Department has the following concerns regarding this site:

1. The exact location and type wastes present at this site is unknown. In fact, the actual existence of this site is not confirmed.

2. No assessment of health effects is possible based on the available information.

NOTE: A profile report is attached.

ROSS STEEL COMPANY DEC No. 932058

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

The Niagara County Health Department has the following concerns regarding this site:

1. The actual location of this site is unconfirmed. It is believed to be on the same property as the Basic Carbon site. The concerns expressed for the Basic Carbon site are applicable to this site.

NOTE: A profile report is attached.

GRATWICK RIVERSIDE PARK DEC No. 932060

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation, sampling and wrote profile report (1981).

2. Ordered property owner to remove 35 exposed drums of phenolic waste (1981). Later verified removal.

3. Performed quarterly site inspections for exposed wastes (1982, 1983).

4. Assisted USGS field personnel during sampling and well placement as part of Niagara River Study (1982).

5. Assisted EPA contractor (Weston Associates) to conduct well tests and collect samples (1983).

6. Reviewed USGS Draft Report (1983).

7. Ordered property owner to remove eight additional exposed drums (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. This site is confirmed to contain toxic substances in significant quantities and is used as a public park. This department is very concerned that park users may be exposed to toxic substances. Exposed waste have been previously found and removed. The potential for additional wastes becoming exposed is high due to surface deterioration and shoreline erosion.

2. Groundwater is known to be severely contaminated and appears to flow directly into the Niagara River. This site is upstream of municipal water intakes.

3. Wastes from Hooker/Durez are present at the site. Similar wastes buried on Durez property have been found to contain TCDD compounds. Two previous studies at Gratwick Park have revealed the presence of non-chlorinated dioxins (not TCDD) in groundwater samples from on-site wells. This department feels that testing for TCDD should be done.

4. This department considers follow-up at this site to be of the highest priority.

NOTE: A profile report is attached.

The Niagara County Health Department has been involved with this site as follows:

1. The site has been inspected several times while performing routine inspections at the adjacent SCA facilities.

The Niagara County Health Department has the following concerns regarding this site:

1. Remedial work at this site has been proposed but never completed. This site could be readily exhumed and wastes disposed of in active commercial chemical landfills on the same property operated by SCA.

2. The site is remotely located and possess no apparent public health threat.

The Niagara County Health Department has had no direct involvement with this site.

Due to its apparent remote location with respect to populated areas, no health effects are anticipated.

The Niagara County Health Department has had no direct involvement with this site.

Due to its apparent remote location with respect to populated areas, no health effects are anticipated.

CHARLES GIBSON SITE: DEC No. 932063

The Niagara County Health Department has had no direct involvement with this site. However, based on information available, this department has the following concerns:

1. This site contains toxic substances in significant quantity. The site is near an occupied residence and adjacent to Cayuga Creek. Public exposure is possible.

2. Follow-up at this site is considered a high priority by this department.

LOCKPORT AIR FORCE BASE DEC No. 932064

The Niagara County Health Department has had the following involvement with this site:

1. Inspection and preliminary investigation (1981).

2. Review of private consultants (Enviro Sciences) report of 1981 study and sampling.

The Niagara County Health Department has the following concerns regarding this site:

1. No evidence has been found to indicate that significant quantities of toxic substances are present. No specific rates of exposure or hazards have been found.

2. This department feels that information contained in the Enviro-Sciences report is adequate to conclude that no health impacts are expected.

MT. ST. MARY'S HOSPITAL DEC No. 932065

This department has had no involvement with this site. No information is available.

NATIONAL GRINDING WHEEL DEC No. 932066

The Niagara County Health Department has had the following involvement with this site:

1. Monitored exhumation of waste and subsequent site remediation (1983). Thirteen separate site visits were made.

The Niagara County Health Department has the following concerns regarding this site:

1. This site has received remediation. Waste material has been excavated and transported off site for disposal in a commercial facility. The remedial work was monitored by this department and is considered adequate and complete. There is now no reason to suspect a health problem exists at this site.

LASALLE EXPRESSWAY DEC No. 932067

This department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1982). Since location of this site is given only vaguely in 1980 registry, the profile report is written in generic form for the entire area of the Expressway.

2. Additional information discovered by this department in 1983 indicates that either the actual location of this site is not beneath the LaSalle Expressway as indicated in 1980 registry (but rather is adjacent to the Twin Cities Highway in North Tonawanda) or that possibly two separate sites exist. This department has scheduled follow-up investigation for 1984.

This department has the following concerns regarding this site:

1. Available information is vague and limited. No health assessment is possible at this time.

NOTE: A 1982 profile report is attached.

BOTANICAL GARDENS DEC No. 932068

The Niagara County Health Department has been involved with this site as follows:

1. Preliminary investigation and profile report (1982).

2. Assisted USGS field personnel during sampling for Niagara River Study (1982).

3. Reviewed Draft USGS Report (1983).

The Niagara County Health Department has the following concern regarding this site:

1. This area is used as a public park. There is a potential for public exposure. Previous sampling reports indicate that toxic substances are present.

2. This department feels that follow-up study at this site is needed.

NOTE: A profile report is attached.

ALCLIFF LANDSCAPING DEC No. 932070

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1982).

The Niagara County Health Department has the following concerns regarding this site:

1. No problems are expected if all material previously stored at this site has been removed as claimed by owner. No sampling has been done at this site.

NOTE: A profile report is attached.

DIAMOND SHAMROCK DEC No. 932071

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. There is no evidence of dumping of any material other than coal cinders and boiler ash at this site. None of Diamond Shamrock's process wastes are hazardous. This department does not suspect any health impacts from this site.

NOTE: A profile report is attached.

FLINTKOTE COMPANY DEC No. 932072

The Niagara County Health Department has had the following involvement with this site:

1. Investigated reports of PCB's stored on site (1981 and 1982).

2. Meet with current owner and DEC to discuss possibility of filling remaining area with demolition waste to provide for building expansion (1983).

3. Plan to make formal preliminary investigation and write profile reports in 1984.

The Niagara County Health Department has the following concerns regarding this site:

1. Any PCB waste on site should be removed.

2. Additional information is needed to assess health effects.

NIAGARA MATERIALS COMPANY DEC No. 932073

The Niagara County Health Department has had no involvement with this site. Preliminary investigation is scheduled for 1984.

TOWN OF HARTLAND DEC No. 932075

The Niagara County Health Department has been involved with this site as follows:

1. Preliminary investigation and profile report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. There is no evidence of health impacts from this site; however, analytical results are not available for confirmation.

NOTE: A profile report is attached.

TOWN OF LEWISTON DEC No. 932076

The Niagara County Health Department has been involved with this site as follows:

1. Inspected site (1981).

2. Preliminary investigation and profile report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. There is no evidence indicating potential health effects. There is no known hazardous waste present and the site is in a remote location.

NOTE: A profile report is attached.

TOWN OF LOCKPORT DEC No. 932077

The Niagara County Health Department has had no involvement with this site. Preliminary investigation is scheduled for 1984.

93rd STREET SCHOOL DEC No. 932078

The Niagara County Health Department has had no direct involvement with this site.

ADAMS GENERATING PLANT DEC No. 932079

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983).

4. Investigated reports of material excavated from this site illegally dumped on an adjacent property (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. Material excavated from this site in 1983 must be properly disposed of.

2. This site is not expected to exhibit any significant health effect.

NOTE: A profile report is attached.

BUFFALO AVENUE DEC No. 932080

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed Draft USGS Report (1983).

4. Investigated reports of earth work on this site (1982).

The Niagara County Health Department has the following concerns regarding this site:

1. The site is located adjacent to the City of Niagara Falls(Drinking)Water Treatment Plant. Any effect of this site on the Water Treatment Plant is unknown.

2. Access to this site is not restricted. Public exposure is possible.

3. Additional study is recommended for this site.

NOTE: A profile report is attached.

GRIFFON PARK DEC No. 932081

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

2. Investigated complaints regarding leachate along shoreline (1982). Monitored quarterly thereafter.

3. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

4. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. This site is a public park. Public exposure is possible.

2. Leachate is exposed along the shoreline. Public exposure is again possible. The effect on Niagara River Quality is unknown. The site is upstream of Niagara Falls Water intakes.

3. Additional study is recommended at this site.

NOTE: A profile report is attached.

HYDRAULIC CANAL DEC No. 932082

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

2. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. This site passes beneath and near several buildings. It is not known whether contaminants could migrate laterally into buildings or basements.

2. Adequate information to assess this site is not available.

NOTE: A profile report is attached.

NEW ROAD DEC No. 932083

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1982).

2. Accompanied USGS field personnel during sampling as part of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site.

1. Existing data is not adequate to assess health impacts.

NOTE: A profile report is attached.

97TH STREET METHODIST CHURCH DEC No. 932084

The Niagara County Health Department has had the following involvement with this site:

1. Preliminary investigation and profile report (1982).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. It is noted that this site is located within several hundred feet from the Love Canal. Until an assessment of any effects from the Love Canal on this area can be made, it seems pointless to assess the impacts of this site on the surrounding area.

NOTE: A profile report is attached.

64TH STREET DEC No. 932

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile reports (1982). Note: This site was divided into two separate sites for this purpose called 64th St. North and 64th St. South.

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. Existing data is inadequate to make health assessments of this area.

2. Follow-up at this site is considered a low priority.

RODEWAY INN/LASALLE YACHT CLUB DEC No. 932086

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. Existing data is inadequate to assess impacts of this site.

2. The site is located adjacent to the Niagara River upstream of the Niagara Falls Drinking Water intakes.

3. This department considers follow-up at this site to be a low priority.

NOTE: A profile report is attached.

ST. MARY'S SCHOOL AND BISHOP DUFFY SCHOOL DEC No. 932087

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983).

4. Investigated area south of listed site (proposed location of I-190 LaSalle Expressway Interchange). No evidence of disposal activity found here (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. Available data is inadequate to assess impacts from this site.

2. This department considers follow-up at this site a medium priority.

WHIRLPOOL SITE: DEC No. 932088

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Discovered that actual location of site was not location sampled in 1982. Actual location is at bottom of gorge and below water level at times (1983).

The Niagara County Health Department has the following concerns for this site:

1. There are no apparent effects considered possible from this site.

2. No follow-up is considered necessary from a public health point of view.

NOTE: A profile report (1982) is not attached.

POWER AUTHORITY ROAD SITE DEC No. 932091

The Niagara County Health Department has been involved with this site as follows:

1. Preliminary investigation and profile report.

The Niagara County Health Department has the following concerns regarding this site:

1. There are no known hazardous wastes at this site.
2. Due to the remote location of this site, public exposure is considered unlikely.

NOTE: A profile report is attached.

SILBERGELD JUNKYARD DEC No. 932093

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

2. Accompanied USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. The available analytical data is incomplete to assess the potential health effects of this site.

2. Available data has shown no contamination.

3. Should future development be considered for this area, additional testing may be necessary.

NOTE: A profile report is attached.

WALMORE ROAD DEC No. 932094

The Niagara County Health Department has been involved with this site as follows:

1. Inspected and researched history of site at request of potential purchaser of property (1981).

2. Performed preliminary investigation and wrote profile report (1982).

The Niagara County Health Department has the following concerns regarding this site:

1. There is no evidence that toxic substances are present. 1982 DEC sample results show no significant contamination.

2. This department considers follow-up at this site to be a low priority.

A profile report is attached.

SKW ALLOYS (AIRCO ALLOYS) DEC No. 932001

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1983).

2. Inspected active landfills on property operated by Airco Carbon and SKW Alloys. Both are under 360 permits (1983).

3. Reviewed monitoring data, plans and permits for active sites (1983).

4. Reviewed Draft USGS report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. This site is remotely located and not publicly accessible. Active landfills handle essentially inert material. Public health impacts from this site are considered unlikely.

NOTE: A profile report is attached.

BELL AEROSPACE - AIR FORCE PLANT NO. 38 DEC No. 932005

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1983). Note: Plant was no longer operating at that time.

The Niagara County Health Department has the following concerns regarding this site:

1. No formal disposal area was found. Site believed to have been a storage area for liquid waste awaiting incineration on-site. Incinerator is no longer used.

2. The former storage area and incinerator are remotely located and in restricted areas. No health effects are anticipated.

NOTE: A profile report is attached.

LYNCH PARK DEC No. 932006

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study.

3. Reviewed USGS Draft Report.

The Niagara County Health Department has the following concerns regarding this site:

1. There is no evidence of toxic substances present at this site; however, existing data is inadequate to verify this.

2. The site is publically accessible and may be developed in the future. The presence or absence of toxic substances should be verified prior to any development.

3. Additional follow-up at this time is given a low priority.

NOTE: A profile report is attached.

DIVERSIFIED MANUFACTURING DEC No. 932011

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1982).

The Niagara County Health Department has the following concerns regarding this site:

1. No landfill was found here, only a site where oil was only applied to a parking lot for dust control. Since the practice has been stopped, no problems are anticipated.

A profile report is attached.

DUSSAULT FOUNDRY DEC No. 932012

The Niagara County Health Department has been involved with this site as follows:

1. Participated in meetings with DEC and Dussault regarding 360 application (1981).

2. Reviewed Dussault's application and plans (1981).

3. Inspected facility (1981 and 1983).

The Niagara County Health Department has the following concerns with this site:

1. Phenol level in the sand is apparently very low. Quantities generated are not considered large.

2. No health effects are considered likely.

3. If Dussault plans to have sand removed at a future time for use as structural fill, Health Department should evaluate acceptability of this material for intended purpose.

FRONTIER BRONZE DEC No. 932015

The Niagara County Health Department has had the following involvement with this site:

1. Performed site inspections at request of DEC (1982).

2. Performed preliminary investigation and wrote profile report (1982).

3. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

4. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. No disposal site has been found at this location. The former storage area is no longer used. All waste material has apparently been removed. No health effects are anticipated.

NOTE: A profile report is attached.

HARRISON RADIATOR DEC No. 932017

The Niagara County Health Department has been involved with this site as follows:

1. Site is inspected quarterly.

2. Participated in meetings with Harrison and DEC regarding status of facility.

The Niagara County Health Department has the following concerns regarding this site:

1. All waste and leachate is apparently confined to Harrison property. No route of public exposure is suspected.

NIAGARA FALLS STORAGE SITE, USDOE DEC No. 932023

The Niagara County Health Department has been involved with this site as follows:

1. Inspected remedial work (1982 - 1983). These inspections were for purposes of observation only since this department does not have a direct jurisdiction regarding this project.

2. Participated in various citizens committees involved with various aspects of the project and future site usage.

The Niagara County Health Department has the following concerns regarding this site:

1. The information currently available to this department is inadequate to evaluate any potential risks or exposures from this site.

LOCKPORT RDA (NCSWA) DEC No. 932024

The Niagara County Health Department has had the following involvement with this site:

1. Monthly inspections of active areas of landfill.

2. Inspections of construction activities as needed.

3. Reviewed plans, applications, monitoring reports and correspondence.

4. Participated in meetings with DEC and NCSWA.

The Niagara County Health Department has the following concerns regarding this site:

1. Although some industrial waste is present, this site is essentially considered a municipal landfill.

2. No effects are expected from this site.

MODERN DISPOSAL SERVICES, INC. DEC No. 932025

The Niagara County Health Department has had the following involvement with this site:

1. Performed monthly inspections.

2. Participated in meetings with Modern and DEC.

3. Reviewed plans and correspondence related to this site.

The Niagara County Health Department has the following concerns regarding this site:

1. Although considerable volumes of industrial waste are present, no hazardous waste is known to be present.

2. If toxic substances were present, public exposure would not seem likely.

3. The site is now being closed. If site is closed properly, exposure rates are minimized.

GUTERL STEEL DEC No. 932032

The Niagara County Health Department has been involved with this site as follows:

1. Inspected site in 1981 and 1983.

The Niagara County Health Department has the following concerns regarding this site:

1. Although no apparent health problems have been found, the site remains improperly closed.

UNION CARBIDE - CARBON PRODUCTS DIVISION DEC No. 932035

The Niagara County Health Department has been involved with this site as follows:

1. Performed monthly inspections.

2. Reviewed correspondence (UC AND DEC) and monitoring reports.

The Niagara County Health Department has the following concerns regarding this site:

1. Several citizens complaints (dust) have been received. None have been confirmed or documented.

2. Routine inspections over the last three years have not found significant problems.

The Niagara County Health Department has been involved with this site as follows:

1. Inspected site monthly until closure in 1982; quarterly thereafter.
2. Participated in meetings with DEC and VanDeMark.
3. Inspected Somerset Railroad cut adjacent to landfill (1982 and 1983).
4. Will inspect closure activity and monitoring well installation as needed (1983 and 1984).

The Niagara County Health Department has the following concerns regarding this site:

1. Inadequate information is available to assess the impacts of this site; however, plans have been submitted for improved monitoring.
2. The railroad cut adjacent to the site should be monitored for possible seepage.
3. No health effects are known at this time; however, site must be monitored.

CARBORUNDUM GLOBAR DEC No. 932036

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

The Niagara County Health Department has the following concerns regarding this site:

1. No permanent disposal area has been found. No health problems are anticipated.

NOTE: A profile report is attached.

NIAGARA RECYCLING (NEWCO) DEC No. 932042

The Niagara County Health Department has had the following involvement with this site:

1. Inspected twice a month or more over the last three years.

2. Investigated numerous citizens complaints, primarily regarding odors. Forwarded at least three legal referrals for enforcement action since 1981.

3. Participated in meetings with Newco and DEC.

4. Reviewed engineering reports, plans, applications, and other documents related to this site.

The Niagara County Health Department has the following concerns regarding this site:

1. Past history shows numerous off-site odor problems.

2. Health effects are unknown.

The Niagara County Health Department has had the following involvement with this site:

1. Routine inspections made monthly.

2. Investigated numerous citizen complaints primarily regarding off-site odors and spills from vehicles proceeding to or from site.

3. Responded to incidents reported by SCA such as on-site spills, etc.

4. Participated in meetings with SCA and DEC.

5. Reviewed plans, applications, DEIS and other reports as well as routine correspondence relating to this site.

The Niagara County Health Department has the following concerns regarding this site:

1. No health effects related to this site have been identified; however, due to the large wastes volumes, on-site continued monitoring is necessary.

2. Odors from this site have caused nuisance problems in the past. Corrective measures taken and proposed by the firm are expected to reduce problems; however, this situation must be monitored.

The Niagara County Health Department has been involved with this site as follows:

1. Routine monthly inspections.
2. Have investigated complaints, primarily regarding off-site odors.
3. Have investigated on-site spills and spills from vehicles on route to site.
4. Have participated in meetings with DEC and CECOS.
5. Have reviewed various plans, applications and correspondence relating to this site.

The Niagara County Health Department has the following concerns regarding this site:

1. No health effects have been documented; however, due to the large waste volumes present, continued monitoring is necessary.

The Niagara County Health Department has had no direct involvement with this site. The site is located on industrial property away from drinking water sources or populated areas.

BELL AEROSPACE - TEXTRON DEC No. 932052

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1981).

2. Accompanied USGS field party during boring/sampling phase of Niagara River (1982).

3. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. This site is located remotely from populated areas, surface water or drinking water sources. The site is on plant property and is restricted. No health effects are therefore anticipated.

A profile report is attached.

ROBLIN STEEL DEC No. 932059

The Niagara County Health Department has had the following involvement with this site:

1. Performed preliminary investigation and wrote profile report (1982).

The Niagara County Health Department has the following concerns regarding this site:

1. This site is located on plant property and is located remotely from populated areas, surface water and drinking water sources. No potential routes of public exposure have been identified. No health effects are anticipated.

A profile report is attached.

HARVEY NEWMAN AND SON DEC No. 932062

The Niagara County Health Department has been involved with this site as follows:

1. Inspected site (1982).

2. Preliminary investigation and profile report (1983).

The Niagara County Health Department has the following concerns regarding this site.

1. No evidence has been found which would indicate that toxic substances are present.

2. No health effects are anticipated.

A profile report is attached.

WILSON-CAMBRIA-NEWFANE SITE DEC No. 932069

The Niagara County Health Department has been involved with this site as follows:

1. Inspects site monthly.

2. Responded to several citizens complaints regarding this site.

3. Forwarded legal referral to DEC regarding violations of Part 360 (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. Site is not properly operated. Site must be either upgraded or properly closed.

2. Health effects are unknown at this time.

JT SALVAGE No DEC No.

The Niagara County Health Department has been involved with this site as follows:

1. Inspected site (1981).

2. Performed preliminary investigation and wrote profile report (1982).

The Niagara County Health Department has the following concerns regarding this site:

1. No health problems are anticipated since no hazardous waste is expected to be present.

NOTE: A profile report is attached.

TOWN OF NIAGARA DEC No. 932089

The Niagara County Health Department has been involved with this site as follows:

1. Site is inspected monthly.

2. Performed preliminary investigation and wrote profile report (1982).

3. Participated in meetings with Town and DEC prior to renewal of Part 360 Permit.

The Niagara County Health Department has the following concerns regarding this site:

1. No toxic substances are known to be present. The site is currently active only to a limited extent.

2. No health effects are anticipated.

NOTE: A profile report is attached.

NIAGARA FRONTIER TRANSIT AUTHORITY DEC No. 932090

The Niagara County Health Department has been involved with this site as follows:

1. Performed preliminary investigation and wrote profile report (1982).

2. Assisted USGS field personnel during boring/sampling phase of Niagara River Study (1982).

3. Reviewed USGS Draft Report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. Access to this site is restricted. No residences are located nearby. The only potential route for public contact would be via Cayuga Creek.

2. No health effects are anticipated.

NOTE: A profile report is attached.

TOWN OF ROYALTON DEC No. 932092

The Niagara County Health Department has been involved with this site as follows:

1. Site has been inspected monthly (will change to quarterly in 1984).

2. Performed preliminary investigation and wrote profile report (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. No health effects are anticipated.

NOTE: A profile report is attached.

SOLVENT CHEMICAL COMPANY No DEC No.

The Niagara County Health Department has had no involvement with this site except for inspections of active warehouse and storage facilities on site.

FOREST GLEN SUBDIVISION No DEC No.

The Niagara County Health Department has been involved with this site as follows:

1. Investigated citizens complaint regarding possible toxic waste (resins) exposed on their property. Ordered property decontaminated (1980).

2. Investigated report of steel drums and white solid material being encountered in excavation by National Fuel Gas, Inc. (1981). Waste material was found to be PVC plastic dust.

3. Investigated "jelly-like" seepage reported by property owner. Substance not believed to be toxic (1982).

4. Performed thorough investigation of site history, examined aerial photographs, compiled existing data, wrote profile report (1982).

5. Requested that DEC include this site in Registry (1983).

The Niagara County Health Department has the following concerns regarding this site:

1. A residential mobile home subdivision is located directly atop this site. If toxic substances are present, a potential for exposure exists.

2. Additional information is needed to evaluate this site.

NOTE: A profile report is attached.

SECTION 2

AN INVESTIGATION OF SELECTED INACTIVE TOXIC LANDFILLS IN CONJUNCTION WITH THE NIAGARA STUDY (PROFILE REPORTS FOR FIFTEEN SITES) - 1981

PRELIMINARY REPORT

AN INVESTIGATION OF SELECTED INACTIVE TOXIC LANDFILLS IN CONJUNCTION WITH THE NIAGARA RIVER STUDY

August 1981

INTRODUCTION

The purpose of the investigation of the selected inactive landfill sites within Niagara County is to expand the data base and the historical information, in order to project and possibly formulate some reasonable risk assessments. The sites to be investigated were selected by the New York State Department of Environmental Conservation because of their close proximity to the Niagara River. The Niagara County Health Department, as part of its contractual agreement with the New York State Department of Environmental Conservation, has prepared this report.

The study has its roots in the events of the recent past years concerning the poor past practices involving solid waste disposal. Because the public's attention was brought to focus upon these practices, statutory authority was given to the Departments of Health and Environmental Conservation to conduct annual inspections of old landfill sites; the rationale for this program being sound preventive public health.

Specifically, the Niagara County Health Department assigned Mr. Michael Hopkins, Assistant Public Health Engineer and Mr. Richard Abbott, Supervising Technician, to work under Mr. Maurice N. Vaughan's Supervising Public Health Sanitarian guidance. The site investigations were conducted during the month of June, 1981 by Messrs. Hopkins, Abbott and Vaughan. The results of the visible observations have been integrated with previously known information, interview of owner/operator and various reference material readily available concerning ground water and soil characteristics within the County.

Samples were taken at landfill sites where the investigation indicated that contaminants had a pathway to migrate off site. When sample reports become available, they will be integrated into the report.

The Department is grateful to all the parties who extended cooperation during this project.

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NAME OF LANDFILL

AIRCO SPEER CARBON - GRAPHITE (DEC #932002)

LOCATION

4861 Packard Road at 47th Street
Niagara Falls, New York 14302

OWNERSHIP

The site is currently owned by Airco Speer Carbon - Graphite.

PREVIOUS OWNERSHIP

The site was owned prior to 1930 by the International Graphite and Electrode Company. In 1930, the Speer Carbon Company purchased a 50 percent interest in the facility and assumed full ownership in 1932. Speer Carbon became a subsidiary of Airco in 1961 and a division in 1962. Airco became a subsidiary of BOC International in 1978.

HISTORY

Prior to 1930, International Graphite and Electrode disposed of its own wastes on this site. No information has been found to identify the type or quantity of wastes disposed of during this period. It appears likely that the wastes generated prior to 1930 would be similar to the wastes generated after 1930 by the Speer Carbon Company.

From 1930 to 1954, the Speer Carbon Company generated the following wastes: furnace insulation, refractories and sand (28,000 to 144,000 cubic yards), carbon materials, obsolete equipment, linseed oil, coal tar chemicals, and asbestos fiber (7 tons).

These materials were disposed of on site. The exact limits of the disposal area are not known. Wastes may be buried in the area beneath Graphite Plants 2, 3 and 4 and Bake Plants 1, 3 and 4. Other areas may also contain wastes. The site was filled to capacity by 1954.

From 1954 to 1964, the same wastes were hauled to the Union Carbide dump in Niagara Falls now operated by Newco Waste Systems. From 1964 to 1972, Modern Disposal Services hauled wastes and tar to its Model City site. From 1972, A. Cerrone and Niagara Sanitation have hauled all wastes to Newco. Currently, wastes are removed by Modern Disposal.

INVESTIGATION

Historical information was extracted from DEC Hazardous Waste Disposal Site Directory and interviews with company personnel.

INVESTIGATION (continued)

A site visit was made by Mr. M. Hopkins of the Niagara County Health Department on June 16, 1981. From this visit it was noted that nearly the entire surface of the site was either paved with asphalt concrete, had plant buildings on it or appeared otherwise impervious. All runoff is channelled through roof drains or by the pavement to the city sewer system. A large portion of the site is built on filled areas to a depth of about 8 feet above the surrounding topography. An interview with Mr. Scott Danskin, Pollution Control Engineer for Airco Speer Carbon - Graphite, neither confirmed the exact location of the disposal sites, nor their contents.

Examination of USDA aerial photographs (1958) showed Graphite Plants 2, 3, 4 and 5 and Bake Plants 1, 2 and 3 in place at that time. Further investigation showed that these buildings were built from 1939 to 1956 in respective order given above. This being the case, it would seem likely that the disposal area was filled roughly from north to south. It was also noted from the USDA photograph that a pond occupied much of the area beneath what is now Graphite Plant No. 6. Mr. Scott Danskin has stated that Plant No. 6 was said to be built on clean fill.

SOIL

The site is built on a filled area of unknown composition although it appeared to contain large amounts of carbon particles and fines. Much of the site is said to be built on clean fill.

From information extrapolated from surrounding areas, it appears likely that the soil beneath the fill is either a Canandaigua or Odessa series lake-laid silt-clay. Both these soils are poorly drained and deep (>6 feet). Both exhibit a profile of silty clay loam over clay. The permeability of the surface layer ranges from 0.2 to 0.63 in/hr while the subsurface is relatively impervious at <0.2 in/hr. In addition, the soil beneath the fill is likely to have been consolidated by the additional surcharge load of the fill and structures.

GEOLOGICAL GROUNDWATER INFORMATION

Bedrock consists of Lockport Dolomite to a depth of about 140 feet. A layer of glacial till may be found above the Dolomite. Lockport Dolomite characteristically contains several water bearing zones; however, these may be 30 feet to 40 feet or more below the surface. A perched water table may exist above the clay layer of either Canandaigua or Odessa soils, accounting for a possible seasonal high water table of less than 6 inches below the surface. This water may disappear completely in the summer. However, the site is built on filled material and most of the wastes are likely to be above this level.

CONCLUSIONS

The potential for migration of hazardous substances from the site is small. This is evidenced by the small amount of hazardous material suspected to be present, the suspected location of most of the

CONCLUSIONS (continued)

wastes above the normal seasonal high water table and that runoff is channelled to the sewer system by the impervious surface. In addition, there are no residences or bodies of surface water adjacent to this site.

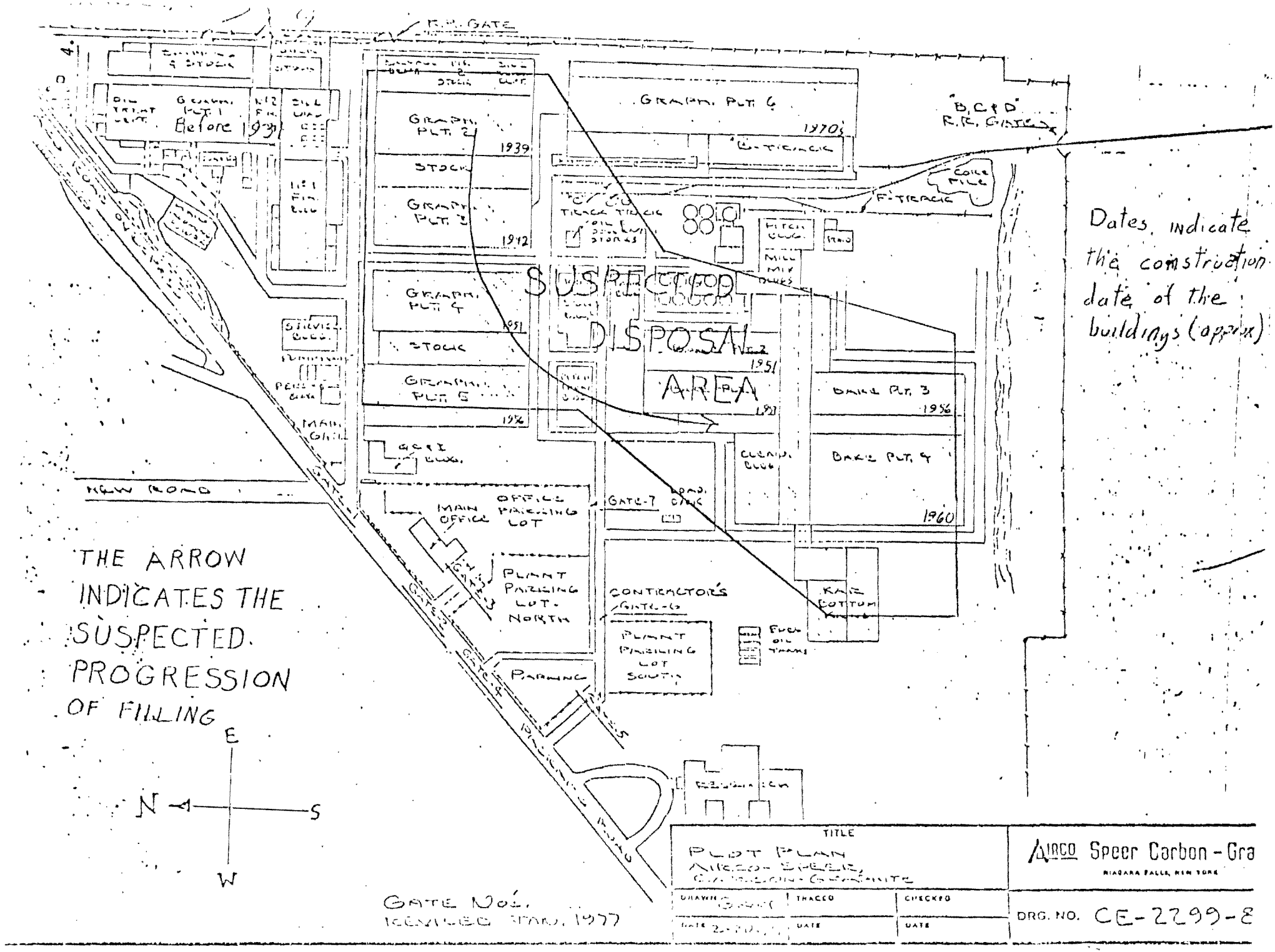
There is no possibility of asbestos becoming airborne at this time as the surface is paved and built upon.

SAMPLING

Samples were not taken from this site. Sampling was not recommended at this site on the grounds that the potential for migration of toxins from the site is small. If future samples are to be taken, they should be obtained from low areas around perimeter of site, preferably around all sides of the site as the direction of groundwater flow is not precisely known. Parameters for such analysis should include coal tar chemicals.

RECOMMENDATIONS

Periodic inspection of the side slopes of filled areas is recommended for signs of leachate. Care should be exercised in excavating any of the filled material not to expose asbestos material or allow water to enter the fill.


R.R. GATE
GRAPH. PLT. 1
Before 1939
GRAPH. PLT. 2
1939
STOCK
GRAPH. PLT. 3
1942
GRAPH. PLT. 4
1951
STOCK
GRAPH. PLT. 5
1956
GRAPH. PLT. 6
1970's
B-TRACK
"B,C&D" R.R. GATE
CORE PILE
F-TRACK
TRACK TRACK
PITCH BLDG.
MILL MIX BLDGS
SUSPECTED DISPOSAL AREA
1951
BAKE PLT. 3
1956
BAKE PLT. 4
1960
CLEAN. BLDG.
GATE-7
LOAD. DOCK
MAIN OFFICE
OFFICE PARKING LOT
PLANT PARKING LOT-NORTH
CONTRACTOR'S GATE-6
PLANT PARKING LOT SOUTH
FUEL OIL TANKS
KAR BOTTOM
PARKING
NEW ROAD
MAIN GATE
GATE-1
GATE-2
GATE-3
GATE-4
GATE-5
GATE-6
GATE-7
Dates indicate the construction date of the buildings (approx)
THE ARROW INDICATES THE SUSPECTED PROGRESSION OF FILLING
E
N
S
W
GATE NO. 1
REVISED JAN. 1977
TITLE
PLOT PLAN
AIRCO-SPEER, CARBON-GRAPHITE
AIRCO Speer Carbon-Gra
NIAGARA FALLS, NEW YORK
DRAWN
TRACED
CHECKED
DATE
DATE
DATE
DRG. NO. CE-2299-8

NAME OF LANDFILL

NIAGARA SANITATION COMPANY (DEC #932054)

LOCATION Nash Road, Town of Wheatfield

The site is estimated to be about seven acres in size and located north of the Niagara Mohawk easement which straddles the North Tonawanda - Wheatfield town line. The site extends from the eastern end of the access road running from Nash Road approximately 350 yards east to the fork in the power easement (Tower #365). The site is estimated to be 120 yards wide at the western end tapering to about 70 yards wide at the eastern end.

The landfill location and extent are shown on the attached drawing.

OWNERSHIP

The property is owned by the Town of Wheatfield.

HISTORY

This landfill was used by the Niagara Sanitation Company for waste disposal from 1964 to 1968. The refuse site was used for both industrial and municipal refuse. The site received refuse from Niagara Falls Air Force Base, Bell Aerospace, Carborundum, Frontier Chemical, Graphite Specialties, Continental Can and Grief Bros. Wastes disposed of may include caustics, plating tank sludge and municipal wastes.

Historical information was obtained from Hazardous Waste Disposal Sites in New York State, Volume 3, NYS DEC.

INVESTIGATION

A site visit was made by Mr. M.E. Hopkins of the Niagara County Health Department on June 11, 1981. The site was found to be poorly covered with protruding refuse. Visible items included rubber blocks, tubes and hoses, tires, concrete fragments and other demolition debris, broken glass, ash, wood, rusted cans and pieces of graphite rods. Also found were what appeared to be remnants of steel drums. There was evidence of some unauthorized dumping after the site was closed. Access to the site was not restricted.

Red-brown (rust-colored) stains were found on vegetation and soil in numerous locations around the perimeter of the site, particularly along the northern and western edges. Additional stained areas were found throughout the marshes and other low points within the site. Although most of these stained areas were dry, two areas were found beneath standing water. It was noted that although the ground was stained beneath the water, the water was not discolored. No flowing leachate streams were found. The sampling well was not found on the June 11th visit. A well was found on June19th on a subsequent visit. The well was located 20 feet east of Niagara Mohawk Tower #363. The location is shown on the attached drawing. The well had apparently been

INVESTIGATION (continued)

vandalized. The upper standpipe had been broken off at ground level and the well had, therefore, been left uncovered. The well may still be useable for sampling.

No evidence of landfill activity was noted east of Niagara Mohawk Tower #365. However, USDA aerial photographs (ARE 3V-75;1966) indicate that the landfilled area may extend 300 to 400 ft. east of Tower #365.

SOILS

The soils surrounding the site are Raynham and Canandaigua series soils. The composition of the soil contained with the site itself is not known, although it is expected to be largely composed of refuse. The surface is generally a silty clay material with some sand in spots. Portions of the site are marshy while others appear well drained, indicating that the soil may not be uniform throughout the site. Boring records of the sampling well immediately south of the site, indicate a profile of silty sand and sandy silt to a depth of about 9 feet over clay to an unknown depth. The records also show the water table at 4 feet. This suggests that the water table may be perched. Fluctuations of the water table are not known.

CONCLUSIONS

The potential for the migration of contaminants off-site is present. Visible leachate stains and the odor in the well south of the landfill indicate that material may be leaching in perched groundwater. Permeable soils in some areas could allow lateral migration. The site requires proper closing. The proximity of houses along Forbes Road and potential for migration justify sampling at this site.

SAMPLING

Well and soil samples were taken for THO, heavy metals and phenol analysis. It was noted at the time of sampling, that the water drawn from the well was discolored gray and strongly odorous with an organic odor. A slight oily sheen was present on the surface of the sample. Two soil samples were taken near Towers #364 and #365. These samples were taken from the bottoms of hand augered holes roughly 4 feet deep. The boring near pole #364 indicated a gray silt over a darker gray silty clay layer at the point of sampling. The second boring showed a tan silty clay over clay at about 4 feet. The sample was taken from this interface. Groundwater was encountered slightly below the 4 foot level in both holes.

RECOMMENDATIONS

This site must be properly closed. Additional sampling wells along the Niagara Mohawk easement would be desireable to facilitate future sampling. The existing well should be maintained. Annual inspection and periodic monitoring is recommended. The Town of Wheatfield was notified to submit an abatement plan for the site.

NIAGARA SANITATION NASH ROAD SITE (DEC # 932054)

Approx. Scale
1: 3600
(All distances estimated)

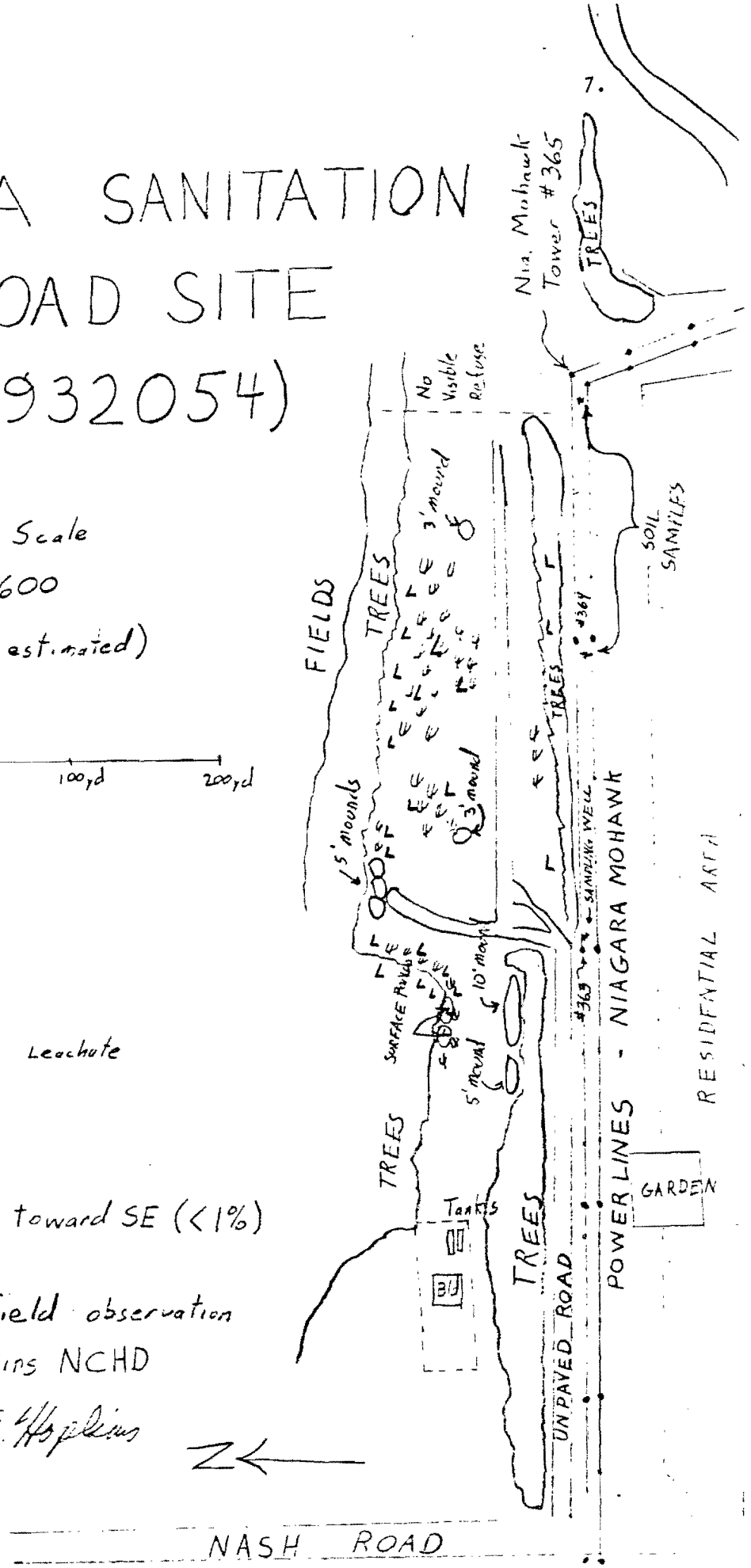
25 50 75
100yd 0 100yd 200yd

- Marsh Area
- Treeline
- Powerlines
- L - Red-Brown Leachate stains

Slope - downward toward SE (<1%)

Mapped from field observation only by M. Hopkins NCHD

Michael E. Hopkins



NAME OF LANDFILL

GREAT LAKES CARBON (DEC #932016)

LOCATION

5600 Pine Avenue
Niagara Falls, New York 14302 (P.O. Box 667)

The disposal site is an area of approximately 7 acres located north of Pine Avenue, roughly between plant buildings 103 and 238. The site is adjacent to a creek which runs north to south and splits the Great Lakes property.

The attached drawing shows the location of the disposal site and the creek.

OWNERSHIP

The site is currently owned by the Great Lakes Carbon Corporation.

HISTORY

Great Lakes Carbon used this area to dispose of their own wastes from the time operations began in 1939 until 1966. Land use previous to 1939 is not known. Wastes disposed of on-site are suspected to include carbon graphite, coal dust, carbon fines, brick concrete, charred wood, sand, electrodes, block graphite and solid pitch mold stock. The quantity of wastes disposed of on-site is not known. This area is now used as a stock storage area.

Examination of 1958 and 1966 USDA aerial photos indicate that landfilling operations were in progress at this time.

Since 1966, wastes have been hauled off-site for disposal. Wastes are currently removed by Modern Disposal Inc.

Historical information was extracted from the DEC Hazardous Waste Disposal Site Directory and verified by company personnel.

INVESTIGATION

A site visit was made by Mr. M.E. Hopkins of the Niagara County Health Department on June 12, 1981. The site was found to be a filled area, roughly 5 feet higher than the surrounding topography. The surface consisted of carbon particles, fines, and sand. It appeared a large portion of the fill may be composed of this same material. The surface was graded, compacted and very firm. There is no internal drainage in the filled area. I was told by Randy Kaczynski, Senior Process Engineer of Great Lakes Carbon, that he felt that all water runs off the surface into the perimeter ditches and the creek. The permeability of the surface is not known.

INVESTIGATION (continued)

No signs of leachate were found along the site perimeter, and the outlet of an underground drain south of the fill was dry and showed no signs of leachate at this time. An interview with Mr. Randy Kaczynski did not confirm the types or amounts of waste present, but he suspected that the wastes were mainly damaged products, carbon particles and sand.

SOILS

The exact composition of the fill material is unknown, although it is likely to be composed of carbon particles, sand and unknown amounts of other materials.

From information contained in the USDA SCS Soil Survey for Niagara County, NY for surrounding areas, it seems likely that the soil beneath the fill is either a Canandaigua or Odessa series soil. Both of these soils show a profile of silty clay loam over clay. Either may contain a seasonal perched water table above the clay. This perched water table may be as high as 0 to 6 inches below the surface and is likely to disappear in the summer. The marshy areas around the site indicate a high water table, although little standing water was seen. Since the fill seems to be composed largely of the wastes themselves, much of the total volume of the waste should be above this water table.

GEOLOGICAL INFORMATION

Bedrock consists of Lockport Dolomite to a depth of about 140 feet. Lockport Dolomite characteristically contains several waterbearing zones, although these are likely to be 40 feet or more below the surface. The direction of groundwater flow could not be determined. A layer of glacial till may separate the surface soils from the Dolomite.

Geological information was extracted from Groundwater in the Niagara Falls, NY Area by Mr. Richard Johnston (USGS).

CONCLUSIONS

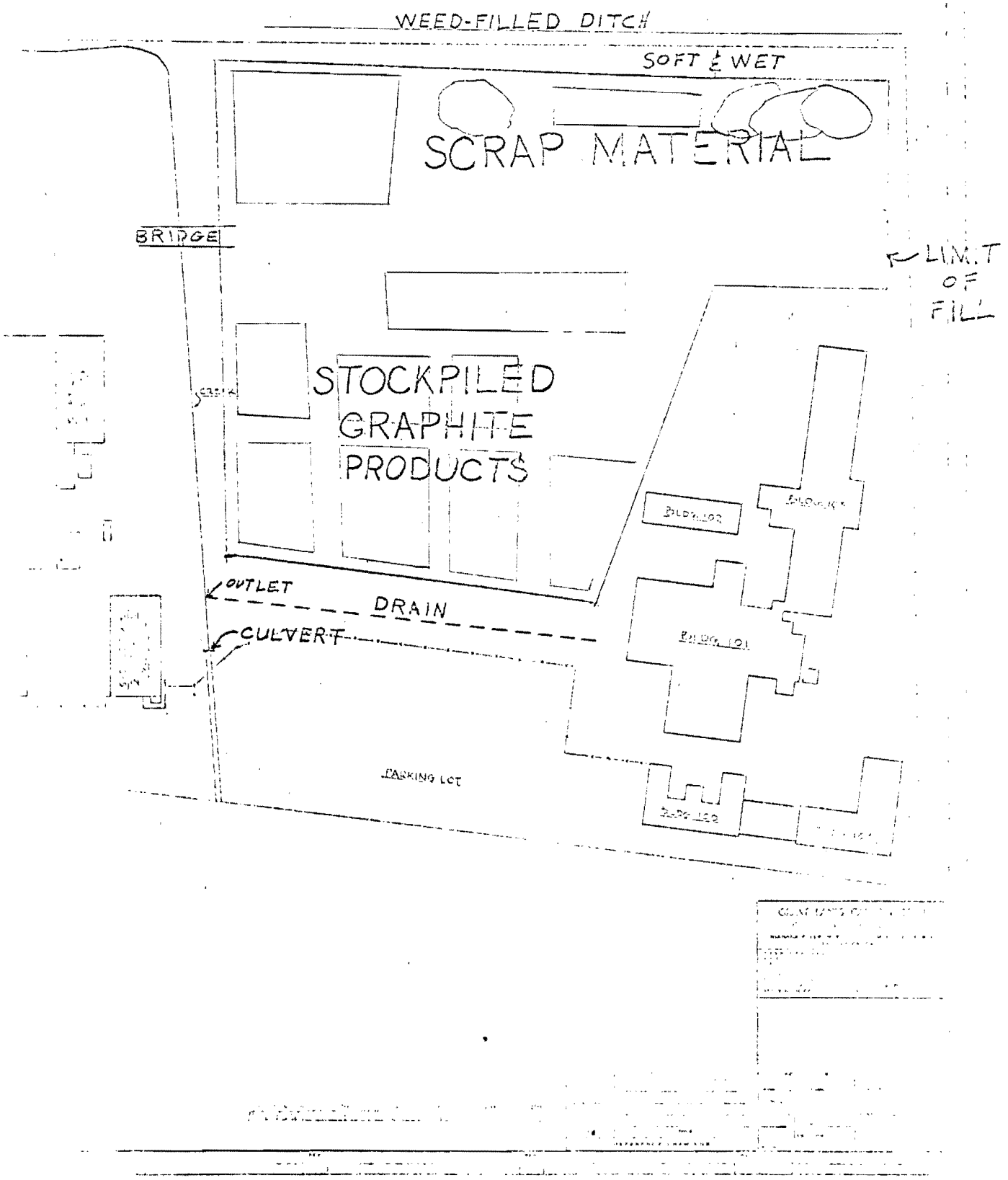
The potential for migration of hazardous wastes from this site exists, although it appears to be minimal. The landfill is suspected to contain only small quantities of toxic substances and the waste material is likely to be above seasonal high water level. There is a possibility for contamination of the creek.

SAMPLING

No sampling was performed by this department. This decision was made after considering the difficulty in obtaining a representative sample and the low potential for migration. If future sampling is desired, samples should be taken from the creek side of the fill and possibly from the creek itself.

RECOMMENDATIONS

Annual inspections of this site are recommended. Attention should be given to the side slopes of the fill to detect visible leachate signs.


WEED-FILLED DITCH
SOFT & WET
SCRAP MATERIAL
BRIDGE
LIMIT OF FILL
STOCKPILED GRAPHITE PRODUCTS
OUTLET
DRAIN
CULVERT
PARKING LOT

NAME OF LANDFILL

DIBACCO SITE (DEC #932056-A)

LOCATION OF SITE

On the southside of Porter Road behind 9115 Porter Road, Town of Niagara, the area where the dumping took place is referred to as the "Old Creek Bed". This is a low area at which one time was the flow route for Cayuga Creek before the route was altered to the east.

OWNER

The owner at the time of landfilling to present:

Michigan Mayne Realty
1305 Delaware Avenue
Buffalo, NY

HISTORY

The site was utilized by Apex Salvage Company of Niagara Falls in August, 1977 as a landfill site for demolition material. Apex Salvage had a contract with Carborundum Company during this period to haul the debris from the Carborundum Warehouse on Lendell Road, Town of Wheatfield, which had resulted from a fire.

The debris consisted of Carborundum products such as fiberfax insulation, grinding wheels, sandpaper, heating elements, abrasive grains and some inconel metal and stainless steel studs. The fiberfax insulation, grinding wheels, sandpaper heating elements and abrasive grains are composed of either/or a combination of silica, alumina and silicon carbide.

Apex Salvage Company also hauled building debris from International Paper Company, Kenmore,NY to this site. Hooker Chemical was believed to have dumped some hexachlocyctopentadiene (C-56) catalyst at this site also, but the quantity is unknown. Information extracted from Hazardous Waste Disposal Sites, 1980.

INVESTIGATION

A site investigation of the landfill site known as DiBacco - "Old Creek Bed" was conducted on June 24, 1981.

The ground area of the site is on a consistent grade with the surrounding area. The slope of the land is towards the southeast and southwest. The approximate slope grade in the southeast area is 1:1 and 1:2. This area leads to Cayuga Creek and the "Old Creek Bed". The southwest slope is gradual and a dirt path in this area leads to Disney Drive. There are also numerous piles of wood, stones, broken pavement and tires that have been randomly dumped.

INVESTIGATION (continued)

The area of the landfill is landlocked and the owners do not have a right of way to gain access to the property. The landfill is bordered by Cayuga Creek to the east, trees and undergrowth in the "Old Creek Bed" to the south, a treeline which is to the southwest and a wire fence, which encloses the gas station and residential home known as 9115 Porter Road to the north.

An interview was conducted with Walter Fellon, the owner of 9115 Porter Road. This gentleman has been located at this address for nineteen years.

Approximately twelve years ago, work was being done on Cayuga Creek and the flow was inadvertently altered to a more direct southern route. This created a low wetland area known now as the "Old Creek Bed".

In August of 1977, Carborundum Company contracted with Apex Salvage Company to haul material from their Lendell Road, Town of Wheatfield warehouse, which had resulted from a fire; Mr. Walter Fellon also stated that Hooker Chemical dumped what he thought was fly ash in this same general time span.

The major dumping area was probably done on the elevated areq above the "Old Creek Bed" and then pushed into the lower areas. The Town of Niagara in 1978 prohibited any further dumping to take place in this area. The area was then graded and clay from a road excavation project was placed over the landfilled material.

The area behind the residential house is bordering the current creek bank and in one area a portion of the landfill is the creek bank. Visible signs of leachate were not seen at this time, but it is possible that it could be entering the creek by way of surface runoff and high seasonal water tables.

The random piles of rubbish currently visible is the result of fugitive dumping that has occurred in the last three to four years. The dumpers use the dirt roadway that leads from Disney Drive to gain access to the property.

SOIL

The area of the "Old Creek Bed" consists of Lakemont silty clay loam and the elevated brodering area consists of Odessa silty clay loam.

The Lakemont Series has a seasonal high water table at or just under the surface early in the Spring and in other excessively wet periods. Lakemont soils, which are not artifically drained are usually ponded during wet periods because of their position in the landscape and their slowly permeable subsoil.

SOIL (continued)

The Odessa silty clay loam also has a high water table 6 - 12 inches below the surface early in the Spring and in excessively wet periods. The water table usually is perched above the slowly permeable subsoil and substratum.

GROUNDWATER - GEOLOGICAL

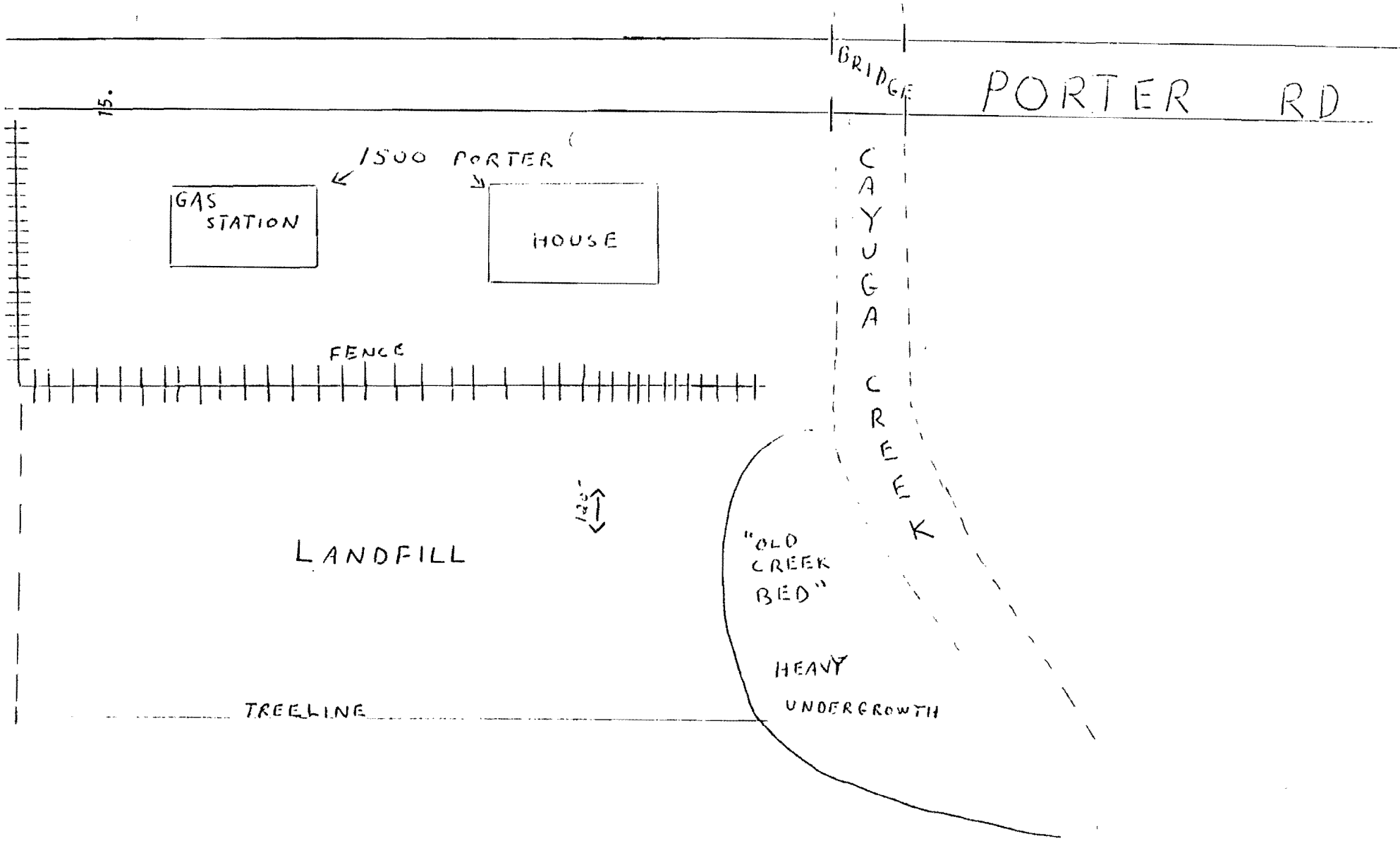
The bedrock is composed of Lockport Dolomite with about a depth of 140 feet. The characteristics of Lockport Dolomite suggests that there are several water-bearing depths. Specifics concerning this data is not readily available.

CONCLUSION

The potential for migration of toxins to Cayuga Creek and therefore the Niagara River is present. Sampling attempts were unsuccessful, as the nature of the fill did not permit hand augering of holes.

RECOMMENDATIONS

Sampling wells should be placed between Cayuga Creek and the site to facilitate future sampling. Periodic inspection is recommended.


BRIDGE
PORTER RD
15.
1500 PORTER
GAS STATION
HOUSE
CAYUGA CREEK
FENCE
125'
LANDFILL
"OLD CREEK BED"
HEAVY UNDERGROWTH
TREELINE

NAME OF LANDFILL

STAUFFER CHEMICAL PLANT - PASNY (DEC #932053)

OWNERSHIP OF LAND

Power Authority of the State of New York.

LOCATION

The refuse site is located 200 feet north of the forebay of the Power Authority's facility and just east of the Stauffer property line. A more detailed location is found on the drawing of the site just off Route 104.

HISTORY

The Stauffer Chemical Company made an application to operate a refuse disposal site on the property of the Power Authority of the State of New York during November of 1969. On January 27, 1970, Lauren G. Welch, M.D., Commissioner of Health for the Niagara County Health Department, granted a permit as provided for under Part 19 of the New York State Sanitary Code, which was the valid regulation during that period of time.

A review of the old records for this site indicates that the following materials were disposed of at the site:

Broken concrete
Graphite and carbon - blocks, brick and nozzles
Sand
Coke
Scrap sulfur
Wood - scrap, pallets
Road and yard sweepings
Rubber - hoses, gaskets, tires
Plastics - scrap pipe and fittings
Glass - sample bottles
Metal - steel scrap

It is noted that the company stated the following may have been disposed not intentionally, but from contact and absorption.

Na OH
$C\ Cl_4$
$C\ S_2$
$S_2\ Cl_2$
$Si\ Cl_4$
$Zr\ Cl_4$
$H_2\ SO_4$

The file folder for this site indicates that the landfill was closed shortly after 1975.

INVESTIGATION

During the month of March, 1981, the staff of the Niagara County Health Department conducted observations of the side wall of the power forebay adjoining the refuse disposal site. It should be specifically noted that during the period of the observations, heavy Spring runoffs were encountered. An orange discoloration was observed on the face of the rock cut adjoining the disposal site; seepage in a steady flow from the open bedding joints in the Dolomite was seen by the investigators. A review of the file also shows that burial at the landfill site was perhaps eight feet in depth.

The site is currently covered and grassed with a slope towards the forebay. Some traces of sulfur were found on the ground just west of the landfill. During the visits to the site, a Mr. Howard Bene,Jr., a guard, was interviewed. It was learned that Stauffer Chemical Co. intends to tear the vacant plant down. During the visit of March 6, 1981, Mr. Maurice Vaughan of Niagara County and Mr. William J. O'Brien, Associate Radiological Health Specialist, conducted a radiological survey of the roadways on the plant property. Evidence of radioactive materials under the asphalt,meter reading, ranged from 10 to 30 μR/hour at a one meter height from the surface. On June 29, 1981, samples of the radioactive slag were obtained and submitted to the New York State Department of Health, Division of Laboratories. The readings of these samples ranged to 75 μR.

GEOLOGICAL INFORMATION

The area of the disposal site is the characteristic Lockport Dolomite of the area. The Groundwater in the Niagara Falls, New York Area by Mr. Richard Johnston, shows that after the completion of the power project, the groundwater flow is towards the forebay. This information is verified by the seepage observed in the open bedding joints on the exposed north wall of the forebay.

SOIL

The area has been subject to being filled due to the construction of the power project. At least three feet of fill have been placed at the site. Reference sources do not give more specific information.

CONCLUSIONS

The confirmed use of this site as a disposal area and the visible leachate leaving the site indicate that migration of toxins is likely. Due to the location of the site on the edge of the forebay, the probability of waste materials entering the forebay and therefore the River is high.

SAMPLING

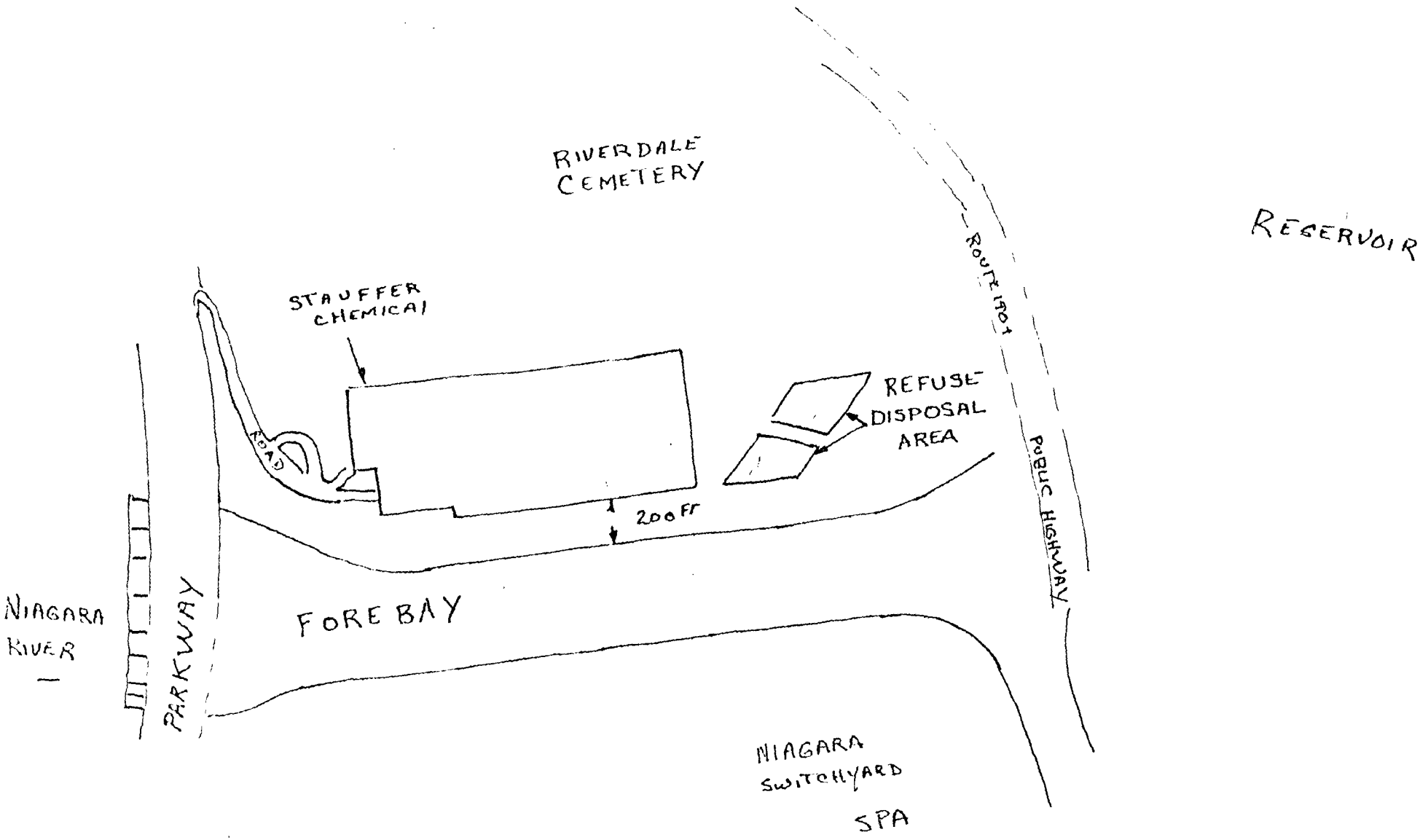
Soil samples were taken from overburden material, however, they may not be truely representative. The best samples are likely to come from the bedrock aquifers. This would require the placement of monitoring wells.

RECOMMENDATIONS

This site should receive periodic monitoring and inspection. Permanent sampling wells should be installed to facilitate this sampling. Slag used in subgrade for roadways in the Stauffer Plant should not be removed from the site.

19.

#932053



M. U. Vaughan

NAME OF LANDFILL

GRATWICK - RIVERSIDE PARK (DEC #932060)

LOCATION

River Road, North Tonawanda, New York

Gratwick Park is located between the Niagara River and River Road, extending from the city limits southeast to a point south of the Ward Road intersection. The extent of the disposal area within the park is unknown, but it is suspected that most or all of the area was used.

OWNERSHIP

The site is currently owned by the Niagara Mohawk Power Corporation.

HISTORY

The initial use of this site appears to be as a disposal area for metallurgical slag. From well records, the slag layers appear to be 11 to 12 feet deep, with the top of the slag roughly level with the river level. This suggests that the slag was placed into the river directly, most likely by expanding the shoreline into the river. The location of the original shoreline has not been determined. The generator of this slag has not been ascertained at this time.

The site was used by the City of North Tonawanda for disposal of municipal and industrial wastes from 1964 to 1968. During this period, open burning was practiced, accounting for the cinders present in the soils. Well records show cinders and rubbish to extend from 2 feet below the surface to about 6 feet. It is not known whether any industrial wastes were burned. The site was reported 75 percent covered and graded in 1969.

According to the Interagency Task Force On Hazardous Wastes, Bell Aerospace Textron used the site from 1962 to 1966 to dispose of scrap wood, plaster molds, small quantities of scrap adhesives and laboratory chemicals. Hooker-Durez reportedly disposed of 25,000 tons of phenolic resins, 25,000 tons of phenolic molding compounds, 50 tons of oil and grease and 50,000 tons of rubbish from 1960 to 1968. A 1964 New York State Health Department inspection report lists Hooker-Durez and Rapid Disposal as users of the site. The type or quantity of material disposed of at this site by Rapid Disposal is unknown. Niagara County Health Department files indicate that other firms may have used this site.

The site is now used as a park with a picnic shelter, docks and a boat launch ramp.

INVESTIGATION

A preliminary site visit was made on June 12, 1981 by Mr. M.E. Hopkins of the Niagara County Health Department and Mr. M. Eisenhower of the City of North Tonawanda Engineer's Office. At this time, the locations of four sampling wells in Gratwick Park and one well east of River Road were located. The locations of these wells are shown on the attached drawing. The

INVESTIGATION (continued)

surface of the park showed uneven settling over most of its surface.

A second visit was made by Mr. M.E. Hopkins on June 23. At this time, it was noted that the river edge contained numerous steel drums and remnants of drums, some containing a hardened slag-like substance. Also found were numerous hard, glass-like black or yellow to amber-brown nodules of unknown material, several of which were over one foot in diameter. Much of the riverfront had been riprapped with concrete debris and a concrete wall was built along approximately 100 yards of riverfront. A five-foot sewer outfall was found at a point west of the foot of Ward Road. There was approximately one foot of water in the outfall, which was flowing into the river. Two 12 inch corrugated galvanized steel pipes were found emptying to the river. The northern most pipe was dry at this time. The pipe immediately south of the boat launch ramp was approximately one-third clogged with gravel and sediment, apparently washed in from the river. This pipe contained a small amount of water, which did not appear to be flowing and was suspected to be river water.

SOILS

Soil data was extracted from well boring records for the four sampling wells placed by RECRA Research in June,1979. The general profile appears to be 1.5 to 2 feet of clayey-silt over about 4 feet of mixed cinders, garbage and wood over 7 to 9 feet of partially cemented slag, over about 2 feet of sand abruptly changing to clay at about 18 feet. It was noted that the slag material and possibly part of the cinder-garbage mix are below river level. The records state that the samples taken from these two layers are slightly to strongly odorous. It was noticed that pockets of the surface have settled as much as 2 feet relative to the surrounding surface.

GROUNDWATER

A perched water table in unconsolidated material is present. The water table rose to about six feet from the surface in all wells (June 5, 1979) according to well records. This perched aquifer flows generally southeasterly toward the river, except between wells 10 and 11 where the flow appears to flow southwesterly to the river, according to RECRA. The method of determining the direction of movement is not known. No information was obtained regarding bedrock or deeper aquifers..

CONCLUSIONS

The potential for migration of toxic substances to the river is high due to the proximity of the site to the river. The confirmed presence of hazardous materials and the direction of groundwater flow toward the river. It was noted that RECRA Research, Inc. found detectable quantities of aliphatic and aromatic hydrocarbons and phenols in groundwater in 1979.

SAMPLING

This department sampled water from each of the 4 wells for THO, heavy metals and phenol. It was noted that all samples were discolored

SAMPLING (continued)

and odorous. The odor was strongest in well #10. The odors in wells #13, #10 and #11 were organic in character. The odor in well #12 was similar to a garbage odor.

RECOMMENDATIONS

The site should be monitored and inspected periodically. The sampling wells appear adequate, but should be maintained. The exposed drums along the river front should be removed.

GRATWICK PARK

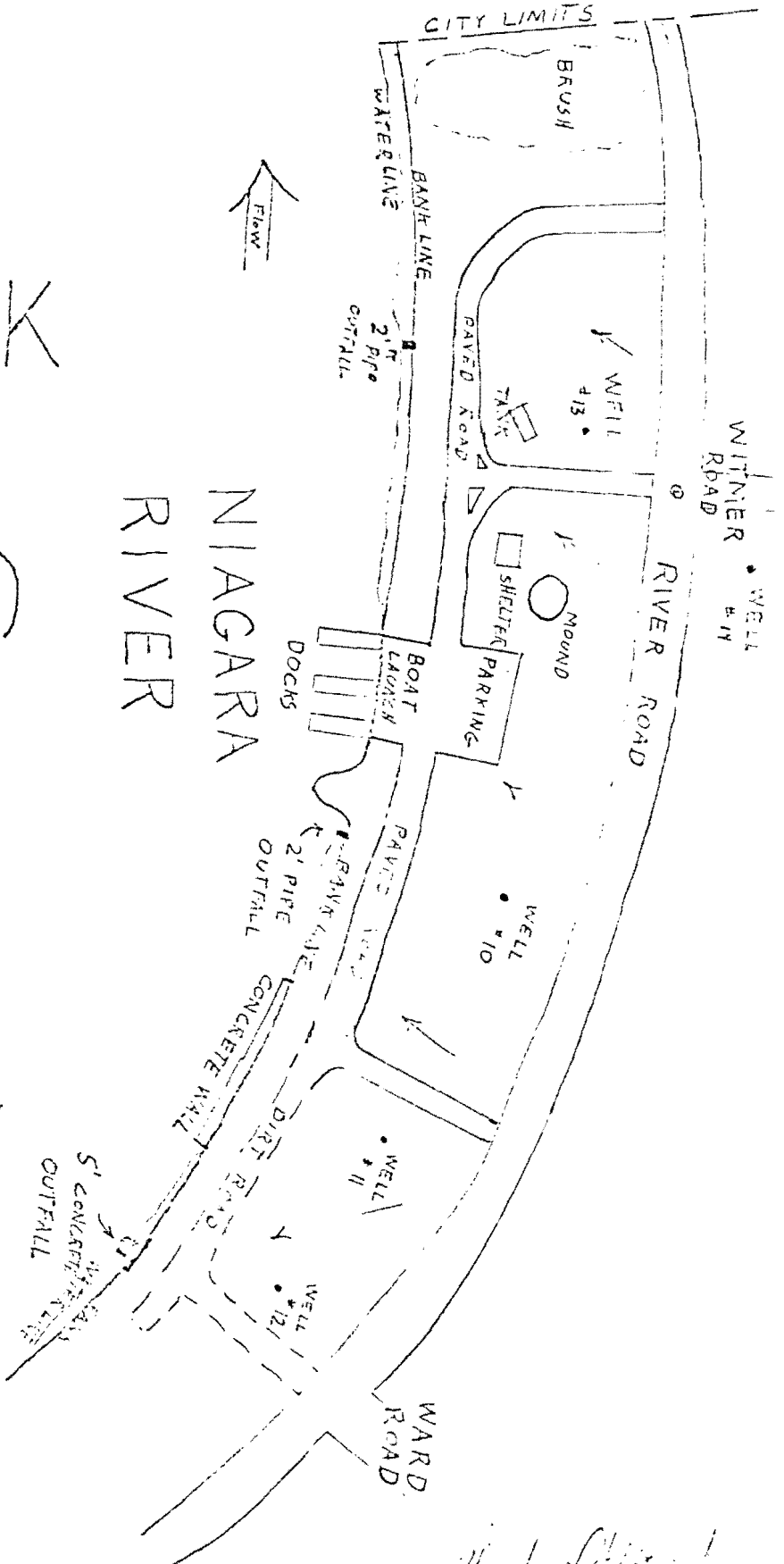
(DEC # 932060)

NORTH

MAPPED FROM FIELD OBSERVATIONS ONLY

JUNE 12, 1981
NORTH TONAWANDA, NY

ARROWS INDICATE SUSPECTED DIRECTION OF GROUNDWATER MOVEMENT



NAME

REICHOLD - VARCUM CHEMICAL DIVISION (DEC #932040)

LOCATION

5000 Packard Road, Niagara Falls, New York

The attached drawing outlines the location of the disposal area.

HISTORY

This is not a landfill, but rather the location of a previous settling pond. The settling pond was removed in 1979. The pond was used to settle phenolic resin wastes. The pond area was excavated to bedrock and filled with new clay, and surfaced with gravel. The contaminated material was disposed of by secure landfilling at SCA Chemical Waste Services. Waste resins are now processed in two settling tanks. Solids are incinerated or recycled on site. Brine solutions are released to city sewers. Daily discharge samples are taken for analysis. Solid wastes are removed by Modern Disposal as needed.

The above information was obtained in an interview with Mr. Philip Dury, Environmental Officer for Reichold - Varcum on June 30, 1981.

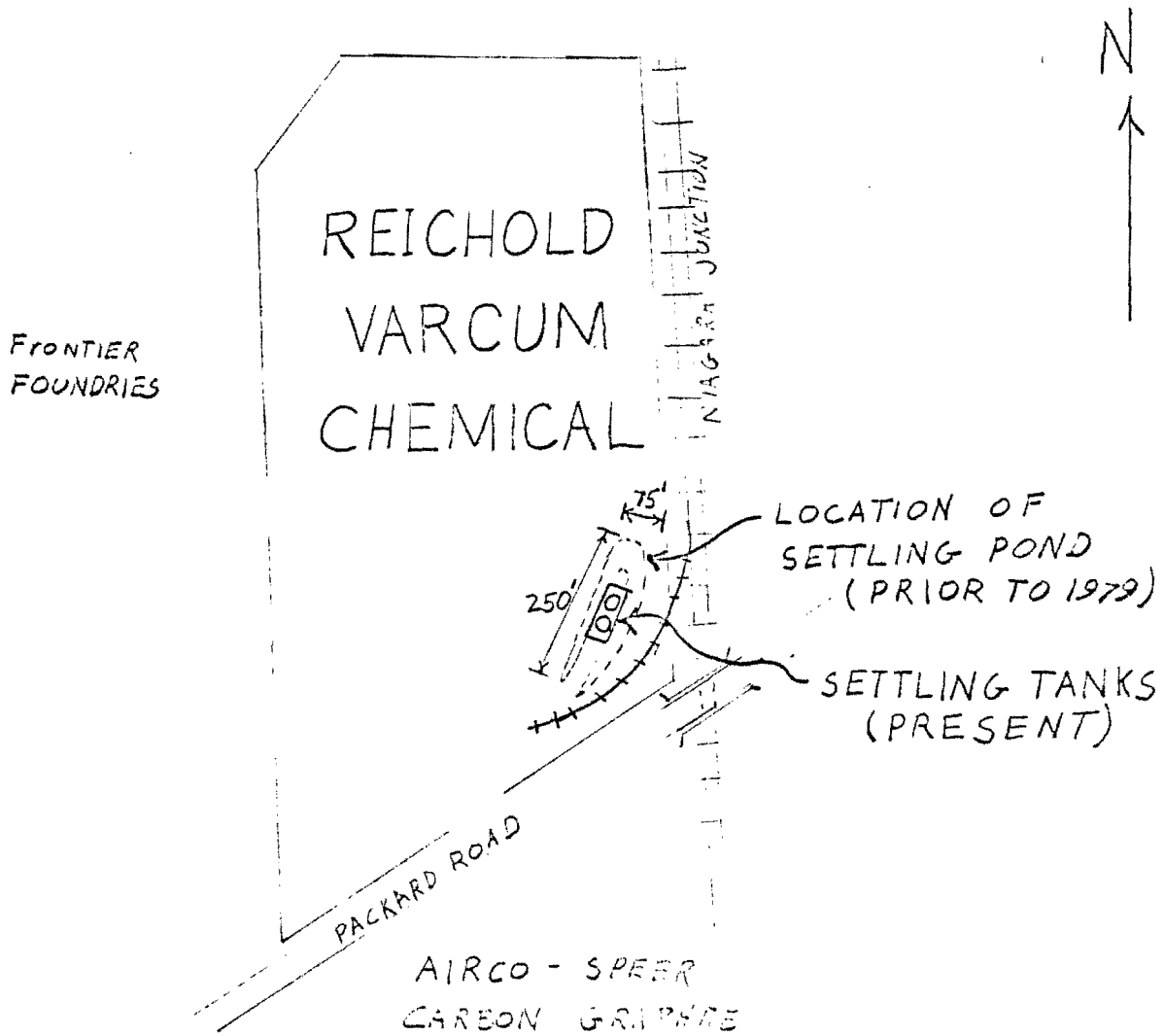
INVESTIGATION

On June 30, 1981, Mr. M.E. Hopkins of the Niagara County Health Department visited the Reichold - Varcum Plant Site and verified the removal of the settling pond.

CONCLUSIONS/SAMPLING

No evidence was found to indicate that hazardous materials remain at this site, therefore, no sampling has been recommended.

LOCATION OF PREVIOUS DISPOSAL SITE OF REICHOLD - VARCUM CHEMICAL (DEC # 932040)



NOT TO SCALE

NAME OF LANDFILL

HOLIDAY PARK (DEC # 932033)

LOCATION

North Tonawanda, New York

There are at least three distinct disposal areas referred to as Holiday Park. The first is a two-acre area 100 feet west of the intersection of Walck Road and Old Falls Boulevard. The second is an approximately nine-acre site, located east of Zimmerman Street. The third location is west of the Botanical Gardens on Old Falls Boulevard, under part of the area now occupied by Deerwood Golf Course. It was noted that the Botanical Gardens are listed as a separate disposal site (DEC # 932068). It is suspected that additional areas between Old Falls Boulevard and Zimmerman Street from East Robinson Street north to Walck Road have been landfilled.

The location of the known areas are shown on the attached drawing.

OWNERSHIP

These sites are owned by the City of North Tonawanda.

HISTORY

The City of North Tonawanda Department of Public Works operated the Holiday Park and Gratwick Park sites from the early 1960's until1974. The dates of operation of individual areas is not exactly known. The Zimmerman Street area appears to be the first, possibly opening about 1966. The Old Falls Boulevard site was opened in 1967. The Walck Road area was used from 1972 to 1974. These sites received municipal waste and are suspected of receiving industrial wastes including phenolic resins and molding compounds. The Old Falls and Zimmerman sites may have received ash from a municipal garbage incinerator. These areas were used to test a prototype solid waste disposal machine from 1966 and at least until 1967.

The areas are now used as part of Deerwood Golf Course or are currently overgrown and idle.

SOILS

According to the USDA Soil Conservatopm Service. Soil Survey for Niagara County, New York, the soils were Canandaigua and Rayham Series soils prior to landfilling. Since the majority of the landfilling occurred after the date of publication of the survey (1966), the current profile may be considerably different near the surface. Boring records from the sampling wells drilled by RECRA Research, Inc. in June, 1979, show a general profile of 1 1/2 feet of silt over various grades of sand to a depth of over 10 feet. In Well #8 on Deerwood Golf Course, clay was encountered at a depth of 18 feet. This clay is a lake-laid deposit, which should be relatively impermeable and 10 feet or more in thickness.

GEOLOGY - GROUNDWATER

A perched water table was reported by RECRA Research. The water table in Wells #4 and #8 rose to 6 feet and 6-1/2 feet respectively, below the surface at the conclusion of drilling on June 5, 1979. The water table is expected to be higher in the Spring.

Using information extracted from a hydrogeological report prepared by RECRA Research for Hooker-Durez, bedrock is likely to be Camillus Shale, to a depth of possibly 400 feet. The bedrock slopes gently to the south. Water in joints and dissolution passages, in the Camillus Shale, generally follows the slope of the surface. This water is generally very hard due to its dissolved gypsum content. The geological information obtained on the Durez site should transfer to the Holiday Park sites due to the proximity of the two sites.

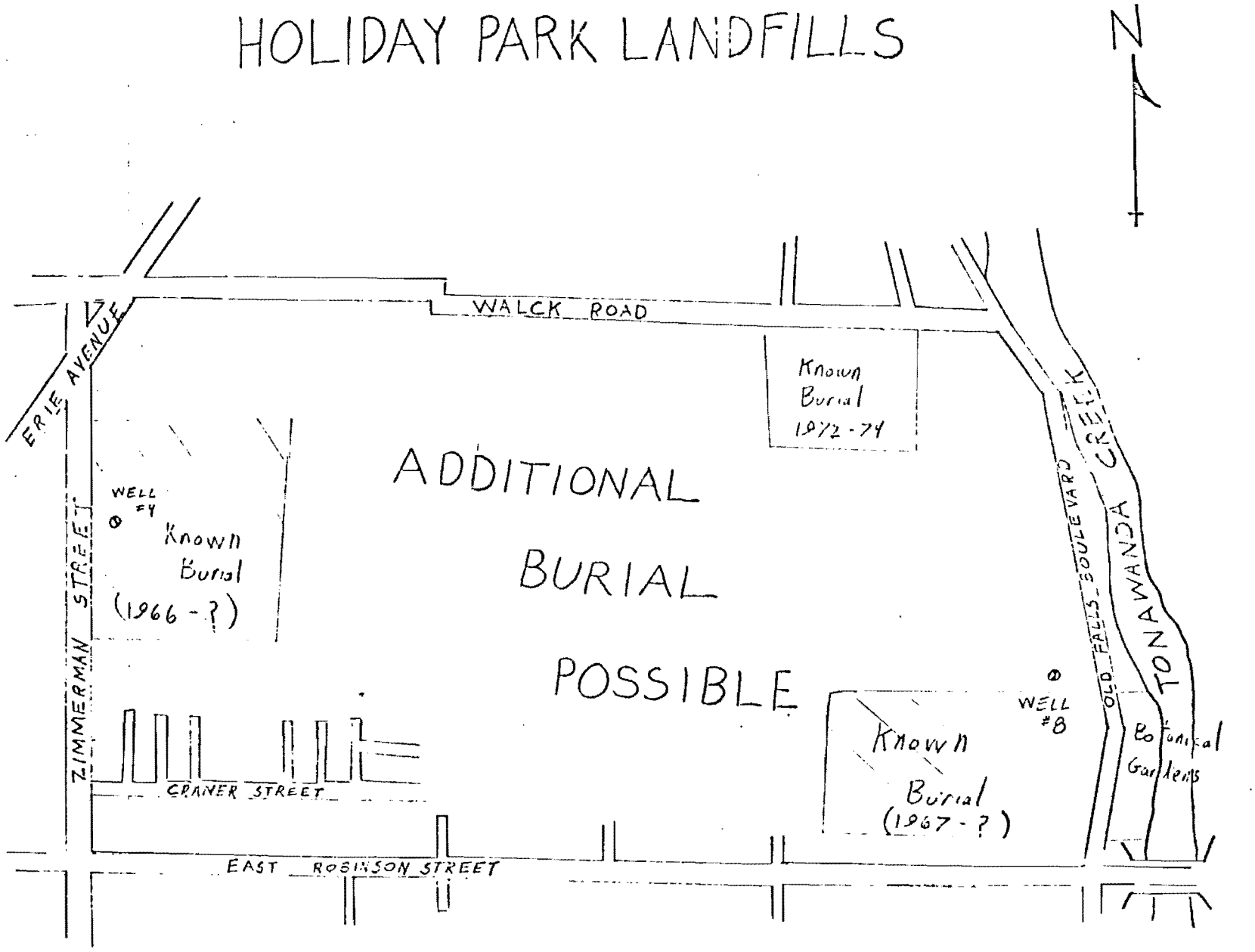
SAMPLING

Samples of soil and groundwater for phenol and THO have been taken as justified by the suspected presence of toxic materials, the proximity of the sites to residential areas and the public use of Deerwood Golf Course.

CONCLUSIONS/RECOMMENDATIONS

Conclusions and recommendations have been withheld pending results of sampling.

HOLIDAY PARK LANDFILLS



NAME OF LANDFILL

DUPONT, WEST OF HYDE PARK BOULEVARD, NIAGARA FALLS,NY (DEC # 932013)

LOCATION

Southwest corner of intersection - Hyde Park Boulevard and Buffalo Avenue.

OWNER

E.I. Dupont De Nemours & Company (Inc.) - Niagara Falls, NY 14302.

HISTORY

This site was used until 1948 and the following materials may have been landfilled:

sodium cell bricks
metal parts
sludge and
rubble and demolition debris.

Since 1948, the area has been used as a parking lot. In 1956, the building to the south was constructed and it is now shared by Hooker Chemical and Dupont, but owned by Dupont. The parking lot was paved in this general time span also. At present, the area is still used as a parking lot.

INVESTIGATION

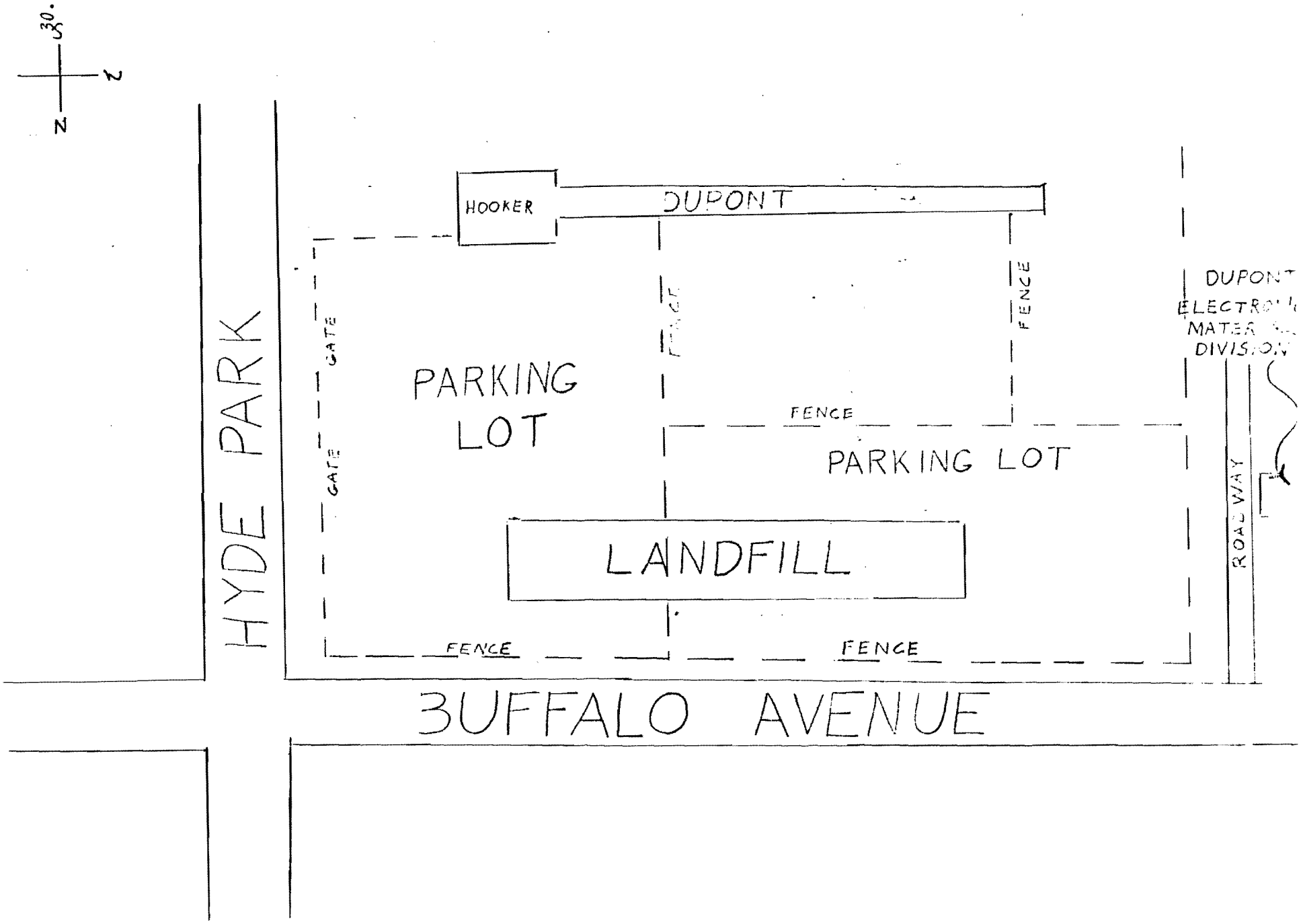
An inspection of the area revealed that the area is being used as a parking lot. The area is flat and consistent with the surrounding topography. It is not possible to detect any migration of material from the landfill visibly.

SOIL

A soil survey of the area is not readily available.

SAMPLING

Samples from the landfill were taken in May and June by the present owners. Attached are the results for this sampling.


30.
N
N
HOOKER
DUPONT
HYDE PARK
GATE
GATE
PARKING
LOT
FENCE
FENCE
FENCE
PARKING LOT
LANDFILL
FENCE
FENCE
DUPONT
ELECTRO
MATER
DIVISION
ROADWAY
BUFFALO AVENUE

NAME OF LANDFILL

OLIN CORPORATION - INDUSTRIAL WELDING - (DEC # 932050)

LOCATION

The site was located on the southwest corner of the intersection of the alley and Packard Road (see map). The alley is the first thoroughfare on Packard Road, north of Buffalo Avenue. The alley starts or ends at Packard Road and it joins 27th Street, running east and west. The alley fronted the Olin-Mathieson Company's High Energy Fuels Division. Area of the landfill location is not where the Registry describes the location.

OWNER

The owner at the time the landfill was in operation was Olin-Mathieson Company. The present owner is Niagara County.

HISTORY

The landfill was located on the area where Olin-Mathieson's Company High Energy Fuel Division operated. The landfill was utilized from 1947 - 1956 for the disposal of brine sludge (mercury).

Olin-Mathieson deeded the property in 1964 to Niagara County where the landfill was located. Another portion to Portage Post 1465, American Legion in 1964 and the remaining portion to Industrial Welding in 1964. Industrial Welding deeded a major portion back to Olin Chemical in 1980 and remaining section to the Portage Post 1465, American Legion in 1979.

SOIL

A soil survey of the area is not readily available.

INVESTIGATION

A physical inspection of the area described previously in this report substantiated the location.

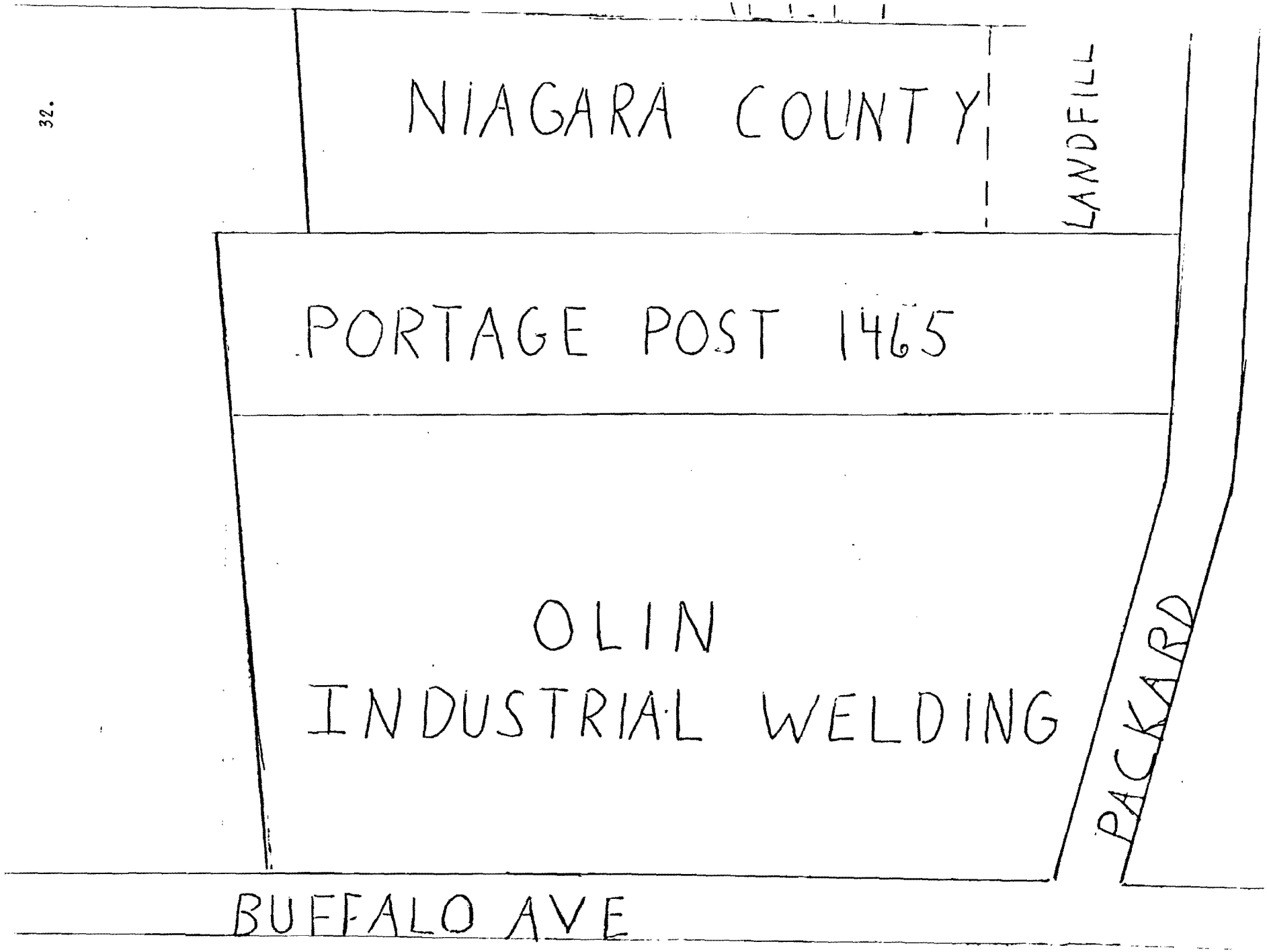
The area appears to have been filled with a white chalky material, building debris, demolition material and cinders. The elevations are consistent with the surrounding area, which suggests that extensive landfilling was not done. Gill Creek flows parallel with Packard Road in the immediate vicinity ($\approx$ 100-150).

SOIL/GEOLOGICAL

The soil and geological surveys that are readily available do not include data for this area. An observation hole dug with a hand auger revealed that the area is indicative of cut and fill material categorization. The holes are difficult to dig because of the fill material so further methods of excavating is recommended.

SAMPLING

Preliminary sampling has been done and more extensive sampling will or will not be done at a later date depending on the sample results.


NIAGARA COUNTY
LANDFILL
PORTAGE POST 1465
OLIN
INDUSTRIAL WELDING
PACKARD
BUFFALO AVE

NAME OF LANDFILL

STAUFFER CHEMICAL - ARTPARK SITE (DEC # 932049)

LOCATION

Lewiston, New York

Lewiston State Artpark is located along the Niagara River south of the Village of Lewiston. The area used for waste disposal is located in the "lower park". The site extends from the "Town Square" north to a point north of the Theater. Much of the remainder of the park was filled with rock and clean fill from the Niagara Power Project construction. The extent of the filled areas and the disposal sites are shown on the attached drawing.

OWNERSHIP

The site is owned and operated by the Niagara Frontier State Parks and Recreation Commission.

HISTORY

According to the Interagency Task Force, the Stauffer Chemical Company began operations at the Lewiston Plant in 1946, after acquiring the plant from Niagara Smelting, Inc. The Lewiston Plant was closed in 1978. During this period, Stauffer produced caustic soda, chlorine, silicon tetrachloride, titanium trichloride and tetrachloride, zirconium tetrachloride, antimony tetrachloride, aluminumchloride and boron trichloride. Processes used included chlorination of sulfur, metals and carbon bisulfate.

The Artpark site was used for waste disposal by Stauffer from 1953 to 1969. NFPRC records show that the Power Authority of the State of New York acquired the property from Stauffer in 1957, who in turn transferred ownership to the Parks Commission in 1963. Artpart was opened "several years" after acquisition in 1963. It is possible that Niagara Hudson owned the property at one time, but this was not confirmed. USDA aerial photos taken in 1958 and 1966 verify that this site was used for waste disposal at this time. The 1966 photo shows that Stauffer had access to Artpark via the Power Authority haul road, without use of any public highway.

INVESTIGATION

On June 25, 1981, Mr. M.E. Hopkins and Mr. John Malinchock of the Niagara County Health Department, inspected the Artpark site. At this time, the rock faces were searched for signs of leachate. A stream of reddish discolored water was found at the river edge immediately south of the fishing dock. Pieces of elemental sulfur and rubber gloves were found in the edge of the woods near the area known as the "Town Square".

A second visit was made by Mr. M.E. Hopkins on July 17, 1981. At this time, white stains were seen on the rock face above the "customs road"

INVESTIGATION (continued)

roughly below the amphitheater. It was noted that runoff is directed northward down the road to a storm drain, north of the fence blocking the roadway. This storm sewer was found to discharge at the top of the embankment to the river. It was determined that the stream found on June 25, 1981 was fed by this sewer outfall.

On Monday, July 20, 1981, Mr. M.E. Hopkins returned to the area found stained on July 17, 1981. It is to be noted that it had rained heavily (roughly two inches) over the weekend. Water was draining freely from the rock face in many places. The water appeared to be clear and odor free. The white stains were not found; they appeared to have been washed away by the rain. Visual observation of drainage confirmed that runoff was channelled by the road to the storm drain mentioned above.

Also, on the July 20th visit, Mr. Jack Schultz, Maintenance Supervisor at Artpark was interviewed. Mr. Schultz verified the location of the disposal areas to be as shown on the drawing. He also pointed out that copper water lines in the vicinity of the Artel and the Theater had corroded to the point that replacement was necessary. The pipes were replaced with PVC pipe. Mr. Schultz indicated that much of the area had only a thin layer of top soil above bedrock. Elemental sulfur is found routinely in the soil in this area. Pieces up to one inch diameter have been found. Mr. Jack Schultz mentioned that concrete rubble and empty drums have been found buried in this area. Mr. Jack Schultz was confident that no wastes were disposed of beneath the Power Authority fill.

Several park employees and one former park employee stated that leachate from the rock face below the amphitheater has flowed freely at times and has been colored white, green, yellow or red. Mr. Jack Schultz claimed that this was only color dissolved from the shale.

SOILS

The soils throughout nearly all of the park have been modified from the original state. The entire eastern end of the park was filled with rock and clean fill from the construction of the Power Project. The remainder of the park is characterized by thin soils. The yard between the Artel and the Theater has only a few inches of topsoil over the shale. The area known as the"Town Square"was clay capped in 1978, after removal of three feet of soil to bedrock. The soil throughout the disposal area contains pieces of elemental sulfur.

GEOLOGICAL - GROUNDWATER

Bedrock consists of shale to unknown depths. Groundwater is contained in fractures and joints in the shale. A flow of groundwater towards the river is indicated by the discharges noted through the rock face..

CONCLUSIONS

Migration of toxic material from this site to the Niagara River is a strong possibility. The evidence of visible leachate leaving the rockface, the direction of runoff and groundwater flow toward the river and the confirmed presence of toxic substances allow the potential for contamination of the Niagara River.

SAMPLING

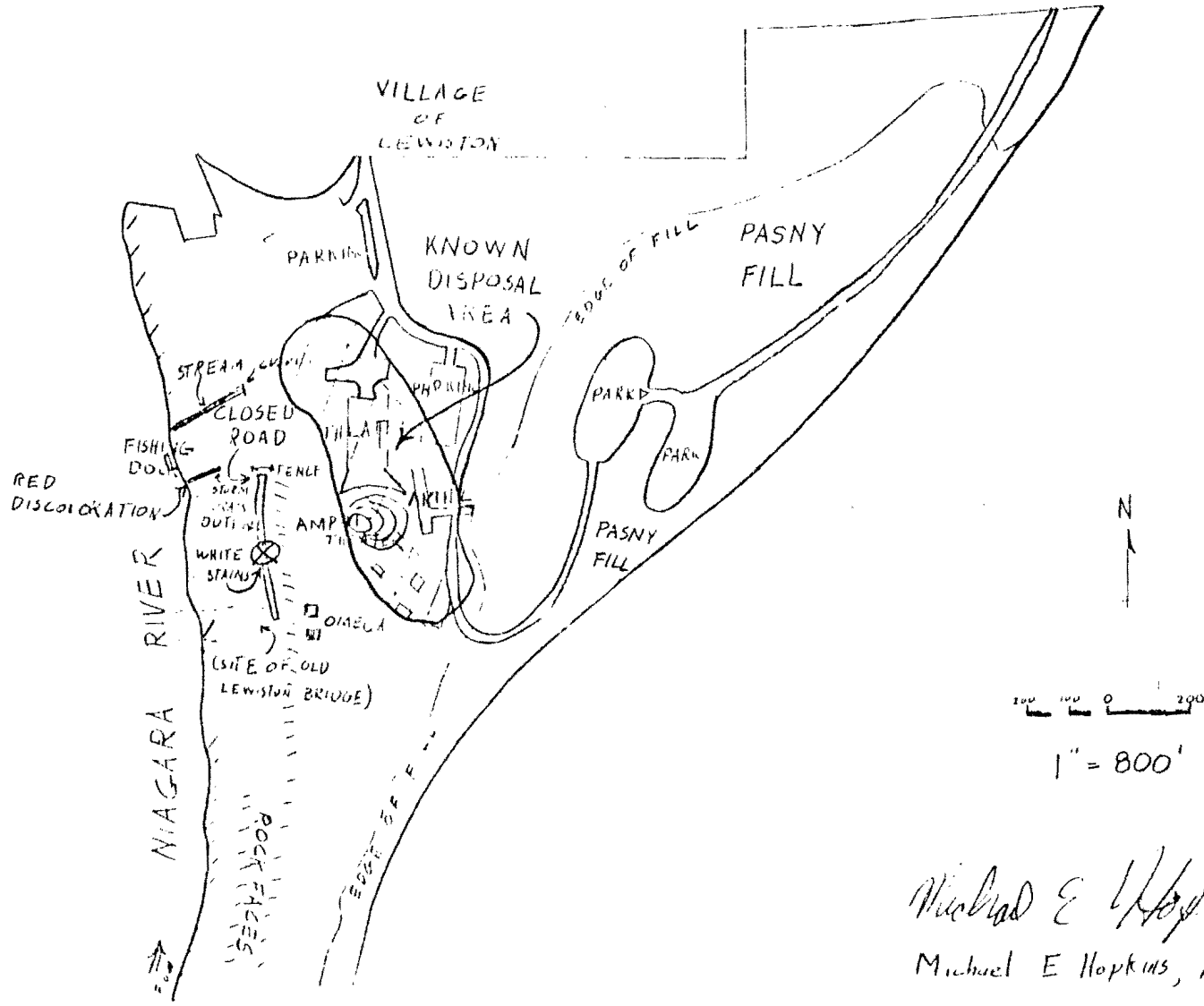
A surface water sample was obtained on July 17, 1981. At this time, no visible leachate flow was found. The sample was taken from a marshy area, which appeared to be a natural collecting point for runoff and leachate. The sample was odorless and discolored red-brown, although this coloration was most likely due to sediment in the sample. The sample was submitted for heavy metals and THO analysis.

Future sampling should be taken from the storm drain noted in the report. Samples could be taken after a heavy rain or preferably during the Spring runoff. Analysis for sulfides and chlorides may be helpful in verifying the source of contaminants.

RECOMMENDATIONS

Annual inspection and periodic sampling of leachate and/or runoff from the site is recommended.

ARTPARK SITE #932049



Michael E Hopkins

Michael E Hopkins, NCAD

NAME

BELL AEROSPACE TEXTRON, Route 62, Niagara Falls, NY
(DEC # 932052)

LOCATION

The lagoon is located between W Control Building and H Test Cell on site at Bell Aerospace Textron, Niagara Falls Boulevard and Walmore Road, Town of Wheatfield.

OWNER

Bell Aerospace Textron, Route 62, Niagara Falls,NY.

HISTORY

The lagoon was utilized in the 1950's until present and it is a neutralization pond. The lagoon is still active and the wastes are held until a ph of 6 - 9 is achieved, then it is discharged to the sanitary sewer.

The waste material consists of rocket fuels, nitric acid, sodium hydroxide neutralizer and plating wastes.

INVESTIGATION

An investigation revealed that the lagoon is approximately 50 feet by 60 feet and it is located in the northeast area of the plant between W Control Building and H Test Cell.

The lagoon has five inlets from various buildings and one outlet (sanitary sewer). The lagoon is still active, but the amounts of wastes received depends on production levels at the plant.

SOIL

The soil in this area is Odessa silty clay loam, 0 to 2 percent slopes.

A representative profile of an Odessa soil has a slightly acid, dark grayish brown silty clay loam surface layer 8 inches thick. This layer is underlaid by slightly acid, firm, brown silty clay 8 inches thick. The subsoil is slightly acid, firm brown and light reddish-brown silty clay that is mottled. It is slightly acid in the upper part and mildly alkaline in the lower part. The substratum is calcoreous and is at a depth of 33 inches. It consists of very firm, reddish-brown, mottled layers of clay and silt.

The seasonal high water table is between 6 - 12 inches below the surface, but it is usually perched between the slowly permeable subsoil and substratum.

NAME

BELL AEROSPACE TEXTRON, Route 62, Niagara Falls, NY
(DEC # 932052)

LOCATION

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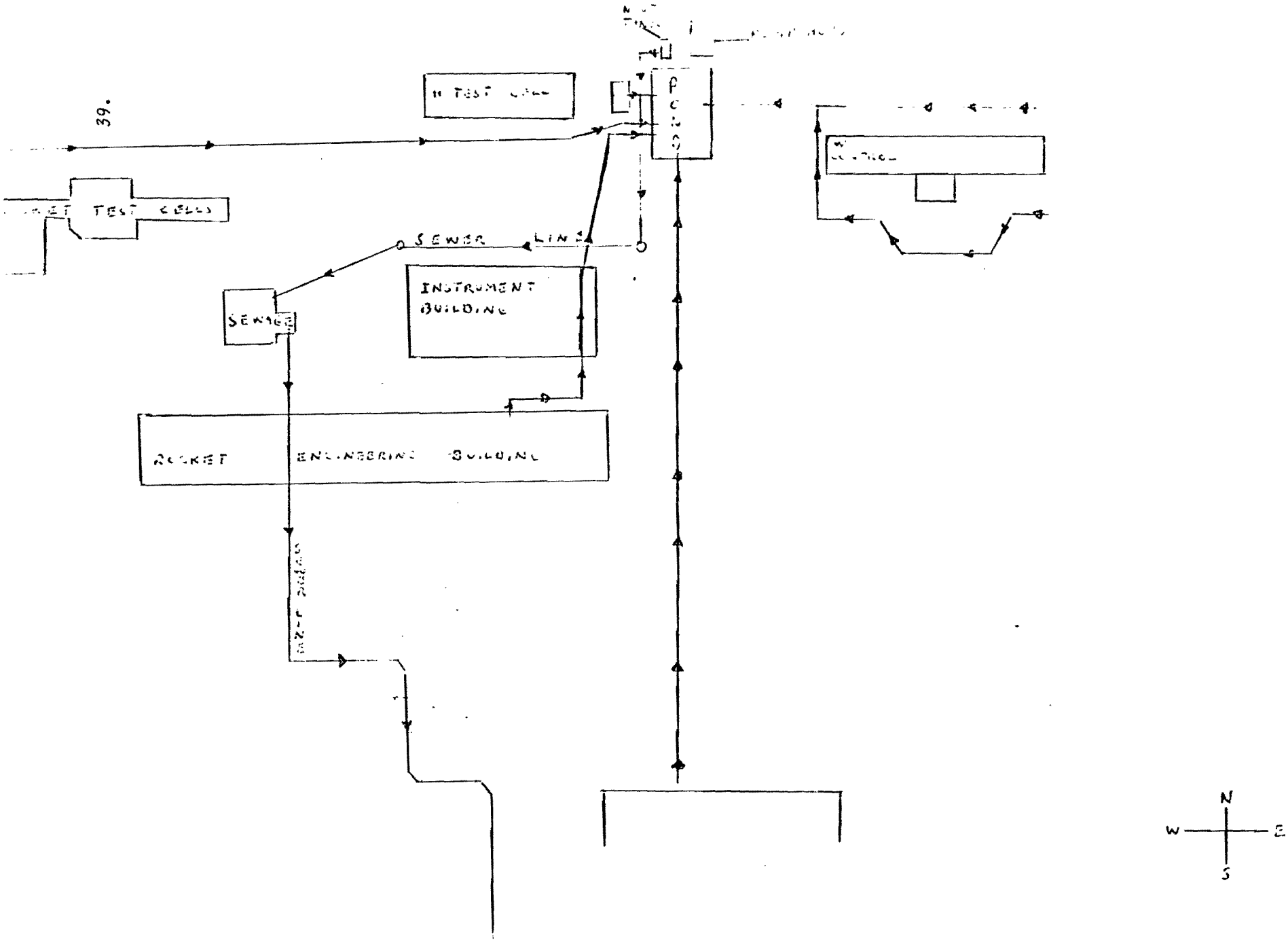
The seasonal high water table is between 6 - 12 inches below the surface, but it is usually perched between the slowly permeable subsoil and substratum.

GEOLOGICAL

The bedrock is classified as Lockport Dolomite and there isn't any well information in the general area of the lagoon.

CONCLUSIONS/SAMPLING

Sampling is not scheduled at this time as this site is still active.


TEST CELLS
SEWER
LINE
SEWER
INSTRUMENT BUILDING
ROCKET ENGINEERING BUILDING
N
W
E
S

NAME OF LANDFILL

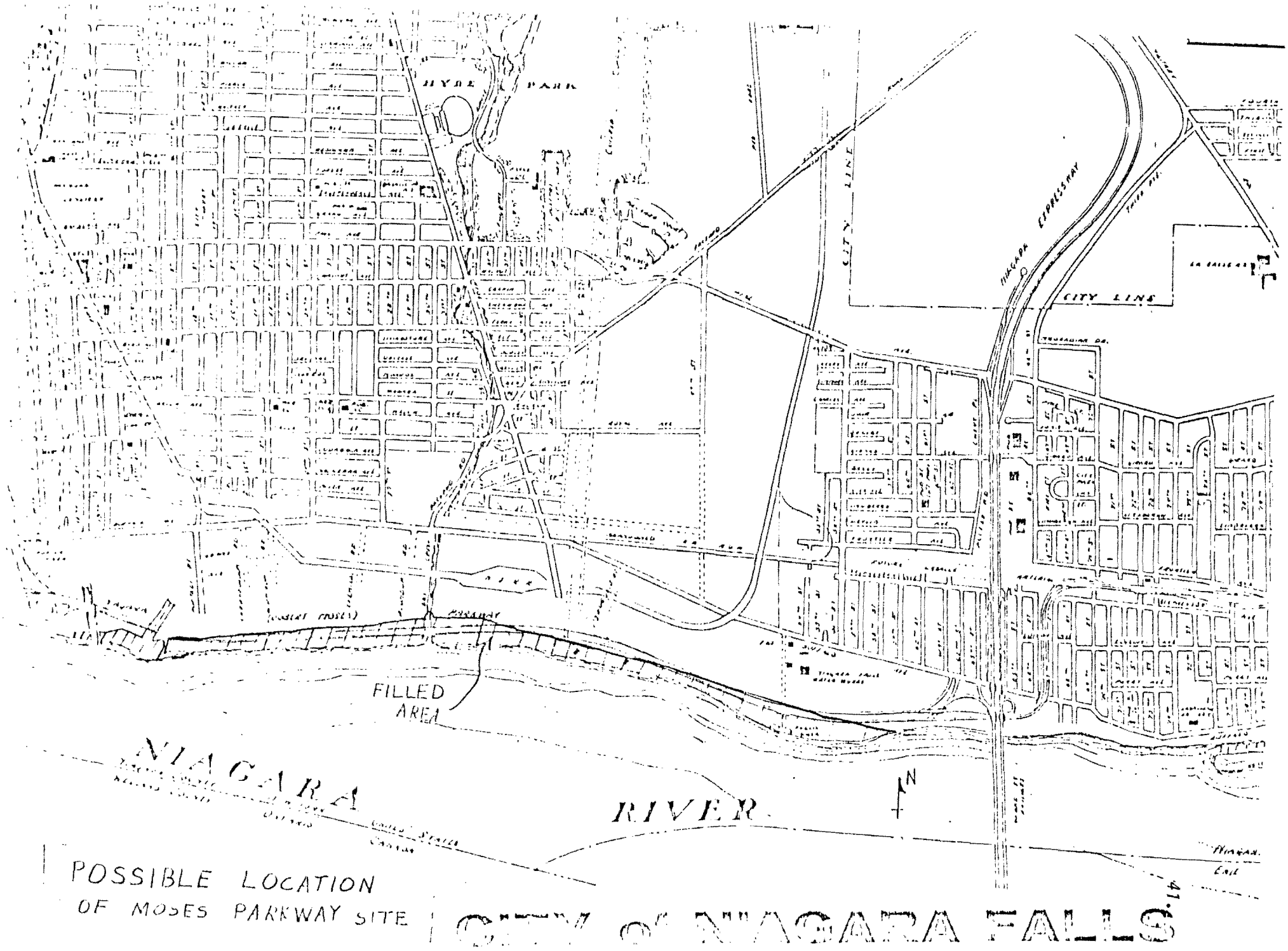
PASNY ROBERT MOSES PARKWAY (DEC # 932057)

During the construction of the Robert Moses Parkway, 200 to 300 drums of unknown material from Hooker were allegedly placed in trenchs between the breakwall and the Parkway. Large quantities of fill material from the Niagara Power Project excavations were deposited along the river front, extending the shoreline, as much as, several hundred feet into the river, roughly from the Cayuga Creek outlet to a point 3,000 feet above the Falls. The parkway was subsequently built atop this filled area.

The exact location of the drums is unknown. It is not known if wastes were deposited in other areas of the fill.

The area was inspected by Mr. J. Tygert of the DEC in November, 1978. At this time, no visible evidence of drums or dumping was found. In addition, no signs of dumping were visible to the staff of the Niagara County Health Department at the time of this investigation.

No conclusions have been drawn on this site, as available information is insufficient.


HYDE PARK
CITY LINE
NIAGARA EXPRESSWAY
CITY LINE
FILLED AREA
NIAGARA RIVER
N
POSSIBLE LOCATION OF MOSES PARKWAY SITE
CITY OF NIAGARA FALLS

NAME OF LANDFILL

BASIC CARBON COMPANY (DEC #932004)

LOCATION

Plant was located at the site now known as 820 Connecting Road, Niagara Falls, New York. The landfill was located between the building and the fence (GLC property line). A building was constructed in this area and it is possible the landfill was located under this building.

OWNER

Current owner is Wizard Methods, Inc., 1100 Connecting Road, Niagara Falls, New York.

HISTORY

Graphite Specialties originated in 1951 and operated at what is now known as 820 Connecting Road, Niagara Falls. Shortly after 1951 on Connecting Road until 1960. In 1960, they relocated to the Town of Wheatfield on Corey Road. In 1965 they merged with Carborundum Company. Between the dates of 1951 - 1960, they disposed of their own generated wastes on site. The waste material generated consisted of graphite, 30 percent coal tar pitch, carbon and garbage. The landfill bordered Great Lakes Carbon's property to the west and there is some conjecture about both companies using a common landfill since both companies generated similar wastes.

SOIL/GEOLOGICAL

Surveys of the area are not readily available.

INVESTIGATION

An interview with various people who were involved with businesses and ownership of properties on Connecting Road did not pinpoint an exact location. An interview with Mrs. Corey pinpointed the location at 820 Connecting Road. Mrs. Corey's husband, founded Basic Carbon Company and he has been deceased for fifteen years.

The Hazardous Waste Disposal sites of New York State, Volume III, has this site on a different location, but no substantial evidence could be found for this area.

An investigation of the area did not reveal any visible indicators that would further aid in pinpointing the correct location. Hence, the property known as 820 Connecting Road will be determined to be the site for this investigation report.

The landfill was in essence, a scrap pile for manufactured products and garbage from the employees. Basic Carbon Company was a small company with a work force numbering less than ten. The wastes generated were probably quite minimal in quantity with the garbage being burned. Visually the area is quite level with two buildings having been constructed behind the original company plant. The landfill was located between the original plant

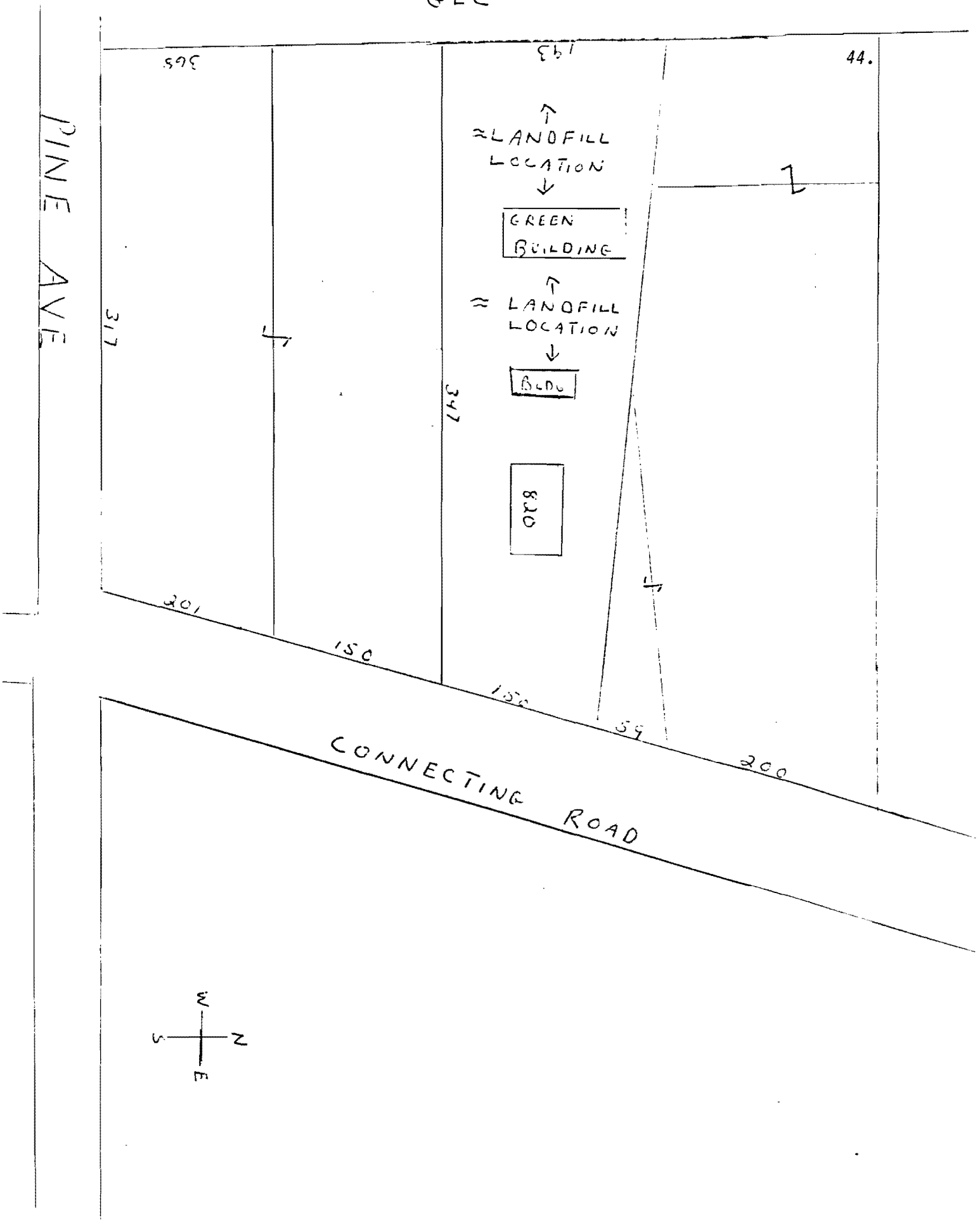
INVESTIGATION (continued)

building (designated on the sketch as 820) and the property line fence of Great Lakes Carbon. It is possible, that during the construction of the two buildings behind 820 Connecting Road, the material was excavated and removed to an alternate location, or the waste material is under the foundations of the buildings.

Again, this report is speculative in nature because adequate information and sources were not available.

SAMPLING/CONCLUSIONS

Sampling is not scheduled at this time, nor is it recommended becuase of the materials landfilled, the quantities landfilled, the close proximity to the Great Lakes Carbon Landfills and that valid sampling program would encompass a large area without an actual pinpoint location.


GLC
PINE AVE
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193
≈LANDFILL LOCATION
GREEN BUILDING
≈ LANDFILL LOCATION
BLDG
820
317
347
201
150
150
59
200
CONNECTING ROAD
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N
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NAME OF LANDFILL

STAUFFER CHEMICAL, NORTH LOVE CANAL

LOCATION

Lewiston, New York

The North Love Canal is located in a 100 foot by 2,000 foot band running north to south crossing Jarrett, Ellicott and Escarpment Drives and Upper Mountain Road in the area known as the Wittaker Subdivision.

The location is indicated on the attached map.

OWNERSHIP

The site is currently owned by various homeowners. The site was owned by Mr. Wittaker at the time of landfilling.

HISTORY

The canal was first excavated near 1900, however, the project was never completed. The canal remained idle for roughly 40 years. During this period the canal collected water in the form of small ponds and overgrown marshs.

The property was filled with wastes from the Stauffer Chemical Company in the late 1930's and early 1940's. It is suspected that the site was also used by Union Carbide, although this has not been verified. The EPA reported in 1979, that a similiarity exists between the material in the canal and wastes typical of Union Carbide at the time of filing.

The canal is estimated to contain 50,000 to 75,000 cubic yards of wastes, assuming at least one foot of cover was used.

The United States Environmental Protection Agency (EPA) directed an investigation of this site in May and June of 1979. During this investigation, various local individual citizens verified the use of the canal as a dumpsite. Analysis of samples taken indicated high quantities of sufur, some metals and florides in several samples.

The following is a summary of the conclusions made by the EPA (from: Report on Love Canal Section, Lewiston, NY 9-7-79):

1) The filled areas in the Love Canal, Lewiston, containing chemicals are not dangerous to health or are a safety hazard.

2) No significant seepage from the canal itself was found.

3) Any seepage from the filled area, if it does exist, flows north to Lake Ontario rather than the Niagara River to the west.

INVESTIGATION

The staff of the Niagara County Health Department inspected the North Love Canal area and found no visible evidence of landfill activiites. The area is now residential, paved, grassed or built upon.

SOILS

The canal itself is largely filled with wastes of undetermined composition, covered with roughly one foot of soil. Due to the residential nature of the surrounding area, various types of clean fill may have been used. The original soils are listed as Rhinebeck silt-loam in the USDA SCS Soil Survey of Niagara County, New York. These soils are deep, somewhat poorly drained soils which are generally flat (0 to 2%). These soils are likely to contain pockets of Niagara soils which contain less clay and are therefore, more pervious. Rhinebeck soils generally contain a perched water table above the subsoil, which can rise to less than one foot from the surface in the Spring or during excessively wet periods.

GEOLOGY

The area is situated over the lower portion of the Lockport Dolomite, of depths ranging from 20 to 40 feet in depth with the depth decreasing to the north. The Lockport Dolomite is underlayed by Rochester Shale, over various shales, sandstones and limestones overlying the Queenston shale. Groundwater is found in at least one joint in the Dolomite. The groundwater is expected to travel north toward the escarpment. Several springs have been noted along the escarpment face. The stratum underlying the Dolomite is likely to be saturated, but movement of groundwater is restricted in this region. Although the construction of the Niagara Power Project has modified the groundwater flow patterns in much of the surrounding area, the area of the canal is likely to be unaffected due to its proximity to the escarpment, which dominates the local geology.

CONCLUSIONS

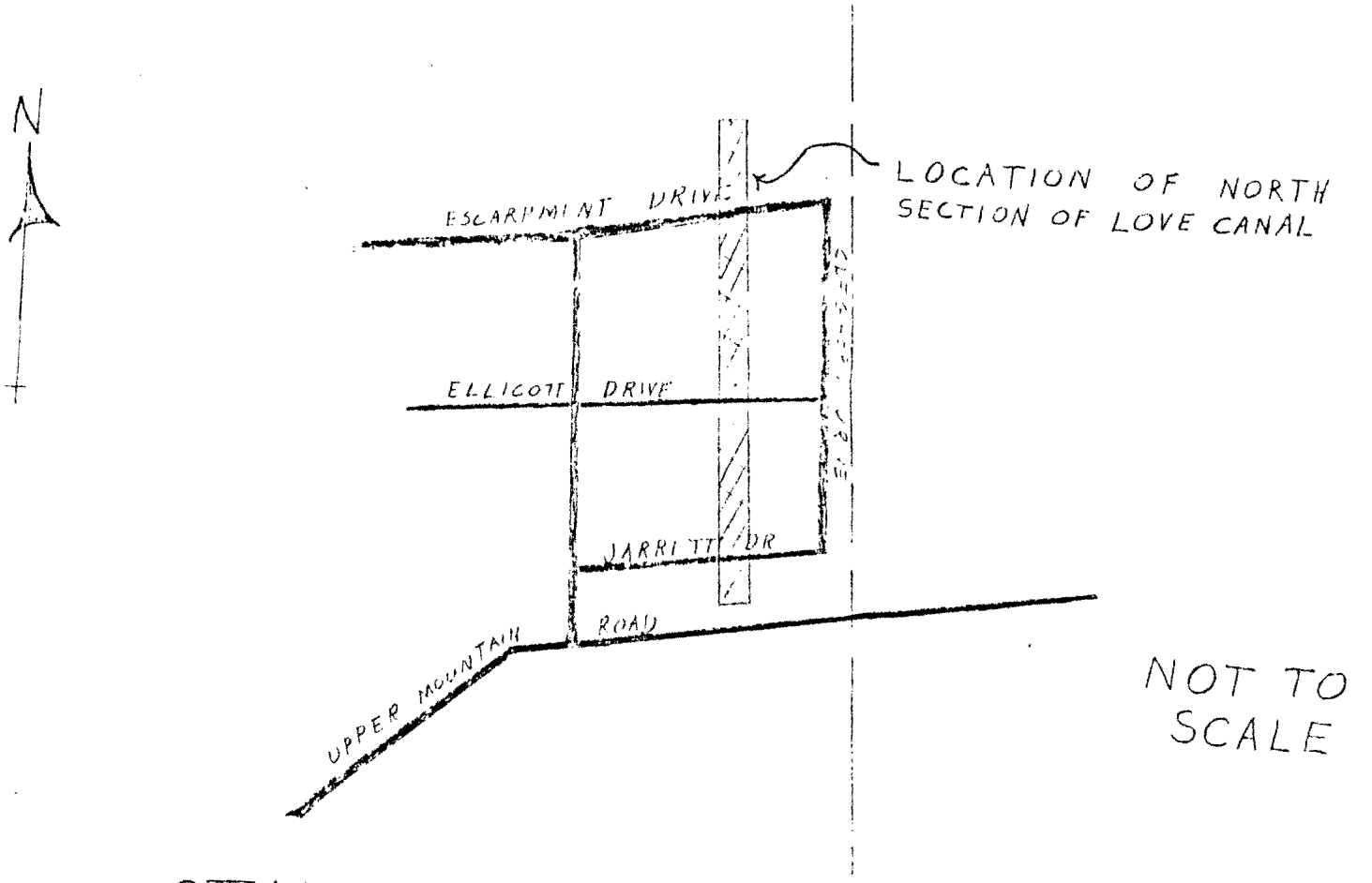
The conclusions of the 1979 EPA study appear valid. The potential for migration of toxins to the Niagara River appears minimal and the health hazard to area residents is likely to be small.

SAMPLING

No sampling was performed by this department at this time. The results of the 1979 EPA sampling are attached. In general, analysis showed high levels of sulfur, sulfates and florides and trace levels of other contaminates.

RECOMMENDATIONS

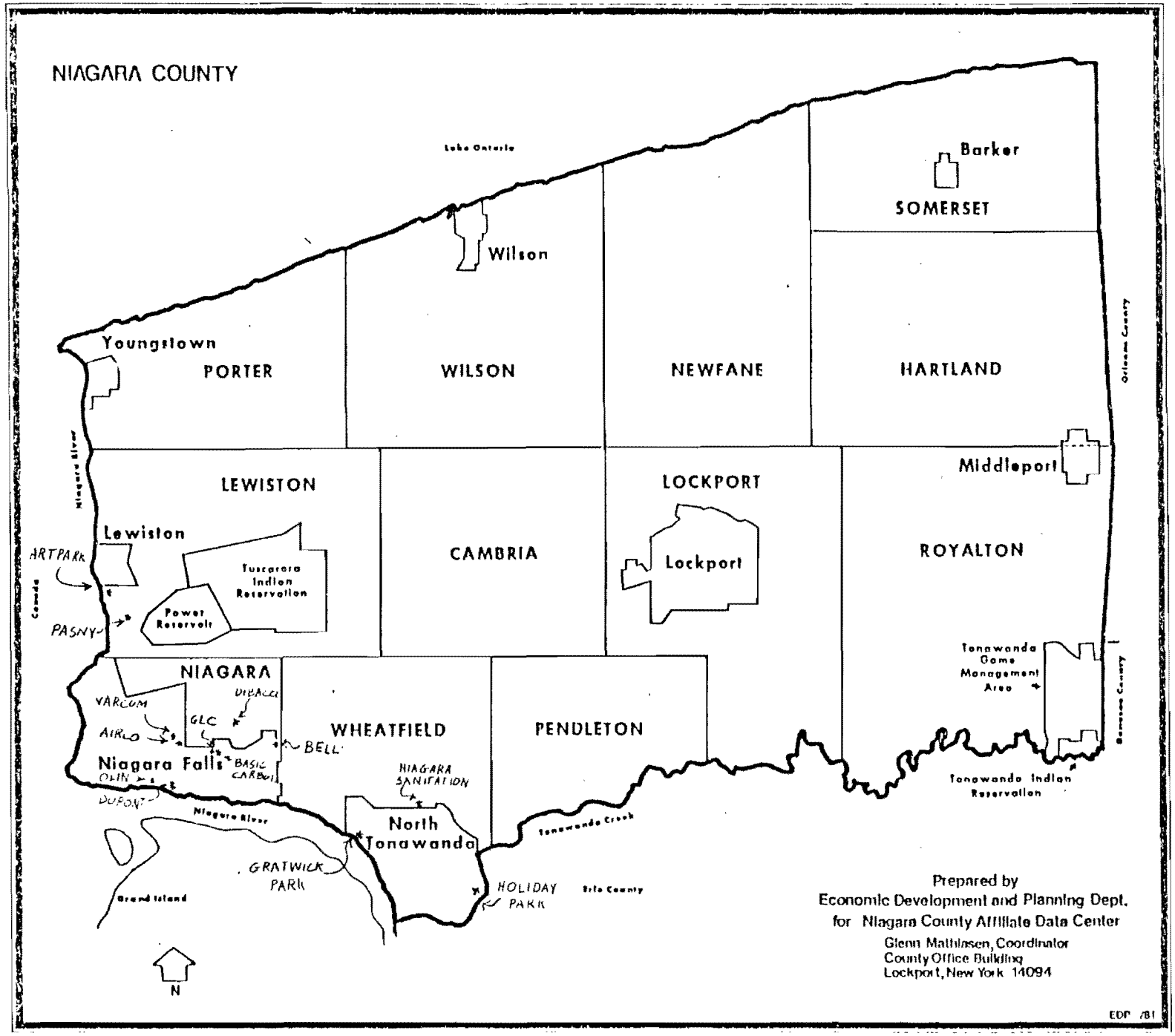
Periodic monitoring should be initiated to detect any migration or surfacing of toxic materials.



STAUFFER CHEMICAL
NORTH LOVE CANAL SITE
DEC # 932034

M Hopkins

LOCATIONS OF SELECTED LANDFILL SITES



RESULTS OF THIS INVESTIGATION

Upon completion of this investigation, recommendations were made for remedial work, additional monitoring and future inspections at several sites. A brief summary of these recommendations is included below. More detailed information is available in the body of the report.

Remedial work was recommended for the Gratwick Park and Niagara Sanitation. The installation of monitoring wells was recommended at the Stauffer PASNY Site and the Dibacco Site.

Additional monitoring was recommended for the following sites: Niagara Sanitation, Dibacco, Stauffer PASNY, Gratwick - Riverside Park and Stauffer Artpark. Periodic inspections are recommended for each of the above sites, Airco and Great Lakes Carbon. Additional investigation is recommended for the Holiday Park Site.

No further actions are recommended at the Basic Carbon, Reichold-Varcum and PASNY Robert Moses Parkway Sites.

The following pages are a summary of analytical results for the samples taken during the course of this study. The analysis were performed under the supervision of the following:

THO - Dr. Francis Yang
NYS Dept. of Environmental Conservation
Buffalo, NY Region 9

Heavy Metals - Mr. Ralph Olsen
NYS Dept. of Health
Division of Lab & Research
Empire State Plaza
Albany, NY 12201

Phenols - Linda Carter
Great Lake Laboratory
SUNY College at Buffalo
Buffalo, NY

This list is complete as of the date of this publication. Additional results will be attached as they become available.

RESULTS OF SAMPLE ANALYSIS

The following procedures were used in collecting samples for analysis as part of this investigation:

1) All samples taken from monitoring wells were obtained from wells which were purged the day prior to sampling. An Isco sampler was used for both purging wells and drawing samples. The sampler was flushed with distilled water between samples.

2) Soil samples were taken from hand augered holes immediately after boring.

3) Samples to be tested for metals were placed in one or two liter plastic bottles with teflon caps. 1 liter glass bottles were used for organic samples. Special 1 liter glass bottles were used for phenol samples.

4) Well samples for metals analysis were preserved with Nitric acid. Organic samples were cooled to 4° C by being placed immediately on ice. Phenol samples were preserved with copper sulfate and phosphouric acid and cooled to 4° C. No preservatives were used with soil samples.

SUMMARY OF SAMPLES TAKEN

SAMPLE #	LOCATION	TYPE	PARAMETER	DATE	NEAREST HOUR
1	Gratwick # 13	Well	Metals	7/16/81	11:00
2	Gratwick # 10	Well	Metals	7/16/81	11:00
3	Gratwick # 11	Well	Metals	7/16/81	11:00
4	Gratwick # 12	Well	Metals	7/16/81	11:00
5	Gratwick # 13	Well	THO	7/16/81	11:00
6	Gratwick # 10	Well	THO	7/16/81	11:00
7	Gratwick # 11	Well	THO	7/16/81	11:00
8	Gratwick # 12	Well	THO	7/16/81	11:00
9	Nia. Sanitation	Well	Metals	7/16/81	1:00
10	Nia. Sanitation	Well	THO	7/16/81	1:00
11	Zimmerman	Well	THO	7/16/81	12:00
12	Old Falls	Well	THO	7/16/81	12:00
13	Artpark	Leachate	Metals	7/17/81	12:00
14	Artpark	Leachate	THO	7/17/81	12:00
15	PASNY	Soil	Metals	7/21/81	10:00
16	PASNY	Soil	THO	7/21/81	10:00
17	Nia. Sanitation	Soil	Metals	7/24/81	12:00
18	Nia. Sanitation	Soil	THO	7/24/81	12:00
19	Nia. Sanitation	Soil	Metals	7/24/81	12:00
20	Nia. Sanitation	Soil	THO	7/24/81	12:00
21	Walck Road	Soil	THO	7/24/81	12:00
22	Gratwick # 13	Well	Phenol	8/12/81	10:00
23	Gratwick # 10	Well	Phenol	8/12/81	10:00
24	Gratwick # 11	Well	Phenol	8/12/81	10:00
25	Gratwick # 12	Well	Phenol	8/12/81	10:00
26	Zimmerman	Well	Phenol	8/12/81	11:00
27	Old Falls	Well	Phenol	8/12/81	11:00
28	Nia. Sanitation	Well	Phenol	8/12/81	12:00
29	Olin-Industrial Welding	Soil	THO,TOC Lindane	9/07/81	12:00

ANALYTICAL RESULTS FOR SAMPLES TAKEN AT GRATWICK - RIVERSIDE PARK

WELL # 10

Sample # 2	Sampled 11:00	7/16/81
Cadmium, total	L.T. 0.02 MG/L	
Chromium, total	L.T. 0.1 MG/L	
Lead, total	L.T. 0.1 MG/L	
Mercury, total	L.T. 0.4 MCG/L	
Nickle, total	0.05 MG/L	
Sample # 6	Sampled 11:00	7/16/81
THO	35 MCG/L	
Sample #24	Sampled 10:00	8/12/81
Phenol	3 MG/L	

WELL # 11

Sample # 3	Sampled 11:00	7/16/81
Cadmium, total	L.T. 0.02 MG/L	
Chromium, total	L.T. 0.1 MG/L	
Lead, total	L.T. 0.1 MG/L	
Mercury, total	L.T. 0.4 MCG/L	
Nickle, total	L.T. 0.05 MG/L	
Sample # 7	Sampled 11:00	7/16/81
THO	Less than 1 MCG/L	
Sample # 25	Sampled 10:00	8/12/81
Phenol	3 MG/L	

WELL # 12

Sample # 4	Sampled 11:00	7/16/81
Cadmium, total	L.T. 0.02 MG/L	
Chromium, total	L.T. 0.1 MG/L	
Lead, total	L.T. 0.1 MG/L	
Mercury, total	L.T. 0.4 MCG/L	
Nickle, total	L.T. 0.05 MG/L	
Sample # 8	Sampled 11:00	7/16/81
THO	4 MCG/L	
Sample # 26	Sampled 10:00	8/12/81
Phenols	0.2 MG/L	

GRATWICK - RIVERSIDE PARK (continued)

WELL # 13

Sample # 1	Sampled 11:00			7/16/81
Cadmium, total	L.T.	0.02	MG/L	
Chromium, total	L.T.	0.1	MG/L	
Lead, total		0.1	MG/L	
Mercury, total	L.T.	0.4	MCG/L	
Nickle, total		0.05	MG/L	
Sample # 5	Sampled 11:00			7/16/81
THO	18	MCG/L		
Sample # 22	Sampled 10:00			8/12/81
Phenols	17	MG/L		

RESULTS OF SAMPLES TAKEN AT NIAGARA SANITATION SITE

WELL SAMPLES

Sample # 9	Sampled 1:00			7/16/81
Cadmium, total	L.T.	0.02	MG/L	
Chromium, total	L.T.	0.1	MG/L	
Lead, total		0.2	MG/L	
Mercury, total	L.T.	0.4	MCG/L	
Nickle, total		0.12	MG/L	
Sample # 10	Sampled 1:00			7/16/81
THO	4	MCG/L		
Sample # 28	Sampled 12:00			8/12/81
Phenol		0.008	MG/L	

SOIL SAMPLES

Samples # 17,18,19 & 20 all Sampled 10:00 7/24/81
Samples # 17 & 18 Metals - Results not yet available
Sample # 19 L.T. 10 PPB THO
Sample # 20 L.T. 10 PPB THO

RESULTS OF SAMPLES TAKEN AT ARTPARK

LEACHATE SAMPLES

Sample # 13 Sampled 1:00 7/17/81

Cadmium, total		0.02	MG/L
Chromium, total		0.1	MG/L
Lead, total		0.5	MG/L
Nickle, total		0.73	MG/L
Mercury, total	L.T.	0.4	MCG/L

Sample # 14 Sampled 1:00 7/17/81

THO 47 MCG/L

RESULTS OF SAMPLES TAKEN AT HOLIDAY PARK

WELL SAMPLES

WELL # 4

Sample # 11(Zimmerman) Sampled 12:00 7/16/81

THO 4 MG/L

Sample # 26 Sampled 11:00 8/12/81

Phenols .008 MG/L

WELL # 8

Sample # 12 (Old Falls) Sampled 12:00 7/16/81

THO 3 MCG/L

Sample # 27 Sampled 11:00 8/12/81

Phenol .01 MG/L

SOIL SAMPLES

Sample # 21 Walch Road Sampled 12:00 7/24/81

THO Less than 10 PPB

RESULTS FOR SAMPLES TAKEN AT PASNY SITE

SOIL SAMPLES

Sample # 15	Sampled 10:00	7/21/81

Metals - results not yet available.

Sample # 16	Sampled 10:00	7/21/81
THO	Less than 10 PPB	

CH-1153

E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
NIAGARA FALLS, N.Y. 14302

CHEMICALS AND PIGMENTS DEPARTMENT

APPENDIX II

July 15, 1981

Peter J. Buechi, P.E.
Senior Hydraulic Engineer
New York State Department of Environmental Conservation
600 Delaware Avenue
Buffalo, NY 14202

TESTING REPORT - IATF PRIORITY II SUSPECTED FORMER LANDFILL SITE NO. 19 - NEAR BUFFALO AVENUE AND HYDE PARK BOULEVARD

Dear Mr. Buechi:

We have completed a testing program to characterize soil taken from a suspected former landfill site southwest of the intersection of Buffalo Avenue and Hyde Park Boulevard. No evidence was found, either by visual observation or by leachate test analyses, of past burial of sodium cell rubble, sludge or any other process material.

The site had been reported in the Du Pont Niagara Falls Plant response to the Interagency Task Force (IATF) On Hazardous Wastes Survey dated November 13, 1978 as a "possible" inactive disposal site. A pensioner, interviewed as part of that survey, had recalled that sodium cell bricks, metal parts, sludge, rubble or demolition debris in unknown quantities may have been used as fill in that area prior to 1948. From 1948 to the present, the area has been used as a parking lot.

Following a meeting and inspection of the site on May 11, 1981 with Mr. Ahmed Tayyehi, DEC, and Mr. Rick Abbot, NCHD, a testing program was developed to characterize soils in the site and determine if any environmental hazard exists. We carried out the following program in accordance with your letter of May 26:

- Three sampling points were selected within the boundary of the suspected landfill site as shown on Attachment A, Drawing No. EE 30-2750. Locations of sampling pits are indicated by ①, ② and ③ on the map.

- Five-foot deep pits were dug at each location using a back-hoe.

- In each pit, soil samples were taken at one foot intervals to a five-foot depth and composited [See Attachment B, Advanced Environmental Systems (AES), Inc. Laboratory Report, Sample Collection. Please note that in the AES report Sample Pit A corresponds to map location ①, Pit B to ② and Pit C to ③].

- One-hundred grams of the composite sample for each pit was extracted by AES using the EP Extraction Procedure (FR 45, No. 98, Section 261, Appendix II). The extract was analyzed for fourteen metals and Total Organic Halides with the results shown in Attachment B, Table 1.

With the exception of sodium, all EP-extract metal analyses showed concentrations less than 0.25 mg/l, and most were below the limits of detection as indicated in the report. Total Organic Halides analyses (expressed as mg Cl^-/l) were likewise less than the 0.010 detection limit.

Sodium concentrations were 26.2, 11.5 and 50.0 mg/l in the extracts from the three composite samples. This is not surprising, considering the fact that the area has been used as a parking lot subjected to winter salting for over thirty years. We do not believe these concentrations are an indication of the presence of sodium sludge or other process wastes in the area. (We would expect much higher sodium concentrations if salts, sludge or other process wastes were present).

AES description of the strata observed in each pit corresponds to observations of four Du Pont supervisory personnel. Only ordinary fill was evident, including some slag, gravel, rock, and an occasional building brick.

We therefore conclude from both physical appearance and chemical analysis of soil leachates that this suspected site was not used for chemical wastes nor apparently even any sodium cell demolition rubble.

We believe this program and report rule out the possibility of environmental hazards emanating from this site. By copy to Mr. John C. McMahon, we therefore request that this site be added to the list previously requested for removal from the IATF list of industrial waste disposal sites (IATF Draft Report, March 1979) in a letter dated April 7, 1981 to Mr. McMahon from Barbara J. Northan. The subject site now requested for removal is listed in that report Page II-23 as Site No. 19 (Map Location), Priority II, Area West of Hyde Park Boulevard, South of Buffalo Avenue.

Very truly yours,

Barbara J. Northan for Robinson P.E.

Barbara J. Northan
Safety, Occupational Health
& Environmental Control
Superintendent

cc: JCSpagnoli, Director
Region 9, NYSDEC

John C. McMahon, Regional Engineer
Region 9, NYSDEC

Maurice Vaughn
Niagara County Health Department

0436B (46A)
BJN/dh
Attachments

ATTACHMENT B

ANALYSIS OF SOIL SAMPLES FROM DUPONT ELECTRONICS MATERIALS DIVISION

Report Prepared For

E.I. DuPONT deNEMOURS & COMPANY

by

ADVANCED ENVIRONMENTAL SYSTEMS, INC.

Prepared by:

Robert C. Wojcik
Operations Manager

July 2, 1981

AES - Report KQ

Advanced Environmental Systems, Inc.

Monitoring and Support Laboratory

LABORATORY REPORT

SCOPE OF WORK

As requested by Mr. Don Roberson of E. I. DuPont deNemours & Company, Advanced Environmental Systems (AES) has completed a sampling and analytical study to provide data for evaluation of soil samples collected from the premises of the DuPont Electronics Materials Division, Niagara Falls, New York. Five samples were obtained from each of three sample pits located in the parking lots adjacent to Building No. 428.

The samples from each pit were composited and extracted in accordance with the EP Toxicity Procedure. The EP extract was analyzed for Total Organic Halogens (TOH); for the 13 priority pollutant metals: antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc; and for sodium.

Advanced Environmental Systems, Inc.

Monitoring and Support Laboratory

LABORATORY REPORT

SAMPLE COLLECTION

The samples were collected on June 16, 1981 by Mr. Albert Zaepfel, AES Sampling Technician; Dr. Quenton Wheatly, Senior Engineer, and Mr. William Kilgour, Senior Supervisor, both of DuPont; and Mr. Kenneth Robertson, backhoe operator of Cerrone Corporation. A total of 15 soil samples were collected and transported to the AES laboratories immediately after collection in cooled ice chests.

Samples collected and delivered by:

_____

Albert C. Zaepfel, Sampling Technician
June 15, 1981

Sampling of Sample Pit A began at 10:35 a.m. and was completed at 11:05 a.m. Sample Pit A was located in a parking lot approximately 50 ft. north of Building 425 and 150 ft. northeast of Building 428. The sample pit was situated perpendicular to Building 425. The depth of Sample Pit A was approximately 7 ft. and measured approximately 4 ft. wide. Soil samples were taken at 12 inch intervals for a total of five samples per sample pit. Samples were obtained using a 6 inch stainless steel spade and placed in 1 quart amber glass bottles. Surface soil was removed and the actual soil sample was taken from a depth of no less than 1 inch from the surface of pit wall. The spade was washed with distilled water before and after each sample collection. A new spade was used for each sample pit.

Sample Pit A contained three specific soil strata. The upper most layer measured approximately 23 inches, the middle layer approximately 12 inches, and the bottom layer extended 36 inches; but may have extended further.

Sampling for Sample Pit B began at 11:10 a.m. and was completed at 11:38 a.m.. Sample Pit B was located approximately 100 ft. north of Building 425 and 300 ft. northeast of Building 428 in a parking lot. This pit was situated parallel to Building 425 and measured 6 ft. deep and 4 ft. wide. Five samples were taken at 12 inch intervals. Sampling was carried out by the method previously described.

LABORATORY REPORT

SAMPLE COLLECTION (Cont'd)

Sampling for Sample Pit C began at 11:45 a.m. and was completed at 12:20p.m. Five sample points were again measured at 12 inch intervals. Sample Pit C was located in a parking lot approximately 300 yards east of Sample Pit B.

RESULTS OF SAMPLE COLLECTION

Five soil samples were obtained from three separate sample pits. Sampling Pit A contained a hard strata layer at the 24 inch depth mark. A sample at this point was not able to be obtained at exactly the 24 inch mark. The actual sample was taken at 23 inches. Sample Pit B and C differed in consistancy and general appearance to Sample Pit A in that they lacked distinct stratification, however, they were similar to each other. The general appearance of all three pits was an upper layer of blacktop, another layer of gravel and crushed glass, and a final layer of a clay consistency. All three pits contained water, with Sample Pit A having 6-8 inches and B and C having 2-3 inches. The sample pits were dug one hour prior to sampling with no precipitation during that interval.

LABORATORY REPORT

ANALYTICAL METHODOLOGY

Fifty grams of each sample were composited for each pit. The composited samples were carefully mixed to obtain a homogenous sample.

One hundred grams of each composite was extracted at pH 5 in accordance with the EP Extraction Procedure described in Federal Register, Vol. 45, No. 98, Section 261, Appendix II.

The EP extract was analyzed for metals in accordance with "Methods for the Chemical Analysis of Water and Wastes", Environmental Monitoring and Support Laboratory, U.S. EPA, Cincinnati, Ohio; EPA 600/4-79-020, March 1979.

Analysis for THO was analyzed as follows:

1. One thousand mls. of the EP extract from each composite were liquid-liquid extracted with 6% ethyl ether in hexane.

2. The extract was concentrated to 10.0 mls. using Kuderna-Danish Concentrators.

3. The concentrate was injected into a Varian Model 3700 gas chromatograph equipped with a halogen specific Hall Detector (Tracor Model 560/700A).

4. The total areas of all peaks were summed and calculated in terms of a chloride (Cl^-) standard curve using Lindane as a standard.

5. The final result is reported as mg Cl^-/1.

LABORATORY REPORT

RESULTS

Table 1. Analysis of EP Extracts from DuPont Soil Composites (Expressed as milligrams per liter or ppm)

Analysis	Pit A	Pit B	Pit C
Antimony	0.250	0.250	0.250
Arsenic	0.071	0.025	0.063
Beryllium	<0.05[1]	<0.05	<0.05
Cadmium	<0.030	<0.030	0.030
Chromium	<0.075	<0.075	<0.075
Copper	<0.050	<0.050	<0.050
Lead	<0.250	<0.250	<0.250
Mercury	<0.001	<0.001	<0.001
Nickel	<0.050	<0.050	<0.050
Selenium	0.124	0.085	0.020
Silver	<0.040	<0.040	<0.040
Sodium	26.2	11.5	50.0
Thallium	<0.500	<0.500	<0.500
Zinc	<0.020	0.080	0.130
TOH (mg Cl^-/l)	<0.010	<0.010	<0.010

[1] (<) Less than equals the limits of detection.

QUALITY ASSURANCE

I. Accuracy

Table 2. Analysis of Spiked Samples and EPA Test Standards
(Expressed as milligrams per liter or ppm)

Analysis	Type	Original Concen.	Added Concen.	Expected Concen.	Reported Concen.	Acceptable 95% Confidence Limits
Antimony	Spike	0.125	0.125	0.250	0.250	0.185 - 0.315
Arsenic	Spike	0.036	0.037	0.073	0.070	0.056 - 0.093
	EPA	0.061	-	0.061	0.062	0.048 - 0.076
Beryllium	Spike	<0.05	0.05	0.05-0.10	0.05	0.04 - 0.125
Cadmium	EPA	0.069	-	0.069	0.065	0.055 - 0.086
Chromium	EPA	0.304	-	0.304	0.300	0.240 - 0.375
Copper	Spike	<0.05	0.10	0.10-0.15	0.13	0.08 - 0.18
	EPA	0.374	-	0.374	0.390	0.300 - 0.467
Lead	EPA	0.380	-	0.380	0.360	0.304 - 0.475
Mercury	EPA	0.002	-	0.002	0.002	0.001 - 0.004
Nickel	EPA	0.165	-	0.165	0.167	0.132 - 0.206
Selenium	Spike	0.010	0.010	0.020	0.018	0.014 - 0.026
	EPA	0.016	-	0.016	0.015	0.010 - 0.022
Silver	Spike	<0.04	0.05	0.04-0.09	0.05	0.03 - 0.011
Sodium	EPA	0.215	-	0.215	0.235	0.172 - 0.269
Thallium	Spike	<0.50	0.50	0.50-1.0	0.60	0.40 - 1.2
Zinc	Spike	0.06	0.05	0.11	0.12	0.08 - 0.14

LABORATORY REPORT

QUALITY ASSURANCE

II. Precision

Analysis for metals and TOH were performed in triplicate. The results listed in Table 1 are an average of the triplicate analysis.

DISCUSSION

Quality assurance data indicates that the values reported are within the 95% Confidence Limits recommended by the U.S. EPA, Environmental Monitoring and Support Laboratory.

APPENDIX III

ANALYTICAL RESULTS FROM 1979 EPA REPORT FOR NORTH LOVE CANAL

SAMPLE		CONTAMINANTS PARTS PER MILLION (p.p.m)									
		SULPHUR	PHOSPHORUS	MANGANASE	MAGNASIUM	CYANIDE	FLUORIDE	NITRATE	PHOSPHATE	PHENOL	CHLORIDE
BOREHOLE	SAMPLE NO.	(S^-)	(P)	(Mn)	(Mg)	(CN)	(F)	(NO_3)	(PO_4)	(C_6H_3OH)	(Cl)
1	1	2	--	--	10	--	--	--	--	--	--
2	1	118	--	--	40	--	--	--	--	--	--
	2	655	--	--	2	0.01	6.1	0.3	--	0.14	846
4	1	7	--	--	11	--	--	--	--	--	--
6	1	12	--	--	7	--	--	--	--	--	--
	2	11	--	--	7	--	--	--	--	--	--
	4	4	--	--	9	--	--	--	--	--	--
	7	100	--	--	48	0.01	64	28	--	0.001	--
7	1	27	--	--	16	--	--	--	--	--	--
	2	5	--	--	11	0.01	86	5	--	0.005	--
8	1	965	0.7	0.08	32	--	--	--	--	--	--
	2	1910	1.2	0.28	96	--	--	--	--	--	--
	3	1662	1.0	0.12	2.4	--	--	--	--	--	--
9	1	420	0.5	0.01	14	--	--	--	--	--	--
	2	8797	3.4	40	744	--	--	--	--	--	--
	3	4487	2.8	12	852	--	--	--	--	--	--
10	2	335	0.8	0.01	13	--	--	--	--	--	--
	3	949	1.6	0.01	29	0.47	70	4.2	8.6	0.38	--
	4	21	0.1	0.01	3.6	--	--	--	--	--	--
13	1	14	--	--	4	--	--	--	--	--	--
	2	9	--	--	1	--	--	--	--	--	--
	4	21	--	--	4	--	--	--	--	--	--
14	1	29	--	--	4	--	--	--	--	--	--

TABLE I (CONT'D)
CHEMICAL ANALYSIS OF SELECTED SOIL SAMPLES

SAMPLE		CONTAMINANTS PARTS PER MILLION (p.p.m)									
		SULPHUR	PHOSPHORUS	MANGANASE	MAGNASIUM	CYANIDE	FLUORIDE	NITRATE	PHOSPHATE	PHENOL	CHLORIDE
BOREHOLE	SAMPLE NO.	($S^{=}$)	(P)	(Mn)	(Mg)	(CN)	(F)	(NO_3)	(PO_4)	(C_6H_3OH)	(Cl)
14	2	14	--	--	4	0.01	112	17	--	0.006	--
	4	10	--	--	3	--	--	--	--	--	--
17	1	1398	1.9	0.24	16	--	--	--	--	--	--
	2	1710	2.0	0.01	16	0.01	152	8.8	--	0.001	--
	3	504	--	--	21	--	--	--	--	--	--
	4	121	--	--	5	--	--	--	--	--	--
	5	196	--	--	8	--	--	--	--	--	--
18	1	0.22	--	--	16	--	--	--	--	--	--
	2	0.43	--	--	2	0.01	0.2	0.01	--	0.001	0.03
	3	4.8	--	--	0.8	--	--	--	--	--	--

TABLE II

CHEMICAL ANALYSIS OF SELECTED GROUND WATER SAMPLES

SAMPLE	pH	SULPHATE (SO_4) p.p.m.
BH 2	9.7	368
BH 3	8.0	52
BH 6	7.8	67
BH 7	7.4	136
BH 8	7.4	664
BH 9	7.9	160
BH 10	7.3	111
BH 11	7.5	124
BH 12	7.3	53
BH 13	7.4	107
BH 13	7.9	123
BH 14	6.8	88
BH 15	6.8	100
BH 16	7.6	116
BH 17	7.1	2006
BH 18	7.7	31
1176 Jarrett St (sump)	7.1	1575
Bottom of escarpment	8.0	283

SECTION 3

PRELIMINARY INVESTIGATION AND PROFILE REPORTS FOR TWENTY-SIX SUSPECTED INDUSTRIAL DISPOSAL SITES IN NIAGARA COUNTY - 1982

PRELIMINARY INVESTIGATION AND PROFILE REPORTS FOR TWENTY-SIX SUSPECTED INDUSTRIAL DISPOSAL SITES IN NIAGARA COUNTY, NEW YORK.

PREPARED BY

NIAGARA COUNTY HEALTH DEPARTMENT
10TH & E. FALLS STREETS
NIAGARA FALLS, NEW YORK 14302

MARCH, 1982

INTRODUCTION

This report is a collection of twenty-six industrial disposal site profile reports written by Mr. Michael Hopkins, Assistant Public Health Engineer of the Niagara County Health Department, as part of an agreement with the New York State Department of Environmental Conservation to assist in the investigation of inactive disposal sites in Niagara County. The profile reports are intended for use as a basis for further investigation and are not intended to provide conclusive data for the assessment of the potential impacts of these sites. Any information contained in this report is to be considered as preliminary and subject to verification or change, as additional data becomes available.

The sites investigated in these reports were chosen from the sites included in Hazardous Waste Disposal Sites in New York State, Volume III on the basis that they 1) were roughly within three miles of the Niagara River, 2) were a confirmed or suspected industrial disposal area and 3) have not received extensive previous investigation and additional data is needed.

The investigation of these sites included the following actions: 1) Compilation of data already available in Health Department files and the Inter Agency Task Force Report (1979), 2) Interviews with site owners, users, municipal employees and officials, area residents and DEC and NCHD personnel, 3) Site inspections, 4) Review of aerial photography, old maps, etc. and 5) compilation of existing soil and geological data from various sources. The investigation was begun in November, 1981 and completed in March, 1982, with the majority of the field work being done in November and December, 1981.

The Niagara County Health Department wishes to thank all the numerous parties who contributed the information and assistance needed in the preparation of this report.

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NAME

FRONTIER CHEMICAL - PENDLETON (DEC #932043)

LOCATION

The Frontier Chemical property is an 89 acre parcel bounded by Town Line Road on the west, the Hooker Chemical Company easement (brine line) on the east and south and roughly by Bull Creek to the north. This area includes approximately 60 acres of wetland, 20 acre Quarry Lake and inactive storage and processing areas at the southern end of the property.

A site sketch is included.

OWNERSHIP

The site is currently owned by Frontier Chemical Waste Processes, Inc., 4626 Royal Avenue, Niagara Falls, NY 14303. Frontier leased this property from Central Clay Products, Inc. from 1958 till 1969 and purchased the property in 1969.

HISTORY

The Pendleton Site was used for the production of bricks, tile and concrete products prior to 1958, while operated by Central Clay Product. Clay was quarried on-site prior to 1950. The excavated area, which remained filled with water, became Quarry Lake. Quarry Lake covers from 15 to 22 acres, depending on stage and averages 11 feet deep.

Frontier Chemical began operations at the Pendleton Site in 1959. An industrial waste treatment and disposal facility was operated here until the firm moved into the Royal Avenue facility in 1976. Cleanup activities were begun in 1976 and are still in progress.

Frontier operated several treatment processes on this site including incineration, neutralization, oxidation-reduction and material recovery. Wastes treated included waste acids and bases, solvents, oils and sludges. Some wastes were stored here prior to disposal off-site.

Neutralization of various waste acids was performed in open lagoons scooped into the clay. After processing with lime or waste bases, the supernatent was transferred to Quarry Lake. The sludge remaining was disposed of by landfilling at an unknown location. It is possible that some sludge was disposed of on-site.

Quarry Lake became acidic from discharges of neutralized acids. Contamination with heavy metals was reported in a 1980 Engineering Report. A sludge layer has formed on the lake bottom. This sludge is reported to be calcium sulfate with various metal salts included.

HISTORY (continued)

Other areas of the plant were used for the storage and processing of wastes including oils, solvents and sludges. Soil contamination in these areas is a possibility, although Frontier reportedly scraped up some soil in 1977 and 1978 for removal from site.

Area residents have alledged that drummed wastes are buried on-site. According to the 1980 Engineering Report and Frontier correspondence, no such burial has occurred.

While active, odors were frequently reported by nearby residents and officials of the Town of Pendleton. At least one legal referral was forwarded by the Niagara County Health Department alledging that off-site odors (hydrogen sulfide) were generated from the neutralization process. Spills and pooling of chemicals were reported as potential sources of other odors.

Inspections of this site are performed on a quarterly basis by the Niagara County Health Department. Additional inspections are made to monitor the progress of remedial activities.

REMEDIAL WORK

In 1973, effluent standards were exceeded in the discharge of Quarry Lake to Bull Creek. Frontier had berms constructed around the lake to eliminate the overflow to Bull Creek. Prior to this time, Quarry Lake discharged to Bull Creek on a near continual basis. Since this construction, the level in Quarry Lake has continued to rise.

A plan for dewatering and filling the lake was submitted in March, 1980 and later approved by DEC. This plan involves neutralizing lake water in two lagoons prior to discharge to the Niagara County Sewer District line on Beach Ridge Road. The discharge must meet heavy metals concentration standards and have a pH above 6 prior to discharge. Twelve million gallons were pumped in 1981. Frontier estimates that the dewatering will take two to three years to complete.

The sludge on the bottom of the lake will be pushed to the deepest portion of the lake. When sufficiently dewatered, the sludge will be mixed with flyash and other materials to solidify it and then capped with clay. The excavated area will be filled with demolition debris and other non-putrecible materials (218,000 cubic yards). A two and one half foot clay (10^{-7} permeability) cap will be constructed and finally the area will be top soiled and seeded.

Demolition debris is being stockpiled on-site for further use in filling the excavation. A Part 360 Permit is in effect for this operation.

According to Mr. Calvin Schmege of Frontier, no drums are buried on-site, however, he is unaware of any observation holes being dug to verify that drums are not present. Much of the soil has been dug up, but Mr. Schmege did not know of any being taken off-site. No drums are currently stored on-site. Some tanks still remain in place. Mr. Schmege has reported that the remedial work done on the lake itself is essentially in compliance with the 1980 Engineering Report.

ANALYTICAL DATA

The following data was obtained from the 1980 Engineering Report (MacMullen, Associates; Analysis by Ecology & Environment)

Analysis of Lake Water (July, 1978)

pH	2.8
Phenol, mg/l	0.02
Total Suspended Solid,mg/l	2.0
Total Dissolved Solids,mg/l	3624
Cu,mg/l	9.3
Cr,mg/l	2.1
Fe,mg/l	60.6
Cd,mg/l	0.93
Ni,mg/l	3.2
Zn,mg/l	1.3
Pb,mg/l	0.03
NH_3 (asN) mg/l	30.2
BOD5, mg/l	2
Chlorinated Hydrocarbon mg/ml	0.747 (as Lindane)

Analysis of Quarry Lake Sludge

The composition of the bottom sludge is reported as principally calcium sulfate with iron, nickle, copper and other metal salts. Chlorinated hydrocarbons are listed as less than 3.25 ppm and phenols less than 1 ppb.

SOILS/GEOLOGY

The USDA Soil Conservation Service lists the soils in the site as Odessa Silt-Clay Loam. These soils contain a large percentage of fines (90 to 99% pass #200 sieve) to a depth of 5 feet. The substratum is expected to contain large quantities of clay, as evidenced by the previous use of this area as a clay barrow pit. With slowly permeable to impermeable subsoils, a perched water table and poor natural drainage can be expected.

Health department permits and inspection reports list the soils as dense clay, as do early Frontier Chemical documents.

R.B. MacMullen & Associates stated that borings show 10 feet of silty-clay with silt and fine sand lenses over 23 feet of soft clay with a trace of silt and very fine sand in lenses. It was noted that water was not generally present during drilling, but after two hours, water was found at 15 to 22 foot depths.

Bedrock is Lockport Dolomite to unknown depths. No boring data was found to indicate the depth of bedrock or the depth to bedrock aquifers. Lockport Dolomite characteristically has several water bearing zones, but the depth to these zones is variable.

GROUNDWATER

The depth to groundwater is never less than 14 feet according to Frontier. Public water was provided to this area in the late 1950's and most, if not all, residents are believed to use public water. It is possible that some residents are still using well water for drinking, but none could be found within a 3 mile radius. No other uses for the groundwater are known.

SURFACE WATER

The nearest surface water is Bull Creek, which is a tributary of Sawyer Creek. Sawyer Creek enters the Tonawanda Creek (Erie Canal) in North Tonawanda. The nearest Bull Creek comes to Quarry Lake is 700 feet, although the area separating them is wetland. Bull Creek and Sawyer Creek waters are not used for domestic or industrial purposes. Tonawanda Creek is roughly three miles downstream.

Although the flood potential for Quarry Lake is reduced to negligible, Bull Creek floods the wetlands and adjacent areas regularly. The berms surrounding Quarry Lake protect it from these flood waters.

The "Frontier Wetlands" comprise the northern 60 acres of the property and are designated a wooded wetland.

AIR

Complaints of off-site odors have been received both, while the site was active and after closure. The nearest residential areas are located across Town Line Road and south of the site (100 feet). The nearest agricultural area is 190 feet away (across Town Line). There are no major industrial or commercial areas within 2 miles. It is estimated that 100 to 1,000 people live within 1 mile of this site.

FIRE AND EXPLOSION

No problems are anticipated with fire and/or explosions. All flamable wastes are assumed removed from the site. Off-site buildings are at least 400 feet from production areas. The majority of the site is wetlands and Quarry Lake, providing adequate water in addition to public water in case of a fire.

SECURITY

The processing area and Quarry Lake are protected by a steel mesh fence with a barbed wire barrier atop it. A locked gate seals the entrance.

CONCLUSIONS

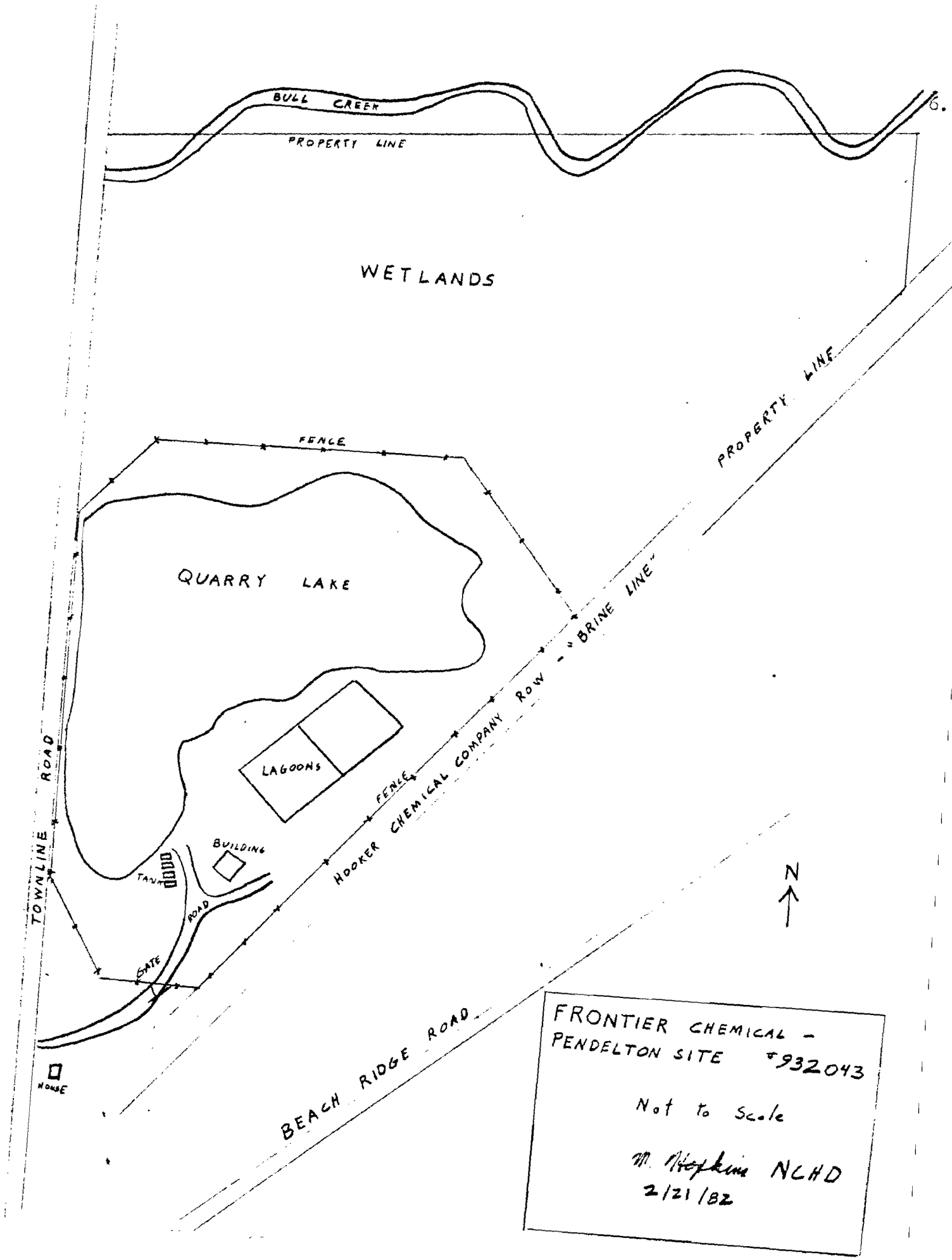
This site was used for the processing and storage of significant quantities of hazardous waste. It will be necessary to determine that all contaminated material is removed or permanently disposed of. Observation holes and

CONCLUSIONS (continued)

samples will be required for this purpose. Additional observation holes could be used to check for buried wastes.

The remedial work done on Quarry Lake must be monitored to assure that it is done in accordance with the Engineering Report.

Wells could be placed around the lake, in the old processing areas or in the wetlands to provide hydrogeological information and evaluate the extent of any possible groundwater contamination.



FRONTIER CHEMICAL - PENDELTON SITE #932043

Not to Scale

M. Hopkins NCHD
2/21/82

NAME

BUFFALO PUMPS DIVISION (DEC #932044)

LOCATION

The disposal area is located north of the Buffalo Pumps Plant at 874 Oliver Street, North Tonawanda, NY. This area is a 1.3 acre lot between the plant fence line and a property line running roughly parallel to and 200 feet south of Industrial Drive. The lot measures approximately 200 feet by 300 feet.

A site sketch is attached.

OWNERSHIP

The property is owned by Buffalo Pumps Division, Buffalo Forge Company. Contact can be made through Mr. Kibbe at the North Tonawanda Plant.

HISTORY

According to the Inter-Agency Task Force Report (1979) the plant was purchased in 1891 by Voelker and Felthousen and operated as the Buffalo Steam Pump Company until 1931. In 1931, the plant became the Buffalo Pump Division, Buffalo Forge Company. Buffalo Pumps manufactures centrifugal pumps.

Buffalo Pumps used coal fired boilers until 1970 when gas/oil burners were installed. Prior to 1971, boiler ash was disposed of in an area adjacent to the north side of the plant yard. After 1970 ash was not generated. The total volume of ash disposed of is not known.

An inspection of the inactive disposal area was made by this department in December, 1981. The area has recently received up to three feet of clean fill as part of an expansion by Buffalo Pumps. Because of this fill material, a visual inspection of waste material was not possible. According to Mr. Kibbe of Buffalo Pumps, no material other than ash was disposed of here. The lot has been vacant for many years previous to this writing.

Currently the principal wastes generated by Buffalo Pumps are wood, paper, waste oil and paint sludge. The wastes generated while the site was active are expected to be the same with the addition of boiler ash. Wood, paper and general refuse are hauled off-site by Rapid Disposal. Waste oils are removed by Booth Oil. Paint sludge and scraped metals are transported to the Cheektowaga Plant of Buffalo Forge where they are incinerated, recycled or hauled off-site for disposal.

A review of USGS maps (Tonawanda west - 7½') and USDA aerial photos (ARE 3V-75, 1958) provided no additional information.

RESULTS OF PREVIOUS SAMPLING AND ANALYSIS

There is no record of any prior sampling. Mr. Kibbe of Buffalo Forge was unaware of any previous sampling.

SOILS/GEOLOGY

The exact composition of the original soils is unknown. A detailed soil survey for this area is unavailable. Data from nearby areas indicates that the soils are likely to contain a large percentage of clay and exhibit a low permeability in one or more levels.

The structural fill being deposited here was found to contain a variety of soil types including coarse components such as gravel and bricks. The properties of this material are unknown.

If this site is built upon as planned, the buildings and the adjacent pavement should render the surface impermeable and provide for drainage of runoff.

The bedrock is expected to be Lockport Dolomite although this has not been documented. The thickness of the Dolomite and the depth to water bearing zones is not known.

GROUNDWATER

The depth to groundwater has not been determined. The direction of flow is expected to be generally toward the Niagara River(west).

There are no known drinking water wells within three miles of this site. Public water is available throughout this area. There are no industrial or other users of groundwater in the area. There are no monitoring wells near the site.

SURFACE WATER

The nearest surface water body is the Niagara River, 1500 feet away. Direct entry of runoff to the River is not possible, but storm sewers draining this area do enter the river. Groundwater beneath this site is expected to enter the Niagara River.

The Niagara River is used for industrial and drinking water, recreation, navigation and other uses. The City of Niagara Falls water intakes are located four miles downstream. The site is not subject to flooding and there are no wetlands within one mile.

AIR

There have been no complaints of odors or other air quality problems received regarding this site. Due to the nature of the wastes present, none are expected.

The nearest residence is less than 400 feet away. 3000 to 10,000 people live within one mile of the site. Commercial and industrial areas ajoin the former disposal area. The property is entirely within the City Limits of North Tonawanda.

FIRE AND EXPLOSION

The potential for fire or explosion is very small, due to the nature of the wastes present.

Several thousand buildings and over 10,000 people are located within 2 miles. The nearest off-site building is less than 200 feet away.

DIRECT CONTACT

Although physical access is not restricted, all wastes are or will be covered to prevent direct contact. When the expansion is complete access will presumably be restricted and standard plant security measures used.

CONCLUSIONS

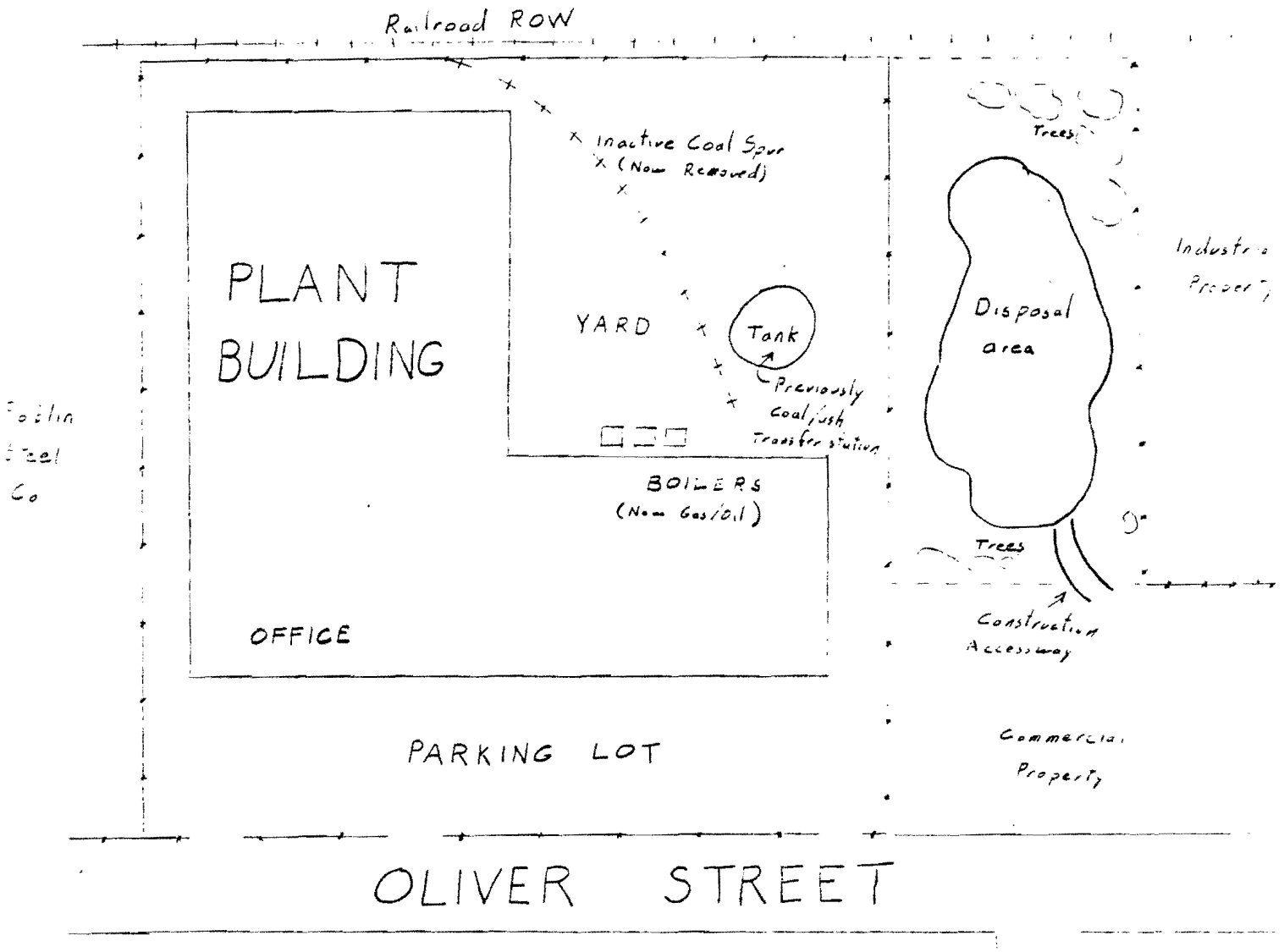
This site is believed to be a disposal area for coal-boiler ash. There is no indication that other materials have been disposed of here. Future construction on this site should eliminate the infiltration through the wastes.

Samples of the waste materials could be obtained from augered holes if construction activities do not prevent access to the soil (for example by pouring concrete slabs, etc.) Groundwater and soil samples could be obtained from holes around the perimeter of the site. The western boundary of the property is expected to be the downgradient side. If borings or wells are placed, additional geotechnical and hydrological data could be obtained.

Further inspections are not recommended as the condition of the wastes is not detectable from the surface.

BUFFALO PUMPS DIV.; BUFFALO FORGE CO.

DEC # 932044



NOT TO SCALE

Michael Hopkins
NCHD
12/16/91

NAME

VETERAN'S PARK (DEC #915078)

This site is listed in Hazardous Waste Disposal Sites in New York State, Volume 3 as being located in Tonawanda, NY (Erie County). Investigation has found that this site is actually a portion of Gratwick-Riverside Park in North Tonawanda, Niagara County.

Gratwick-Riverside Park is also listed as an inactive landfill site. This site was investigated, including sampling in July, 1981. To avoid duplication, the reader is referred to the Niagara County Health Department Report, An Investigation of Selected Inactive Toxic Landfill in Conjunction with The Niagara River Study, August, 1981, for further information.

NAME

NCSWD - WHEATFIELD SITE (DEC #932026)

LOCATION

This site is a 50 acre inactive landfill, which stradles the Wheatfield - North Tonawanda city line north of the Town of Wheatfield Right-of-Way, which parallels River Road. The filled area extends to 100 yards west of Witmer Road.

A site sketch is attached.

OWNERSHIP

The property is currently owned by the Town of Wheatfield. At the time the site was active, the owner of record was the County of Niagara. Ownership was transfered from the County to a private firm prior to transfer to Wheatfield.

HISTORY

The Niagara County Solid Waste Agency opened the Wheatfield landfill in 1968. Wastes accepted included municipal wastes, sewage sludge and industrial wastes. The site was closed in October, 1976, after a history of operational problems.

From the time of opening, operating problems and violations of Part 19 of the NYS Sanitary Code (and later Part 360 of the 6 NYCRR) were common. The files of the Niagara County Health Department show that fires, inadequate cover, pooling of water and chemicals, odors, unrestricted access and leachate leaving the site were recorded while the facility was active. In 1972 and 1973 several reports show that leachate from this site entered the Niagara River in large quantity via drainage ditches. On at least one occasion, this leachate formed a large brown plume in the river and odors have been detectable along the shoreline. Oil was found in the ditchs on numerous occasions and water in these ditchs was often strongly septic.

Over 100 users are believed to have used this site (75 are recorded as using the site in December, 1971, alone). The City of Niagara Falls, North Tonawanda and Niagara Sanitation used this site for disposal of municipal refuse. Bell Aerospace, Carborundum, Hooker - Durez, DuPont, International Paper, Roblin Steel, NL Industries, Olin-Mathesion and Hooker Chemical (Niagara Falls) are recorded as industrial users of this site. Sewage sludges from Niagara Falls, North Tonawanda and possibly Lockport were received until closure.

The site was never properly closed and its condition appears to be detereorating with time. Recent inspections made by the Niagara County Health Department have revealed problems with scavenger dumping, protruding refuse, unrestricted access, erosion, lack of vegatation, pooling of water clogged ditchs and flowing leachate streams. Grading is rough and uneven and general site drainage

HISTORY (continued)

is poor in many areas. Leachate was found to collect in low interior areas, but none was found leaving the site. The ditchs showed no sign of oil or leachate.

Area residents have been vocal in expressing concern for the impacts of this site. In 1976, several complaints were received by the Health Department alledging that burns and illness in people having entered the site were caused by exposed chemicals. These claims were not substantiated by evidence obtained in the subsequent investigation.

The financial burden for clean up and closure of this site may be beyond the resources of the current owner, the Town of Wheatfield. This site is presently under consideration for a possible superfund grant to fund clean up efforts.

Additional investigation has been conducted by the DEC Region 9 office.

REVIEW OF AERIAL PHOTOGRAPHS

Aerial photographs taken while the site was active are not available. Photographs taken by the US Department of Agriculture in 1966 show this area as farmland at that time.

PREVIOUS SAMPLING RESULTS

Samples have been taken from this site on numerous occasions. The Niagara County Health Department has sampled leachate and surface water near the site. A summary of these results is given below:

Samples obtained - April 30, 1973

#1) Leachate at outfall to river

COD - 100	BOD_5 - over 45 pH 7.9
Suspended residual	13 mg/l (9 volatile, 4 fixed)
Dissolved Residual	572 mg/l (147 volatile, 423 fixed)

#2) Niagara River - 50 ft. downstream from outfall

COD - 5	BOD_5 - over 7 pH 6.2
Suspended residual	13 mg/l (8 volatile, 111 fixed)
Dissolved residual	393 mg/l (5 volatile, 282 fixed)

#3) Niagara River - 50 ft. upstream of outfall

COD - 40	BOD_5 - 2.2 pH 6.8
Suspended residual	5 mg/l (0 volatile, 5 fixed)
Dissolved residual	204 mg/l (73 volatile, 131 fixed)

#4) Leachate at outfall

Barium LT 0.1 mg/l

PREVIOUS SAMPLING RESULTS (continued)

#4) Leachate at outfall (continued)

Cadmium	LT 0.5 mg/l
Total Chromium	0.1 mg/l
Copper	.06 mg/l
Iron	1.6 mg/l
Lead	LT 0.1 mg/l
Manganese	2.6 mg/l
Mercury	LT 0.0004 mg/l
Selenium	LT 0.01 mg/l
Silver	LT 0.1 mg/l
Zinc	0.9 mg/l
Cobalt	LT 0.1 mg/l
Nickle	LT .05 mg/l

Samples obtained - May 21, 1973

	#1 Leachate	River 50' DownStream
Barium	1.3 mg/l	LT 1.0 mg/l
Cadmium	LT 0.05 mg/l	LT 0.05 mg/l
Total Chromium	LT 0.1 mg/l	LT 0.1 mg/l
Copper	LT 0.1 mg/l	LT 0.1 mg/l
Iron	4.4 mg/l	0.23 mg/l
Lead	0.10 mg/l	LT 0.1 mg/l
Manganese	0.65 mg/l	0.02 mg/l
Mercury	0.0006 mg/l	0.0008 mg/l
Selenium	LT 0.01 mg/l	LT 0.1 mg/l
Silver	0.025 mg/l	LT 0.025 mg/l
Zinc	0.1 mg/l	LT 0.1 mg/l
Cobalt	0.1 mg/l	LT 0.1 mg/l
Nickle	LT 0.05 mg/l	LT 0.5 mg/l

Samples obtained - September 22, 1978 - Ditch sediment from near center of site

PCB, AROCLOR	1016/1242	LT 0.01 mcg/g
PCB, AROCLOR	1254	LT 0.01 mcg/g
PCB, AROCLOR	1221	LT 0.01 mcg/g
PCB, AROCLOR	1260	.25 mcg/g

The following samples were taken by Mr. John Tygert of DEC from a pond 50 feet from the northeast corner on July 2, 1978:

Phenol	LT 0.005 mg/l	LT .005 mg/l
Cadmium	LT 0.02 mg/l	LT 0.02 mg/l
Copper	LT 0.05 mg/l	LT 0.05 mg/l
Arsenic	LT 0.01 mg/l	0.01 mg/l
Barium	LT 0.50 mg/l	LT 0.50 mg/l

PREVIOUS SAMPLING RESULTS (continued) taken by Mr. John Tygert of DEC

Chromium	LT 0.10 mg/l		LT 0.10 mg/l
Lead	LT 0.10 mg/l		LT 0.10 mg/l
Zinc	LT 0.05 mg/l		LT 0.05 mg/l
Total Organic Halogen (as Cl)		390 mcg/l	470 mcg/l
Mercury	0.0011 mg/l		0.0013 mg/l

In the summer of 1979 the City of North Tonawanda obtained samples from two test wells behind Witmer Road homes. The results of the sample analysis are on file with the City Attorney and the DEC Region 9 Office.

Other sampling is believed to have been undertaken by the DEC and the EPA. These results were not available at this time.

SOILS/GEOLOGY

According to the USDA Soil Conservation Service Soil Survey for Niagara County, five soil types were found in this area prior to landfilling (1966). These included Canandaigua silt-loam, ovid silt loam, Hilton silt-loam, Raynham silt-loam and Lakemont silt clay loam. All of the above soil types exhibit slow permeability and a high seasonal water table to within two feet or less of the surface. Sand lenses are common in the substratum of several of these soil types.

In the landfilling operation, much of the waste material was placed below the original grade. The depth of waste material below grade is not known and the effect of landfilling on the native soils is not known.

Two wells were drilled by RECRA Research, Inc. under contract to the City of North Tonawanda, behind Witmer Road homes. Boring records for these wells show a profile of 18" of miscellaneous material over silt and sand to 4', over clay with some gravel to 10', over silt with some clay and sand in lenses to 35 feet.

Bedrock is likely to be Lockport Dolomite by extrapolation from nearby areas. Bedrock is expected at a depth of 35 feet below grade and the shallowest bedrock aquifer at least 10 feet below the surface of the Dolomite.

GROUNDWATER

According to the report written by RECRA (1979) for the City of North Tonawanda, a perched laterally flowing aquifer is present above the clay substratum. However, this aquifer is likely to disappear entirely in the summer and during dry periods. Similiar information is found in the Soil Conservation Service Soil Survey.

The Lockport Dolomite is likely to contain several water bearing zones. These zones are found in bedding joints at depths of 40 or more feet below the surface. Although the Dolomite allows horizontal passage of water, vertical movement is minimal (Johnston 1964).

GROUNDWATER (continued)

The direction of flow of the perched water table is not known, but it is possible that the groundwater may become influent to drainage ditchs at various points. The bedrock aquifers flow generally west or southwest, that is to say that they flow toward the Niagara River.

There are no known drinking water wells within 3 miles of this site. The two monitoring wells placed by RECRA were sampled in 1979 and showed detectible levels of THO and phenols. There is possibility that leachate from this site is partially responsible for the high phenol levels in well #13 in Gratwick Park (700 feet southeast).

SURFACE WATER

The nearest surface water body is Black Creek, which is adjacent to the northern limit of the landfill. Black Creek becomes a tributary to Cayuga Creek 3 miles downstream from the site. Cayuga Creek flows into the Niagara River 1 mile from the junction of Black Creek.

Apparently all drainage ditchs drain away from Black Creek, although some runoff may enter directly. The marshy area east of the site drains into Black Creek.

The Niagara River is 900 feet south of the site. Drainage ditchs serving the landfill enter the River via a 600 foot swale, which enters the river 200 feet north of Gratwick Park. This route has been confirmed to have been a source of contamination to the River as indicated in the "History" section of this report.

Analysis of samples of surface water obtained from ditchs shows negligible concentrations of heavy metals and THO concentrations of 390 to 470 ppb. These samples were taken in 1973 and 1979.

The Niagara River is used for industrial water and drinking water. The intakes for the City of Niagara Falls Water Plant are 3.5 miles downstream. Industrial intakes are found 3.5 to 5.0 miles downstream.

A wetland area is adjacent to the north and northeast portion of the site.

AIR

Odor problems were common while the site was active. Occasionally, odors are still detected on-site.

The site is located 200 feet from a residential area (Witmer Road), adjacent to an agricultural area and 1,000 feet from an industrial area (St. Mary's Manufacturing).

It is estimated that 1,000 people live within one mile of the site and that over 10,000 people live within two miles.

FIRE/EXPLOSION

The potential of a fire within the site spreading to off-site areas is unknown. The nearest off-site building is 200 feet away (home on Witmer Road). Roughly 1,000 buildings are located within two miles.

DIRECT CONTACT

Access is not restricted. Vehicles are driven into the site routinely. The site is used for hunting and target shooting by area residents. Tracks left by trail bikes were seen throughout the site.

Although the wastes are apparently covered, leachate has been found on the surface. Red-brown and bright blue leachate streams were noted in several locations during a recent inspection.

Area residents have complained of exposed chemicals after closure of the site, although none have been found. Pooling of sludges and other wastes were recorded while the site was active.

CONCLUSIONS/RECOMMENDATIONS

This is a large landfill containing a wide variety of wastes including significant quantities of industrial and hazardous wastes. The proximity of the site to residential areas and the Niagara River justifies further investigation to determine potential impacts.

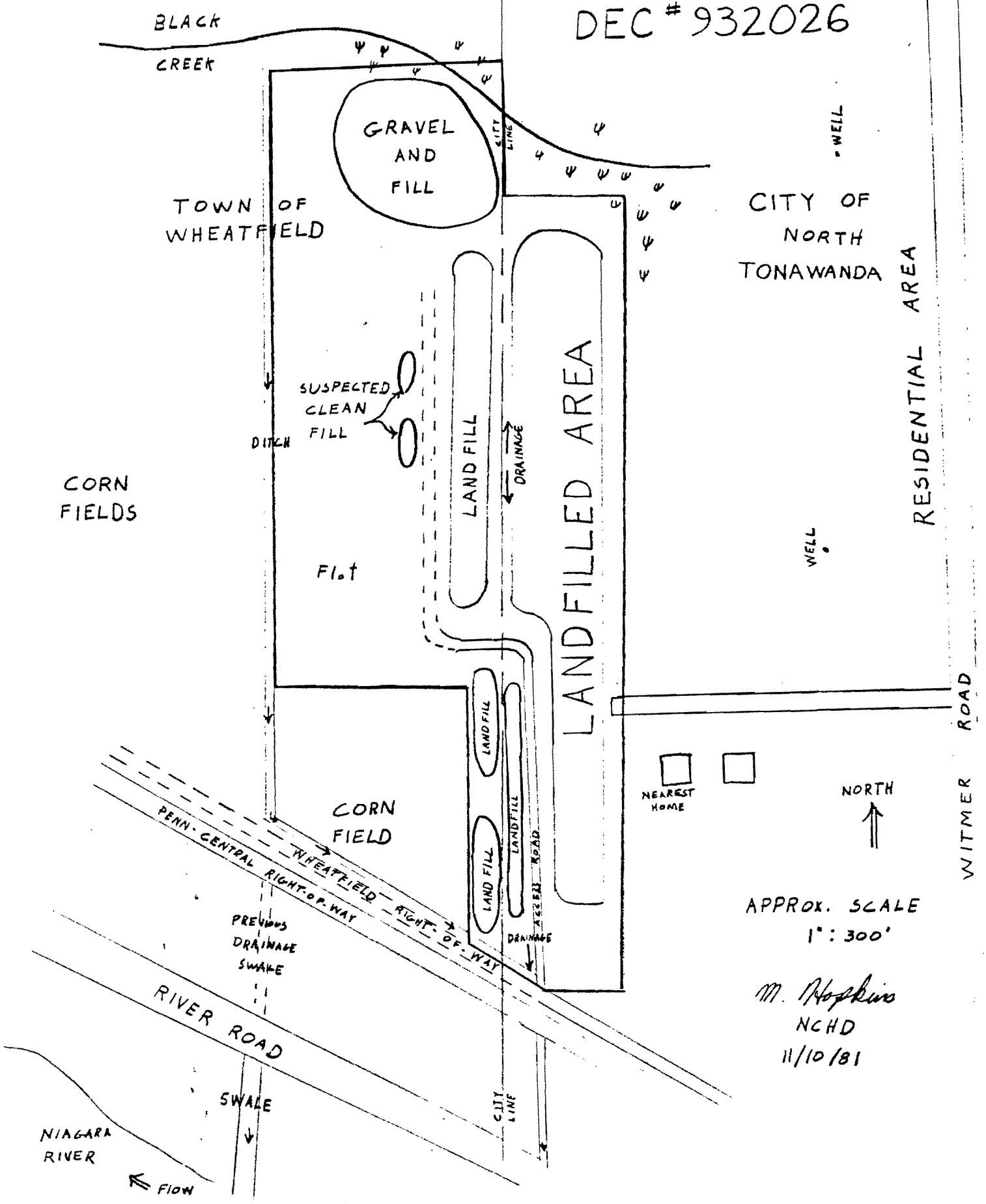
Sampling wells are needed to facilitate groundwater monitoring. The wells behind homes on Witmer Road are servicable, however, additional wells along the west and south sides would allow more accurate predictions of groundwater movements.

Additional samples could be taken nearly anywhere within the site from hand bored holes. Surface water samples from ditchs or leachate samples could be obtained easily. Sediment samples from the swale leading to the Niagara River could reveal whether hazardous materials are being transmitted to the river via this route.

Proper closure including capping, drainage control, grading and seeding is needed. Leachate collection facilities may be necessary.

Periodic inspections should be continued.

NCSWD - WHEATFIELD SITE
DEC # 932026



NAME

NIAGARA RIVER SITE;BELDEN SITE (DEC #932055)

LOCATION

This site is located along the Niagara River east of Olin's 102nd Street Landfill in the City of Niagara Falls and the Town of Wheatfield.

OWNERSHIP

The current owner of this site (Wheatfield Parcel 19) is Donna Dimeo, 727 Main Street, Niagara Falls,NY. Reportedly the site was owned by Mr. Beldon at the time of landfilling.

HISTORY

This site is the former location of a restaurant which was destroyed by fire. Goodyear used this site from 1955 to 1967 to dispose of solid fill, rubble and thiazole polymer bends (1300 tons). Goodyear is reported to have hauled the wastes themselves.

Currently, the site is vacant. Recent inspections found that numerous piles of fill and rubble are present. Fresh vehicular tracks indicate that trucks have recently entered the site.

RESULTS OF PREVIOUS SAMPLING

There is no record of any previous sampling at this site.

EXAMINATION OF AERIAL PHOTOGRAPHS

1":660' Scale USDA aerial photographs ARE 2V-33 (1958) and ARE-2GC-16 (1966) were examined. No evidence of dumping activities was found on these photos.

SOILS/GEOLOGY

The USDA Soil Conservation Service lists the soil in this area as Canandaigua Silt Loam. These soils are generally deep, level and poorly to very poorly drained. These soils have subsoils high in clay content. Seasonal ponding is common unless artificially drained. Sand lenses may occur in the substratum.

There is no known boring data available from this site. Additional data may be available from the adjacent Olin property, but none was found at this time.

Bedrock is Lockport Dolomite to unknown depths. The depth to water bearing zones is unknown.

GROUNDWATER

The depth to groundwater and the direction of flow is unknown. Groundwater levels are likely to be effected by flucations in river level. Contamination of groundwater may directly affect river water quality.

There are no known wells near this site. There are no known uses for groundwater in this area.

SURFACE WATER

The disposal area is immediately adjacent to the Niagara River. Leaching of contaminates to the river is a possibility due to the proximity of the site to the river.

The City of Niagara Falls water intakes are located slightly over three miles downstream. Industrial intakes are also downstream.

Flooding is a possibility although the frequency is unknown. There are no classified wetlands within one mile of this site.

AIR

The nearest homes are over 300 feet away to the north (1990 Buffalo Avenue) or east (Wildwood Parkway). Trailer parks are located 1,000 feet east (Lynch Park) and across Buffalo Avenue. 1,000 to 3,000 people live within one mile. There are no commercial, industrial or agricultural areas within two miles.

There have been no complaints of odors or air emissions from this site.

FIRE/EXPLOSION

The potential for fire or explosion is expected to be small. The nearest off-site building is over 300 feet away. Over 2,000 buildings and 150 Mobil homes are located within two miles, although many of these are homes in the Love Canal area, which have been evacuated. Over 3,000 people live within two miles.

DIRECT CONTACT

All wastes appear to be covered although snow cover prevented a positive determination. Access to this site is available via an unpaved road.

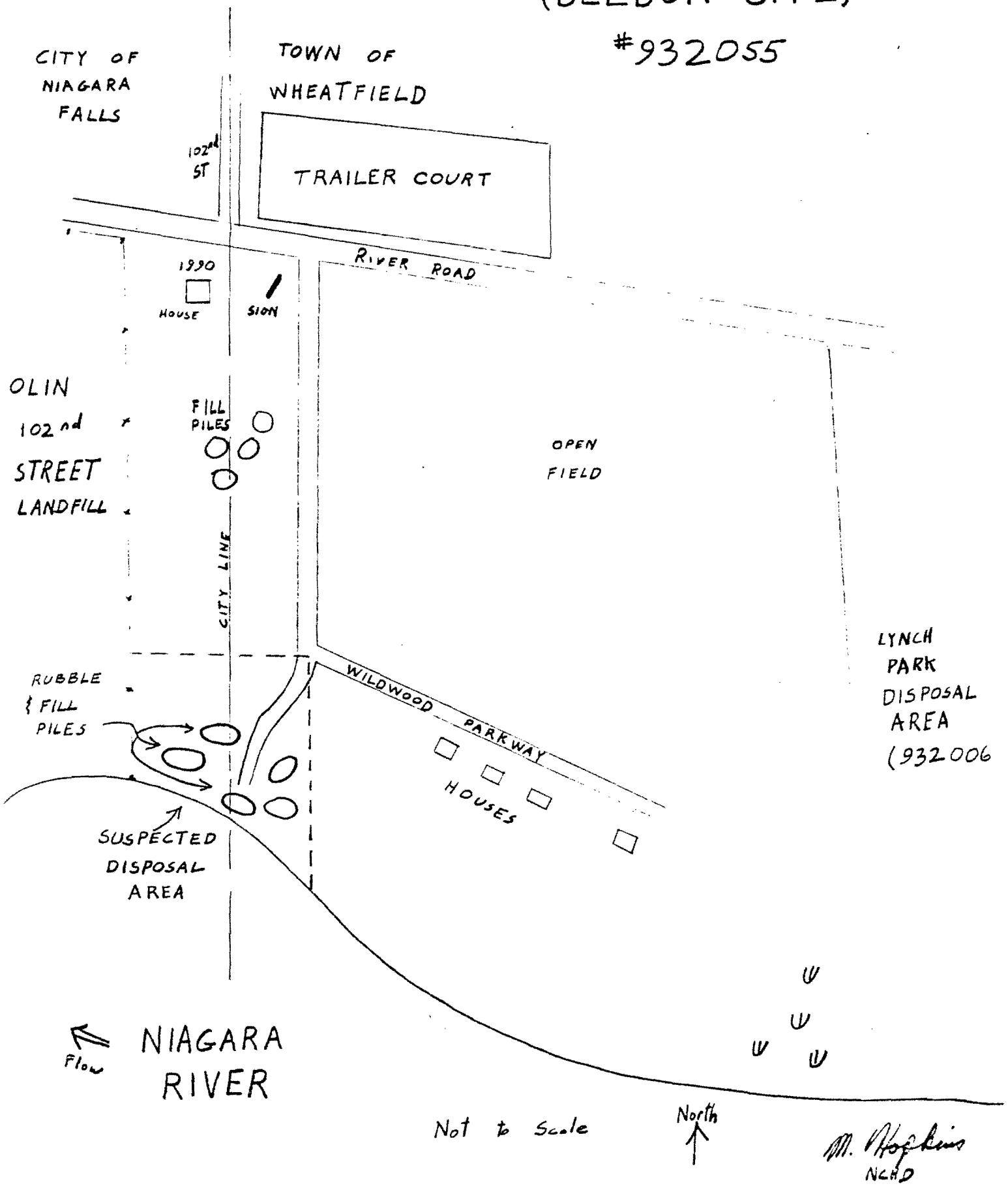
CONCLUSIONS

Little is known about this site. Additional data is needed for a proper assessment.

Samples could be taken from nearly any where on the site. Wells could be constructed if deemed necessary.

Continued inspections are recommended. Any future development on this site should be monitored by the Health Department or DEC personnel.

NIAGARA RIVER SITE (BELDON SITE) #932055



NAME

GRIFFON PARK (DEC #932081)

LOCATION

This site is a thirteen acre parcel located between Buffalo Avenue and the Little Niagara River from the western fence line of the Hooker 102nd Street Landfill to the southern projection of 95th Street. The site is wholly within the city limits of Niagara Falls, NY. A sketch is attached.

OWNERSHIP

The site is owned by the City of Niagara Falls and operated as a public park.

HISTORY

This area was originally a wetland, which was an extension of the wetland now occupied by the Hooker-Olin 102nd Street Landfills. According to an EPA Report (1980), this area was still undeveloped in 1938. The shoreline was reported to have been closer to Buffalo Avenue at this time.

By 1951, major dumping had occurred on the adjacent Hooker property. The EPA Report indicates that a fine light colored material was dumped along the property line at this time. Some of the material may have extended beyond the Hooker Property. The entire area of Griffon Park was filled by 1958. The EPA indicates that industrial wastes are probable.

Secondary dumping became noticeable by 1963. The City of Niagara Falls used this site for disposal of incinerator residue and non-combustibles until about 1970. Open burning was practiced here on some occasions. General refuse and other wastes could have been dumped at this time.

Currently, the site is used as a City Park featuring ball diamonds and a boat launch ramp. An inspection was made by Health Department personnel in November, 1981. No noticeable problems were found. Small quantities of incombustible materials (bottles, cans, etc.) were found exposed along an access road south of the eastern ball diamond. The cover is suspected to be shallow. Parks Department employees have said that similiar materials were found when excavating to install back-stop uprights and fence posts.

Several people have indicated that they believe that chemical dumping occurred here in the 1940's, however, these reports have not been confirmed.

RESULTS OF PREVIOUS SAMPLING

There is no record of any previous sampling at this location.

EXAMINATION OF AERIAL PHOTOGRAPHY

USDA aerial photographs ARE-2V-33 (1958) and ARE-2GC-16 (1966) were examined. The 1958 photo showed the park area as being rough graded and apparently without substantial vegatative cover. The extent of the Hooker Landfill was at or very near the property line. It appeared possible that the Hooker Landfill could possibly extend slightly onto the Park Property.

The 1966 photo showed secondary dumping in the park area. Considerable dumping had occurred since 1958 in the adjacent Hooker Property including an extension of the shoreline into the River.

SOILS/GEOLOGY

A detailed soil survey for this area is not available. Boring data obtained on the adjacent Hooker Property show that the natural soils are encountered at an elevation of 566 feet, which is roughly 6 feet below grade in Griffon Park. River level is taken as 563 feet. The soils encountered consist of five feet of loose silt, sand and clay over ten feet of silty sand with some clay.

Bedrock is Lockport Dolomite to a depth of 140 feet or more below the overburden. Lockport Dolomite generally contains several water bearing zones although these zones are almost certainly well below river level.

GROUNDWATER

Although no data was found indicating the direction of flow of groundwater, the flow is expected to be toward the River. The depth to ground water is unknown but it is expected to be effected by the river level. Due to its proximity to the Niagara River, any contamination of the ground water is likely to have a direct effect on the river quality.

There are no known wells near this site. Since ground water is expected to flow toward the river there is no population in the anticipated direction of flow.

SURFACE WATER

The Niagara River is adjacent to this site. It is possible that some wastes were placed directly into the river.

The City of Niagara Falls water intakes are located three miles downstream. As many as 100,000 people draw water from this source. Industrial intakes are also located downstream.

This site is within a 100 year flood plain. The actual frequency of flooding is unknown.

There are no wetlands within one mile of this site, although the site itself and most of the nearby area to the east was wetland at one time.

AIR

There is no record of air quality problems from this site. The nearest homes are within 200 feet. 3,000 to 10,000 people live within one mile. Land use within two miles is predominately residential with small commercial areas inter-laced. The nearest industrial zone is 2½ miles west. Much of the area north of the site was evacuated in 1978 due to its proximity to the Love Canal.

FIRE/EXPLOSION

If chemical wastes from the Hooker Landfill extend onto the park, reactive substances could be present. Since the nature of the wastes, if any, used to fill the park site is unknown, the potential for fire and/or explosion cannot be accessed.

Over 10,000 people live within two miles. Several thousand buildings are within two miles. However, all but 8 homes are separated from the site by the Little Niagara River, the LaSalle Expressway or the Hooker-Olin Landfills. The nearest off-site building is 200 feet west.

DIRECT CONTACT

This site is public park and therefore, access is unrestricted. Some wastes were found exposed, but these are suspected to be non-hazardous materials dumped by the City. The cover may be shallow in spots. Excavations or shoreline erosion could expose waste materials.

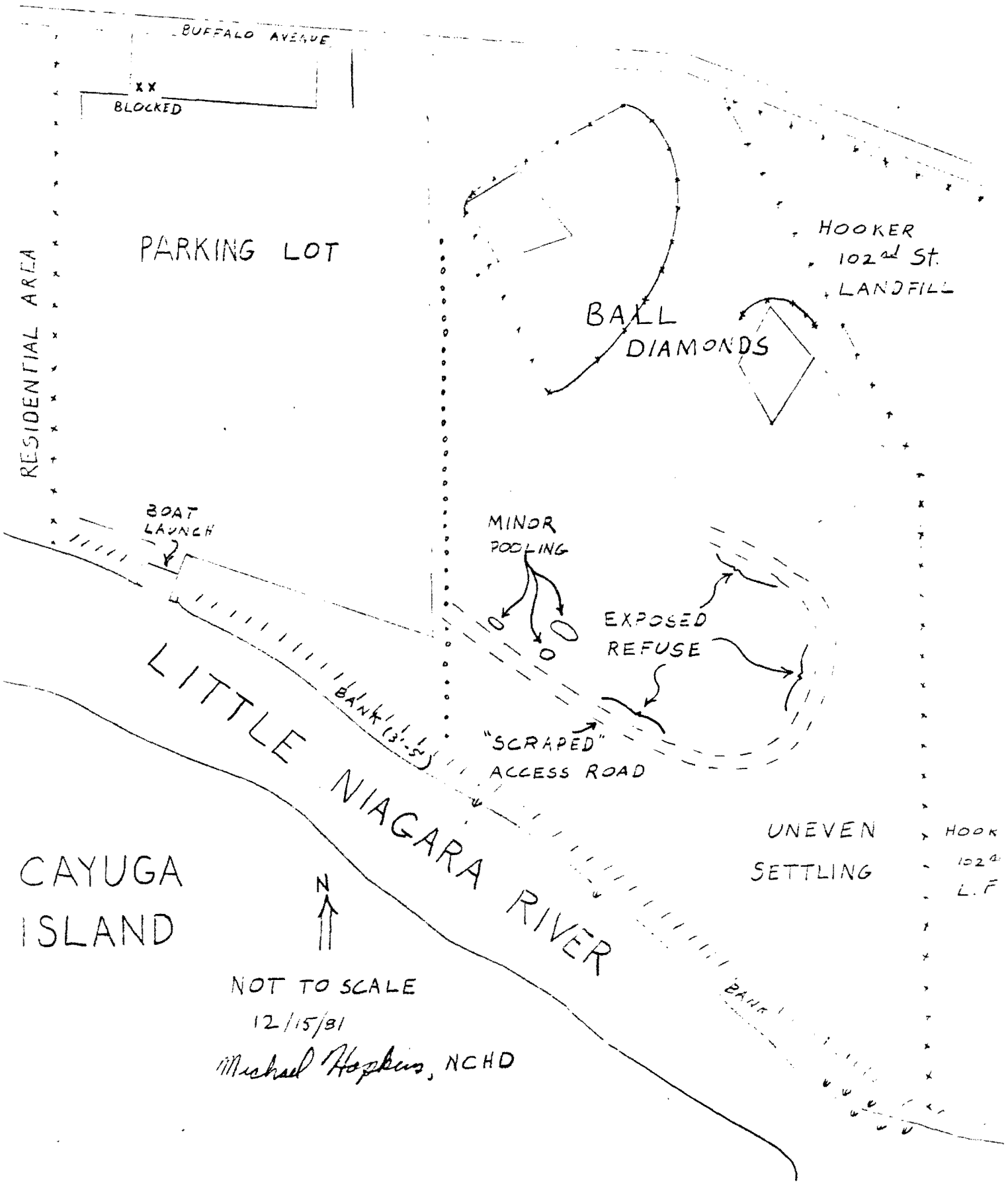
CONCLUSIONS

Additional data is needed to verify the presence or absence of toxic materials. If toxic substances are found the potential for contamination of the Niagara River is high.

Wells or observation holes are needed. The area near the Hooker fence line should be explored as should areas near the rivershore. Access for equipment is available throughout the site. If industrial wastes are found, additional test holes could be used to determine its extent.

Periodic inspections are recommended. Any excavation made on this site should be examined by DEC or Niagara County Health Department personnel.

GRIFFON PARK (DEC #932081)



NAME

CAYUGA ISLAND (DEC #932008)

LOCATION

The western 250 yards of Cayuga Island in the City of Niagara Falls and scattered areas along the south shore of the island have been filled.

A sketch is attached.

OWNERSHIP

The former disposal area is owned by numerous homeowners and private landowners.

HISTORY

It has been reported that prior to 1930 the western end of Cayuga Island was extended roughly 250 yards into the Niagara River by depositing refuse and hard fill. It is not known if any industrial wastes were disposed of at this time.

From 1958 to 1962 the western end of the island was widened by placing clean fill and industrial wastes here. The industrial material included sand, abrasives, broken concrete and similiar materials. The Inter Agency Task Force lists Carborundum, Union Carbide, Hooker, Olin and Pittsburg Metallurgical, as sources of these wastes. No drummed wastes or hazardous material is known to have been disposed of here.

Numerous small areas along the south shore of the island may have received fill material to extend yards and fill low areas. Many of these areas could have been filled with clean fill material. Pieces of concrete rubble have commonly been used to riprap the shoreline.

An inspection by Niagara County Health Department personnel was made in November, 1981. The island is now near completely residential. There are few vacant lots anywhere on the island. The only visible waste material was concrete rubble used as riprap. The western extension is noticeably treeless and the homes here are of more recent construction than the rest of the island. Twenty-one homes are now built on the extended area. One vacant lot remains between 7630 and 7702 Rivershore Drive.

A comparison of 1927 and 1980 City of Niagara Falls maps revealed that the area south of East Rivershore Drive has been extended into the river up to 100 feet in some areas. The nature of the fill material used in this area is not known.

REVIEW OF AERIAL PHOTOGRAPHS

USDA aerial photographs (1":660') ARE 2V-33 (1958) and ARE 2GC-16 (1966) were examined. The 1958 photo indicates that the western 250 yards of Cayuga Island was submerged, but shallow at this time. 1966 photography illustrating the western end of the island was not available. The south eastern corner of the island was relatively unchanged during the period of 1958 to 1966, although some minor filling may have occurred.

PREVIOUS SAMPLING

There is no record of any previous sampling being done in either the western or southern areas.

SOILS/GEOLOGY

A detailed soil survey for the area is unavailable. Soils in the filled areas are generally composed of fill material to below river level. As the composition of the fill is unknown, the properties of the soil are unknown. The properties of the soil below river level are felt to be inconsequential.

The bedrock is Lockport Dolomite, however, the Dolomite and all the water bearing zones within it are below river level.

GROUNDWATER

There are no known wells on Cayuga Island. Any contamination of groundwater here could directly effect water quality in the Niagara River, but probably would not effect groundwater anywhere other than on the island.

The uppermost aquifer is expected to be at or near river level. This aquifer may be perched above bedrock. Bedrock aquifers are well below river level and are not likely to be effected by infiltration of leachate from this site.

SURFACE WATER

The Niagara River is adjacent to all suspected disposal sites. Apparently, much of the waste material was placed directly into the river. If soluable compounds were present they may have already washed away from the site. Groundwater is suspected to be an extension of the river and any effect on groundwater would effect the river water.

The City of Niagara Falls water intakes are located 1½ miles downstream. Up to 100,000 people use the water from this source. Industrial intakes are located two to four miles downstream.

Much of Cayuga Island is subject to frequent flooding and high water tables.

There are no wetlands on Cayuga Island or within one mile of the disposal site.

AIR

There are no reports of odors or air quality problems at this site. If the description of the wastes disposed of here is accurate, no problems are expected.

At least 21 homes have been built upon the filled area. Over 10,000 people live within one mile. Land use within two miles is almost entirely residential or commercial. All of Cayuga Island is residential.

FIRE/EXPLOSION

Due to the suspected types of waste present and the high water table, the possibility of fire is remote.

Roughly 1,000 homes are found on Cayuga Island. Over 10,000 people live within two miles. There are buildings directly atop the fill.

DIRECT CONTACT

All wastes appear to be covered. Excavations or shoreline erosion could expose wastes. Access to the site is unrestricted.

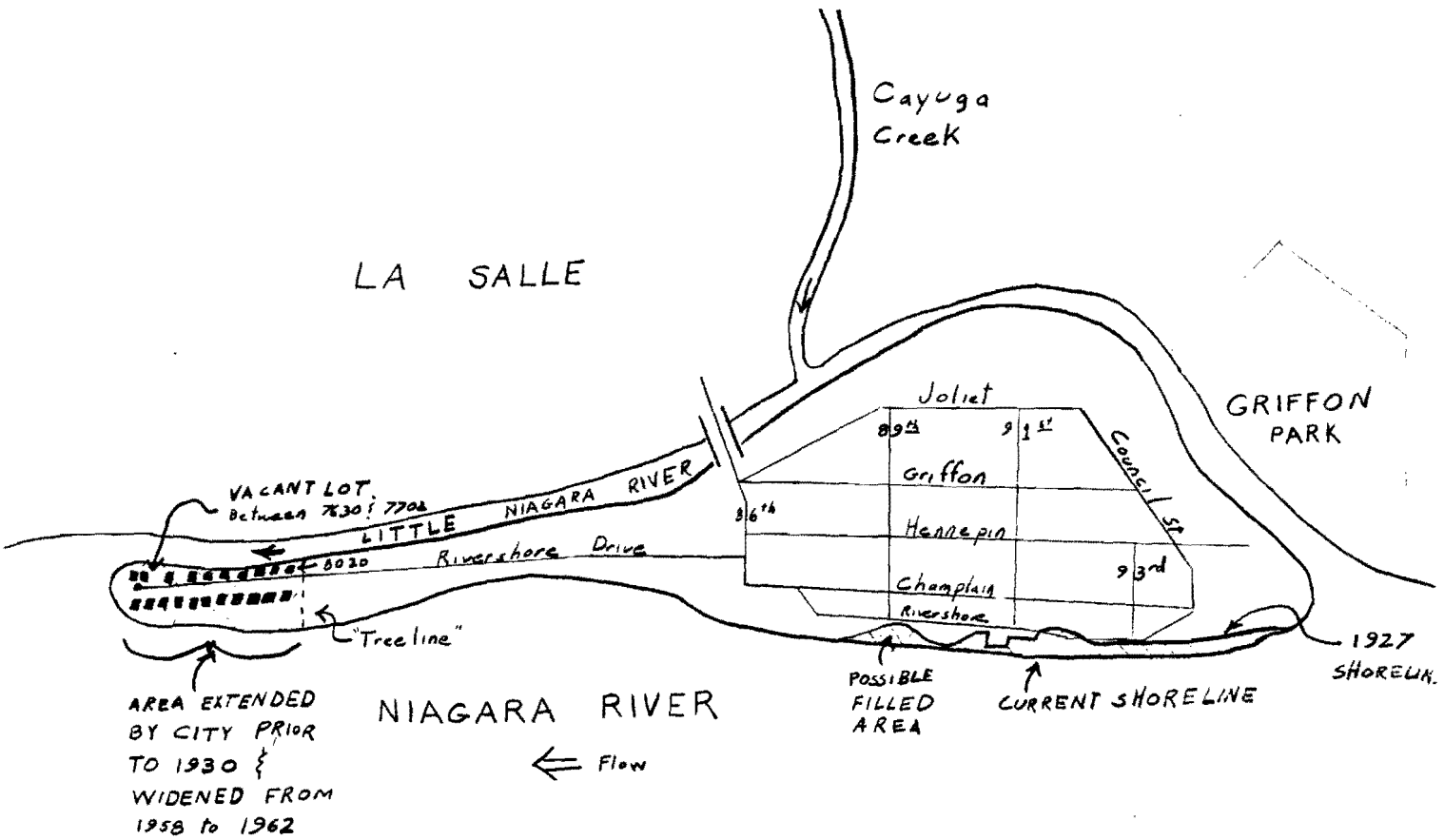
CONCLUSIONS

Sampling is needed to confirm the presence or absence of hazardous materials. Wells could be placed in yards or vacant lots. Hand augered holes may be difficult or impossible to dig due to the suspected large size of some of the wastes (concrete rubble,etc.) Areas along the southshore which contain large trees need not be sampled.

The potential for contamination of the Niagara River is high if hazardous materials are present. The impact of this site on public health could be serious if hazardous materials are present, due to the number of people living on or near the filled area.

Any excavation done in this area should be monitored by the Niagara County Health Department or the DEC.

CAYUGA ISLAND #932008



Not to Scale

Michael E. Hopkins

12/21/81

revised 2/23/82

NAME

RHODEWAY INN/LASALLE YACHT CLUB (DEC #932086)

LOCATION

This site is roughly two acres of reclaimed land located along the Niagara River south of the Best Western Red Jacket Inn, (previously the Rhodeway Inn) at 7001 Buffalo Avenue.

A site sketch is attached.

OWNERSHIP

The area is divided into two parcels. The parcel immediately adjacent to the Inn is owned by the Red Jacket Inn. The parcel southwest of the Inn is owner by Mr. Jack Johnson. The contact at the Red Jacket Inn is Mr. Dan Latawiec.

HISTORY

The Rhodeway Inn is located on the Niagara River in the City of Niagara Falls. The shoreline was extended into the river at a previous time, apparently to provide a lawn area along the river front. An adjacent parcel was also extended. Mr. Latawiec at the Red Jacket Inn was unsure of when the area was filled or what materials were used to fill it, although he indicated that it may have been filled with "garbage." The Inter Agency Task Force reported that concrete from Olin was present.

A director of the adjacent LaSalle Yacht Club was interviewed. He reported that the area may have been filled during the 1940's. Although the LaSalle Yacht Club is implied to own a portion of the disposal area, the Yacht Club spokesman indicates that the club has not extended any of its shoreline except for the placement of a concrete seawall.

An inspection of the reclaimed area was made by Niagara County Health Department personnel. The area was found to be entirely grassed as lawn. A concrete wall was present along the river front. No exposed material was found and no problems were visible.

RESULTS OF PREVIOUS SAMPLING

There is no record of any previous sampling at this location.

EXAMINATION OF AERIAL PHOTOGRAPHS

USDA photo # ARE-2GC-52 (1966) shows an area extending into the river, which is believed to be the filled area, however, no useful information was obtained from this photograph. No earlier photographs were available.

SOILS/GEOLOGY

A detailed soil survey is unavailable for this area. The nature of the fill is unknown and the fill is expected to extend to below river level.

Bedrock is Lockport Dolomite. The depth to bedrock is unknown.

GROUNDWATER

No information regarding groundwater was found. It is assumed that the water table is near river level and that the direction of flow is toward the river.

There are no drinking water wells in this area. The nearest industrial wells are over two miles away.

SURFACE WATER

The reclaimed area is adjacent to the Niagara River. The waste materials here are assumed to be in direct contact with the river water.

The Niagara Falls water intakes are 4,000 feet downstream. Industrial intakes are located within one mile downstream.

This site may be susceptible to flooding, although the frequency is unknown. There are no wetlands within one mile.

AIR QUALITY, FIRE AND EXPLOSION

Since the wastes present are unknown, the potential for fire, explosion or air emissions could not be determined.

It is estimated that from 3,000 to 10,000 people live within one mile and over 10,000 people within two miles. Over one thousand buildings are within a two mile radius.

The nearest residence is one-hundred feet away. Residential and commercial areas are adjacent to this site. The nearest industrial property is roughly 5,000 feet west. There is no agricultural property within two miles.

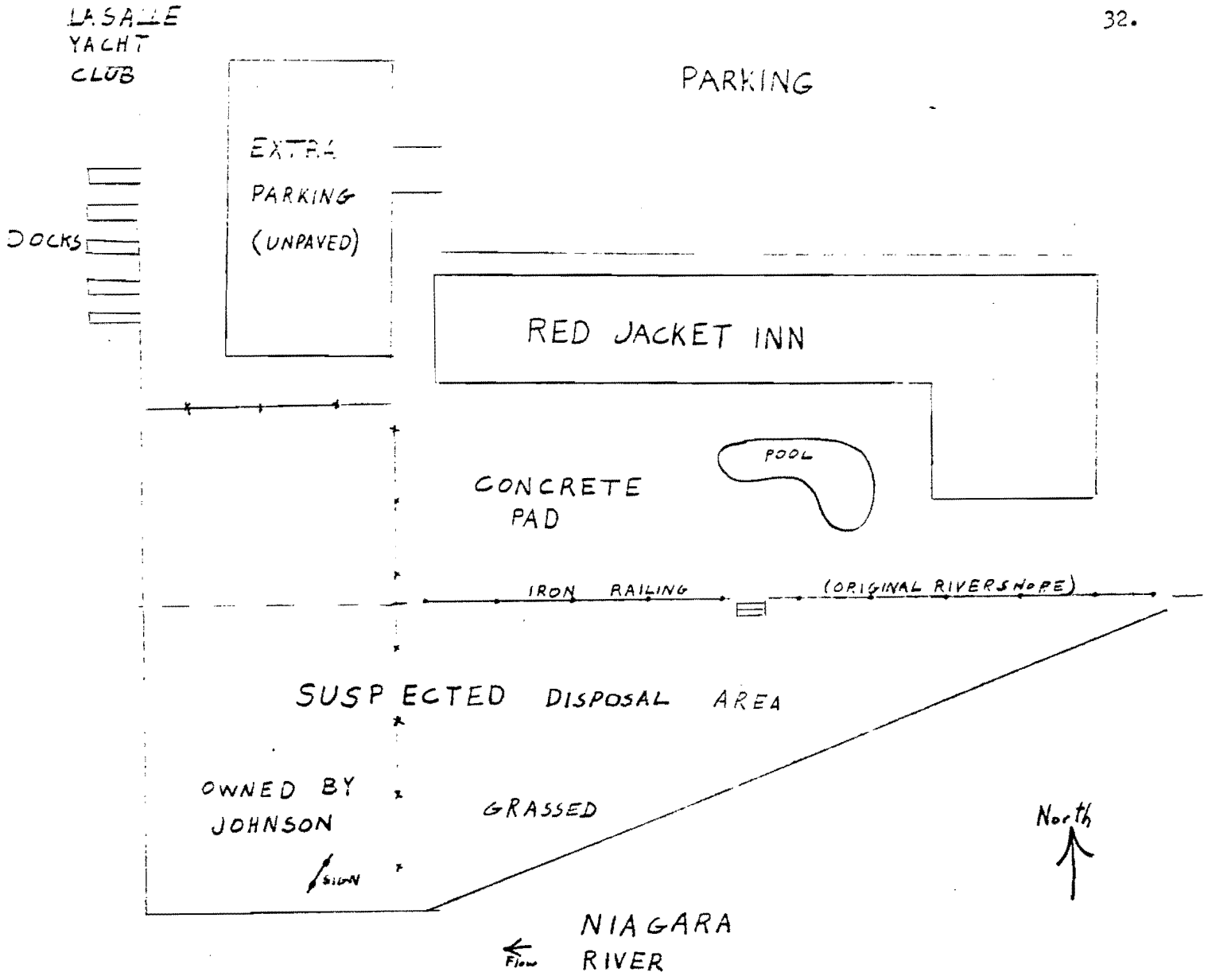
DIRECT CONTACT

Although access to the site is unrestricted, all waste materials appear to be covered.

CONCLUSIONS

The nature of the wastes present, if any, is unknown. No hazardous materials are documented as being disposed of here. Additional data is needed.

Samples could be obtained from the lawn area or from the adjacent parcel. Access for drilling equipment is not available in the area adjacent to the Inn, but could be provided to the western parcel.



RHODEWAY INN / LA SALLE YACHT CLUB

(DEC SITE # 932082)

Not to Scale

Michael Hopkins
NCHD

NAME

64th STREET - NORTH * (DEC #932085)

*This is the first of two sites listed collectively as "64th Street" in the DEC Hazardous Waste Disposal Sites in New York State, Volume III.

LOCATION

The site is a roughly rectangular 20 acre landfill located 800 feet north of Pine Avenue in Niagara Falls, NY. The landfilled area is bounded by the Niagara Mohawk easement to the north and extends from several hundred feet west of Connecting Road to 1,000 feet or more east of Third Avenue. Unconfirmed reports suggest that additional areas to the east have been used as disposal areas.

A site sketch is attached.

OWNERSHIP

Currently the site is owned by several parties including the State of New York Dept. of Transportation (I-190 Right of Way), Johnson & Johnson and Mr. G. Salerno. A portion of the property owned by Wizard Methods, Inc. may also be built atop the landfilled area.

The ownership at the time of active disposal has not been determined.

HISTORY

Prior to landfilling, this land is believed to have been farm land. A 1935 USGS map (Tonawanda west, 7½') shows that several acres of wetlands were present at that time. Connecting Road was in place in 1935, but not in 1927, according to a 1927 City Street map. Third Avenue and the Niagara Thruway were constructed over the site during the early 1960's.

The City of Niagara Falls operated a municipal landfill on this site during the 1940's and 1950's. Domestic and commercial refuse are suspected to be the principal wastes present although the disposal of industrial wastes is a possibility. The type and quantity of industrial wastes buried here, if any, is unknown.

Two adjacent properties, Great Lakes Carbon and CECOS/Newco (previously Union Carbide) are known to have received industrial wastes. The Basic Carbon Company, which operated a small plant on or adjacent to the 64th Street Site, is reported to have operated a landfill on-site from 1951 to 1960. At least 75% of the area of the one mile square quadrant northeast of this site is land which was previously landfilled or otherwise used for waste disposal or treatment. Any effects from these sites on the 64th Street Site is unknown.

HISTORY (continued)

An inspection made in November, 1981 found no visible evidence of previous dumping or waste materials. The Niagara Expressway now occupies the largest portion of the area. The Expressway is elevated five to twelve feet above grade in this section. Swales are found along either side of the side slopes. Ditchs run parallel to both Third Avenue and Connecting Road. The area west of Connecting Road is largely paved and several commercial buildings are found here. The Walter S. Johnson Construction Company building is located east of Third Avenue. The area east of this building is roughly graded with some mounds of 5 to 10 cubic yards. There is evidence of scavenger dumping in this area.

The area behind the Johnson building, east of Third Avenue may be developed residentially in the future.

RESULTS OF PREVIOUS SAMPLING

There is no record of any previous sampling at this location.

EXAMINATION OF AERIAL PHOTOGRAPHS

USDA aerial photographs, numbers ARE-3V-82 (1958) and ARE-2GC-27 (1966), were examined. The 1958 photo showed that most of the area was light colored and devoid of vegatation. No signs of active disposal were found at this time. The I-190 and Third Avenue were not yet constructed. The area to the north was wooded and the area to the east was lightly wooded or brush covered. The commercial buildings along Pine Avenue were in place at this time.

The 1966 photo showed the area to be developed to near its present extent. The I-190 and Third Avenue were in place. Most of the nearby and on-site buildings were in place at this time. The area to the north was still wooded. Saber Park Trailer Court was not yet constructed.

A 1980 EPA document reported that 1951 photography showed dumping into the swale which previously drained the Newco property and that the area west of Connecting Road was full.

SOILS/GEOLOGY

The current USDA Soil Conservation Service Soil Survey for Niagara County lists the soil type only as "cut and fill". A 1947 publication lists the soil as Poygam Clay. The effect of landfilling on soil conditions is not known.

The only boring data found was from the southeast corner of the Newco property. These records showed four to five feet of Lacustrine Silt ,over eight to ten feet of Lacustrine Clay, over five feet of Glacial Till, over bedrock.

Bedrock is Lockport Dolomite to over 120 feet in thickness. The depth to water bearing zones in the Dolomite is unknown.

GROUNDWATER

Two aquifers are possible in this area. A perched water-table in the unconsolidated material may exist either on a permanent or seasonal basis. The expected depth to the watertable and the direction of flow are unknown.

Bedding joints within the Dolomite are likely to be water bearing zones. Several bedding joints are expected. The depth to bedrock aquifers and the direction of flow is unknown.

There are no known drinking water wells within three miles of this site. The nearest industrial well is located about two miles southwest (DuPont). There are no other known uses of groundwater in this area.

SURFACE WATER

The nearest surface water is the Niagara River, 8,000 feet to the south. The runoff from this area may enter storm sewers which may enter either the Niagara River or Gill Creek.

Although the direction of groundwater flow is unknown, any groundwater contamination resulting from this site is expected to enter the Niagara River upstream of the City of Niagara Falls water intakes.

There are no wetlands within one mile of this site, although the site itself once contained wetlands. The site is not within a 100 year flood plain.

AIR

There is no record of air quality problems from this site. It is not known if any problems were created while the site was open.

The nearest population is at Saber Park, 600 feet north, 3,000 to 4,000 people live within one mile. The land to the southwest, west and northwest is industrial for over one mile. The land to the north, south and southwest is predominately residential with some commercial property. Much of the area to the east is undeveloped until Military Road, where a commercial area is found.

FIRE/EXPLOSION

The potential for fire or explosion is unknown.

Over 10,000 people live within two miles. Several thousand buildings, including industrial, commercial and residential buildings and approximately 200 Mobil homes are located within a two mile radius. Several buildings are on-site. The nearest off-site buildings are those owned by Wizard Methods and Costanzo Welding on Connecting Road. These buildings are within 200 feet of the filled area.

DIRECT CONTACT

There is no sign of any exposed material at this site. The I-190 Right-of-Way is fenced. Other areas are on private property, but not totally fenced.

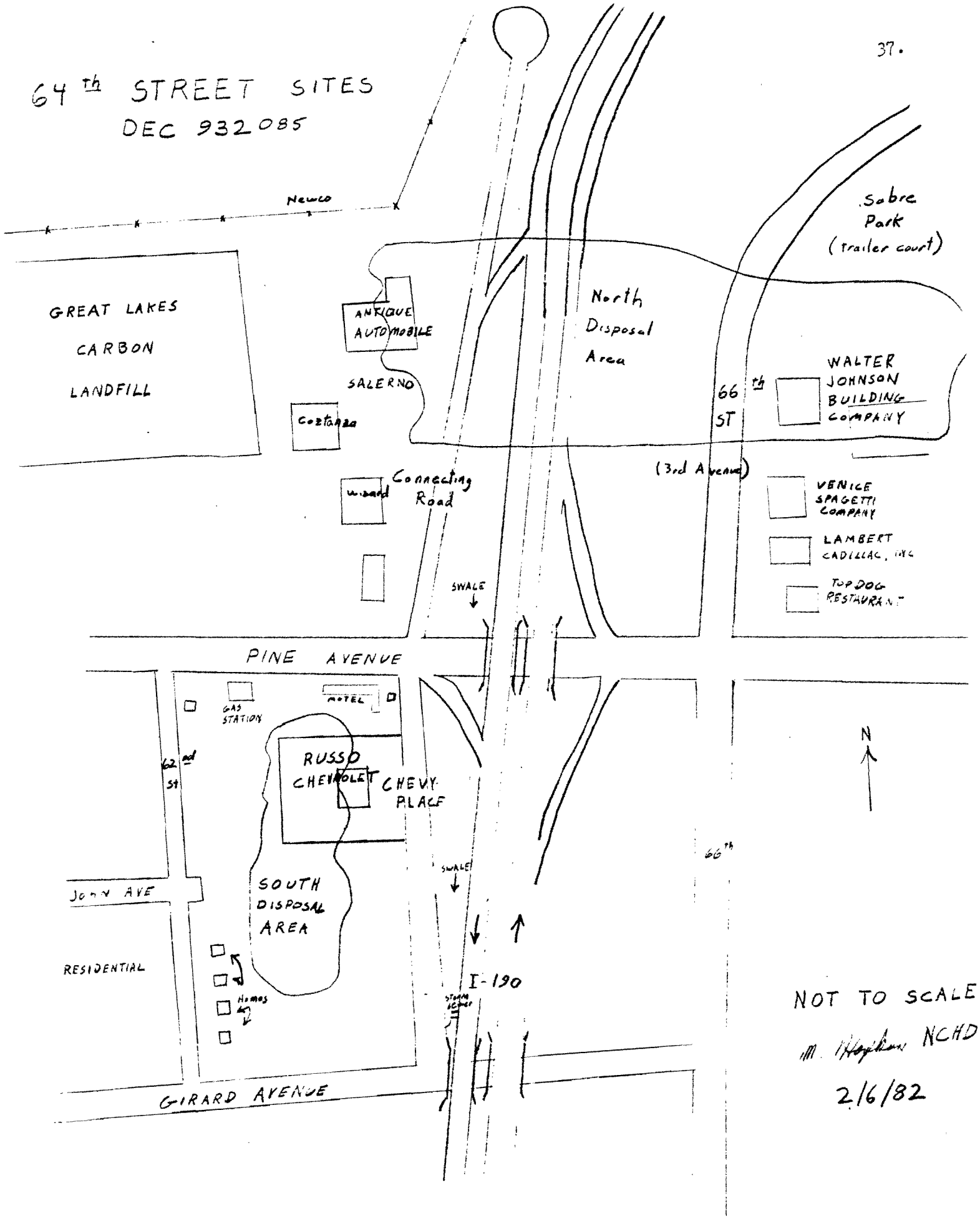
CONCLUSIONS

The available data is insufficient to access the potential impacts of this site. The presence or absence of hazardous materials must be determined. The effects of other nearby sites must be considered when accessing impacts.

Sampling and/or observation holes are necessary to obtain data. Holes could be placed along the toe of the slopes of the I-190, along Connecting Road or Third Avenue or behind buildings owned by Mr. Salerno or Mr. Johnson.

Any future excavations in this area should be examined by the DEC or the Niagara County Health Department.

64th STREET SITES
DEC 932085



NOT TO SCALE

M. Hopkins NCHD

2/6/82

NAME

64th STREET-SOUTH* (DEC #932085)

* Note: This is the second of two sites listed collectively as "64th Street" in Hazardous Waste Disposal Sites in New York State, Volume 3.

LOCATION

This site is a 10 acre (+/-) landfill located 250 feet south of Pine Avenue in Niagara Falls. Most or all of the area between 61st Street and Chevy Place north of Girard Avenue is included.

A site sketch is included.

OWNERSHIP

Russo Chevrolet, Inc. owns most of the property in the above block. Several commercial properties are located along Pine Avenue, but these areas are not believed to have been landfilled. Four private residences are located along 61st Street, between Girard Avenue and John Avenue. These areas may have been landfilled.

The ownership at the time of landfilling is unknown.

HISTORY

This site is believed to have been farmland prior to 1950. The City of Niagara Falls used this area as a municipal landfill in the 1950's and possibly the early 1960's. Industrial wastes are possible although there is no documented report of industrial disposal here.

Recent inspections found the area to be rough graded with some depressions and mounding. A sparce cover of tall grass covers the site. Most of the area is vacant fields. The Russo Chevrolet auto dealership, covers about 25 % of the area.

RESULTS OF PREVIOUS SAMPLING

There is no record of any previous sampling at this site.

EXAMINATION OF AERIAL PHOTOGRAPHY

USDA aerial photographs ARE-3V-82 (1958) and ARE-2GC-27(1966) were examined. The 1958 photo showed possible signs of landfilling in the northern portion of the site. The auto dealership and the four homes on 61st Street were not yet built. The motels on Pine Avenue were in place.

The 1966 photo indicated that the area appeared to be leveled and grassed. There were no new buildings on the site since 1958.

SOILS/GEOLOGY

A current soil survey for this area is unavailable. The 1947 Soil Survey for Niagara County listed the soils as Tonawanda Silt-Clay Loam. These soils are reported to pool water and require artificial drainage. The effect of landfilling on soil properties is unknown. No other soil data was found.

Bedrock is Lockport Dolomite. The depth to bedrock and the depth to water bearing zones is unknown.

GROUNDWATER

The depth to groundwater is not known although a perched water table in the unconsolidated material is possible. The depth to bedrock aquifers is expected to be 30 feet or more. The direction of flow is unknown.

There are no known drinking water wells in this area. The nearest industrial well is about two miles southwest of the site.

SURFACE WATER

It was not possible to precisely define the drainage pattern for this site, although any runoff from this site will enter the Niagara River, either through a direct route via storm sewers or through an indirect route via storm sewers to Cayuga or Gill Creeks. A 1935 USGS topography map indicates that this area drained to the north at that time and that a swale through the center of the site supported a full time stream flowing north through the Union Carbide (now Newco) property and eventually entering Cayuga Creek. Currently, the only remaining section of this swale is on the Great Lakes Carbon property. The flow is south to an underground culvert beneath Pine Avenue.

The Niagara River is one mile south of the site. If contaminants from this site reach the Niagara River, they are suspected to enter upstream of the City water intakes.

There are no wetlands within one mile of this site. The site is not located within a 100 year flood plain.

AIR

There have been no reported air quality problems. No problems are expected.

The nearest population is atop or adjacent to the filled areas. Residential properties are within 200 feet along the west side (61st Street). Commercial areas are adjacent to the north. Russo Chevrolet sits a top the filled area. Industrial property is 500 feet north (Great Lakes Carbon). There is no longer agricultural land within two miles.

DIRECT CONTACT

There is no sign of exposed refuse, however, access to the site is unrestricted.

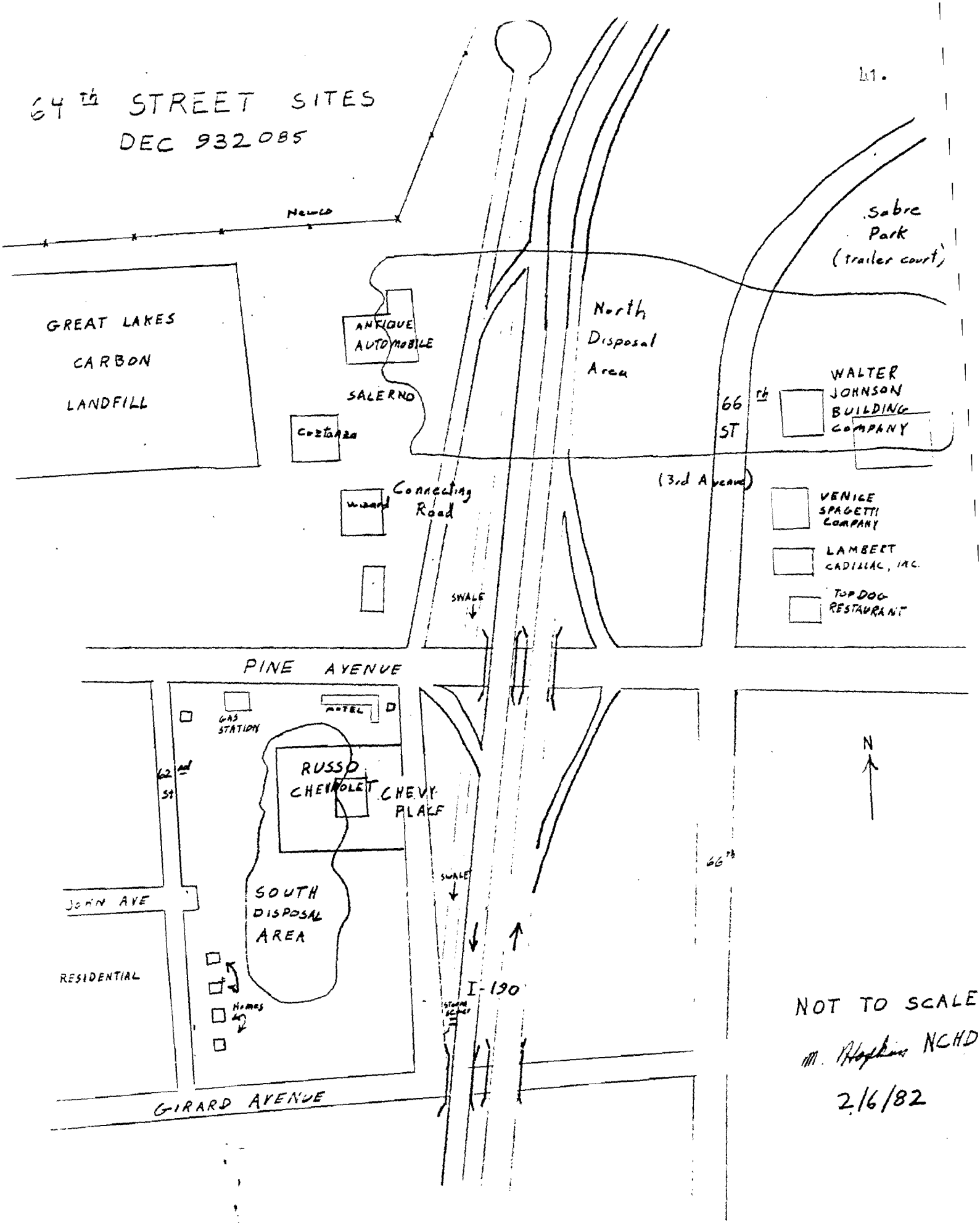
CONCLUSIONS

The conclusions drawn for this site are essentially the same as for the 64th Street-north site. Additional data is needed to access the potential impacts.

Samples could be taken or test holes placed almost anywhere within the site without major problems except for the area of the auto dealership.

Any future excavations on this site should be monitored.

64th STREET SITES
DEC 932085



NOT TO SCALE

M. Hopkins NCHD

2/6/82

NAME

ST. MARY'S AND BISHOP DUFFY SCHOOLS (DEC #932087)

LOCATION

This site is occupied by Niagara Catholic High School (formerly Bishop Duffy and Madonna High Schools). The school is located on 66th Street between Girard and Frontier Avenue, east of the Niagara Expressway (I-190). The exact location of the disposal areas on this property is unknown.

A site sketch is attached.

OWNERSHIP

The area outlined above is owned by Niagara Catholic High School, 520 - 66th Street, Niagara Falls, NY 14304. Any correspondence should be directed to Father Clifford, Principal.

HISTORY

Bishop Duffy High School was built in 1955, Madonna High School was built in 1959. These schools were later consolidated into Niagara Catholic High School.

According to Hazardous Waste Disposal Sites in New York State, Vol III, this site was used by the Hooker Chemical Company to dispose of fly ash during the 1950's. This area was reportedly a low swampy area at this time.

Father Clifford, Principal of Niagara Catholic High School informed the writer that he was unaware of any previous disposal activity and was unable to provide further information. He stated that previously radioactive slag was found beneath asphalt parking lots. Levels of radiation exceeding background were detected although these levels did not warrant corrective actions. Currently, there are no visible signs of previous disposal activities. The surface is completely covered with buildings, lawns or parking lots. The exact location of the disposal area is unknown, but is suspected to include the south section of the property.

PREVIOUS SAMPLING

There is no record of samples being taken from this site at anytime.

AERIAL PHOTOGRAPHS

USDA aerial photography (1":660') was examined. Photograph ARE 3V-82, taken in 1958 shows Bishop Duffy High School, but not Madonna High School. The area south of the school building appeared level at this time. Photograph ARE 2GC-27, taken in 1966, showed the area to be developed to roughly its present degree.

SOILS/GEOLOGY

A detailed soil survey for this area is unavailable. No information on the nature of the soils here was found. Groundwater in the Niagara Falls Area (Johnston, 1964) does not list any well or boring records in the vicinity of this site.

Bedrock is reported by Johnston to be Lockport Dolomite. The depth to bedrock is unknown.

GROUNDWATER

The depth to the water table and the direction of flow of the groundwater are not known.

There are no known drinking water wells in this area. The nearest industrial wells are over two miles to the southwest.

SURFACE WATER

The nearest surface water is the Niagara River which is 3,500 feet south. The City of Niagara Falls water intakes are one mile downstream. Industrial intakes are also located downstream.

There are no wetlands within one mile of this site, although numerous nearby areas were marshy prior to filling and drainage.

This site is not in a 100 year flood plain.

AIR, FIRE AND EXPLOSION

The potential for fire or air emissions from the wastes contained in this site is expected to be small, assuming the only waste disposed of here is fly ash.

It is estimated that 4,000 people live within a one mile radius and that over 10,000 people live within two miles. The nearest population is less than one-hundred feet away across 66th Street.

The nearest buildings are suspected to be the school buildings. The nearest off-site buildings are the homes along 66th Street. Over 1,000 buildings are within a two mile radius.

The nearest residential area is 100 feet away. The nearest commercial area is along Niagara Falls Boulevard, 1,000 feet north. The nearest industrial area is one mile west. There are no agricultural areas with two miles.

DIRECT CONTACT

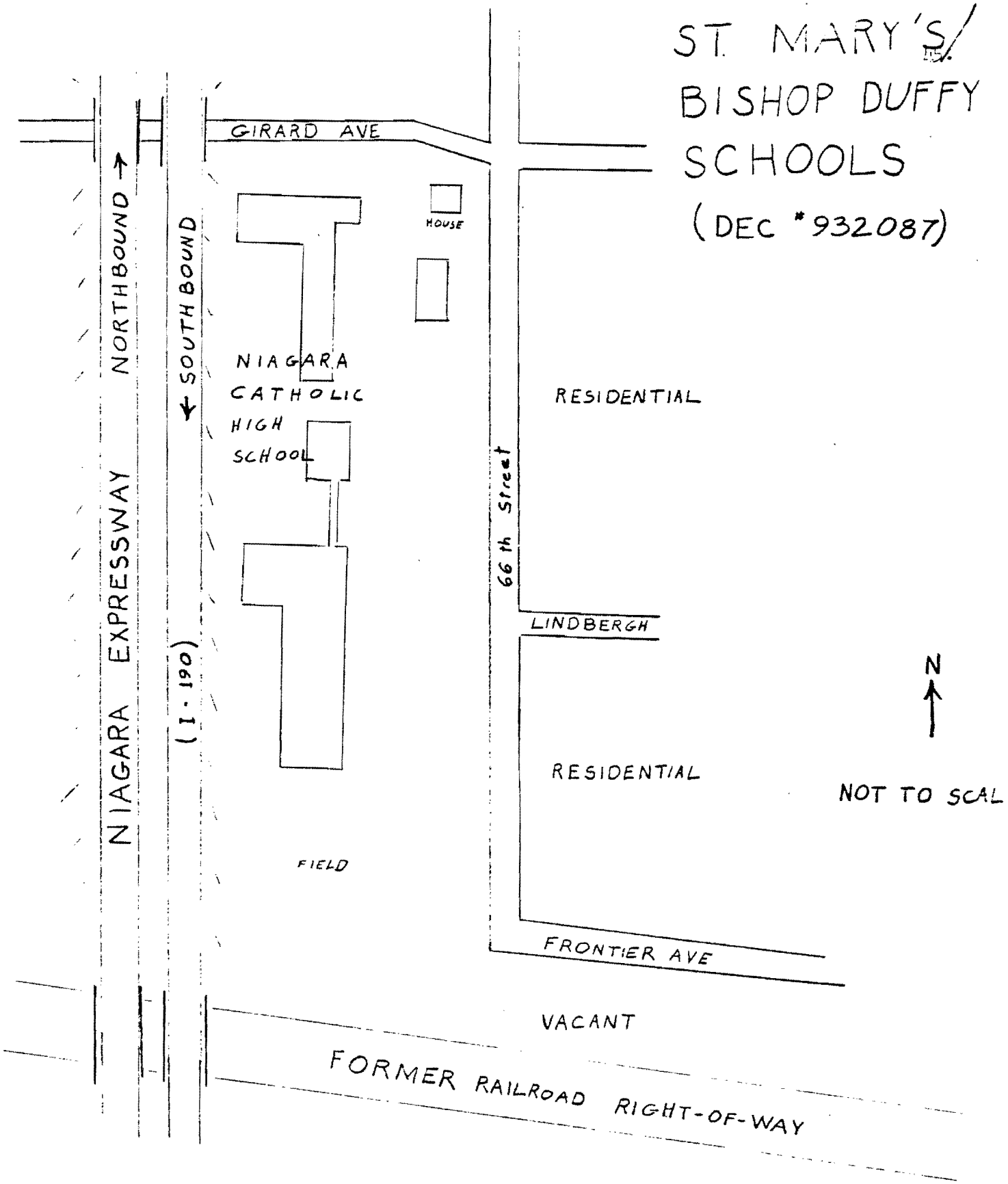
There are no exposed wastes at this site. Access is unrestricted as the area is used as a school.

CONCLUSIONS

There is no evidence of any hazardous material being disposed of at this site. Confirmation is needed. Samples could be obtained or test wells could be placed nearly anywhere on the school grounds. Insufficient data is available to assess the impacts of this site on water quality in the Niagara River.

ST. MARY'S/ BISHOP DUFFY SCHOOLS

(DEC #932087)



NOTE: THE EXACT LOCATION OF INACTIVE DISPOSAL AREAS IS NOT KNOWN

M. Hopkins
NCHD

NAME

BUFFALO AVENUE SITE (DEC #932080)

LOCATION

The site is located between Buffalo Avenue and the Robert Moses Parkway from 53rd Street to beyond 60th Street, including the property occupied by the City of Niagara Falls Water Treatment Plant.

A site sketch is attached.

OWNERSHIP

The vacant field east of the Water Treatment Plant is owned by the Power Authority of the State of New York (parcel 14). The site of the Water Treatment Plant is believed to be owned by the City.

HISTORY

Originally this was a wetland area. A comparison of 1927 and 1980 City of Niagara Falls maps shows that the shoreline has been extended as far as 700' into the Niagara River during that period. This extension is the result of two operations. The area north of the Robert Moses Parkway was filled with refuse, incinerator residue and other wastes by the City of Niagara Falls during the 1930's, 1940's and 1950's. The area beneath the Parkway extending to the river was placed by the Power Authority. This material is suspected to be rock spoils and fill obtained from the excavation for the underground conduits of the PASNY Project. The fill was deposited and the Parkway was constructed between 1958 and 1963. Mr. Sam DeLora of the City of Niagara Falls, Department of Public Works stated that he is unaware of any chemical disposal occurring at this site, but could not exclude the possibility that chemical wastes could be present.

According to USEPA Report (1980), aerial photographs taken in 1938, 1951 and 1958 suggest that the site was filled from west to east. The area of the Water Plant was filled first. The Plant was constructed in the 1950's. By 1958, the site was full and level.

The site is adjacent to the Hooker Chemical Company "S-area", which was used for chemical disposal from 1947 to 1975. Any effect from this area is unknown.

Hysen Supplies, Inc. considered buying this property in 1981 as a possible site for a warehouse. Hysen Supplies, Inc. did not buy the land after analysis of soil samples revealed that halogenated organic compounds were present in the soil.

An inspection made by Niagara County Health Department personnel in November, 1981 showed that the PASNY Property was rough graded with some mounding and depressions and sparcely covered with grass. Exposed waste

HISTORY

materials were not found. The City property was not entered. Visual observations from off-site indicated that the site has been raised substantially above the surrounding grade, apparently to allow for the depth of filters and other plant equipment. All areas of the Water Plant are either built upon, paved or grassed. The City property is completely fenced.

REVIEW OF AERIAL PHOTOGRAPHS

USDA aerial photographs taken in 1958 and 1966 appear to verify the extent of the area prior to the parkway construction and that the Parkway was in use by 1966. However, all dumping activities are believed to have been ceased prior to 1958.

PREVIOUS SAMPLING AND ANALYSIS

Samples were taken by Hysen Supplies, Inc. and analyzed by Advanced Environmental Systems, Inc. in April, 1981. The results of this analysis and the locations of the samples are attached to this report.

SOILS/GEOLOGY

A detailed soil survey for this area is not available. A test hole near the Water Plant shows a profile of 3 feet of sand, over 23 feet of clay and silt, over Lockport Dolomite, according to Johnston (1964). The Dolomite is over 100 feet in depth.

Much of the soil in the upper layers is expected to be fill material, including both wastes and clean fill. The properties of this material are not known and could vary across the site.

Borings were made to obtain samples taken for Hysen Supplies, Inc. in 1981. Boring logs are given in the report prepared for Hysen Supplies, Inc. A copy of this report is on file in the DEC Region 9 Office.

GROUNDWATER

The depth to groundwater and the direction of flow have not been documented. Since this area was previously a marsh and near river level it is probable that the water table is at or near river level. Groundwater is suspected to flow into the river. Any contamination of the groundwater is expected to directly effect water quality in the Niagara River.

There are no known drinking water wells within three miles of this site. The nearest industrial well is one and one half miles downstream (Olin), but this well is not believed to be in the path of groundwater passing the Buffalo Avenue site.

SURFACE WATER

The Niagara River is 500 feet south of this site. Drainage ditchs along the Robert Moses Parkway prevent direct runoff of precipitation to the river. Groundwater is expected to enter the river.

The City drinking water intakes are downstream from the site, but are located several thousand feet off-shore. Up to 100,000 people use the water from these intakes. Industrial intakes are located 1000 feet downstream.

The area is not within a 100 year flood plain. There are no major wetlands within one mile of this site.

AIR

There is no record of odors being generated from this site. Over 10,000 people reside within one mile of this site. The nearest residence is 200 feet north (across Buffalo Avenue), the nearest commercial area is 200 feet north and the nearest industry is 150 feet west (Hooker).

FIRE/EXPLOSION

The nearest off-site building is 200 feet north. The Water Plant is atop the site. Over 2000 buildings are located with 2 miles of the site.

The potential for fire or explosion is considered to be small.

DIRECT CONTACT

The site is partially fenced, although access is possible along Buffalo Avenue at numerous points. All wastes are expected to be covered.

CONCLUSIONS

Insufficient data is available to assess the impacts of this site on the Niagara River. Groundwater flow data and additional sample analysis are needed.

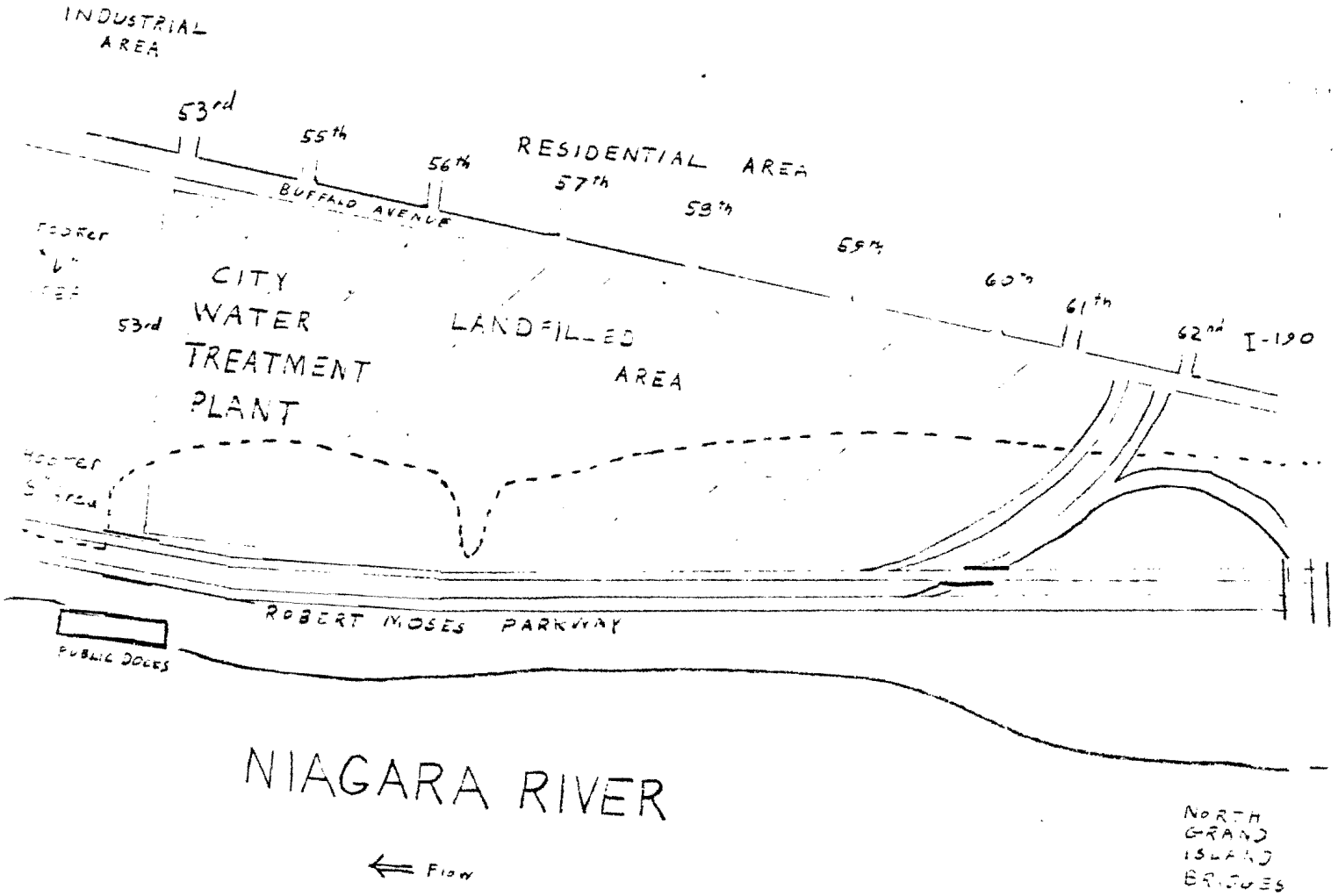
Wells could be placed along the Parkway, along Buffalo Avenue or at points within the filled area. Access for drill rigs is available to most of the site. Soil samples could be obtained at random locations throughout the site and at various depths, to obtain a cross section of the extent of the wastes.

Periodic inspections of this site should be continued unless analytical results indicate that no toxic materials are present.

BUFFALO AVENUE SITE

49.

DEC # 932080



⁂ - LANDFILL AREA

- RIVER SHORELINE IN 1927

Not to Scale

Michael Hopkins NCHD

GRAND ISLAND

LABORATORY REPORT

SCOPE OF WORK

Sixteen soil samples were delivered to Advanced Environmental Systems (AES) on April 16, 1981 by Mr. Carl Anderson, Vice President of Hysen Supplies, Inc. The samples were soil test borings taken by Pittsburgh Testing Laboratory from Parcel 14, Buffalo Avenue, Niagara Falls, New York.

Analysis was performed for the following compounds: trichlorobenzenes, tetrachlorobenzenes, hexachlorobutadiene (C-46), and hexachlorocyclopentadiene (C-56).

Chain of custody was transferred to Mrs. Judy McDougall, Document Control Officer of AES on April 16, 1981.

METHODOLOGY

Approximately 20 gm. of sample was extracted with methylene chloride for sixteen hours using a soxhlet extraction apparatus. The extract was dried by passing through sodium sulfate and was concentrated to 10 ml. after solvent exchange with hexane. The concentrated extract was analyzed on a Varian 3700 gas chromatograph equipped with an electron capture detector using the following conditions:

Column:	10% SP-2100 on 80/100 mesh Supelcoport 6 ft. x 2 mm ID glass
Column Temperature:	95°C.
Carrier Gas:	Nitrogen, 30 cc/min.
Injection Port Temperature	280°C.
Detector Temperature:	300°C.
Injection Size:	1.0 µl
Recorder:	Hewlett Packard 33SSA

All compounds of interest were separated using the conditions listed except 1,2,3,5-tetrachlorobenzene and 1,2,4,5,-tetrachlorobenzene, which eluted at the same retention time.

Advanced Environmental Systems, Inc.

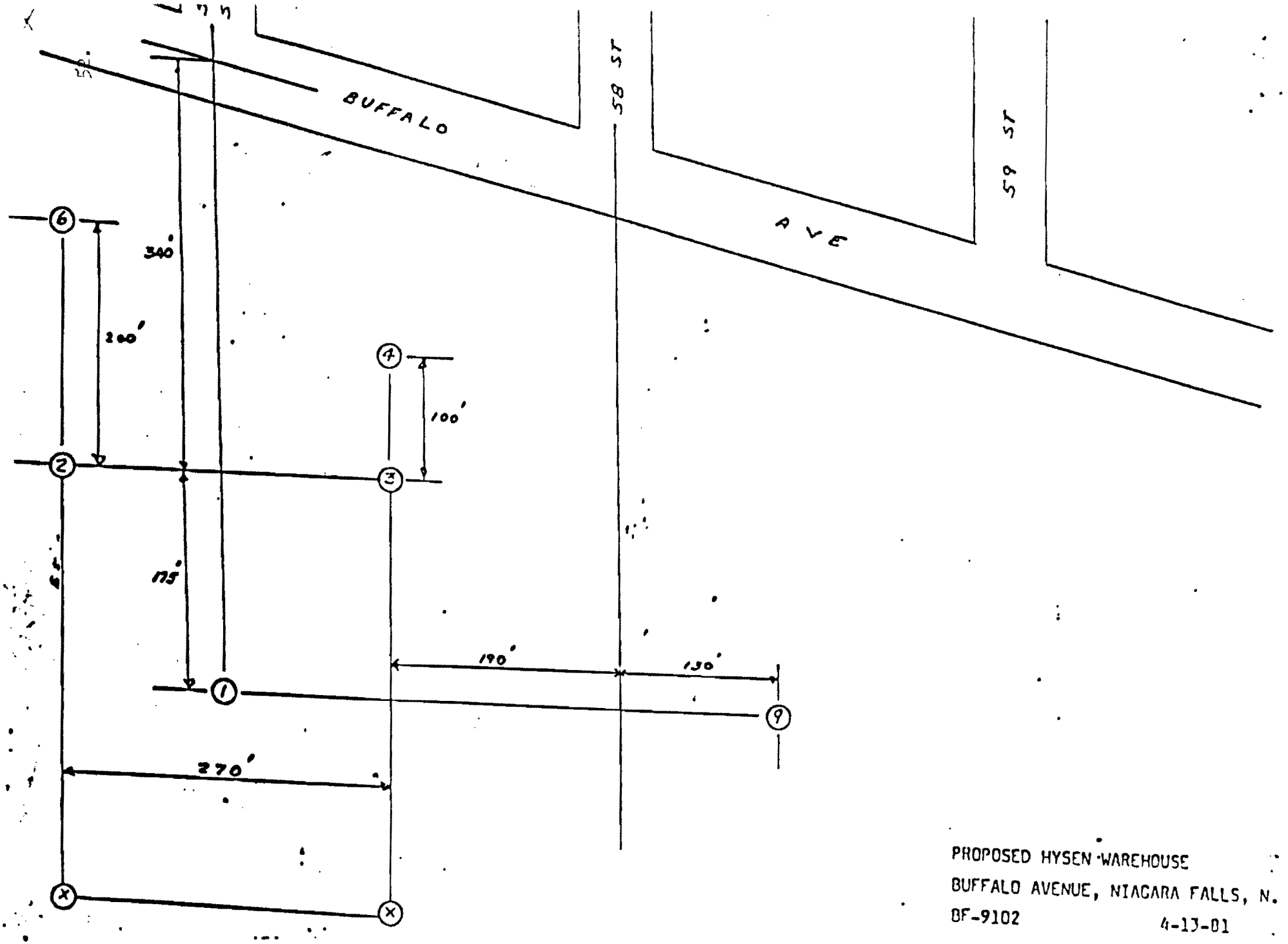
Monitoring and Support Laboratory

Table 1. RESULTS OF SAMPLES FROM PARCEL 14, BUFFALO AVENUE, NIAGARA FALLS, NEW YORK

(Expressed as ng/gm or ppb)

Sample Identification	Trichlorobenzenes			C-46	C-56	Tetrachlorobenzene	
	1,3,5	1,2,4	1,2,3			1,2,3,5 & 1,2,4,5	1,2,3,4
Boring 1 - Sample 1	ND[1]	114.1	ND	69.5	ND	25.6	205.7
Boring 1 - Sample 3	181.1	216.7	ND	24.1	ND	32.0	75.6
Boring 1 - Sample 6	ND	18.8	ND	ND	ND	ND	13.9
Boring 2 - Sample 1	ND	81.6	ND	26.2	ND	39.6	150.6
Boring 2 - Sample 3	ND	10.2	ND	ND	ND	ND	ND
Boring 2 - Sample 5	ND	ND	ND	ND	ND	ND	ND
Boring 3 - Sample 1	ND	59.2	ND	18.9	ND	23.4	119.6
Boring 3 - Sample 4	48.6	22.0	ND	76.7	ND	ND	ND
Boring 3 - Sample 5	ND	ND	ND	ND	ND	ND	ND
Boring 4 - Sample 1	ND	74.7	15.8	44.5	ND	45.3	198.6
Boring 4 - Sample 3	34.8	ND	ND	3.5	ND	ND	ND
Boring 6 - Sample 1	ND	898.5	227.6	3.0	ND	253.0	1,000.
Boring 6 - Sample 3	ND	ND	ND	ND	ND	ND	ND
Boring 9 - Sample 1	ND	13.4	ND	46.1	ND	ND	11.7
Boring 9 - Sample 4	ND	82.3	ND	8.7	ND	16.9	29.1
Boring 9 - Sample 6	168.9	320.3	ND	35.8	ND	62.2	233.9
Detection Limit	<8.0	<8.0	<5.0	<2.0	<4.0	<6.0	<3.0

[1] ND = Not Detected



PROPOSED HYSEN WAREHOUSE
BUFFALO AVENUE, NIAGARA FALLS, N.
BF-9102 4-13-01

NOT TO SCALE

NAME

FRONTIER BRONZE (DEC #932015)

LOCATION

The site listed as Frontier Bronze is a one-half acre storage area located behind the foundry building at 4870 Packard Road.

A second area of three acres is used in conjunction with the plant site. This area is roughly two miles north of the plant site in a lot behind 7026 Laur Road.

A site sketch for each site is attached.

OWNERSHIP

The plant site is owned by Frontier Foundries, Inc., 4870 Packard Road, Niagara Falls, NY. Any correspondance should be addressed to Mr. Mathew Van Voris, Plant Engineer.

The Laur Road site is owned and operated by Mr. Dave Young, 7020 Laur Road, Niagara.(t)

HISTORY

The two sites are used to store spent foundry sand generated by Frontier Foundries. These sites have been in use for at least twenty years and are still active.

Frontier Foundries generates five tons of spent sand per day. The sand contains a phenolic binder (1% binder with 5% phenol in the binder). Frontier stores the spend sand in the plant yard prior to removal to the Laur Road site. Dave Young removes the sand several times per week. The volume of sand at the plant site at any time is reportedly less than four cubic yards.

Mr. Young operates a storage area on Laur Road. Up to 40 or 50 cubic yards of spend sand may be stored at this site at any time. At times there is no sand stored here. Mr. Young sells the sand as fill material. Contractors in the Lewiston area have used this material for driveway, garage floor and parking lot subgrades. The use as fill represents the final disposal of the sand.

The two sites were inspected by Niagara County Health Department personnel in December, 1981. At this time, two cubic yards of waste sand were present at the plant site. The sand was gray-brown and lumped into easily broken pieces. No odors or leachate were found. There is no evidence that any permanent disposal has occurred here.

The Laur Road Site contained a pile of about thirty cubic yards of spent sand. A slight odor of phenol was detected near the sandpile. Mr. Young has applied for a Permit to Operate this area.

ANALYSIS OF PREVIOUS SAMPLES

Frontier Foundries has contracted to have a complete chemical analysis and toxicity testing performed on the spent sand. Bastelle Laboratories of Columbus, Ohio, is performing the analysis. The results were not available at the time of this writing.

EXAMINATION OF AERIAL PHOTOGRAPHY

USDA aerial photographs (1":660') taken in 1958 and 1966 did not show any storage or disposal operations at either site. The Laur Road Site was apparently cleared of vegatation in the 1966 photo.

SOILS/GEOLOGY

A detailed soil survey is not available for the plant site. The USDA Soil Conservation Service, Soil Survey for Niagara County lists the soils at the Laur Road Site as Churchville silt-loam. These are deep, somewhat poorly drained soils with a general profile of less than one foot of silt loam over silty clay or silty clay loam to depths of twenty inches to thirty-one inches. Loamy glacial till underlies the clay. The permeability of the glacial till is given as less than .63 inches per hour. A seasonal high water table of one foot or less below the surface may be encountered.

In Groundwater in the Niagara Falls Area, Richard Johnston lists a test hole (#305-900-c) near the plant site. The hole shows three feet of silt and clay over ten feet of glacial till, over Lockport Dolomite.

Bedrock is Lockport Dolomite beneath both sites. The Dolomite is roughly 120 feet thick at both locations.

GROUNDWATER

No data on groundwater near the plant site was found. It is presummed that the Dolomite will contain several water bearing zones. The depths to these zones and the direction of flow has not been determined.

Four wells within one-half mile of the Laur Road Site were reported by Johnston. Water table elevations indicate a dip to the south. These wells listed water levels of twelve to twenty-six feet below surface elevation.

A seasonal perched water table in the unconsolidated material is a possibility at either site.

There could be drinking water wells located within one mile of the Laur Road Site although no specific wells were found. There are no industrial wells within three miles of either site. The population served by wells, if any, is not known.

SURFACE WATER

The nearest surface water to either site is Gill Creek. The Creek is roughly one mile west of either site. The effects of either site on surface water quality are expected to be insignificant.

SURFACE WATER (continued)

Gill Creek water is not used for drinking or industrial use. Gill Creek discharges to the Niagara River, downstream from the city water intakes. There are no drinking water intakes within three miles downstream although some industrial water may be drawn. Neither site is within a 100 year flood plain and neither site is located within one mile of wetlands.

AIR

The spent sand is only slightly odorous. No major air quality problems are expected.

The nearest population to the plant site is Packard Court, 2,000 feet southwest. Up to 1,000 people live within one mile of the site. The primary land use within two miles is industrial. The nearest residential area is Packard Court. A shopping plaza is located 1,500 feet north.

The Laur Road Site is surrounded by residential homes and vacant fields. 300 people are estimated to live within one mile of this site. The nearest residence is 200 feet west. This home is owned by Mr. Young.

FIRE/EXPLOSION

The risk of fire or explosion at either site is minimal due to the nature of the wastes present. The foundry building at the plant site is the nearest building. The nearest building to the Laur Road Site is the home 200 feet away. It is estimated that over 3,000 people live within two miles of the plant site and about 1,000 people live within two miles of the Laur Road Site.

DIRECT CONTACT

The material is uncovered at both sites. At the plant the area is fenced and supervised by plant personnel. Access to the Laur Road Site is unrestricted. The material is completely covered with concrete when used as fill material.

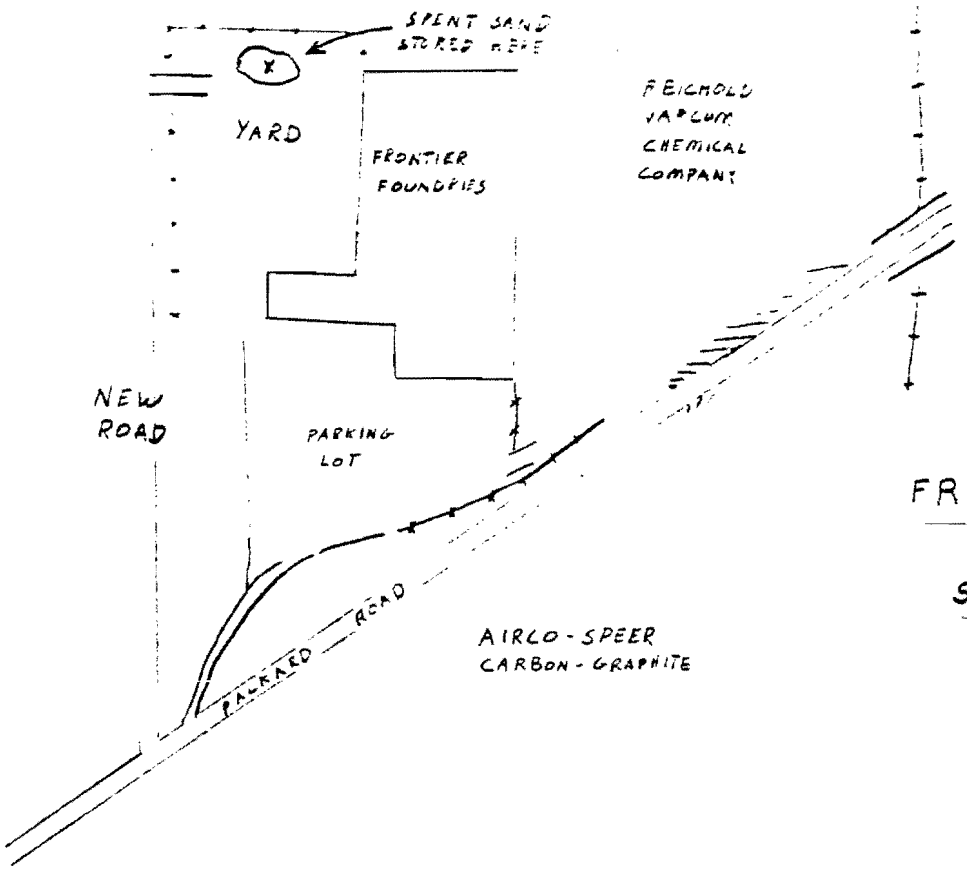
CONCLUSIONS

There is no evidence of permanent disposal of spent sands at either the plant or Laur Road Sites. The toxicity of the sand has not yet been determined. The impact of these sites on Niagara River quality, is expected to be small, if any.

Samples of the waste sands are readily obtainable at either site. Soil samples could be taken from around sand piles or randomly in the plant yard. If groundwater sampling is deemed necessary, wells could be placed around the storage areas. Access for drill rigs is available.

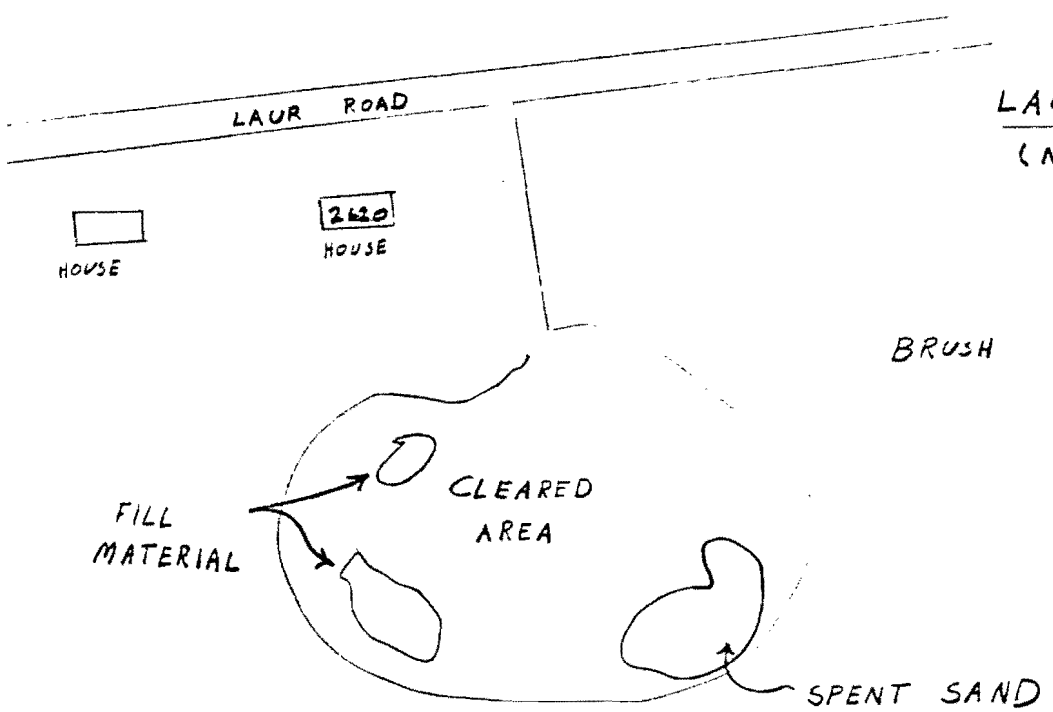
The acceptability of the use of this sand as fill should be considered when the results of the toxicity tests are available.

Periodic inspections of both areas is recommended.



FRONTIER BRONZE

SITE #932015



LAUR ROAD SITE
(NO NUMBER)

Not to Scale

M. [illegible] NCHD

NAME

97th Street Methodist Church (DEC #932084)

LOCATION

The site is located at 9610 Colvin Boulevard (between 96th Street and 97th Street) in Niagara Falls, New York. The Wesley United Methodist Church occupies this site.

OWNERSHIP

The owner of this property is the Wesley United Methodist Church. The church is now abandoned and no forwarding address for correspondence was found.

HISTORY

This is believed to be the site listed as "99th Street Methodist Church" in the DEC publication Hazardous Waste Disposal Sites in New York, Volume 3. It was determined that there is no church on 99th Street.

According to the above publication, Olin Chemical had 23 tons of broken concrete disposed of at this site in August and September, 1958. The church is believed to have been built shortly after this date.

The Love Canal is located 400 feet southeast of this site. The majority of the homes within a one half mile radius have been exvacuated after a state of "Health Emergency" was declared in 1978. The church was assumed to have been abandoned at this time.

The pastor of the church before closure was Reverend Bruce H. Stearns. He no longer resides at his previous address, 10039 Mueller Court and no forwarding address was found.

In December, 1981, Niagara County Health Department personnel inspected the site. The church was boarded up at this time. Reverend Jack Hayes,who is the pastor of the Church of God across Colvin Boulevard, did not know of anyone who would be knowledgeable in the matter.

No sign of previous disposal activities could be found by visual inspection.

RESULTS OF PREVIOUS SAMPLING

There is no record of previous sampling at this site.

REVIEW OF AERIAL PHOTOGRAPHY

USDA aerial photographs, ARE 2V-33 (1966) and ARE 2GC-14 (8/2/58) were examined. In 1958, the site was vacant and no sign of disposal was found. In 1966, the church was in place.

SOILS/GEOLOGY

A detailed soil survey for this area is unavailable. The surface is estimated to be 50% covered with structures or pavement, therefore, this portion is impervious. The remainder of the surface is grassed. No boring data from nearby areas was found.

The bedrock is Lockport Dolomite over 140' thick. The depth to groundwater is not known. Several water bearing zones are expected in the Dolomite.

GROUNDWATER

The direction of groundwater flow is believed to be toward the Niagara River. Due to the proximity of this site to the Love Canal, tracing potential groundwater contamination to the 97th Street site could be difficult. The effects of the Love Canal are expected to greatly overshadow any effects from the 97th Street site.

There are no known drinking water wells within three miles of this site. There are no industrial users of groundwater in this area.

SURFACE WATER

The nearest surface water is Black Creek, 200 feet to the north. Black Creek flows to Bergholtz Creek which flows to Cayuga Creek. Cayuga Creek enters the Niagara River roughly two miles downstream from the site.

Black, Bergholtz and Cayuga Creek waters are not used for drinking or industrial use. The City of Niagara Falls water intakes are three miles downstream from the mouth of Cayuga Creek.

The site is not in a 100 year flood plain and there are no wetlands within one mile.

AIR

According to Mr. Yavuz Erk of DEC, workmen have reported odors when servicing catch basins in this area. The source of the odors was not determined.

The number of people remaining within one mile could not be readily determined, but is suspected to be less than 1,000. The nearest occupied residence is the home of Reverend Jack Hayes, 350 feet south on 96th Street. Land use within two miles is primarily residential. Commercial and agricultural land can be found east of Williams Road, over one mile away.

FIRE/EXPLOSION

If the wastes present are as described by the DEC directory, the danger of fire and explosion is small.

Over 10,000 people and several thousand buildings are located

FIRE/EXPLOSION (continued)

within two miles of the site, including two trailer parks, all of Cayuga Island and most of LaSalle.

DIRECT CONTACT

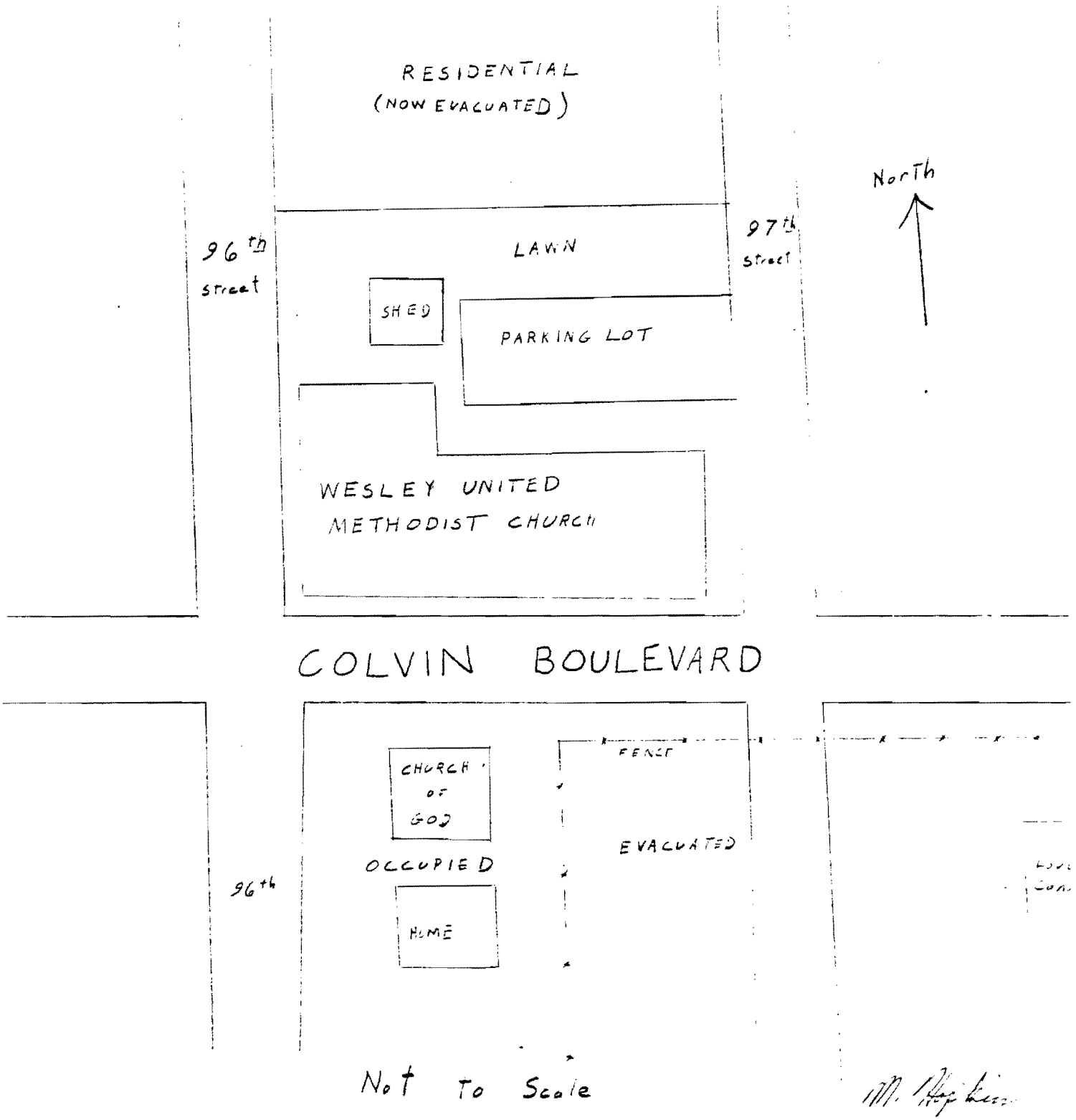
There is no sign of any exposed material. The church is locked, but access to the grounds is unrestricted.

CONCLUSIONS

Sufficient data to determine the potential impacts of this is not available. The type and quantity of wastes present should be verified. Any effects of the Love Canal on this site are unknown.

Samples could be taken from the grassed areas around the church. Test holes could be randomly placed to search for buried wastes. Access for equipment is available, except of course, beneath the church itself.

97th STREET METHODIST CHURCH - SITE #932084



NAME

TOWN OF NIAGARA (DEC #932089)

LOCATION

The landfill is situated within a 21 acre parcel off Lockport Road in the Town of Niagara. This area is roughly trapezoidal, bounded by Lockport Road to the south, by the Niagara Expressway (I-190) to the north, roughly by Gill Creek to the west and by a north-south property line which intersects Lockport Road approximately 820 feet west of the I-190 (south bound lane) overpass.

An area of 6 to 8 acres in the southwest corner of the property has definitely being landfilled. Other areas of the northern portion of the site may have been used for refuse disposal.

A site sketch is attached.

OWNERSHIP

The property is owned by the Town of Niagara. It is presumed that the Town has owned this land since disposal activities began.

Correspondence should be addressed to:

Calvin Richards, Town Supervisor
Town of Niagara
7106 Lockport Road
Niagara Falls, NY 14305

HISTORY

The opening date of the Town of Niagara landfill was not determined although it is believed to have been operated in the 1950's and possibly before. The only known user of the site is the Town of Niagara Sanitation Department. This site is still active and receives 50 cubic yards per week.

Wastes received are assumed to be primarily domestic waste and some commercial refuse. The Interagency Task Force Report (1979) indicates that NL Industries (now TAM Ceramics) wastes were hauled by the Town of Niagara Sanitation Dept. These wastes include fumedsilica and zirconia sludge. The presence of these materials in the landfill has not been confirmed. No other industries are known to have used this site.

Prior to the late 1960's, the facility was operated essentially as an open dump. Cover was infrequently applied and open burning occurred on frequent intervals. An order issued in 1969 required the Town to cease open burning and cover all refuse. This order was issued after a case

HISTORY (continued)

report alledged 25 separate occurrences of open burning in 1968 and 1969.

Leachate problems became apparent in the 1970's. Improper grading, the pooling of water on the surface and inadequate compaction are believed to be responsible for the leachate problems. Other problems noted during this period include slopes steeper than 3 to 1, a lack of vegatation and protruding refuse.

A part 360 permit was issued on March 17, 1980. This permit required adherence to the plan prepared by Wegman Engineers and remedial action in the form of grading and seeding. Two monitoring wells were drilled west of the site at this time. The elevations specified in this plan were exceeded by the summer of 1981, well in advance of the 1983 expiration date of the permit. The landfill has remained open in spite of this situation. The Town has not yet decided on a course of action to take to abate this problem.

Recent inspections have shown that significant improvements have been made in grading, cover and drainage of this site. The closed areas require seeding.

SOILS/GEOLOGY

Detailed soil survey information is not available for this site. The USDA Soil Conservation Service Soil Survey for Niagara County lists the soils as "cut & fill". Soil profiles to the northeast and west have been modified by construction projects (I-190 and PASNY Conduits).

The boring records for the two wells drilled west of the site (May 1980) indicate that the soils in the Gill Creek Basin at the foot of the landfill side slope consist of 8 to 10 feet of clayey-silt over 2 feet of sand and silt over bedrock at 11 to 12 feet. The water obtained from these wells is apparently from a perched water table above the bedrock, since the wells did not penetrate the bedrock. The water level in these wells could be influenced by the stage of Gill Creek.

Well records listed by Johnston (1964) indicate that wells within one half mile of the landfill encountered bedrock within 10' to 15' of the surface. By interpolating between bedrock surface elevations determined from data for all wells listed by Johnston within one mile, the bedrock roughly follows the contour of the surface and therefore, dips toward Gill Creek along and east-west plane, but is relatively flat along a north-south plane with the landfill area. This trend would indicate that the two wells drilled in May,1980 are likely to be downgradient of the landfill.

Bedrock is Lockport Dolomite. The Dolomite is estimated to be 125 feet thick in this area. Several water bearing zones may be found in the Dolomite. Records show that wells in this area are typically 55' to 75 feet deep. One well was drilled to 25 feet, but the yield was inadequate for domestic

SOILS/GEOLOGY (continued)

use. Some wells within 1 mile were found to contain water which was salty or contained hydrogen sulfide.

RESULTS OF PREVIOUS SAMPLING

Samples were obtained from two groundwater monitoring wells drilled in 1980. These samples were taken by DEC (Hans & Wozniac) in June,1981. Also, an additional sample was taken from an existing well east of the site. The well locations are shown on the attached sketch. It is noted that the existing well used is believed to be the well recorded by Johnston (1964) as 307-900-6. This well was listed as "salty" by Johnston.

WELL #	VO 1	DO 1	DO 2
CI (mg/l)	110	90	81
F (mg/l)	0.84	0.61	0.56
SO_4 (mg/l)	170	330	180
TDS (g/l)	0.73	1.10	0.73
Conductivity (umhos/cm)	1100	1500	1100
ph	7.4	7.0	7.5
Color (color units)	L.T.5	6.0	6.0
Odor (thres.units)	ND	ND	ND
TOC (mg/l)	20	19	24
in hole cond	1170	890	850
in place ph	7.4	7.3	7.4
As (ug/l)	LT10	LT10	LT10
Ba (ug/l)	120	34	47
Cd (ug/l)	LT0.5	LT0.5	LT0.5
Cr (ug/l)	LT 4	LT 4	LT 4
Cu (ug/l)	LT 5	LT 5	LT 5
Fe (ug/l)	1300	170	530
Pb (ug/l)	LT 5	LT 5	LT 5
Mn (ug/l)	130	110	LT 10
Hg (ug/l)	LT0.1	LT0.1	LT0.1
Se (ug/l)	LT 10	LT 10	LT 10
Ag (ug/l)	LT 2	LT 2	LT 2
Zn (ug/l)	420	12	110

No other sampling data was found

GROUNDWATER

During the summer, the water level in bedrock wells is roughly 15 feet below the surface. This figure is indicated by the data presented by Johnston. The water level in the on-site overburden wells was 2.9 feet below surface in well DO-2, 6.5 feet in DO-1 and 7.8' in well VO-1

GROUNDWATER (continued)

(off-site) in June, 1981. This indicates that a perched aquifer exists above the Dolomite, and this aquifer is the most probable receptor of leachate from the landfill.

The direction of groundwater flow is suspected to be from east to west or toward Gill Creek Public water was made available to this area in the middle 1960's. There are no known active drinking water wells within 3 miles although some wells may still be used for watering lawns, washing, etc. Wells in this area often provided poor quality drinking water due to hydrogen sulfide. There are no other uses for this ground water.

SURFACE WATER

The nearest surface water is Gill Creek, located 50 feet from the western limit of the landfill. Gill Creek enters the Niagara River three miles downstream from this site, after passing through an impoundment known as Hyde Park Lake 1 mile downstream. Gill Creek is not used for drinking water or industrial uses although it has scencic valve and recreational uses in Hyde Park.

Problems involving leachate leaving the landfill and entering Gill Creek have occurred in the past, but recent inspections have not revealed such problems.

The landfill is not susceptible to flooding although low areas near Gill Creek are. There are no wet lands of over 5 acres within 1 mile of this site although there are numerous marshy areas along Gill Creek.

AIR

In the past open burning occurred frequently. Residents and Health Department personnel have complained of smoke and odors impacting on air quality at this site during the 1960's. Off-site odors have not been reported in recent years.

The nearest residence is 800 feet east of the landfill. The nearest residential development is 2500 feet west (Norman Street). It is estimated that 1000 people live within 1 mile of this site.

The nearest industrial area is .75 miles northwest. There are no major commercial or agricultural areas within 2 miles.

FIRE & EXPLOSION

The nearest off-site building is the home 800 feet east of the landfill on Lockport Road. Several hundred buildings are located within a 2 mile radius. An estimated 3000 people live within 2 miles.

DIRECT CONTACT

There are no confirmed hazardous materials present. All wastes are covered daily.

The landfill is fenced and locked when no attendent is on-duty. Only town trucks use the landfill, private citizens are not allowed on-site.

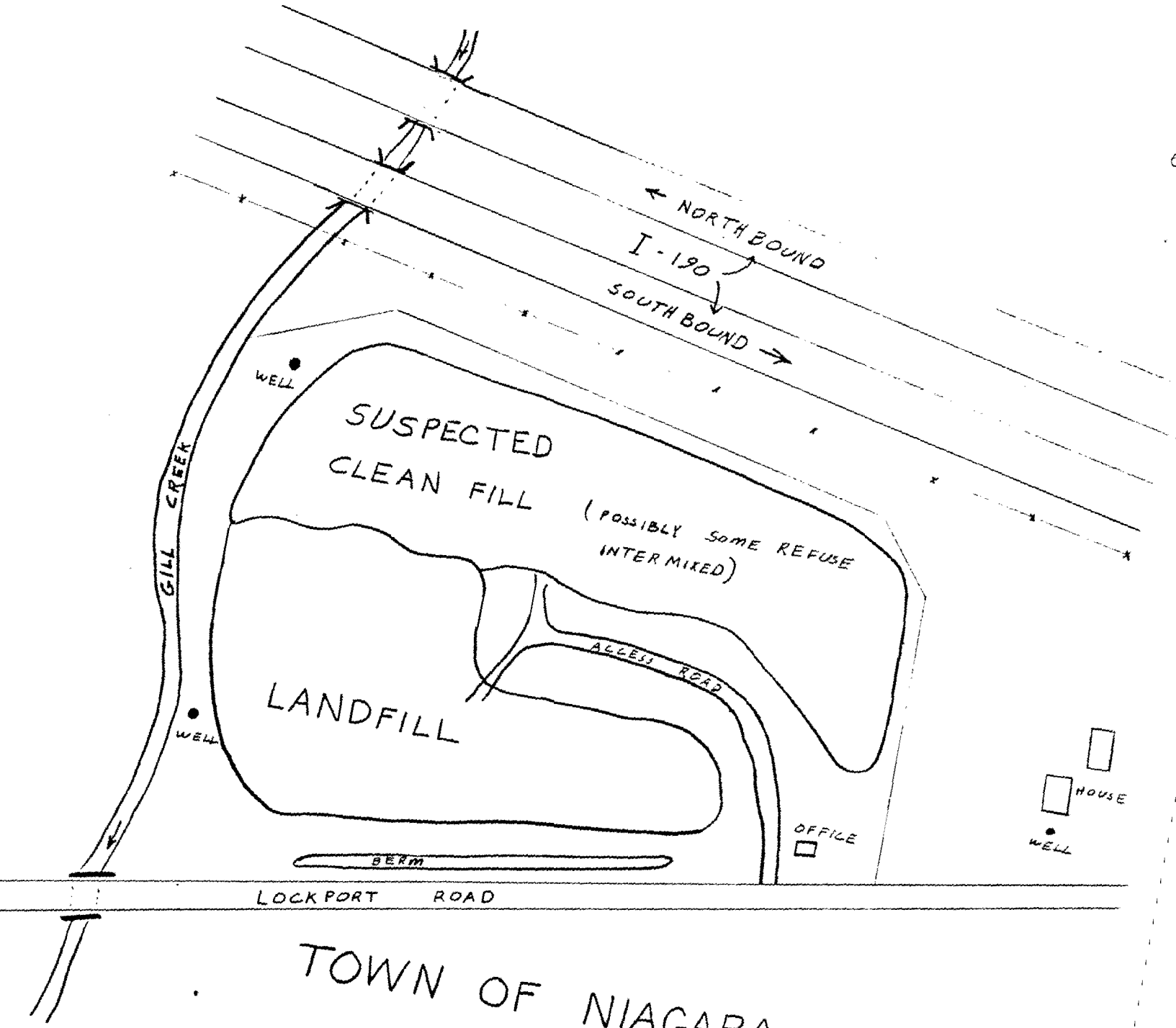
CONCLUSIONS

The problems experienced by this landfill in the past are typical of many municipal landfills. Remedial work in grading and drainage have improved the situation.

Leachate must not enter Gill Creek. If surface leachate is found in future inspections, corrective measures should be taken. The closed areas should be seeded.

Monitoring of the on-site ground water wells should provide sufficient data for assessment of the impacts of this site on the environment. Additional wells are not necessary at this time.

Currently, the Niagara County Health Department inspects this site monthly. This frequency is felt to be adequate and should be continued.



TOWN OF NIAGARA LANDFILL

*932089

NORTH

NOT TO SCALE

Mitchell & Hopkins

2/23/82

SOILS/GEOLOGY

The soils in this area have been modified by the disposal activities here. According to the Environmental Impact Statement written by Malcolm Pirnie, Inc. for the proposed sludge containment facility, the general soil profile is composed of top soil, rock shot and fill to two feet, over stiff mottled clay to six feet, over very stiff varved clay to twelve feet, over sand, silt and glacial till to bedrock at 13.8 to 21 feet below the surface.

Bedrock is Lockport Dolomite. The Lockport is the chief water bearing material.

Four bedrock and four overburden wells are present on the site. These are believed to have been drilled as part of the hydrogeological study made in conjunction with design of the sludge containment facility. The boring logs for these wells are believed to be present in the Engineering Design Report prepared by Malcolm Pirnie in March, 1981.

GROUNDWATER

The principal aquifer is expected to be the bedrock aquifer although groundwater is also likely to be present in the unconsolidated material. Unconfirmed groundwater is expected in the top layers of the Dolomite, while artesian aquifers are expected 15 to 20 feet below the rock surface.

According to Malcolm Pirnie, the groundwater flow in the upper zones of the bedrock is generally toward the southwest. The baseline data indicates that high pH, high dissolved solids, extreme hardness and low level chromium and bacteriological contamination make this water unusable for domestic or industrial use.

There are no known drinking water wells in this area. There are no known users of groundwater within three miles.

SURFACE WATER

The nearest surface water is Gill Creek, which passes beneath the site via a 52" drain pipe. At one time Gill Creek passed over this area. Hyde Park Lake, an impoundment of Gill Creek is 4,500 feet downstream. Water quality in Gill Creek is considered to be poor. The creek enters the Niagara River 2½ miles downstream, at a point below the city water intakes.

Uses of Gill Creek are only recreational and scenic. No drinking or industrial water is drawn from this creek.

There are no wetlands within one mile. The site is not in a 100 year flood plain.

AIR

There have been no complaints of odors or other air problems at this site.

NAME

NEW ROAD (DEC #932083)

LOCATION

The site occupies part or all of a 48.7 acre parcel located northeast of the intersection of New Road and Porter Road. The site is bounded by the Conrail Right-of-Way to the east and north, an access road to the Conrail Yard on the south and the Niagara Mohawk transmission corridor to the west.

OWNERSHIP

The property is owned by the Power Authority of the State of New York. (PASNY Parcel #1305)

HISTORY

This site was operated by the City of Niagara Falls during the 1950's as a dump for non-combustibles and incinerator residue. It is not known whether any industrial waste was deposited here. According to the Inter Agency Task Force, a fish kill in Gill Creek in 1954 or 1955 is attributed to leachate from this site.

The Power Authority used this site for disposal of rock spoils and clean fill from the Power Project excavations from 1958 to 1962. The property has been idle since this time.

The City of Niagara Falls proposed the use of this site as a sludge containment facility for disposal of municipal sewage sludge. A study and report were made in early 1981 and a permit for construction was issued by DEC in September, 1981. The City has since abandoned the proposal, at least temporarily. No construction has occurred on this site.

Currently, the site is idle. Recent inspections found some evidence of scavenger dumping of refuse and construction debris. No signs of industrial wastes were found. The site contains numerous depressions and mounding, spare vegatation and some areas appear to be suspectable to ponding.

RESULTS OF PREVIOUS SAMPLING

No record of any previous sampling at this site was found at this time.

EXAMINATION OF AERIAL PHOTOGRAPHS

1958 and 1966 USDA aerial photographs were examined. The photos showed that rock spoils were placed between 1958 and 1966 and that the power lines on the adjacent Niagara Mohawk Property and the Conrail Yard had been developed during this period. No evidence of previous disposal activities was found on either photo.

AIR (continued)

The nearest residential areas are the Forest Glen and Expressway Village Trailer Parks located 500 feet to the east. 2,500 to 3,000 people live within a one mile radius. The nearest commercial area is the Twin Fair Plaza, 1,500 feet east. The nearest industry is Pyron Metals, over one-half mile away. A railroad yard ajoins the property. Hyde Park Golf Course is 500 feet west of the site.

FIRE AND EXPLOSION

The potential for fire or explosion is unknown. Although the wastes known to be disposed of here are reported to be incombustable, there is a possibility that other wastes are present.

Over 10,000 people live within a two mile radius. Over 1,000 buildings and 200 Mobile Homes are located within two miles. The nearest off-site building is at the Foote Conrail Switch Yard, less than 100 feet east of the site.

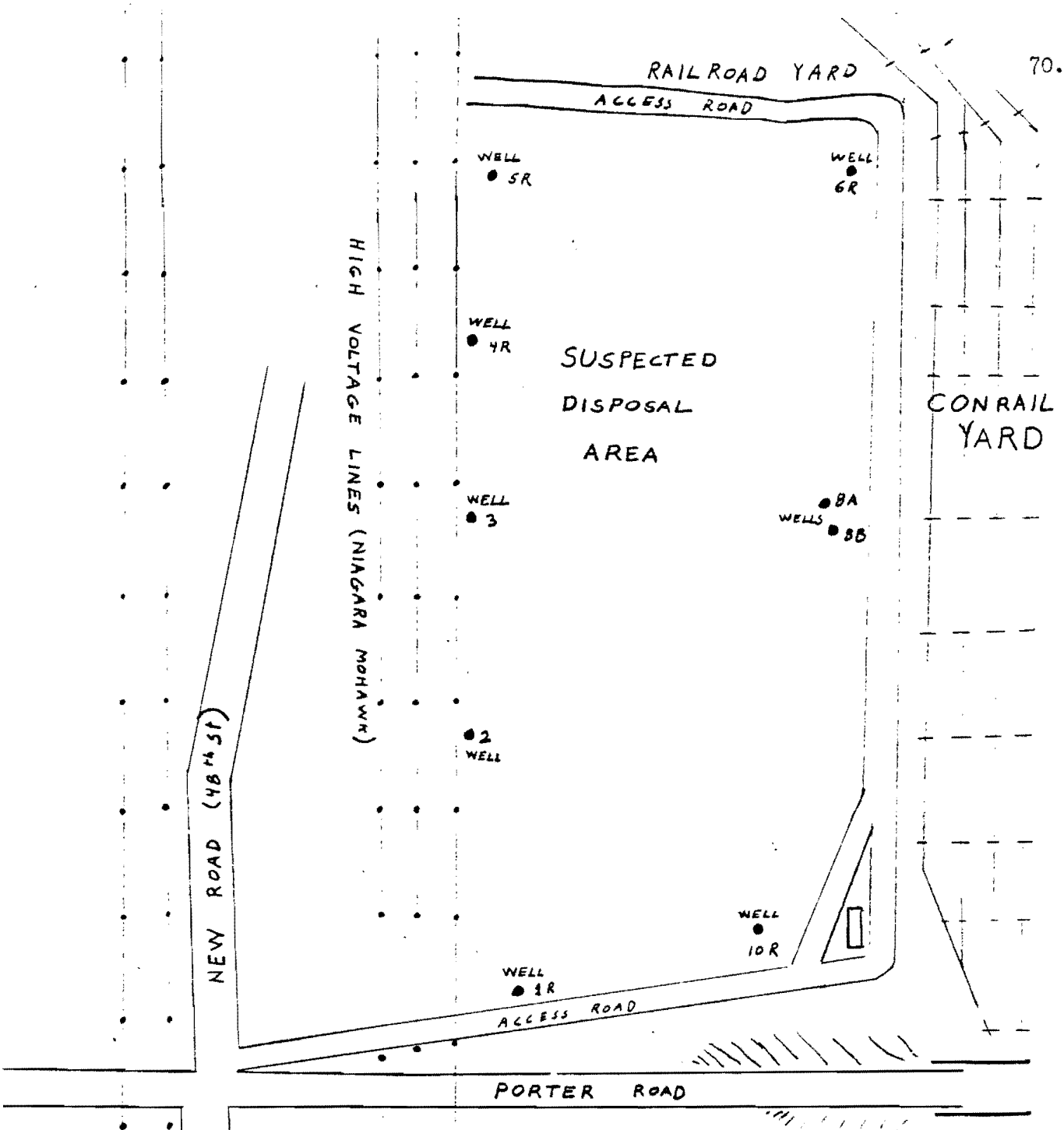
DIRECT CONTACT

There is no evidence of any exposed wastes at this site. Access to the site is restricted by signs, but not by fencing or other physical means.

CONCLUSIONS

Additional data is needed to determine the extent of contamination of soil or groundwater, if any. The wells on-site appear to be adequate for sampling and appear suitably located. Observation holes could be dug at random points. The large rock fragments present would prevent hand dug holes. Access for equipment is available over most of this site. Surface water samples above and below the Gill Creek Culvert could be readily taken.

Continued inspections are recommended. Any future excavation or development of this property should be monitored by the DEC or the Niagara County Health Department.



NEW ROAD SITE

DEC # 932083

NOT TO SCALE

M. Hopkins NCHD
2/10/82

NAME

ADAMS GENERATING PLANT (DEC # 932079)

LOCATION

The disposal site included the former forebay and two vertical penstocks used with the Adams Generating Plant. The plant is located between Buffalo Avenue and the Robert Moses Parkway, east of the City Wastewater Treatment Plant in Niagara Falls, NY. A sketch is attached.

OWNERSHIP

The Adams Plant is owned by the Niagara Mohawk Power Corporation (formerly Niagara Falls Power Corporation). A portion of the forebay may be on property owned by the City of Niagara Falls and used as part of the Wastewater Treatment Plant.

HISTORY

The Edward Dean Adams Generating Station was built in the late 1800's. Hydroelectric power was produced by allowing water to fall almost 100 feet through to vertical penstocks. The water was drawn through a short open forebay from the upper river and discharged through a tunnel, which ran beneath the City to the lower river. The plant was closed in 1961 when the Power Authority Project began its operation in Lewiston.

After closure of the plant the forebay and vertical penstocks were filled with incinerator residue and clean fill by the City of Niagara Falls. There have been no reports of industrial waste disposal at this site. An employee of the City Engineering Department indicated that he felt that no industrial waste was disposed of here, although he could not rule out the possibility. A similiar statement was made by a Department of Public Works Employee.

In 1966 and 1967 problems were reported with the flushing of wastes through the tunnel to the lower river with the use of fire hoses. The procedure was then ceased and the vertical shafts were filled.

A visual inspection was made from Buffalo Avenue and the Robert Moses Parkway in November, 1981. The forebay is now filled in. No wastes were visible on the surface. Transformers now sit a top part of the former forebay.

REVIEW OF AERIAL PHOTOGRAPHY

Examination of 1958 and 1966 USDA aerial photographs verified that the forebay was filled between 1958 and 1966. Turbulence in the lower river gorge indicated that the plant was operating in 1958. The construction of the Robert Moses Parkway in the early 1960's extended the shoreline over 100 feet into the Niagara River. No other information was obtained.

RESULTS OF PREVIOUS SAMPLING

There is no report of any previous sampling at this site.

SOILS/GEOLOGY

A current soil survey for this area is unavailable. Only one boring is listed by Johnston (1964) at this site. This boring indicates that twelve feet of glacial till is found over Lockport Dolomite to 143 feet. Rochester Shale is found below the Dolomite to the termination of the hole at 213 feet.

The Dolomite typically contains several water bearing zones. The penstocks are likely to intersect several of these zones.

GROUNDWATER

The direction of groundwater flow is said to be northwesterly by Johnston. The depth to groundwater is unknown. The material in the penstocks is likely to be in direct contact with the groundwater in the bedrock aquifers. It is not known whether the penstocks collect water or are adequately drained through the tunnel to the river.

There are no wells downgradient from this site. There are no drinking water wells within three miles of this site. The nearest industrial well is 1½ miles upstream.

SURFACE WATER

Water infiltrating through the wastes in the penstocks could enter the lower river through the discharge tunnel. It is unknown what effect, if any, these wastes have on the water quality in the river. Some of the wastes in the forebay could leach into the river via the new canal, which is adjacent to it. Run off from the forebay area is suspected to enter the river.

There are no known drinking water or industrial intakes within three miles downstream. There are no wetlands on this region. The plant site is not in a 100 year flood plain.

AIR

There have been no complaints of odors or air quality problems associated with this site. Due to the assumed nature of the wastes present, no problems are expected.

Approximately 3,000 people are estimated to live within one mile of this site. The nearest home is 500 feet to the north. The area to the east is largely industrial. Commercial property is located to the north across Buffalo Avenue.

FIRE/EXPLOSION

The potential for fire and explosion is assumed to be small due

FIRE/EXPLOSION (continued)

to the nature of the wastes disposed of here. The population within two miles is over 10,000. Over 2,000 buildings are located within two miles. The nearest buildings are the Adams Plant and the Wastewater Treatment Plant, 300 feet away.

DIRECT CONTACT

The site is fenced and access is restricted. All wastes are covered.

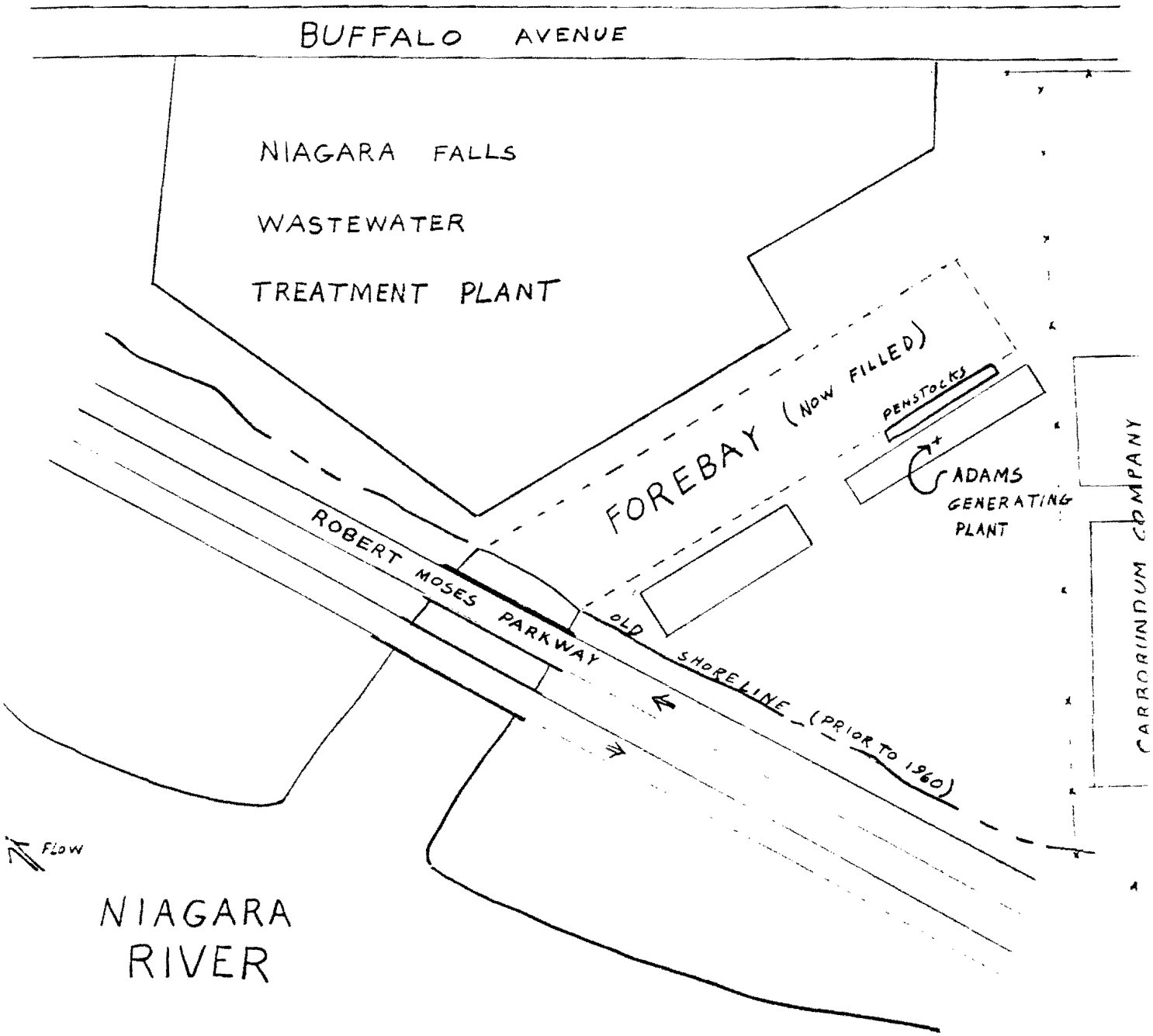
CONCLUSION

The existing data indicates that this site received only incinerator residue and hard fill. Due to the discharge tunnel to the lower river, some pollution is possible.

Samples could be taken from the forebay area. Samples from the penstocks may be difficult or impossible to obtain.

ADAMS GENERATING STATION

932079



N

Not to Scale

Michael Hopkins

1/6/82

NAME

SILBERGELD JUNKYARD (DEC #932093)

LOCATION

The site is located in the vacant field south of the deadend of 14th Street, north of the railroad right-of-way. The eastern and western limits have not been precisely defined, but are believed to extend from 13th Street to the projected center line of 15th Street. The site is entirely within the City of Niagara Falls.

A site sketch is attached.

OWNERSHIP

The property is currently owned by the City of Niagara Falls. At the time of disposal activities, the site was owned by the Hyman Silbergeld Scrap Iron and Metals Company.

HISTORY

The Hyman Silbergeld Scrap Iron and Metals Company operated a metal recovery and recycling yard at the above location prior to closure in the fall of 1965. Scrap metals were routinely bought by Silbergeld from Hooker Chemical, Oldbury Electrochemical and Olin Matheson during the period from the mid 1930's to the mid 1950's. Steel and nickle drums, unuseable equipment, wire, pipe and other waste metals were involved. Silbergeld dismantled at least one building for Olin with the structural steel, wire, pipe and other salvageables going to the 14th Street site for recycling. Hooker and Olin have stated that no chemicals were disposed of at the Silbergeld Site and that all drums and equipment were drained prior to sale to scrap yards.

A complaint from a resident of 14th Street alledging that chemical disposal, including that the burial of steels drums had occurred at the Silbergeld Site, was received by the Niagara County Health Department in 1978. The complaint also indicated that not all drums brought to this site were empty. The Health Department investigated the complaint in 1978 and 1979, including taking soil samples for analysis. The analysis revealed high concentrations of lead and mercury. No analysis for organics was performed. The analytical results are included later in this report.

In response to inquiries made by the Niagara County Health Department, letters from Hooker and Olin were received in January, 1979. Both firms denied that chemicals were taken to the Silbergeld Site.

The site is currently vacant. An inspection made by Health Department personnel in December, 1981, found no visible evidence of previous chemical disposal. The area was roughly graded with some mounding and depressions. Vegatative cover consisted of sparce grass with some small bare spots. Several piles of crushed stone were found in the northwest corner of the field. Small quantities of exposed refuse and litter were found. These are apparently the result of scavenger dumping. An abandoned cinder block building along 13th Street

HISTORY (continued)

may have been associated with the junkyard.

The City of Niagara Falls owns the property and may have the area developed residentially in the future.

RESULTS OF PREVIOUS SAMPLING AND ANALYSIS

Three soil samples were taken by the Niagara County Health Department in June of 1979. The exact location and depth of sampling is unknown, but general locations are as follows:

Sample #1 - Northeast corner of the site
#2 - Midpoint of southern section
#3 - Northwestern corner

The results of metals analysis of these samples are as follows: (All results as MCG/G in Dry Solids)

SAMPLE	# 1	# 2	# 3
Cadmium	4	L.T. 4	LT. 4
Chromium	40	20	20
Lead	3400	40	LT.20
Mercury	23	0.18	L.T.0.08

REVIEW OF AERIAL PHOTOGRAPHY

USDA aerial photography (1":660') taken in 1958 and 1966 were not of sufficient scale to verify dumping or burial of waste. The photographs did indicate that the area shown on the attached sketch was occupied by the junk yard.

SOILS/GEOLOGY

A detailed soil survey for this area is unavailable. Little soil data is available. Soils are expected to contain clay and/or glacial till to depths of 10 to 15 feet. The soil profile could have been changed by past land use and the remedial work done when the junk yard was closed.

Bedrock is Lockport Dolomite, 140 to 150 feet thick. Rochester shale underlies the Dolomite. The Dolomite is the principle water bearing material.

GROUNDWATER

The only documented aquifer is the bedrock aquifer in the Dolomite (Johnston, 1964). An intermitent perched aquifer in the unconsolidated material is a possibility.

The bedrock aquifers flow to the northwest in this region, that is from the Upper River toward the Lower River gorge. Groundwater aquifers flow through bedding joints in the Dolomite. The shallowest joint is expected 30' or more from the surface.

GROUNDWATER (continued)

There are no known drinking water wells or other users of groundwater in this area. The nearest industrial well is roughly 3000 feet upgradient(DuPont).

SURFACE WATER

The Niagara River is the nearest surface water body which is 1200 feet south. Runoff from this site could not reach the river directly as ditchs and storm drains would intercept any runoff from this site. Groundwater flows to the Lower Niagara River which is roughly 1 mile northwest.

The site is upstream of the Niagara Falls water intakes. The nearest downstream intakes are at least five miles downstream.

There are no wetlands within 1 mile of the site and the flood potential is small(less than 100 year).

AIR

There have been no recorded complaints of odors from this site. The nearest residence is 200 feet away on 15th Street. Over 10,000 people live within 1 mile of this site. The surrounding area is residential to the north (200'), commercial to the south (500') and industrial to the east (500').

Problems with air quality are not expected.

FIRE AND EXPLOSION

There is no danger of fire or explosion unless drums of flamable materials are buried on site. The nearest off site building is 200 feet away on 15th Street. Over 10,000 people live within 2 miles and several thousand buildings are located within 2 miles.

SECURITY/DIRECT CONTACT

Access to the site is unrestricted. There is no sign of exposed chemical material.

CONCLUSIONS/RECOMMENDATIONS

The previous sample results do not give conclusive evidence to determine the presence or absence of hazardous materials. Random soil samples should be obtained from various depths to suppliment the existing data. Test holes or boring should be made to search for buried drums.

Analysis of samples should include organics and halogenated organics.

CONCLUSIONS/RECOMMENDATIONS(continued)

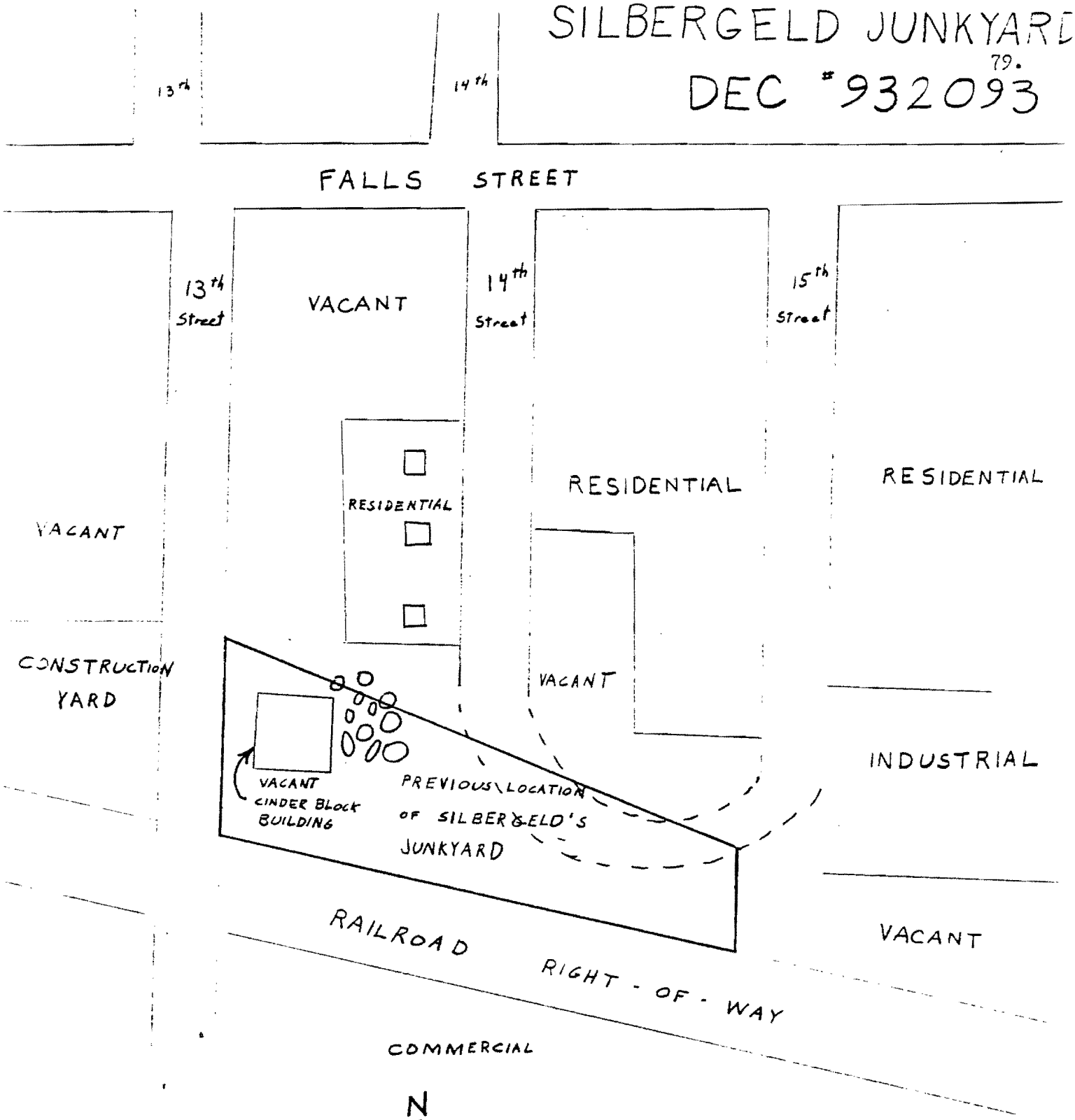
If deemed necessary, wells could be placed along the north and south boundries of the site. Wells placed in the southeast corner, the northwest corner and either the end of 14th Street or the intersection of the railroad tracks and 13th Street would be expected to intercept groundwater flow. Access for drilling equipment would present no problems.

Any further excavations at this site should be monitored by the Niagara County Health Department or the DEC to help to verify that wastes are not buried here.

SILBERGELD JUNKYARD

79.

DEC #932093



NOT TO SCALE

Michael E. Hopkins NCHD

12/10/81

NAME

HYDRAULIC CANAL (DEC #932082)

LOCATION

The former canal ran from the upper Niagara River near 8th Street to the site of the Scheollkopf Generating Station. The route of the canal was roughly as follows: begin at the river, north following Quay Street for 800 feet, changing direction to a course which runs through the intersection of 3rd Street and Niagara for about 3,400 feet, changing direction to north for about 400 feet to the outfall near the present site of the Scheollkopf Geological Museum. Portions of the Convention Center, Marine Midland Bank and possibly part of the Niagara County Savings Bank are built over the canal site.

A site sketch is attached.

OWNERSHIP

The site is currently under the ownership of the City of Niagara Falls, the State of New York and private owners. While the canal was operating Niagara Mohawk(formerly Niagara Falls Power Company) owned the property. The property was transferred to the City, which sold several parcels to private parties.

HISTORY

The Schoellkopf Power Plant was built in the early 1900's and was fully operational by 1924. This plant produced hydroelectric power using water from the upper Niagara River conveyed to the plant site by a 4,500 foot surface canal and a 4,400 foot underground tunnel. In 1956, part of the Schoellkopf Plant collapsed. The surface canal was sealed off and the remainder of the plant operated using only the underground tunnel until 1961.

The City of Niagara Falls subsequently filled the canal using municipal refuse, demolition debris and other materials. Industrial wastes are reported to have been disposed here, although the type and quantity of these wastes is unknown. An employee of the City Engineering Department stated that illegal dumping occurred here on several occasions.

Several buildings have been built on the old canal route including the Niagara Falls Convention Center. Several other buildings are suspected to be partially over the canal. Several lots over the canal could be built on in the future.

Inspections made by Health Department personnel indicate that the canal is completely filled. An old bridge rail along Second Street and the outfall on the Lower River are the only remaining signs of the canal route. The outfall showed no signs of leachate at the time of inspection. The canal route was verified using a 1927 City Street Map.

REVIEW OF AERIAL PHOTOGRAPHY

USDA aerial photograph ARE-1V-13 taken in August, 1958, shows the route of the canal. The turbulence in the river below the Scheollkopf Plant indicates that part of this plant was operating at this time. A 1966 photo shows that the plant had ceased operations and the canal in the 1958 photo, but not in the 1966 photo. By 1966, the Convention Center had not yet been constructed.

RESULTS OF PREVIOUS SAMPLING

There is no record of any previous sampling at this site.

SOILS/GEOLOGY

A current detailed soil survey for this area is not available. A 1947 USDA Soil Conservation Service publication lists the soils as Schoharie silty clay loam. This soil is typified by a thin silty clay loam surface over a dense red clay or glacial till subsoil. Test holes dug by the Niagara Falls Power Company (reported by Johnston, 1964) show a profile of 7 to 9 feet of over-burden over Lockport Dolomite to 130 or more feet. The bedrock appears to slope to the northwest at a slope of three feet per mile.

It has not been determined whether the canal was a top the bedrock or cut into it. Portions of the canal may have been concrete lined.

GROUNDWATER

According to Johnston, groundwater is expected to flow from the upper river to the lower river gorge in a generally northwesterly direction. The flow is essentially parallel to the canal route. The depth to groundwater is unknown. The water bearing zones in the Dolomite are expected to be below the depth of the canal.

There are no wells in this area. The nearest drinking water wells are over three miles to the north. The nearest industrial well is over two miles east (DuPont), which is suspected to be upgradient.

The outfall of the canal into the lower gorge was dry and showed no signs of leachate stains when inspected in October and December, 1981.

SURFACE WATER

The nearest surface water is the Niagara River, which ajoins both ends of the canal. The effect of this site on Niagara River quality is unknown.

There are no drinking water intakes on the New York side within three miles of the outfall. There are no known Canadian intakes in this area.

There is no potential for flooding at this site. There are no wetlands within one mile of this site.

AIR

There are no documented reports of odors or air quality problems attributable to this site. Complaints have been received regarding odors in the basement of Beir's Department Store on Second Street, but these odors have not been officially connected to the Hydraulic Canal.

Over 10,000 people live within one mile of this site. Several homes are located within 500 feet of the canal. The area ajoining the canal is almost exclusively commercial. The nearest industrial zone is 200 feet east of the canal (Nabisco). Additional industrial zones are over 1,000 feet east.

FIRE/EXPLOSION

The potential for fire or explosion is unknown. The potential for methane gas generation should be determined as buildings are on or near the canal route.

Over 10,000 people live within two miles of this site. Several thousand buildings are located within two miles, including several buildings directly over the site.

DIRECT CONTACT

All wastes are believed to be covered. Most of the site is covered with pavement, buildings or grass. There are several areas where access is unrestricted.

CONCLUSIONS

The potential impacts of this site on the Niagara River are unknown. The presence of hazardous materials is suspected. Due to the presence of garbage and the proximity to structures, the potential for methane gas generation should be determined.

Samples are needed to determine the extent of contamination within the canal, if any. Wells or borings could be placed at the following locations:

1) The center divider of Quay Street. Possibly two or more could be placed here.

2) At the point where the canal turns to the northwest, one or two wells could be placed in the grassed area west of Quay Street.

3) In the Convention Center parking area, unpaved section between Quay and the Convention Center.

4) In the grass lawn in front of the Niagara County Savings Bank at 3rd Street and Niagara Street.

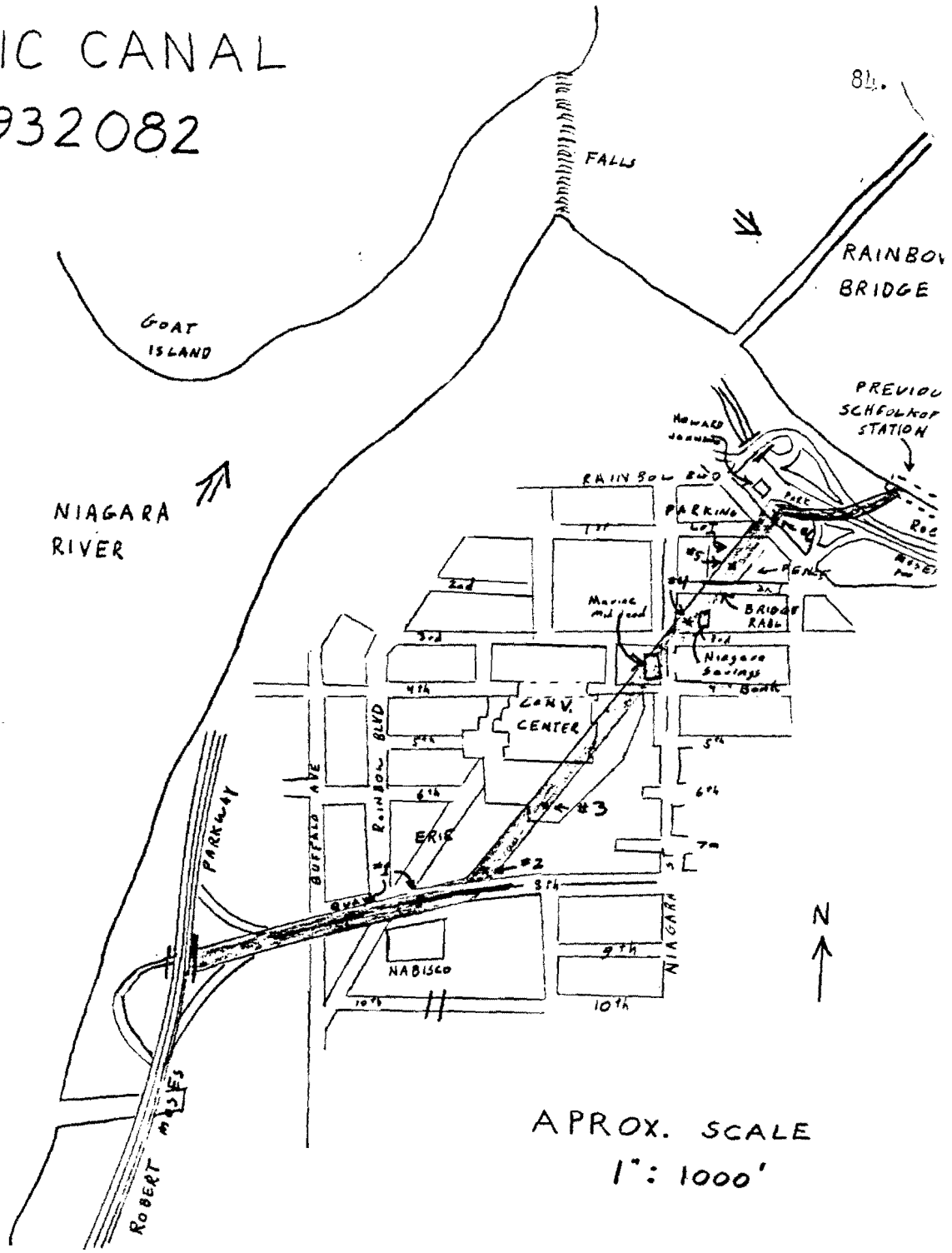
5) In the unpaved area west of the old bridge rail on Second Street.

CONCLUSIONS (continued)

6) In the park, north of the Howard Johnson's on Main Street.

Any excavation for further construction in the canal area should be monitored by the Niagara County Health Department or DEC.

HYDRAULIC CANAL
DEC * 932082



THE CANAL LOCATION WAS APROXIMATE FROM COMPARISON OF 1927 AND 1978 CITY STREET MAPS.

M. Hopkins NCHD
2/20/82

NAME

WHIRLPOOL SITE (DEC #932088)

LOCATION

The site is located along the Niagara River, north of the Whirlpool Rapids Bridge in Niagara Falls, NY.

Although the exact location of the site is not exactly known, it is believed that materials were dumped over the bank of the gorge north of the dead end of Bath Street, in the area now occupied by the State Parks Commission Whirlpool Maintenance Facility. Some surface dumping may have occurred at the area now occupied by Robert Moses Parkway, Whirlpool Street off-ramp or the northern portion of the Maintenance Facility.

OWNERSHIP

Any of the above sites are under the ownership of the State of New York and under the jurisdiction of the Niagara Frontier State Parks and Recreation Commission.

HISTORY

This area was used by the City of Niagara Falls Department of Public Works as a "snow dump". According to a DPW employee, this site was used primarily to dispose of excess snow by pushing it over the bank into the gorge. Occasionally loads of leaves or tree clippings may have been dumped here. There is no indication of the disposal of refuse or industrial waste. It is believed that no material has been buried on this site. An inspection was made by the Niagara County Health Department in December of 1981. There was no sign of any previous dumping found at this time. The area atop the gorge wall is not completely built upon. No refuse was visible at the river edge from either the top of the bank, the Whirlpool Bridge or the Canadian side of the river.

PREVIOUS SAMPLING

There is no record of any previous sampling at this site.

SOILS/GEOLOGY

A detailed soil survey is not available for this area. Visual observation indicates that the soil is likely to be shallow (less than 40") atop the gorge. Apparently, there is no unconsolidated material at the river edge other than scattered boulders and some scree at the foot of the gorge wall. Bedrock is Lockport Dolomite.

Due to the immediate proximity to the river, the effect of soil type is expected to be minimal.

There is no known boring data available for this area.

GROUNDWATER

The flow of groundwater is toward the river, therefore, the effect on the groundwater is expected to be insignificant.

SURFACE WATER

The effect on the Niagara River is expected to be minimal since hazardous substances are not suspected to be present.

It is noted that several towns draw drinking water downstream from this site. If any refuse was disposed of here, it may have been placed directly into the river.

AIR

There is no expected effect on air quality.

FIRE/EXPLOSION

There is no potential for fire or explosion.

SECURITY

Any hazardous materials possibly found here would be located within the gorge and therefore, are inaccessible.

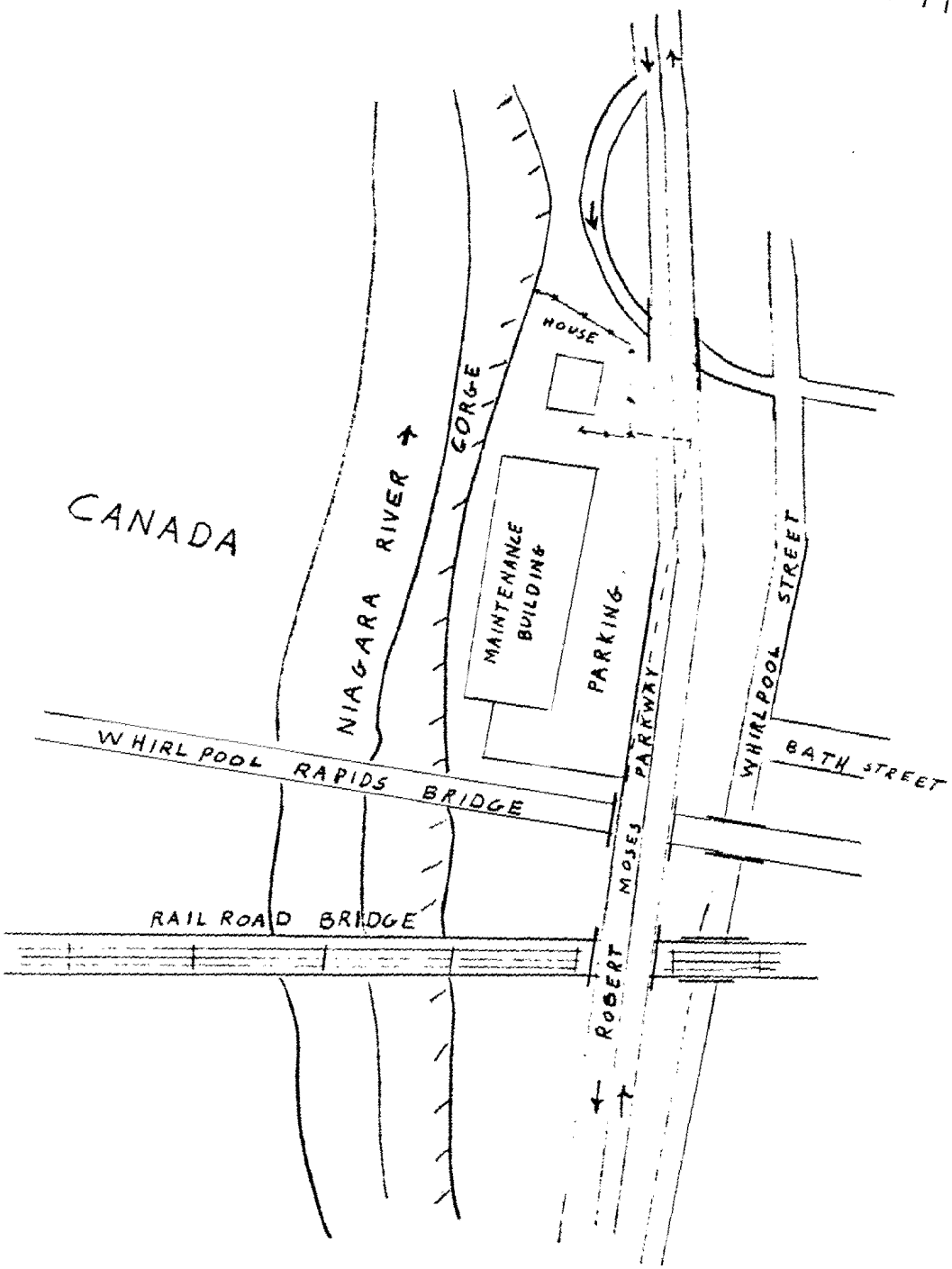
CONCLUSIONS

There is no evidence of hazardous materials being present. Any material dumped into the gorge would probably be washed away by now.

Soil samples could be taken from this area if desired. There seems to be little need to drill wells at this site.

The DEC information code of "F" is considered to be appropriate.

WHIRLPOOL SITE
#932088



NOTE: THE EXACT LOCA
OF THE DISPOSAL
AREA IS UNDETERMIN

N

NOT TO SCALE

M Hopkins
NCHD

NAME

WITMER ROAD (DEC #932027)

LOCATION

The exact limits of the previous disposal area have not been precisely determined. The general location of the area is west of Witmer Road and north of Maryland Avenue in the Town of Niagara. The area may extend as far north as Delaware Avenue.

A sketch is attached.

OWNERSHIP

The ownership of the property cannot be determined until the location is verified. This area is generally under block ownership and therefore, only a few parties are expected to own this property.

HISTORY

Disposal activities are reported to have begun at this site in the 1940's. The area was used as a dump for incombustibles and large refuse items. The City of Niagara Falls is believed to have dumped here as did other users, including private citizens. Lime cleanouts from process vessels at ISCO (now International Mineral and Chemical) were reportedly dumped here. Slag from the Vanadium Corporation may have been dumped here. A long time area resident stated that a "crusher" was operated on the present site of Kach's Scrap Yard to crush this slag. The resident indicated that household garbage was not dumped or burned here.

The City of Niagara Falls operated a burning pit behind Kach's Scrap Yard. Furniture, wood, crates and cardboard were reportedly burned. The ash was hauled off-site for disposal according to a DPW employee. This pit was used until the late 1960's. The site was closed after numerous complaints of smoke and violations of air quality.

Currently the site is used for scrap yards and as an easement for high voltage towers belonging to Niagara Mohawk. Much of this area was graded prior to construction of these towers in the 1960's. Recent inspections revealed no evidence of previous disposal. A sparce grass cover is established over most of the site, although several bare spots were found. Scavenger dumping of rubbish and several abandoned cars are present.

PREVIOUS SAMPLING

There is no record of any previous sampling at this site.

SOILS/GEOLOGY

A detailed soil survey for this area is unavailable. No boring data was found from on or off-site projects.

SOILS/GEOLOGY (continued)

Bedrock is Lockport Dolomite to unknown depths. The depth to bedrock is not known.

GROUNDWATER

The depth to the water table and the direction of groundwater flow have not been determined. There are no known boring or well records available from areas near this site.

The nearest known drinking water well is located 3,500 feet to the north. Other old and/or abandoned wells are suspected to be present in this area, but specific wells have not been located. Public water is available throughout a three mile radius.

SURFACE WATER

The nearest surface water is the Niagara River, 5,500 feet west of the site. There are no drinking water intakes within three miles.

This area is not within a 100 year flood plain. Some areas appear to be susceptible to surface ponding during wet weather.

There are no wetlands within one mile of this site.

AIR

If it is assumed that the wastes present are of the types described in the "History" section, the potential for air emissions is likely to be small. However, confirmation of the waste types disposed of is needed for an accurate assessment.

There are several residences within 200 feet of the suspected filled area. It is estimated that 1,500 people live within one mile of the site.

Land use in this area includes residential and commercial properties adjacent to the site and industrial property within 600 feet.

FIRE/EXPLOSION

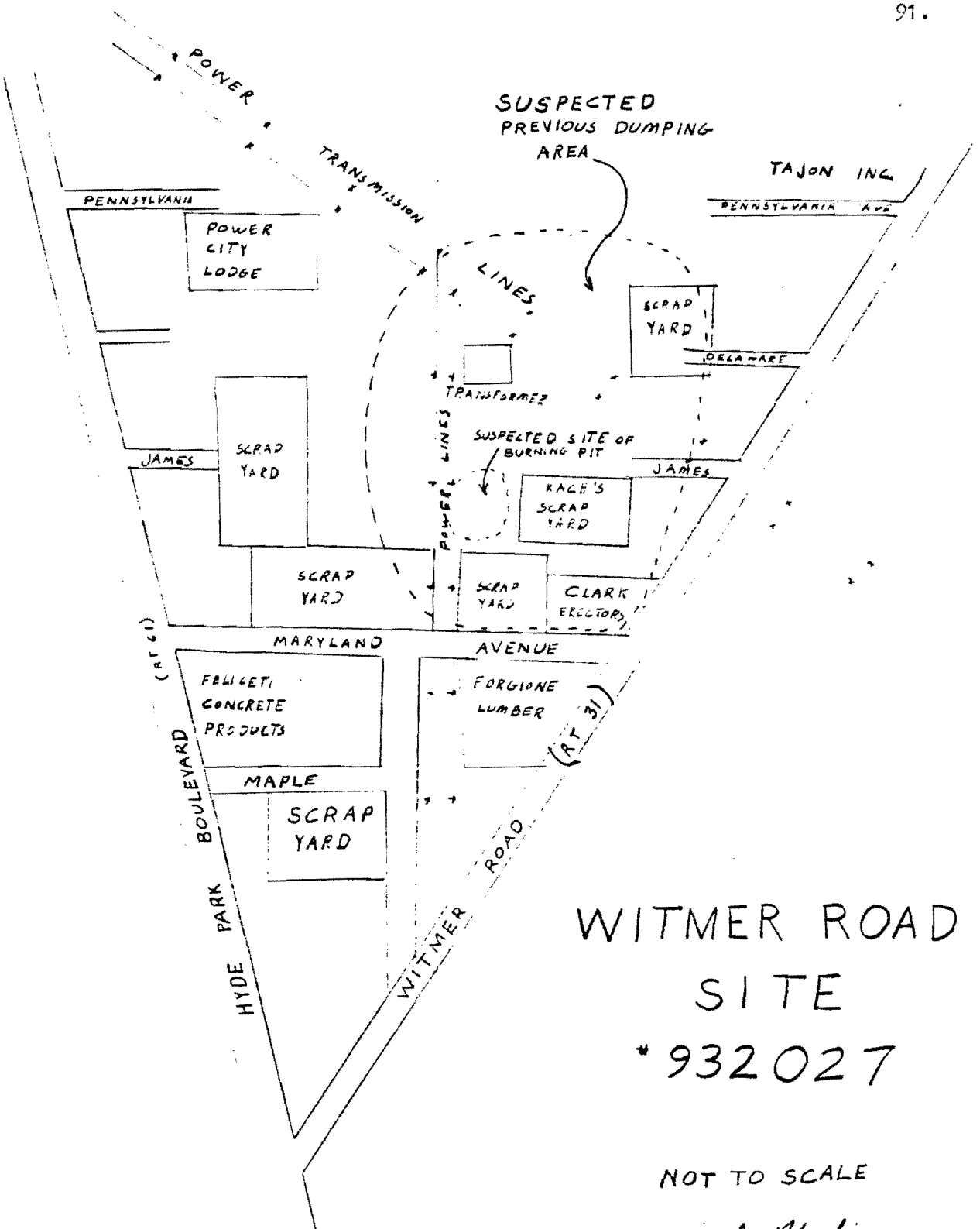
The potential for fire or explosion is unknown. The nearest buildings are located at Kach's Scrap Yard, along Witmer Road and along Maryland Avenue. Over 3,000 people and several hundred buildings are located within a two mile radius.

DIRECT CONTACT

All wastes appear to be covered except for some suspected scavenger dumping. Access is partially restricted by fences, but access is possibly the Niagara Mohawk corridors.

CONCLUSIONS

There is no reported dumping of toxic substances at this site. Sampling will be necessary to confirm this. Samples could be obtained on the Niagara Mohawk property or on the adjacent private properties. Access for well drilling equipment is generally available.



WITMER ROAD SITE #932027

NOT TO SCALE

Michael Hopkins
2/26/82

NAME

LYNCH PARK (DEC #932006)

LOCATION

This site is a roughly 20 acre parcel located between the Niagara River and River Road (2040) in Wheatfield. The suspected disposal area included the lot west of the Lynch Park Trailer Court and a narrow (100') strip along the river south of the Trailer Park.

A site sketch is attached.

OWNERSHIP

The property described above was owned by Anna Brzezinski, who is recently deceased. Any correspondence regarding this site should be directed to Stanley Brzezinski, 2080 River Road, Wheatfield, NY 14304.

HISTORY

This site was used as a dumping area for clean fill and "hard" industrial waste until 1972. The fill material was used to extend the shoreline and fill a cove of the Niagara River.

The fill material consists of clean fill from the River Road sewer project excavations, broken concrete and wastes from the Carborundum Bonded Abrasives Plant in Niagara Falls. The Carborundum wastes included fly ash, sand, fire bricks, dust collector fines, kiln furniture,carborundum wheels, scrap globars, solid abrasive grains and plaster molds. The wastes were hauled by Carborundum trucks and the site was operated by Carborundum personnel, according to Mr. Brzezinski.

Mr. Brzezinski stated that no garbage or similiar wastes were disposed of at this site. A permit to operate issued in 1970 indicates that wood and other burnable materials were to be separated and taken to the County operated site on Witmer Road in Wheatfield.

During the middle 1960's an earthen berm was constructed across the mouth of the cove. This formed a pond which was then pumped dry and filled. Mr. Brzezinski said that a permit was obtained from the Army Corp. of Engineers for this project.

Niagara County Health Department files show that occasional complaints were received while the site was active. Typical complaints were with regard to open burning and dust. One complaint alledging that pumping from the ponded area was discoloring the river was received in 1966.

INVESTIGATION

An inspection was made by Michael Hopkins of the Niagara County Health Department on March 2, 1982. The area west of the Trailer Park was

INVESTIGATION (continued)

covered with small mounds of earth. This mounded material appears to be clean fill material. A sparce tall grass cover and several small trees and bushes are established on the section. According to Mr. Brzezinski, despite the rough grading of the surface, water does not pool in this area.

The bank along the rivershore is riprapped with concrete rubble and similiar material. The shoreline area was well maintained and no erosion was apparent. A stockpile of concrete rubble, located on site was available for possible emergency use in case of severe evasion. Concrete cell bottoms from Hooker were placed along the shoreline south of the Trailer Park.

No signs of leachate were found. No exposed wastes were found except for concrete rubble and small quantities of pipe and other debris near the center of the site.

The visual inspection revealed no problems at this time.

PREVIOUS SAMPLING

There is no record of any previous sampling being done at this site.

EXAMINATION OF AERIAL PHOTOGRAPHS

1":660' USDA aerial photographs, numbers ARE-2V-33(1958) and ARE 2GC-16 (1966), were examined. These photos confirmed that the shoreline has been extended into the river since 1958 and that a "pond" was created in 1966 by diking off a cove. No other information was obtained from these photos.

SOILS/GEOLOGY

The soils on this site are suspected to be largely composed of fill material, therefore the properties of the soil are unknown. Unconsolidated material is expected to extend to well below river level. Bedrock is Lockport Dolomite, over 120 feet thick. No boring or well records giving more accurate information were found.

GROUNDWATER

The depth to groundwater was not determined, but it is expected that the water table is near the level of the river. The direction of flow is unknown, but again it is suspected to flow toward the river.

There are no wells known to be used for drinking water in this area, although some old and/or abandoned wells may still exist. There are no industrial or commercial users of groundwater within three miles.

SURFACE WATER

The disposal area is adjacent to the Niagara River. The possibility of leaching into the river exists, although no leachate or signs of leachate were found at the time of this inspection.

The City of Niagara Falls water intakes are over three miles downstream.

The potential for flooding appears to be small since the surface grade of the disposal area is at least four to six feet above river level.

There are no major wetlands within one mile.

AIR QUALITY - FIRE - EXPLOSION

Health Department files show no record of complaints of odors or other problems attributeable to this site since closure in 1972. Due to the nature of the wastes believed to be present here, no problems are expected. In addition, the potential for fire or explosion is considered to be small.

It is estimated that 400 to 500 people live within one-half mile of the site, 600 to 800 live within one mile and over 2,000 live within two miles. Over 1,000 buildings and 200 mobile homes are located within two miles, although many of these are within the Love Canal area and have been evacuated. The nearest residence is over 200 feet from the filled area.

Agricultural lands are less than one mile northeast. A major commercial center, Summit Park Mall, is 1.25 miles north. There is no major industry within two miles.

DIRECT CONTACT

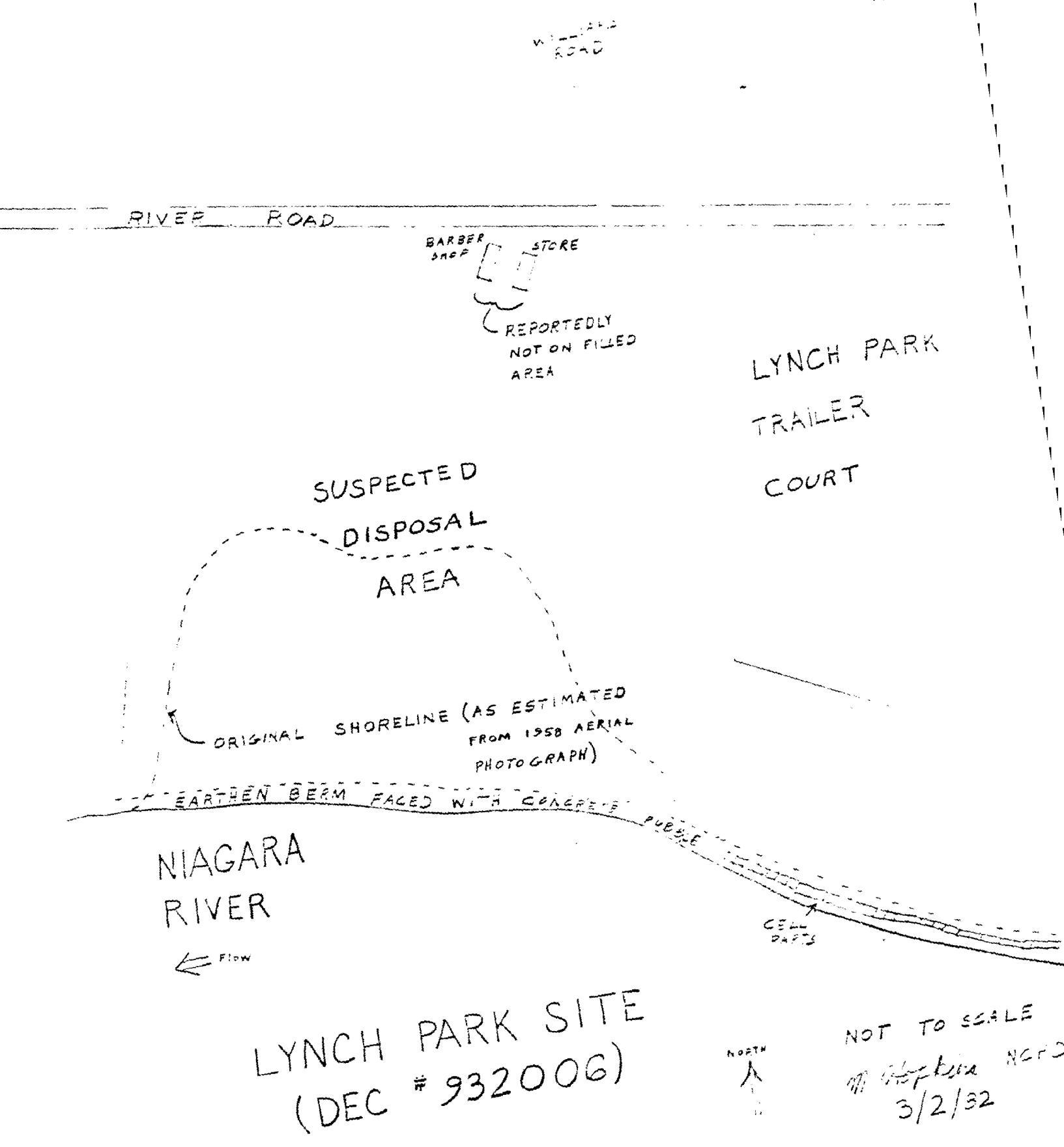
The wastes appear to generally be covered. The site is posted with "No Trespassing" signs although it is not fenced.

CONCLUSIONS

If the wastes present are only the types of waste reported by the Interagency Task Force and by Mr. Brzezinski, the amount of hazardous substances present should be small. If any other wastes are present, the proximity of the disposal area to the Niagara River could provide for the leaching of pollutants into the river. However, no evidence has been found which suggests that such materials are buried here.

If deemed necessary, samples could be taken from nearly anywhere on the property. Periodic surveillance and monitoring should be maintained to assure that surface ponding of water and shoreline erosion do not become problems.

If any excavation is done on this site in the future, the DEC or Niagara County Health Dept. should examine the open excavations to verify that hazardous materials are not present.



LYNCH PARK SITE
(DEC # 932006)

NAME

NIAGARA FRONTIER TRANSPORTATION AUTHORITY (DEC #932090)

LOCATION

The disposal area is a shallow 2.75 acre pond located north of the Carborundum Coated Abrasives Plant, 400 feet west of Walmore Road.

A site sketch is attached.

OWNERSHIP

The pond is located on property owned by the Niagara Frontier Transportation Authority, Niagara Falls Airport. Correspondence should be addressed to Mr. Joseph Toromino, Assistant Manager, Niagara Falls Airport, Niagara Falls Boulevard, Town of Niagara.

Carborundum uses the pond in conjunction with its SPDES Permit. The contact at Carborundum is Mr. Gerald McGee.

HISTORY

Carborundum uses the pond on the airport property as a settling basin for storm and cooling water prior to discharge to a storm sewer which enters Cayuga Creek. The discharge is in conjunction with a SPDES Permit #NY0001716 issued to Carborundum. Carborundum monitors the discharge in terms of flow and the following parameters: BOD,TSS, TDS, Phenol, TKN,pH and temperature.

Records show that at least since the early 1970's, the pond water had a high phenol content. Reports from 1975 and 1976 indicate that a brown scum was found on the pond and that phenol odors were emitted.

On December 19, 1978 a phenol tank on the roof of the plant spilled up to 6,000 gallons of phenol. The phenol solidified, but later became liquid after contact with water. It is estimated by Carborundum that 90% of the spillage was pumped to sanitary sewers and 10% (600 gallons) entered the pond via roof drains.

Clean up measures taken by Carborundum included using 60 pound bags of activated carbon to adsorb the phenol in the effluent and pumping the pond water to the sanitary sewer at the rate of 100 gpm to 200 gpm until the phenol concentration in the discharge was below one part per million. The drain lines in the plant were cleaned by Chem Trol and high pressure flushed. The sewers were also flushed.

An inspection by Niagara County Health Department personnel was made in January, 1982. There were no visible signs of contamination. Birds congregate in the pond without noticeable ill effects.

RESULTS OF PREVIOUS SAMPLING

As a requirement for the SPDES Permit, Carborundum submits results of monitoring of discharge to DEC and the Niagara County Health Department on a monthly basis. Phenol standards (maximum 1.4 lb/day average or 2.8 lbs in any day) are frequently exceeded. Other parameters are generally met.

There is no record of sediment samples or soil samples being taken.

REVIEW OF AERIAL PHOTOGRAPHY

Examination of USDA aerial photographs taken in 1958 (ARE 3V-82) and 1966 (ARE-2V-31) revealed no information other than verifying that the pond and the plant were both present in 1958.

SOILS/GROUNDWATER

The USDA Soil Conservation Service, Soil Survey for Niagara County lists the soils in this area as Odessa and Lakemont silty clay loam. Both of these soil types are deep and somewhat poorly drained. Odessa soils are typically found on 0 to 2% grades. Lakemont soils are generally level to slightly depressional and are typically ponded during wet periods. Either soil type may support a perched water table above impervious substratum.

No boring records were found from jobs near this site. No other soil data was available.

The bedrock is Lockport Dolomite. The thickness of the Dolomite, the depth to water bearing zones and the direction of flow of the groundwater aquifers is unknown.

GROUNDWATER

As indicated above, the depth and direction of flow of bedrock aquifers is unknown. A perched water table is a possibility, but such an aquifer is expected to be localized.

There are no known drinking water or industrial wells located within three miles of the site. There are no known users of groundwater in this area.

SURFACE WATER

The discharge from the pond enters Cayuga Creek via a culvert beneath the airport runways. Storm water from the airport mixes with this discharge.

Cayuga Creek water is not used for drinking or industrial uses. Cayuga Creek enters the Niagara River four miles downstream from the pond. The City of Niagara Falls water intakes are located three miles downstream from the mouth of Cayuga Creek.

SURFACE WATER (continued)

There are no major wetland areas nearby other than the pond itself. The site is always flooded although it appears impossible for water to overflow to anywhere other than the storm culvert to Cayuga Creek.

AIR

There are no homes within one mile of this site. The nearest population is the Niagara Falls Air Force Base located slightly over one mile to the northwest. The surrounding area is industrial to the south, airport runways to the north and west and agricultural across Walmore Road to the east.

FIRE/EXPLOSION

The nearest off-site building is the Carborundum Plant 400 feet south. Only 50 buildings are within one mile (Carborundum, Bell, Airport, Air Force Base and along Pine Avenue). Roughly 500 are within 2 miles, primarily to the southeast. Several hundred mobile homes are within two miles.

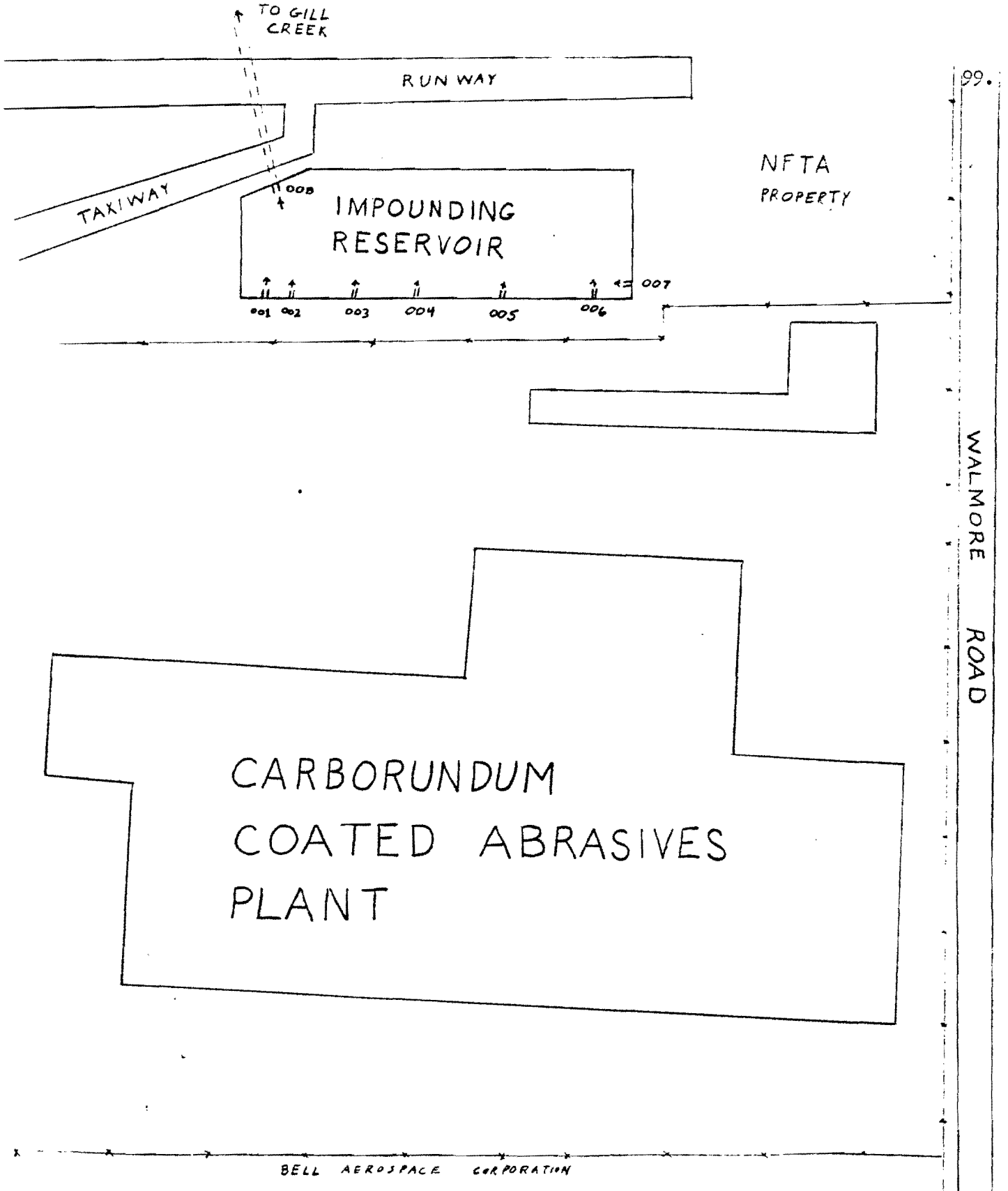
DIRECT CONTACT

The area is fenced from all sides. Bars have been placed across storm drains to prevent persons from entering the airport via storm drains. The site is on airport property and access is controlled by the airport.

CONCLUSIONS

The extent of contamination of the water and bottom sediments must be determined. Sediment samples near the shoreline are readily obtainable, as are water samples. Wells could be placed, if desired, around the perimeter of the site although access for drilling equipment may be difficult.

If significant contamination is found, the potential for pollution of Cayuga Creek, which enters the Niagara River, is high. Due to the nature of the site, perhaps it is better handled as a water pollution problem rather than as a solid waste disposal site. Any further action taken should not duplicate work done in conjunction with the SPDES Permit.



NFTA SITE - DEC # 932090

NOT TO SCALE

M. Hoffman 2/6/81

NAME

ALCLIFF LANDSCAPING (DEC #932070)

LOCATION

The site is located behind Alcliff Landscaping, Inc., 1975 Military Road in the Town of Niagara.

A site sketch is attached

OWNERSHIP

The site is owned by Alcliff Landscaping and Nursery, Inc., 1975 Military Road, Niagara Falls, NY 14304. Any correspondence should be directed to Martin A. LaMarca, Vice President (297-3590).

HISTORY

In September, 1979, the Walter S. Kozdranski Company excavated roughly 15 tandem dump loads of topsoil from the baseball and football fields at the 93rd Street School in Niagara Falls, under contract to the Board of Education. The topsoil was alledged to be contaminated from contact with material removed from the Love Canal in the 1950's. Kozdranski back filled the ballfields with clean soil after placing a plastic liner.

Kozdranski brought the excavated soil to Alcliff Landscaping where it was stored in an area behind the Alcliff building. According to Mr. LaMarca, the DEC informed Alcliff that this material could not be disposed without a permit and ordered the soil removed. Reportedly, within one week of arrival at Alcliff, Kozdranski removed the material and transported it to CECOS, where it was used for landfill cover material.

Currently, the area which previously held the material from 93rd Street is level and rough graded. This area was previously filled in 1973 or 1974 to raise the grade in a former wetland. Clean fill including debris from the demolition of 4th Street were used for fill. Several piles of fill material (soil and wood chips) are located nearby. The fill piles are orderly. There is no visible evidence of chemical contamination.

In the future, this area may be developed as a residential subdivision.

EXAMINATION OF MAPS AND AERIAL PHOTOGRAPHS

A review of USGS topographic maps, Tonawanda west - 7½' series and USDA aerial photographs ARE 3V-82 (1958), ARE 2V-31 (1958) and ARE 2GG-27 (1966) revealed little information about the previous land use. The land was apparently swampy and lightly wooded in 1958. At this time, most of the surrounding area was cultivated. By 1966, the surrounding area was developed to near its present extent.

EXAMINATION OF MAPS AND AERIAL PHOTOGRAPHS (continued)

The site received the material from 93rd Street in 1979. There were no available photographs taken in 1979 and therefore, no information on possible dumping was available.

PREVIOUS SAMPLING AND ANALYSIS

There is no record of previous sampling at this site or of the material excavated from 93rd Street on file with the Niagara County Health Department. Mr. LaMarca is unaware of any previous sampling.

SOILS/GEOLOGY

The USDA Soil Conservation Service, Soil Survey for Niagara County lists the natival soil in this area as Lakemont silty clay loam. These soils are generally deep, poorly to very poorly drained and level or depressional in relief. Lakemont soils are normally ponded during wet periods.

The area of the previous storage site, has been elevated several feet using demolition debris (concrete,etc) to fill a formerly low, marshy area. Digging in this area is likely to be difficult due to the size of the concrete rubble (6' diameter or larger).

Bedrock is Lockport Dolomite of over 120 feet in thickness.

GROUNDWATER

A localized perched aquifer is expected above the original Lakemont soils. According to Mr. LaMarca this aquifer is expected to flow to the southeast due to the drainage prior to filling.

The Lockport Dolomite may contain several water bearing zones. A well recently drilled on-site 150 feet west of the old storage area is said to be 43 feet deep with 26' of water. The direction of movement of groundwater aquifers is not known. Bedrock wells in this area commonly contain noticeable quantities of hydrogen sulfide, thus providing low quality drinking water. Many wells are still used for non-drinking uses. Public water is available, however, there may be some wells used for drinking within a 2 mile radius. The location of specific wells, other than the on-site well was not determined.

The potential for any groundwater contamination is suspected to be small due to the small amount of toxic material present, if any, and the slow permeability of the Lakemont soils.

SURFACE WATER

The nearest surface water is Cayuga Creek, which is 1000 feet west of the site. Cayuga Creek flows south to the Niagara River, 2 miles away. No drinking water or industrial water is taken from Cayuga Creek. The City of Niagara Falls drinking water intakes are located 3 miles down stream from the mouth of Cayuga Creek.

SURFACE WATER (continued)

The site is not within any flood plain although the area was ponded prior to fill placement. There are not major wetlands with 2 miles although scattered small areas of 1 acre or less can be found.

AIR

Air quality problems are not expected. If any contaminated material was not removed, only small quantities are expected to remain.

The nearest residence is 300 feet southeast of the site (Effie Drive). There have been no complaints of odors received by the Niagara County Health Department. It is estimated that 500 to 1000 people live within 1 mile of the site and roughly 3000 within 2 miles.

FIRE AND EXPLOSION

There is no possibility of fire or explosion at this site.

DIRECT CONTACT

If all contaminated material was removed from the site, there is no danger of direct contact. Contact is possible if the material was not removed completely.

CONCLUSION

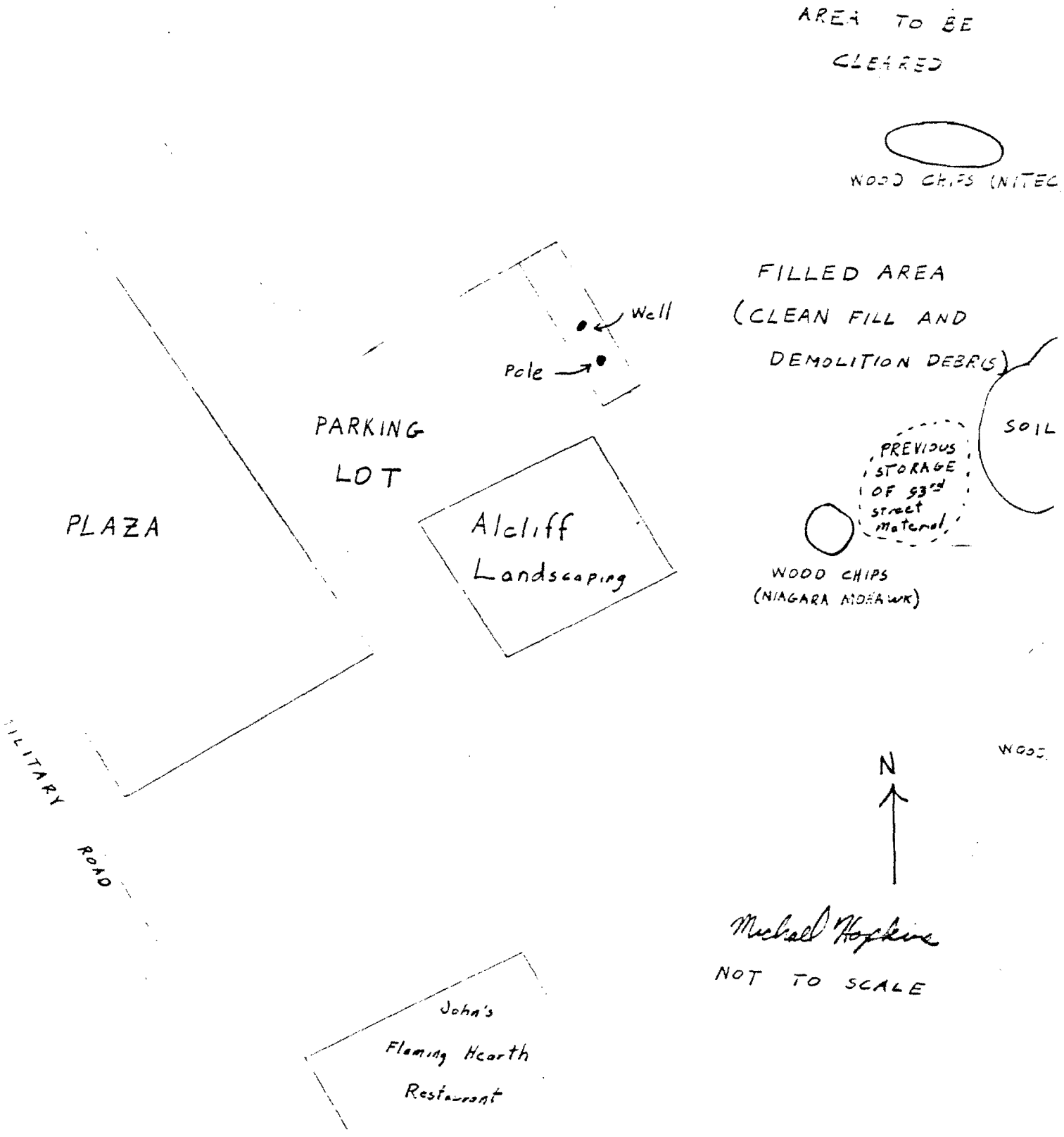
There should be no problems here if all the material from the 93rd Street School was removed. This topsoil was never confirmed to be hazardous. If any contaminated soil remains, it should be removed. Sampling is needed to confirm its presence or absence.

Sampling should include surface sampling at random points in the previous storage area. Random samples could be taken from nearby areas as well. Samples taken at depths of 2 to 3 feet should confirm that no contaminated material was buried here.

The on-site well could be sampled to check for groundwater contamination, although the direction of groundwater flow is not known.

ALCLIFF LANDSCAPING

DEC SITE # 932070



Michael Hopkins

NOT TO SCALE

NAME

DIBACCO SITE #2 (DEC #932056-b)

LOCATION

According to Hazardous Waste Disposal Sites in New York State, Vol. III, this site is located at 3640 Packard Road, Niagara Falls. This site is occupied by Leo Bundy's Auto Repair and Vitullo Trucking, Inc. A visual inspection and interviews with a tenant indicate that this either is not the location of the disposal site, or that only an insignificant amount of waste was buried here.

OWNERSHIP

The property is owned by Mr. Joseph Vitullo, 5015 East River Road, Grand Island, NY 14072.

COMMENT

If this is the location of the disposal site and the wastes disposed of are as described in the DEC registry (glass, battery cases, and rubble), this site could contain only very small quantities of waste. The impact of such a site would be inconsequential. It appears likely that either the location of the site is improperly stated in the registry or that no disposal site exists.

NAME

CHISHOLM - RYDER (DEC #932009)

LOCATION

The Chisholm - Ryder Plant is located on the northwest corner of College Avenue and Highland Avenue in Niagara Falls, NY. The suspected disposal site is a three acre area located north of the plant fence along the west side of the railroad siding.

OWNERSHIP

The property is owned by the Chisholm - Ryder Co., Inc., College Avenue at Highland Avenue, Niagara Falls,NY 14305. Correspondence should be sent to the attention of Mr. William Socha, Plant Manager.

HISTORY

The Chisholm - Ryder Plant manufactures agricultural harvesting equipment. Company officials report that Chisholm - Ryder does not or has not operated a disposal site either on or off-site.

An area north of the plant area was filled at an unknown time, possibly prior to 1960. The area was reportedly filled with building materials, stone and clay. A. Cerrone, Inc. of 4625 Witmer Road was the contractor. According to a Chisholm - Ryder employee, this project was undertaken to protect the railroad siding from flooding.

Since this time, the area has apparently been used for informal dumping of waste materials. Several 55 gallon drums filled with ash and similiar materials are visible in this area. A 50 pound fibre pack labeled "copper cyanide" was found here in 1979. The pack was then removed by the company for reuse.

An inspection of this site was made on March 1, 1982 by Health Department personnel. At this time the only signs of waste disposal were the exposed drums and scattered refuse mentioned above. The fill deposited by A. Cerrone, Inc. showed no visible sign of contamination and was covered with grass and sparce brush. According to Mr. Edward Warric of Chisholm - Ryder the exposed material has been there for atleast nine years and that no material has been dumped there to his knowledge during this period.

EXAMINATION OF AERIAL PHOTOGRAPHS

A review of USDA aerial photography taken in 1958, 1966 and 1978 shows no evidence of any disposal activities or major changes in the land form in this area.

RESULTS OF PREVIOUS SAMPLING

There is no record of any previous sampling being done at this location.

SOILS/GEOLOGY

A detailed soil survey for the area is unavailable. The filled area is suspected to contain a large percentage of rubble, stone and other coarse material. There is no available boring data from this area.

Reportedly the filled area was originally a low swampy area. Local flooding may have occurred prior to filling.

The bedrock is expected to be Lockport Dolomite. The depth to the Dolomite is unknown.

GROUNDWATER

The depth to groundwater and the direction of flow have not been determined. The general flow pattern for this region suggests that groundwater may flow southwest to west into the lower river gorge.

The nearest known drink water wells are about one mile northeast of the site. Public water is available throughout a three mile radius. It is not known if any industrial wells are located in this area.

SURFACE WATER

The nearest surface water is the Niagara River, 3,000 feet northwest of the site. There are no drinking water intakes within three miles downstream of this location.

The landfill area is not believed to be susceptible to flooding. There are no wetlands within one mile.

AIR

The nearest residence is estimated to be 200 feet from the filled area. Approximately 3,000 people are estimated as living within a one mile radius. The area to the east and southeast is industrial. The areas north and northeast of the site are residential.

The potential for air emissions is assumed to be small provided the wastes present are the types described by the Inter Agency Task Force.

FIRE AND EXPLOSION

The potential for fire or explosion is unknown. The nearest building is the Chisholm - Ryder Plant, 100 feet away. Over 10,000 people and several thousand buildings are located within a two mile radius.

DIRECT CONTACT

Access to this site is not restricted by fences or other means. Some waste materials are exposed.

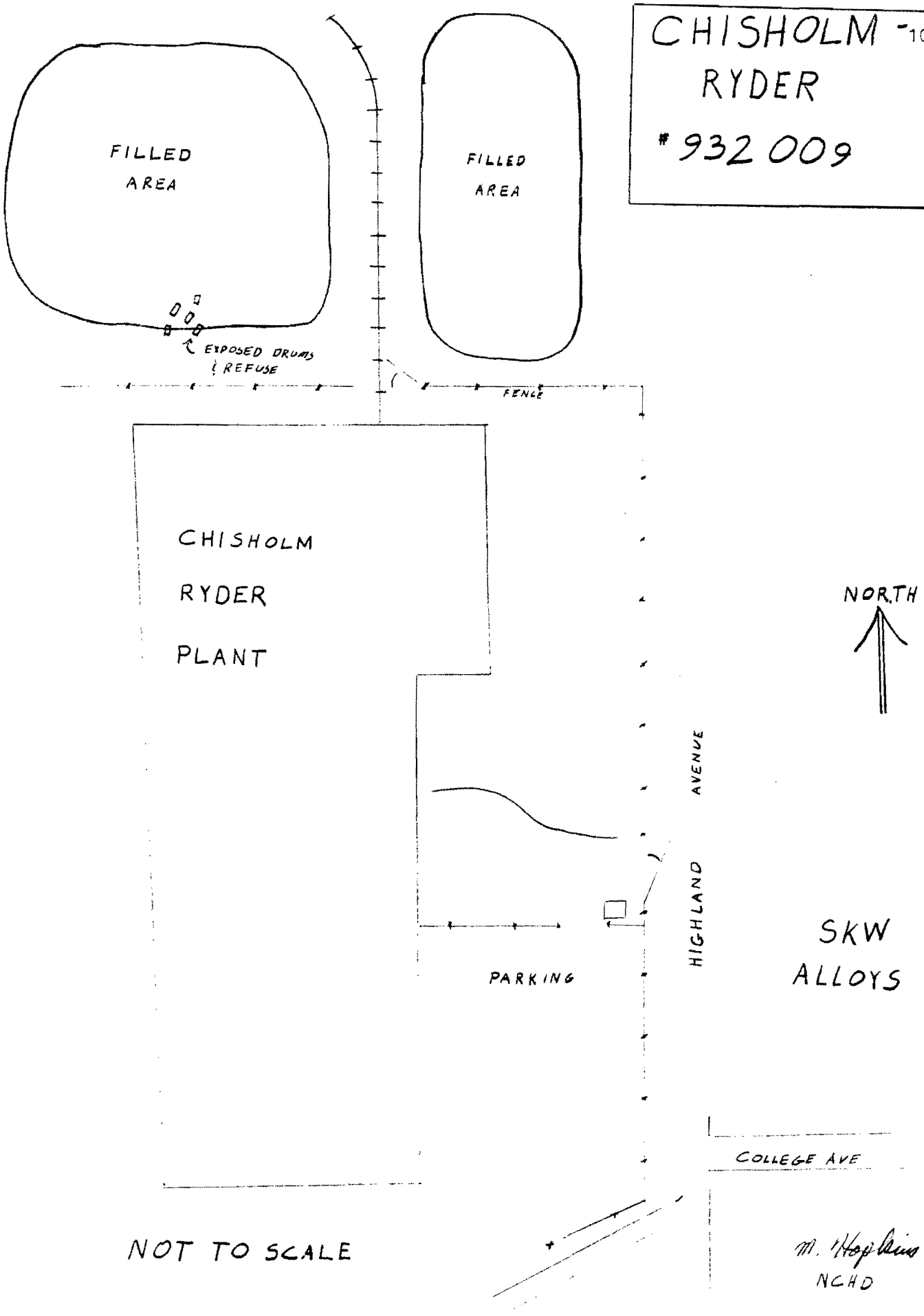
CONCLUSIONS

Sampling and observation holes are needed to verify that the mounded area contains only clean fill. Access for drilling equipment may be difficult.

The exposed drums and refuse should be removed.

CHISHOLM RYDER

#932009



M. Hopkins
NCHD

SUMMARY

The following remarks were made after reviewing the information obtained during this investigation and considering various intangible factors, which could not be documented for inclusion in the report. These brief descriptions are attached only as comments and should not be considered as assessments of environmental hazards. In many cases, additional data, generally in the form of chemical analysis and hydrogeological data is required to reasonably assess the impacts of these sites on the public health and the environment, in particular, the Niagara River. The following comments are made on an individual site basis.

1) Frontier Chemical,Pendleton Site: This site has previously been used to store and process large quantities of hazardous material. Additional investigation is needed to confirm that buried wastes and contaminated soil are not present. The remedial work on Quarry Lake is underway.

2) Buffalo Pumps Division, Buffalo Forge Company: This site was reportedly used only for the disposal of coal boiler ash and similiar wastes. The site will be used as the location of a future plant building.

3) Veterans Park: This is a duplicate entry of the site listed as Gratwick-Riverside Park, which was investigated by NCHD in July, 1981. This site is adjacent to the Niagara River and is a confirmed industrial disposal site.

4) NCSWD, Wheatfield Site: This site was used for the disposal of large quantities of a great variety of toxic substances. This site has previously been documented as a source of pollution of the Niagara River. In the opinion of the writer, this site posses the most substantial threat to the environment of any site studied in this report.

5) Niagara River Site, Beldon: This site directly ajoins the Niagara River and received 1,300 tons of thiazole polymer blend. Additional data is required to assess the potential for this site to affect the river.

6) Griffon Park: This site is adjacent to the Niagara River and the Hooker 102nd Street Landfill. The types of waste present have not been determined although industrial disposal is possible. Additional data is needed.

7) Cayuga Island: Several areas on the Island were extended into the Niagara River using hard industrial waste and other fill material. Although no hazardous materials are known to be present, sampling and exploration are needed to confirm this.

8) Rhodeway Inn/La Salle Yacht Club: Another area of land reclaimed from the Niagara River. The fill material contained some concrete from Olin Chemical, but the quantity and degree of contamination, if any, is unknown.

9) 64th Street: Two distinct sites have been identified. These were used for municipal waste disposal, but may have received industrial and/or hazardous wastes, particularly in the north area.

SUMMARY (continued)

10) St. Mary's/Bishop Duffy Schools: This site has reportedly received fly ash from Hooker prior to construction of the schools. No other wastes are known, but confirmation is needed.

11) Buffalo Avenue Site, 52nd Street to 63rd: Another municipal disposal site. Previous soil samples have displayed elevated levels of halogenated compounds. Some of the wastes may have been originally placed directly into the river.

12) Frontier Bronze: Two active storage areas for spent foundry sands were found. No permanent disposal is known. No adverse impacts are expected.

13) 97th Street Methodist Church: Olin Chemical alledgely disposed of 23 tons of concrete here in 1958. The church is now abandoned due to its proximity to the Love Canal. It is unknown whether the site contains significant quantities of hazardous materials.

14) Town of Niagara: This is an active municipal landfill. There is no record of the disposal of hazardous materials at this site.

15) New Road: This site contains incinerator residue and incombustibles. No industrial waste disposal is known, but the possibility of industrial disposal exists. The impacts of this site are unknown.

16) Adams Generating Plant: Upon closure of the plant, the forebay and penstocks were filled with ash and clean fill. The impacts of this site are unknown.

17) Silbergeld Junk Yard: This site was used for scrap metal recycling and accepted scrap metal, which may have been contaminated. Soil samples taken previously showed slightly elevated levels of several heavy metals. Although some contamination may be present, no permanent disposal is believed to have occurred.

18) Hydraulic Canal: A former open canal running through the City of Niagara Falls was filled with municipal refuse and some illegal industrial disposal has been reported. Much of this site has since been built upon.

19) Whirlpool Site: There is no confirmed disposal site here. According to City Officials, this site was used for dumping snow and occasional loads of leaves and similiar materials. No adverse impacts are expected.

20) Witmer Road: This was previously an open dump and open burning area for municipal refuse. Some industrial dumping occurred here, but no hazardous materials have been reported.

21) Lynch Park: This area was formed by filling a cove in the Niagara River. The area was used for disposal of "hard" industrial waste from Carborundum. None of these wastes are known to be hazardous, but some do contain phenolic binders and resins.

SUMMARY (continued)

22) Niagara Frontier Transportation Authority: A pond collected runoff from a phenol spill at the adjacent Carborundum Coated Abrasives Plant in 1978. The discharge from this pond is regulated and monitored under a SPDES Permit. The extent of contamination of bottom sediment is unknown.

23) Alcliff Landscaping: Topsoil removed from the 93rd Street School was stored here for a short period. All of this material appears to have been removed and no problems are expected.

24) Dibacco II: This site was not located. The IATF reports that glass, plastic battery cases and construction rubble were used as fill material.

25) Chisholm - Ryder: An area was filled with suspected clean fill and rubble behind the plant. Some scavenger dumping including drums of ash-like material has occurred here.

Without additional data, final assessments cannot be made, however, in the opinion of the writer, the following sites appear to have the potential to have a significant adverse impact on the Niagara River based on the available data:

1) NCSWD - Wheatfield
2) Veterans Park (Gratwick-Riverside)
3) Griffon Park
4) Hydraulic Canal
5) 64th Street

Based on the available data the following sites could have a significant potential for adverse impacts if toxic substances are found to be present, although in many cases none are known:

1) Cayuga Island
2) Rhodeway Inn
3) St. Mary's
4) Lynch Park
5) 97th Street Methodist
6) Adams Generating Plant
7) Witmer Road
8) New Road

The following sites are expected to have little or no impact on Niagara River water quality based on the available data:

1) Frontier Bronze
2) Whirlpool Site
3) Alcliff Landscaping
4) Silbergeld Junk Yard
5) Buffalo Pumps Division

SUMMARY (continued)

Based on the available data, no conclusion or preliminary assessments can be drawn for the following sites:

1) Frontier Chemical, Pendleton
2) Niagara River, Beldon Site
3) Town of Niagara (active)
4) Chisholm - Ryder
5) Niagara Frontier Transportation Authority
6) Buffalo Avenue
7) Dibacco II

It is reiterated that this report is intended for use as a preliminary outline and as a basis for further investigation. The information presented in this report is subject to update, modification or deletion when supplemental data becomes available.

SECTION 4

PROFILE REPORTS WRITTEN FOR NINETEEN ADDITIONAL SITES - 1982 - 1983

NAME:

HARVEY NEWMAN (DEC #932062)

LOCATION:

A several acre parcel at 7232 Shawnee Road, Wheatfield, is used as a stockpile area for various grades of fill material. No disposal site is known to be present but industrial wastes have been stored at this site.

A site sketch is attached.

OWNERSHIP:

This property is owned by Dennis Newman Trucking (formerly Harvey Newman Trucking). The contact person is Dennis Newman, 32 Pine Street, North Tonawanda, NY 14120 (692-6253).

HISTORY:

Newman Trucking has hauled wastes from Roblin Steel in North Tonawanda since the middle 1970's. These wastes reportedly included iron oxide and phosphate tank cleanout sludges. The iron oxide was at times stockpiled at the Shawnee Road site while awaiting resale. The sludges are believed to have been taken to appropriate landfill facilities.

No evidence has been found to indicate that disposal of any waste material has occurred at the Shawnee Road site. About 200 cubic yards of iron oxide were found piled on site in July 1983. Mr. Newman indicated that this material will be sold for reclamation when market conditions are favorable. INS Scrap Metal in North Tonawanda has purchased this material on previous occasions. This material has reportedly been on site 1-1/2 to 2 years.

RESULTS OF PREVIOUS SAMPLING:

Soil and surface water samples were taken by DEC personnel in 1981. The results of these analyses are attached.

The four surface water samples show metals concentration below NYS drinking water standards for all metals except lead, which exceeds the standard in 3 of 4 samples. The highest lead concentration reported is 0.11 mg/ℓ. However, since lead concentrations apparently decrease across the site, it appears that natural or off-site sources may be involved.

The five soil samples show essentially consistent metals and THo levels across the site.

AERIAL PHOTOGRAPHY:

An examination of USDA aerial photographs (1958 and 1966) was inconclusive with respect to whether or not disposal occurred on site. It appears that this area has been used for stockpiling fill since 1958.

SOILS GEOLOGY:

The soils in this area are listed as Canandaigua-Rayhnam series soils, which are typical of most of the North Tonawanda area. These soils are somewhat poorly to very poorly drained, typically occurring in wide level areas which are dominated by Glacial till. The topography is noted as extremely flat. No more specific data is available.

Bedrock is reported as Lockport Dolomite by Johnston (1964) and as Camillus Shale in Erie Niagara Basin Groundwater Resources (New York State Water Resources Committee). It appears that the site is near the interface between the Camillus and Lockport formations.

GROUNDWATER:

No information on groundwater was obtained. It is possible that some private wells may exist in this area for domestic and/or agricultural use but this is unconfirmed. This site is not expected to have any significant impact on groundwater quality.

SURFACE WATER:

Drainage from the site is carried by ditches to Sawyer Creek, 1.75 miles south. If contaminants were to enter this system, considerable dilution would occur prior to discharge to Sawyer Creek. Sample results show no significant contamination of surface water. There are no downstream uses of surface water. The site is not in a flood plain nor is it adjacent to significant wetlands.

AIR/FIRE/EXPLOSION:

There is no potential for fire or explosion. The materials present would not create a hazard even if a fire did occur. The only potential air quality problem would be dust which is regarded as a minor potential problem.

DIRECT CONTACT:

The site is on private property although no physical access control (fence) is present. No toxic substances are known to be present.

CONCLUSIONS:

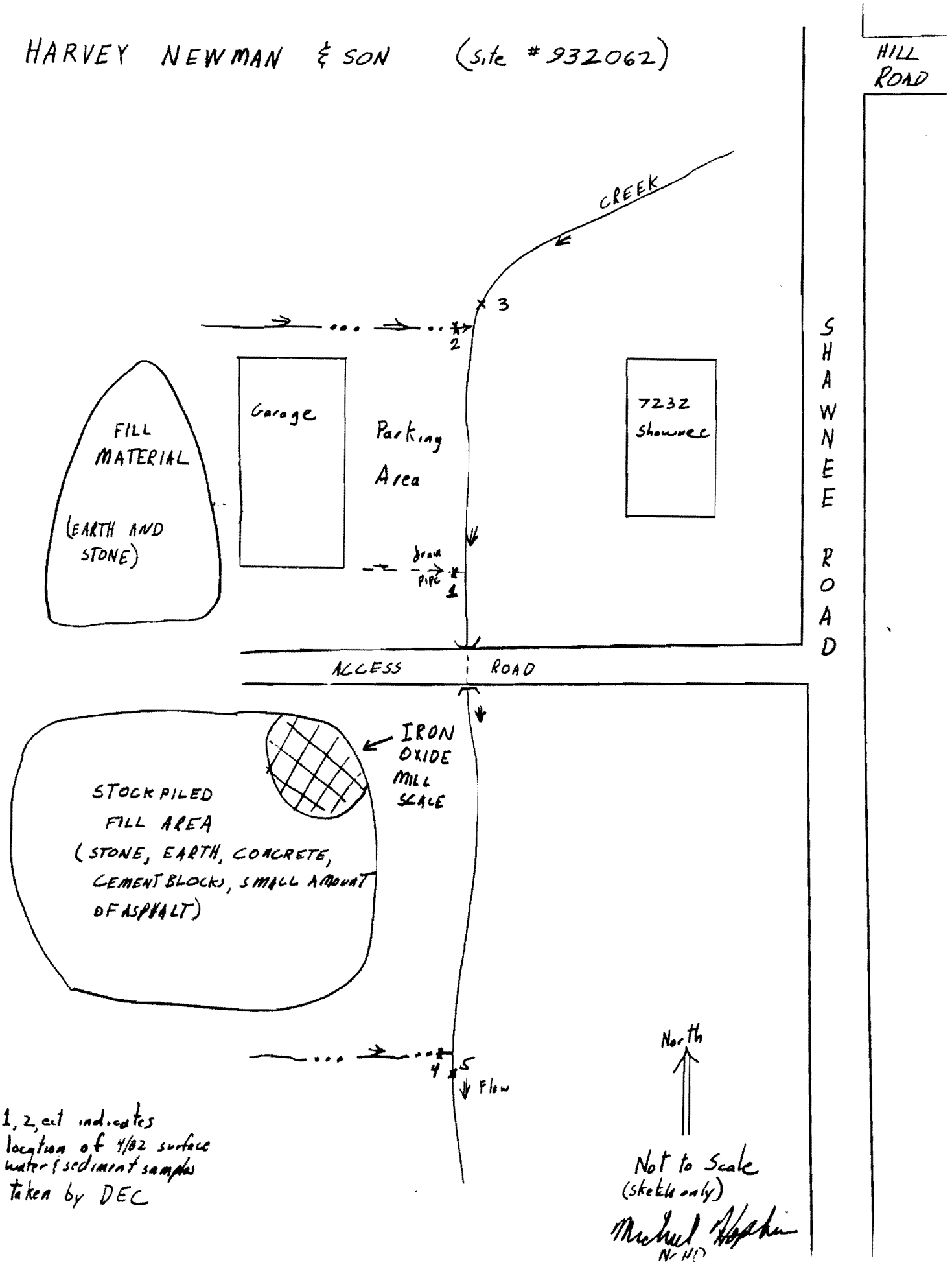
Evidence indicates that this site is a storage area for non-hazardous material. There is no evidence that permanent disposal has occurred at this site. Results of sample analyses show no significant contamination of soil or surface water.

RECOMMENDATIONS:

No further action is recommended for this site.

Attachment....

HARVEY NEWMAN & SON (site #932062)



1, 2, & 3 indicates location of 4/82 surface water & sediment samples taken by DEC

Michael Hopkins
NYHD

HARVEY NEWMAN - Water Analyses (4/16/82)

COMPOUND	UNITS OF MEASURE	SAMPLE IDENTIFICATION (Station #) (2)	(3)	(4)	(5)
Arsenic	ug/l	<6	<6	<6	<6
Beryllium	mg/l	<0.01	<0.01	<0.01	<0.01
Cadmium	mg/l	0.006	<0.005	<0.005	0.006
Chromium	mg/l	<0.006	<0.006	<0.006	<0.006
Copper	mg/l	0.020	<0.01	<0.01	<0.01
Lead	mg/l	0.11	0.05	0.07	<0.04
Mercury	ug/l	<1	<1	<1	<1
Nickel	mg/l	<0.03	<0.03	<0.03	<0.03
Selenium	ug/l	<6	<6	<6	<6
Silver	mg/l	<0.01	<0.01	<0.01	<0.01
Thallium	mg/l	<0.1	<0.1	<0.1	<0.1
Antimony	mg/l	<0.2	<0.2	<0.2	<0.2
Zinc	mg/l	0.039	0.167	0.057	0.044

HARVEY NEWMAN - Soil Analysis (4/16/82)

PARAMETER	UNITS OF MEASURE	SAMPLE IDENTIFICATION (Station #) (1)	(2)	(3)	(4)	(5)
Arsenic	ug/g dry	3.9	5.6	6.7	1.9	3.9
Beryllium	ug/g dry	<0.6	<0.5	<2	<0.6	<0.5
Cadmium	ug/g dry	1.5	0.55	1.5	0.840	2.1
Chromium	ug/g dry	15	8.4	15	13	12
Copper	ug/g dry	69	26	39	42	44
Lead	ug/g dry	55	36	58	45	47
Mercury	ug/g dry	<0.09	<0.08	<0.1	<0.1	<0.1
Nickel	ug/g dry	36	20	35	29	38
Selenium	ug/g dry	1.1	<0.4	1.1	<0.6	<0.6
Silver	ug/g dry	<0.6	<0.5	<2	<0.6	<0.5
Thallium	ug/g dry	<6	<5	<20	<6	<5
Antimony	ug/g dry	<10	<9	<30	<10	<10
Zinc	ug/g dry	130	120	260	240	240
Dry Weight	%	56	54	32	31	32
Halogenated Organic Scan	ug/g dry as Cl_2 Lindane Standard	0.97	0.53	1.5	1.3	1.9

NAME:

LaSalle Expressway (DEC # 932067)

LOCATION:

The former disposal area is reportedly somewhere beneath the LaSalle Expressway Right of Way. The exact location is not known.

OWNERSHIP:

The property is owned by the State of New York under the jurisdiction of the Department of Transportation.

HISTORY:

According to the Interagency Task Force Report (1979), the area described above was used to dispose of 20,000 tons of vulcanized fibre, fibre sheets and thermosetting plastic from 1969 to 1974. The wastes were generated by the Spaulding Fiber Company in Tonawanda and were hauled by Wheatfield Warehouses (Irvin Trading Company). The wastes are reportedly non-hazardous.

Niagara County Health Department files show that Wheatfield Warehouse, Inc. did haul wastes from the Spaulding Fibre Plant. However, the only disposal sites listed on the Offensive Materials Permits were Sea Way in Tonawanda and NCSWD in Lockport. Apparently, some of this waste was disposed of near the Wheatfield Warehouse facility at 493 Wheatfield Street in North Tonawanda on property owned by Joseph Wrazin of 122 Sundridge Drive, Amherst, NY. No mention of the LaSalle Expressway area is made in any permit issued to Wheatfield Warehouses from 1970 to 1977.

A recent inspection of the LaSalle Expressway found no signs of previous disposal activities. Much of the Expressway is built on filled areas.

SOILS/GEOLOGY:

The majority of the Expressway is built on fill. No soil data was found. Bedrock is expected to be Lockport Dolomite.

GROUNDWATER:

Groundwater is expected to flow toward the Niagara River. The depth to the water table is unknown.

There are no known wells in this area.

SURFACE WATER:

The Niagara River is located from 200 to 700 feet south of the Expressway. The Expressway crosses Cayuga Creek. Storm water drains to either side of the Expressway and much of the drainage appears to enter Cayuga Creek.

SURFACE WATER (continued)

The site is at least 2 miles upstream of the Niagara Falls drinking water intakes and from industrial intakes. These are the nearest intakes.

The site is not in a 100 year flood plain and there are no wetlands within one mile.

AIR/FIRE/EXPLOSION:

The available data is inadequate to assess any potential impacts.

The area surrounding the Expressway is almost exclusively residential. Several thousand people live within two miles of the Expressway. Over one thousand buildings are located within two miles although many of these are within the Love Canal area and have been evacuated.

DIRECT CONTACT:

There are no visible exposed wastes. The access is restricted to pedestrians although open to vehicular users of the Expressway.

CONCLUSIONS:

The exact location of this site and a precise description of the wastes present are not available. No conclusions can be drawn from the data found.

NAME:

Roblin Steel (DEC No. 932059)

LOCATION:

The Roblin Steel Company operates a plant at 101 East Avenue, North Tonawanda, NY. The plant area includes the property bounded by Oliver Street, Eighth Avenue, Gillie Place and the Erie Lackawanna Railroad Tracks. A waste storage area (measures less than 100' x 100') is located near the center of the property.

OWNERSHIP;

The property is owned by Roblin Steel which is a division of Roblin Industries. The contact person is Mr. Hefner.

HISTORY:

Roblin Steel opened the North Tonawanda Plant in 1961. Since that time, processes have included hot rolling of steel rods and bars, sulfuric acid pickling of steel coils, lime and oil coating of steel coils, annealing of steel coils, wire drawing and melting and casting of nickel (according to IATF report).

A storage area for waste sludge is located near the center of the plant. This sludge is removed from a phosphate tank one or two times per year and is reportedly hazardous. The volume of sludge present varies between zero to five tons (one truckload maximum) at any time. The sludge is periodically removed to a secure landfill. Other wastes include iron oxide scale, lime, pickle liquor, waste oil and trash. These wastes are periodically removed for appropriate off-site disposal.

Unconfirmed reports indicate that wastes may be buried at an unknown location on the plant property. During a 1981 inspection, no signs of burial were found and company officials were unaware of any such area. The types of waste which could be buried in such an area, if present, is unknown but would likely be similar to those mentioned previously.

AERIAL PHOTOGRAPHS:

A review of aerial photograph (USDA 1966 and 1953; 30-75) did not detect any signs of on-site burial.

SAMPLE RESULTS:

There is no record of any previous sampling at this site.

SOILS/GEOLOGY:

According to the U.S. Soil Conservation Service Soil Survey for Niagara County, the soils at this site are of the Canandaigua-Raynham-Rhinebeck Association. The soils are generally described as deep and somewhat poorly to very poorly drained. Such soils are typical of most of North Tonawanda. Slow permeability and poor drainage tend to minimize the potential for migration of contaminants through the soil.

SOILS/GEOLOGY - continued

Bedrock is Camillus Shale. This unit is typically heavily interlaced with soluable gypsum. Solution of the gypsum leaves passages which provide high yield aquifers. Generally, these aquifers are influent to the Niagara River.

GROUNDWATER:

Groundwater is suspected to occur in both the overburden and the Camillus Shale. The overburden aquifers may be intermittent, perched, and may or may not be interconnected. Groundwater occurs in solution passages in the shale. Flow in the bedrock aquifers is suspected to be to the south to southwest.

There are no known wells in this area and no users of groundwater.

SURFACE WATER:

The Niagara River is located 850 feet west of the plant. Runoff from the plant site enters the River via manmade drainage. The effects of this site on surface water quality in the river are assumed to be minimal based on the apparently small volumes of toxic materials present.

The City of Niagara Falls Drinking Water Intakes are located over five miles downstream.

The site is not in a 100 year flood plain and is not adjacent to wetlands.

AIR/FIRE/EXPLOSION:

Due to the nature of the wastes and the suspected small quantities, the potential for fire, explosion or significant air emissions is very low. Residential areas are located within 1000 feet and the surrounding area is nearly completely developed.

DIRECT CONTACT:

Entry to the plant site is restricted and controlled by security personnel. The wastes stored on-site are not containerized and contact is possible although this is not considered a major threat. Contact with buried wastes, if present, is considered a minimal threat.

CONCLUSIONS/RECOMMENDATIONS:

This site is regarded as a storage area only by the writer. No signs of permanent disposal were found. The potential for environmental or public health impacts from this site is regarded as minimal. No further action is recommended.

NAME

BOTANICAL GARDENS (DEC #932068)

LOCATION

The inactive disposal site is located in the area now occupied by the Botanical Gardens and Boat Launch Ramp on the Erie Canal (Tonawanda Creek) east of Old Falls Boulevard in North Tonawanda.

A site sketch is attached.

OWNERSHIP

This property is owned by the State of New York.

HISTORY

The City of North Tonawanda Department of Public Works operated a refuse disposal site at this location from the 1950's until roughly 1965. Permission was given by the Canal Commission to fill a low area with refuse. In 1964, the State Health Department reported that putresible material was being disposed of here and that inadequate cover was causing potential health problems. The City was then ordered to apply daily cover to wastes and to restrict the width of the working face to 50 feet. The use of this site was phased out with the opening of the River Road Site (now Gratwick Park) in 1965 and the area across Old Falls Boulevard (Holiday Park) in 1967. The Botanical Gardens Site was subsequently closed.

The registry of Hazardous Waste Disposal Sites in New York reports that the Durez Division of Hooker Chemical used this site in 1958 and 1959 to dispose of industrial wastes including 125 tons of phenolic resins and molding compounds. Area residents and other individuals are generally aware of previous industrial disposal here.

Currently, this site is developed as a park with gardens, lawn, shrubbery and a boat launch ramp. Roughly 25% of the area is paved a parking lot. Recent inspections show uneven setting, minor surface pooling of runoff and probable signs of minor leachate(discolored rocks and slight oily films on ponded water.)

PREVIOUS SAMPLING

In July, 1979, the City of North Tonawanda contracted to have two monitoring wells placed at the Botanical Gardens. A subsequent analysis of groundwater samples was performed by RECRA Research, Incorporated and are reported in Analytical Report - City of North Tonawanda Organic Characterization Analysis (1979). A copy of this document is on file with the DEC Region 9 Office. Briefly, the analytical results showed

PREVIOUS SAMPLING (continued)

THO of 19.1 ppb, detectable levels of chlorinated aliphatic and aromatic hydrocarbons, non-chlorinated aliphatic hydrocarbons and oxygenated hydrocarbons, particularly in well #6(see sketch). No phenol was detected. RECRA reports that PCB's are a possibility although no justification is given for this statement.

SOILS/GEOLOGY

The boring records given in the 1979 RECRA report show a soil profile of 2 feet of soil over 6 feet of soil/garbage mix. Below 8 feet the soils are believed to be natural consisting of various strata of silty sand and sandy silt with some gravel to a depth of 20 feet (termination of boring). In July, 1979, the water table was reported at 3 feet in well #6. The USDA Soil Survey for Niagara County (1966) lists the soils as Canandaguia silt loam. However, this information appears to be incorrect based on the boring records in the RECRA report.

Bedrock is Lockport Dolomite to unknown depths.

GROUNDWATER

Groundwater flow is expected to be toward the Erie Canal (eastward). The depth of the water table is likely to be affected by flucuations in the stage of the Canal. More detailed information is not available.

There are no known drinking water wells within one mile of this site. Public water is available throughout this area. Some old and/or abandoned wells may still exist. There are no industrial wells within two miles.

SURFACE WATER

The Erie Canal is adjacent to this site. The canal flows into the Niagara River three miles downstream.

The effect of leachate from this site on water quality in the Canal and ultimately the Niagara River is unknown. There is a potential for leachate to enter the canal due to its proximity to the disposal area.

There are no drinking water intakes within three miles downstream.

Flooding appears to be possible although the frequency is unknown. There are no wetlands within one mile.

AIR

No complaints of odors or other air quality problems are on file with the Niagara County Health Department.

AIR (continued)

The nearest residence is adjacent to the Botanical Gardens. Several homes are located directly across Old Falls Boulevard. It is estimated that 500 people live within one mile.

Land use within two miles is primarily residential with the exception of Deerwood Golf Course and the industrial zone 1½ miles northwest of the site(Durez and National Grinding Wheel).

FIRE/EXPLOSION

The danger of fire or explosion is unknown.

Over 3,000 people are estimated to live within two miles of this site. The nearest off-site buildings are the homes along Old Falls Boulevard. Several hundred buildings are located within two miles.

DIRECT CONTACT

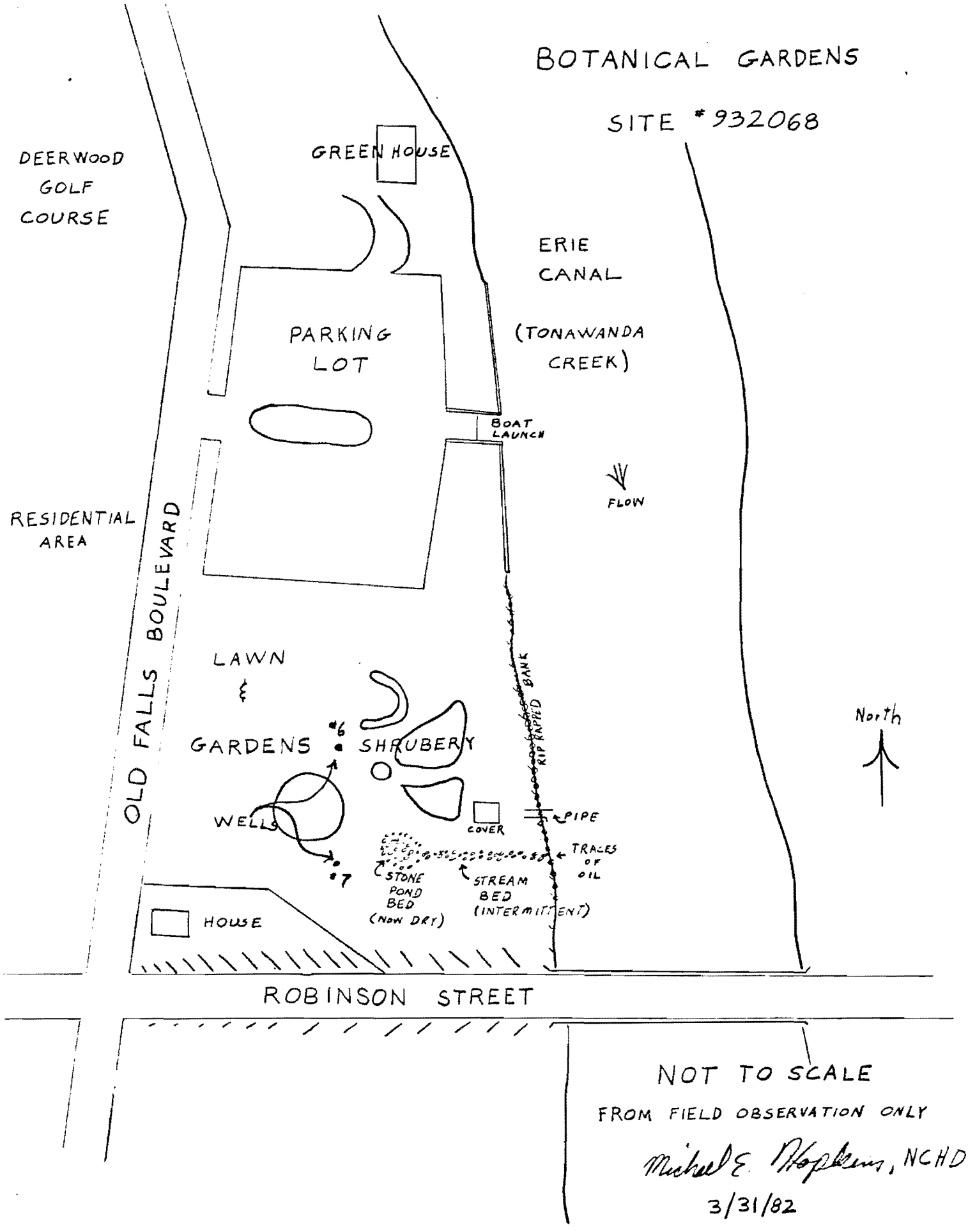
Access to this site is available to the public. No exposed wastes were found during recent inspections.

CONCLUSIONS

Due to the proximity of this site to the Canal, which enters the Niagara River, the previous detection of contaminant in the groundwater and the confirmed previous use of this property as a disposal site, a potential for pollution of the Niagara River exists.

Samples could be obtained from the two existing wells. Other samples could be obtained from bored holes. Parameters for analysis should include halogenated organics and phenol.

Periodic inspections should be made with particular attention to shoreline erosion and possible leachate signs along the river edge.


BOTANICAL GARDENS
SITE #932068
DEERWOOD GOLF COURSE
GREEN HOUSE
ERIE CANAL
(TONAWANDA CREEK)
PARKING LOT
BOAT LAUNCH
FLOW
RESIDENTIAL AREA
OLD FALLS BOULEVARD
LAWN
&
GARDENS
#6
SHRUBERY
RIP RAPPED BANK
North
WELLS
#7
COVER
PIPE
TRACES OF OIL
STONE POND BED (NOW DRY)
STREAM BED (INTERMITTENT)
HOUSE
ROBINSON STREET
NOT TO SCALE
FROM FIELD OBSERVATION ONLY
Michael E. Hopkins, NCHD
3/31/82

NAME

POWER AUTHORITY LANDFILL (DEC #932091)

LOCATION

The former disposal area is located south of Upper Mountain Road in Lewiston. The site is roughly 300 yards north of the PASNY Reservoir. Access is provided via a gravel roadway beginning east of 1030 Upper Mountain Road. This access road is closed with a locked gate.

OWNERSHIP

The owner of the property is the Power Authority of the State of New York. The contact person is Mr. J.E. Fitzgerald, Resident Manager of the Niagara Power Project.

HISTORY

The Power Authority of the State of New York has operated the Robert Moses Niagara Power Plant and the Lewiston Pump/Generating Plant since 1961. In the course of operating these facilities, refuse and screenings were removed from the intake screens and subsequently required disposal. The site south of Upper Mountain Road was operated as a disposal site for these materials until about 1974.

The debris collected on the intake screens is composed of such items as wood, empty barrels, tires and similiar types of "large" refuse. According to Health Department files, this area was operated essentially as an open dump until closure in 1974. Problems with inadequate cover, leachate and operation without a valid permit were noted in a 1974 inspection report.

Since 1974 the site has been closed. An inspection made on April 20, 1982 found the site to be graded, covered and a dense grass cover has been established. The site was some what wet with shallow pooled water. The water appeared clean. Some scavenger dumping was found, but this is not considered a major problem. The site appears to be in generally acceptable condition.

After closure of the disposal area refuse has been hauled off-site for disposal. Currently Modern Disposal disposes of the screenings. The LATF report (1979) estimated the quantity of the screening to be 500 tons per year.

AERIAL PHOTOGRAPHS

USDA aerial photographs taken in 1966 and 1958 show that the construction of the PASNY Reservoir drastically changed the appearance of this area. A cleared area is found on the 1966 photo, which is believed to be the disposal site, but sufficient detail was not available to verify this.

PREVIOUS SAMPLING

There is no record of previous sampling at this site.

SOILS/GEOLOGY

According to the USDA Soil Conservation Service Soil Survey for Niagara County, the soils in the area of the disposal site are Churchville silt loam soils. Churchville series soils are described as deep, somewhat poorly drained, medium textured soils exhibiting a general profile of silt loam over clay and clayey soils over glacial till. These soils characteristically have seasonal high water tables within one foot of the surface. The extensive surface pooling of water noted in the April, 1982 inspection tends to indicate that the water table was roughly at the surface at this time.

The bedrock is Lockport Dolomite. Boring records listed by Richard Johnston (1964) indicate that bedrock is expected at 8 to 10 feet below the surface. The Dolomite is estimated to be 40 feet in thickness.

GROUNDWATER

The depth to the water table is unknown and possibly highly variable with the season and the stage of the reservoir. According to Johnston a bedrock aquifer is found in joints in the Dolomite. An unconfined aquifer in the unconsolidated deposits may also exist. This shallow aquifer may be at or near the surface when high and therefore, may be in contact with buried wastes at these times.

The nearest known drinking water wells are roughly one mile east on the Tuscarora Indian Reservation. Several hundred people obtain domestic and drinking water from wells within a three mile radius. There are no known industrial users of groundwater in this area.

SURFACE WATER

The PASNY Reservoir is 300 yards south of the site. However, the water elevation in the reservoir is well above the elevation of the site and therefore, the possibility of contamination is remote.

Fish Creek is located several hundred yards from the site and is expected to drain the area. Fish Creek enters the Niagara River one mile downstream.

It appears that groundwater will eventually enter the Niagara River although the exact route is unknown.

The nearest drinking water intakes are six miles downstream (Niagara-On-The-Lake). There are no known users of Niagara River water within three miles.

SURFACE WATER (continued)

There are no permanent wetlands within one mile. Although the water table may at times be above the ground surface, the site does not appear to be within a flood plain.

AIR QUALITY/FIRE/EXPLOSION

Due to the suspected nature of the wastes, no problems with odors or air emissions are expected. The wastes are adequately covered and no exposed wastes were found. The danger of fire appears minimal.

The nearest buildings are over 2,000 feet north along Upper Mountain Road. 400 people are estimated as living within one mile of the site and 600 are estimated within two miles. Land use in this area is almost exclusively either agricultural, residential or under the control of PASNY.

DIRECT CONTACT

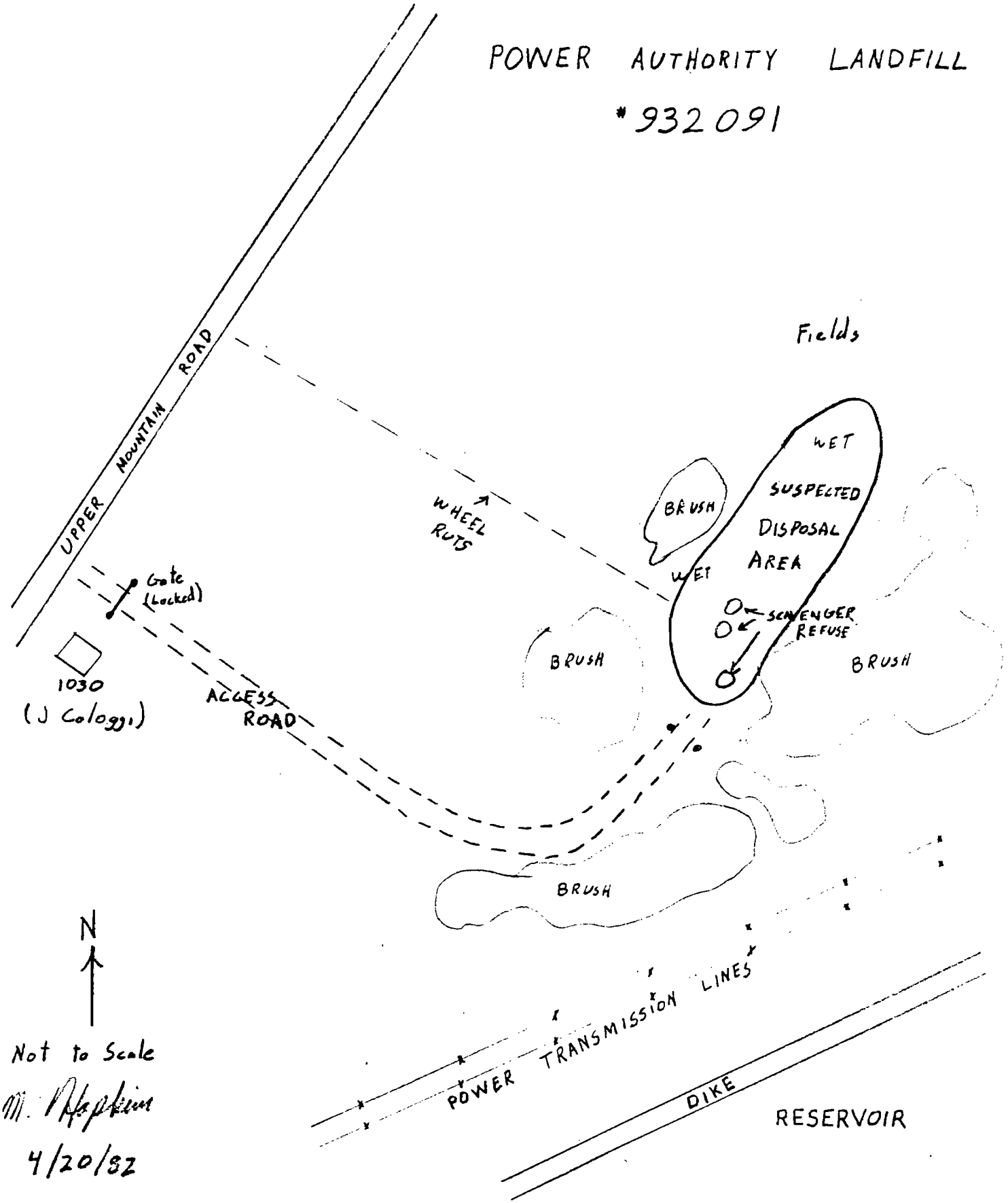
There are no hazardous materials known to be present. All wastes appear to be covered. Access is restricted by a gate on the access road.

CONCLUSIONS

There is no evidence of the presence of hazardous materials at this site. The area is now adequately closed.

POWER AUTHORITY LANDFILL

*932091



Not to Scale

M. Napkin

4/20/82

NAME

OLIN-PLANT SITE (DEC #932051 - b)

LOCATION

Several areas of Olin Plant #1 and Plant #2 have been used as disposal areas for brine sludge containing mercury. These areas include the northwest portion of Plant #2, the area behind building #46 and the former gas holder at Plant #1.

A sketch is included.

OWNERSHIP

The property is owned by the Olin Chemical Corporation, 2400 Buffalo Avenue, Niagara Falls, NY 14303. The contact person at Olin is Mr. Al Kapteina, Environmental Manager (278-6584).

HISTORY

In 1957 and 1958 Olin disposed of an estimated 264 cubic yards of brine sludge containing 30 to 45 ppm mercury by filling in holes and low areas around the Plant Site. The sludge was used as fill, but was not actually "landfilled."

Several areas were filled including the area near the former cell building (building 13) and the caustic storage facility, the area behind building #46 and the former gas holder at Plant #1.

Much of the area around the former building #13 has since been excavated to one foot or more. It is assumed by Mr. Kapteina of Olin that much of the waste material was removed. The excavated soil was disposed of at Newco. This area is also the former location of the Mercury Pond (932038). A separate report has been written for this site.

The areas behind building #46 and the former gas holder are now paved with asphalt. A caustic storage facility has been built on a portion of the site formerly occupied by building #13.

An inspection made in April, 1982, revealed no visible signs of previous disposal.

PREVIOUS SAMPLING

There is no record of any specific sampling at this site. Additional information is provided in the Olin-Parking Lot Site report.

SOIL/GEOLOGY

See Olin-Parking Lot Site.

GROUNDWATER

See Olin-Parking Lot Site.

SURFACE WATER

See Olin-Parking Lot Site.

AIR/FIRE/EXPLOSION

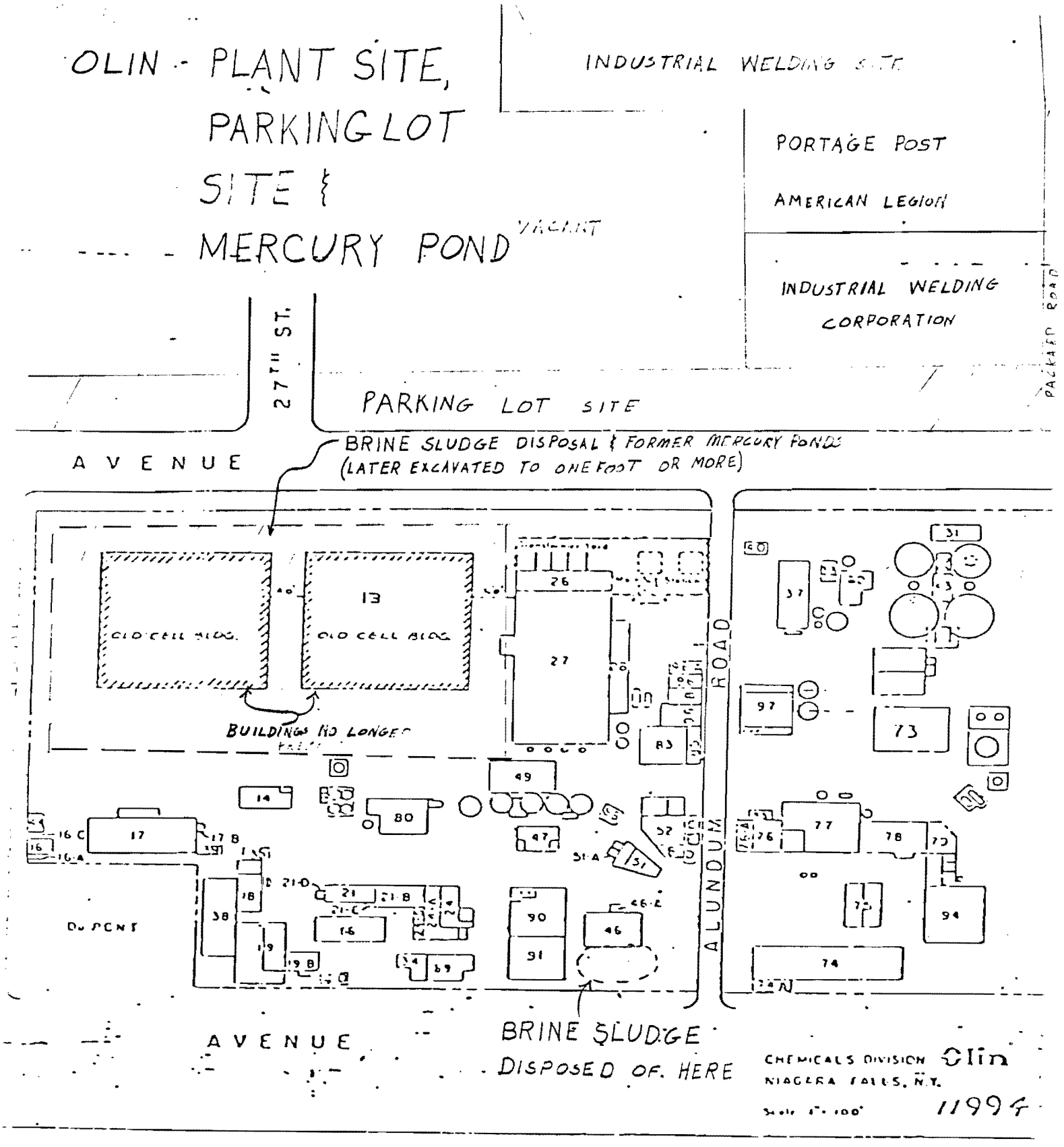
See Olin-Parking Lot Site.

DIRECT CONTACT

No sign of exposed wastes was found. The area is within the Plant grounds and therefore, access is restricted.

CONCLUSIONS

Brine sludge with Mercury was used to fill several areas of the Olin-Plant Site. Some of this material may have been removed by excavating since then. Much of the area is now either paved or built upon. There is no record of previous sampling and additional data is needed.



Not to Scale

North

7A

M. Hoffman

4/29/82

NAME

OLIN-MERCURY POND (DEC #932038)

LOCATION

The mercury ponds were located in the northwest portion of Olin Plant #2 on Buffalo Avenue in Niagara Falls. Currently, this area is used for storage and yard operations.

A sketch is attached.

OWNERSHIP

This property is owned by the Olin Chemical Company, 2400 Buffalo Avenue, Niagara Falls, NY 14303. Olin owned this property at the time of operation of the ponds.

The contact person at the Olin Plant is Al Kapteina, Environmental Manager (278-6584).

HISTORY

The "mercury ponds" were lagoons used to settle out contaminants in wastewater prior to discharge. They were used in the early 1970's prior to the installation of more efficient treatment facilities. The wastewater processed in these ponds contained undetermined (possibly trace) quantities of mercury. Some contamination of the surrounding area may have occurred. The ponds have since been removed and currently there is no sign of their previous location. Much of the area around the ponds was later excavated to one foot or deeper and according to Mr. Kapteina of Olin, the majority of the contamination is expected to have been removed.

An inspection made in 1982 revealed no visible evidence of any problems at this site.

It is noted that these ponds occupied a portion of the area listed as the Olin-Plant Site (#932051-b).

PREVIOUS SAMPLING

There is no record of any specific sampling at this site. Additional information is provided in the Olin-Parking Lot Site report.

SOIL/GEOLOGY

See Olin-Parking Lot Site.

GROUNDWATER

See Olin-Parking Lot Site.

SURFACE WATER

Same as Olin-Parking Lot Site except that Gill Creek is 300 feet west of the mercury ponds.

AIR/FIRE/EXPLOSION

Same as Olin-Parking Lot Site except that distance from the Mercury Pond Site to Allen Avenue is 1,000 feet.

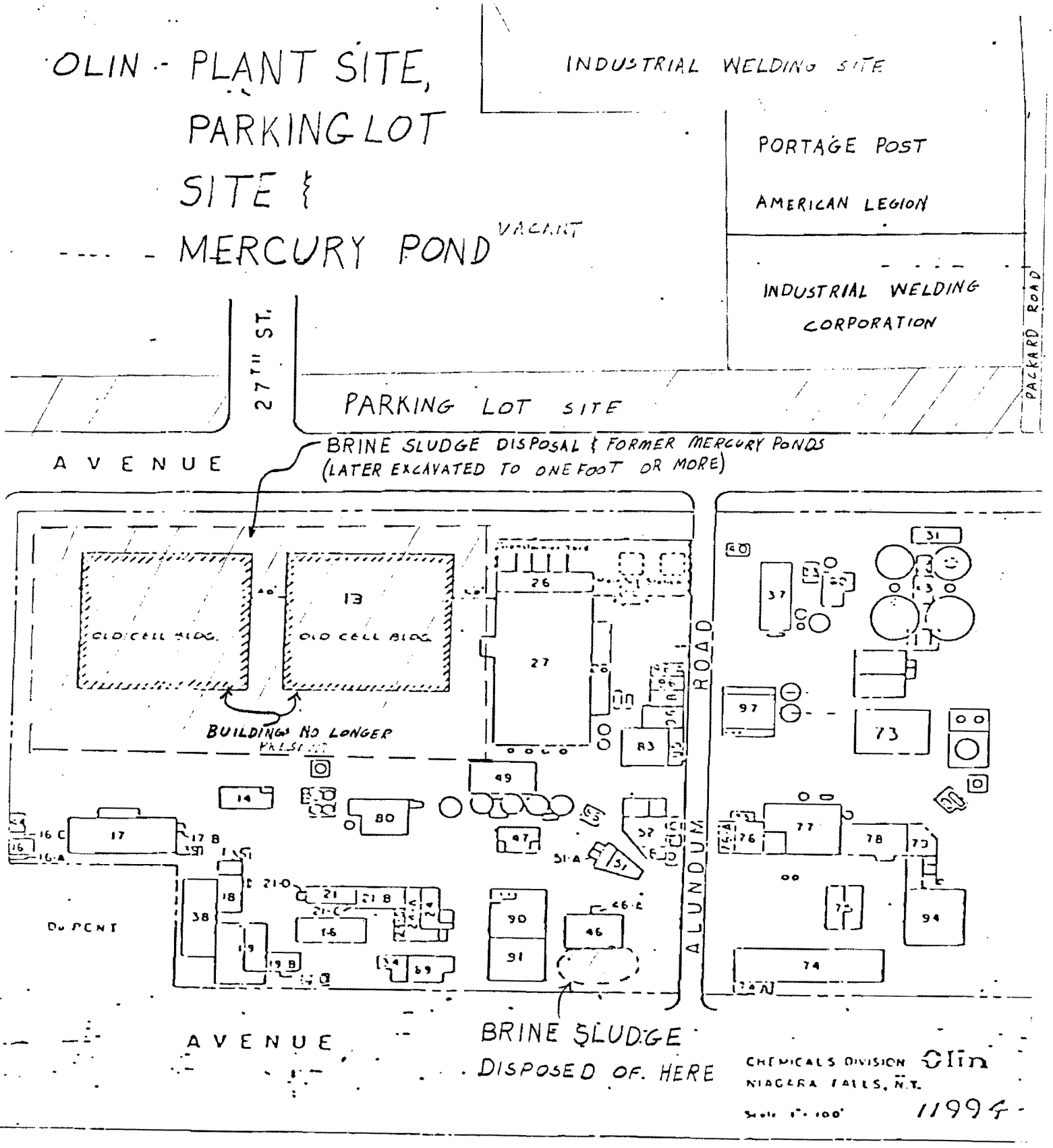
DIRECT CONTACT

No sign of exposed wastes were found. The area is within the plant area and therefore, access is restricted.

CONCLUSIONS

The Mercury Ponds were used to hold wastewater containing mercury. Some contamination of soil may have occurred. The ponds have since been removed.

This site apparently occupies the same area as a portion of the Plant Site and in any further investigation, it may be feasible to incorporate them as one site.



Not to Scale

North

7A

M. [illegible]
4/29/82

NAME

OLIN-PARKING LOT SITE (DEC #932051 - a)

LOCATION

The former disposal area is a 60 foot wide strip along the north side of Buffalo Avenue from 27th Street to Packard Road in Niagara Falls, New York. This area is used as a parking lot. It is suspected that the northern section of the lot was used for disposal.

A site sketch is attached.

OWNERSHIP

This property is owned by the Olin Chemical Company, 2400 Buffalo Avenue, Niagara Falls, New York 14303. Olin is believed to have owned the property at the time of disposal operations. The contact person at Olin is Al Kapteina, Environmental Manager (278-6584).

HISTORY

According to the Interagency Task Force Report(1979) operations at the Buffalo Avenue Plant began in 1897 under the name of the Castner Electrolytic Company. This Company was subsequently known as the Mathieson Chemical Company, Olin Mathieson Chemical Corporation and finally the Olin Corporation.

Olin manufactures inorganic chemicals, including chlorine, calcium hypochlorite and caustic soda. Organic chemicals were produced during the 1950's.

The Buffalo Avenue parking lot was used as a disposal site for brine sludge ("salt dirt"). A letter from Olin (D. Cummings) to DEC (Y.Erk) written June 12, 1981, states that a total of 30 cubic yards (48 tons) of salt dirt were used to patch holes in the parking lot in 1960. The salt dirt had an average mercury concentration of 30 to 45 ppm. Therefore, 3.6 pounds of mercury may have been disposed of here. The letter also indicates that Olin disposed of an unknown quantity of caustic bottoms here prior to 1940. These bottoms were roughly 90% Fe_2O_3 with FeS, NiS and some NaOH. The nickel concentration is estimated as 0.1 ppm, although it is largely immobilized by the sulfide. The caustic bottoms reportedly contained no mercury. The letter states that Olin never disposed of oil at the parking lot site.

The Interagency Task Force reported that the parking lot was used for disposal of 175 tons of brine sludge from 1947 to 1956. The source of this information is not known. It is noted that a discrepancy exists between Olin's dates and volume estimates and those of the IATF.

HISTORY (continued)

Use and maintenance of the parking lot may have distributed the waste materials over the parking lot. The extent of excavation in this area since 1960, if any, has not been determined. Currently, the parking lot is partially paved and gravelled.

At present, Olin disposes of brine sludge by secure landfilling off-site. The mercury concentration of the brine sludge is sufficient to qualify this material as hazardous as per RCRA.

An inspection in April, 1982, found no traces of brine sludge or other wastes to be exposed. No problems were visible at this time.

RESULTS OF PREVIOUS SAMPLING

No previous sampling program is known to have been conducted at this site. There are not any groundwater monitoring wells near or on this site. In a letter from Mr. Cummings to Mr. Buechi (DEC) written February 22, 1982, Mr. Cummings infers that the soil and/or groundwater are marginally contaminated with mercury. The source of this mercury is attributed to fallout from air emissions, not disposal activities. Attached to this letter are results of the analysis of well samples taken near Gill Creek, which showed mercury concentrations of 0.0018 to 0.093 ppm.

SOILS/GEOLOGY

A detailed soil survey for this area is not available. Soils in this area are typically composed of several feet of silt and clay over glacial till to bedrock. According to Groundwater in the Niagara Falls Area by Richard Johnston (1964), 8 wells are located on Olin or adjacent properties. The depth to bedrock is listed as 10 to 12 feet in all cases. All of these wells are deep (over 135 feet). Static water table levels are given as 17 to 34 feet, although pumping causes substantial drawdowns (30 feet drawdown and greater). Bedrock is Lockport Dolomite.

GROUNDWATER

Although conclusive data has not been obtained, there are apparently two distinct aquifers in this region. An unconfined aquifer may exist in the unconsolidated deposits. This aquifer may be intermittent. There is no data available regarding the direction of flow of this aquifer. In his letter to Peter Buechi (2/22/82) Mr. Cummings states that Olin does not believe that significant shallow groundwater flows exist and that infiltrations to combined public sewers surrounding the Olin Plant may exceed the infiltration of precipitation through the soil, therefore, accepting all the shallow groundwater flow. No figures were given in the letter to justify this statement.

GROUNDWATER (continued)

A deep aquifer is found in the Dolomite. This aquifer is suspected to be in the form of numerous waterbearing zones in joints and dissolution passages in the Dolomite. This is a confined aquifer. Substantial volumes of water can be pumped from this source. The Niagara River is influent to the bedrock aquifers according to Johnston.

There are no known drinking water wells within three miles of this site. Several industrial wells are located on the Olin and DuPont Properties.

SURFACE WATER

The nearest body of surface water is Gill Creek, which is less than 100 feet east of the eastern end of the parking lot. Gill Creek flows into the Niagara River 1,000 feet downstream. This section of Gill Creek has recently received extensive remedial work to remove contaminated sediments. This site is not known to have been a source of this contamination.

The City of Niagara Falls water intakes are upstream of the mouth of Gill Creek. There are no water intakes within three miles downstream.

This site is not within a 100 year flood plain. There are no designated wetlands within one mile of this site.

AIR

The potential for air emissions from this site has not been determined, but the potential may be small as the wastes present are largely solid. Some contaminants may enter the air as dust.

The nearest residential area is 800 feet north (Allen Avenue). All of the area south of Buffalo Avenue is industrial. Most of the area on the north side of Buffalo Avenue is vacant or abandoned. The nearest commercial property is over 1,500 feet away. It is estimated that 3,000 to 4,000 people live within one mile of this site.

FIRE/EXPLOSION

If the only wastes present are brine sludge and caustic bottoms, the danger of fire is minimal.

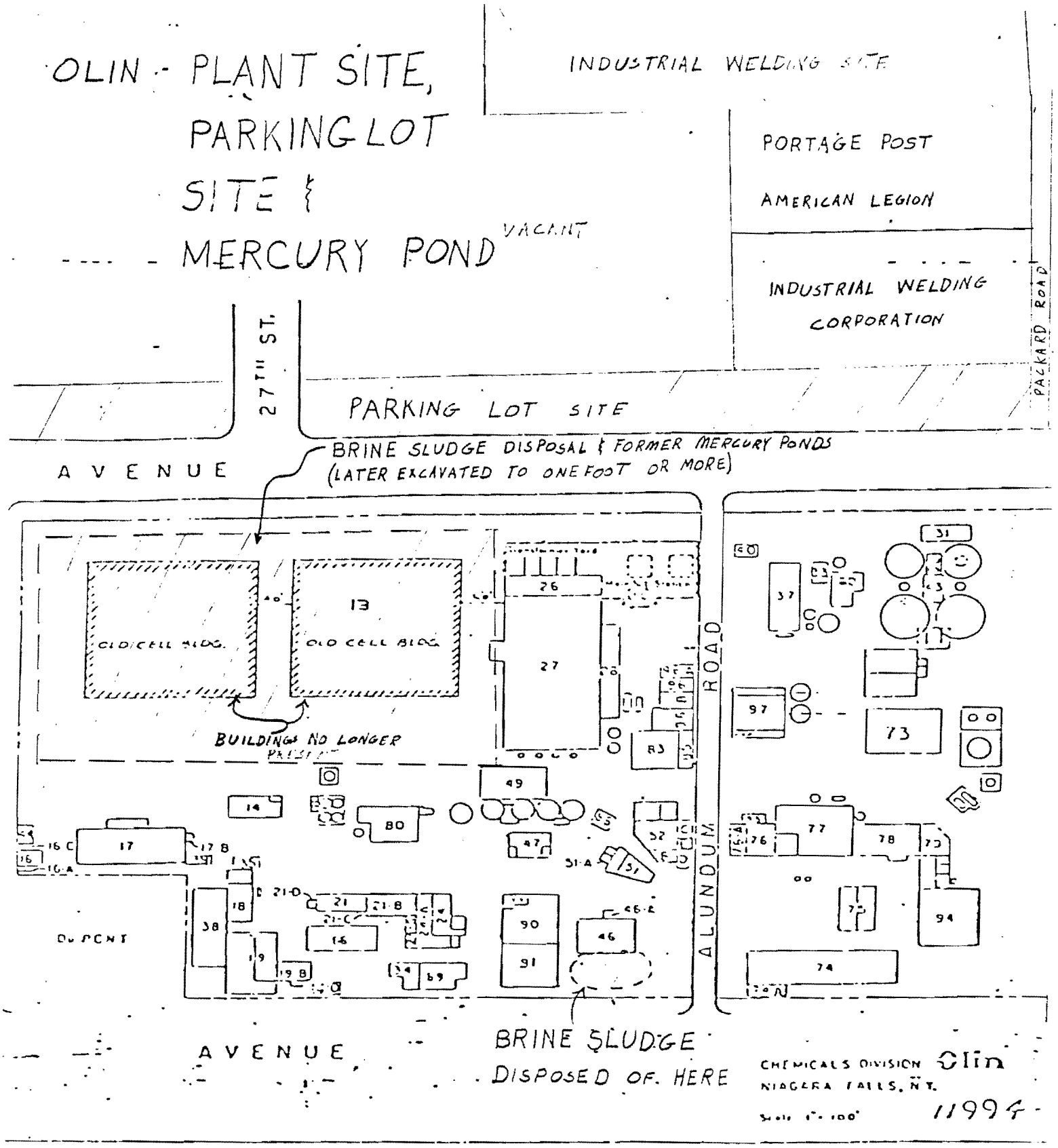
Over 10,000 people live within a two mile radius. The nearest buildings are at the Olin Plant. Over 1,000 buildings are located within a two mile radius.

DIRECT CONTACT

Access to the parking lot is unrestricted. It is not known if any wastes are exposed, although none were found.

CONCLUSION

Until 1960, about 30 cubic yards of brine sludge containing mercury was used to patch holes and surface a parking lot by Olin. Since this time, the area has been blacktopped and/or gravelled and is still used as a parking lot. No previous sampling data is available.



Not to Scale

North

7A

M. Hopkins

4/29/82

NAME

CARBORUNDUM GLOBAR (DEC #932048 - b)

LOCATION

A former storage area is located in the plant yard at the northeast corner of the plant property. The Carborundum Globar Plant is located on Hyde Park Boulevard at Rhode Island Avenue in the Town of Niagara.

OWNERSHIP

The property is owned by the Carborundum Corporation. The contact person at the Globar Plant is Mr. Frank Saulino (278-3983).

HISTORY

The area described above was used as a storage area for wastes prior to off-site disposal or incineration on-site. According to the IATF Report, wastes such as paper, wood, scrap materials and boxes were incinerated on-site until 1962. This was verified by Mr. Saulino of Carborundum. Currently, all wastes are hauled off-site for disposal.

The storage area presently contained scrap metal and about 20 drums of oil awaiting recycling. This is hydraulic oil according to Mr. Saulino and will be removed within 90 days. The soil in this area showed signs of oil contamination. No other wastes were stored here.

Several drums of scrap solvents were stored at the rear of the building. These are removed periodically by a hauler for disposal. All other wastes were found to be in dumpsters.

Mr. Saulino said that all wastes are removed for disposal within 90 days to eliminate the necessity of obtaining a Part 360 Permit.

PREVIOUS SAMPLING

There is no record of previous sampling at this site.

SOILS/GEOLOGY

No data on soil types and properties was found. The native soils may have been disturbed or filled upon during the construction of the plant or compacted from years of vehicular traffic. Portions of the surface are gravelled.

Bedrock is believed to be Lockport Dolomite.

GROUNDWATER

The depth to the water table and the direction of groundwater flow are unknown.

GROUNDWATER (continued)

The nearest known well is roughly 4,500 feet north. This well is used only for washing, not drinking. Less than 50 people within a three mile radius are believed to use well water for any purpose. There are no industrial wells in this area.

SURFACE WATER

Storm sewers are expected to catch any runoff from this site. Groundwater is suspected to eventually enter the Niagara River.

The Niagara River is 7,000 feet west of the site. There are no drinking water intakes within three miles downstream and no users of river water in this vicinity are known.

There are no wetlands within one mile. The site is not within a flood plain.

AIR/FIRE/EXPLOSION

There is a potential for fire and air emissions because oil is stored here. If the oil is removed, the potential would be reduced.

It is estimated that 300 to 500 people live within one mile of this site and that 2,000 people live within two miles. Land use in this area is roughly 50% residential, 50% industrial. The nearest residential area is 200 feet away on Rhode Island Avenue. Several hundred buildings are within two miles.

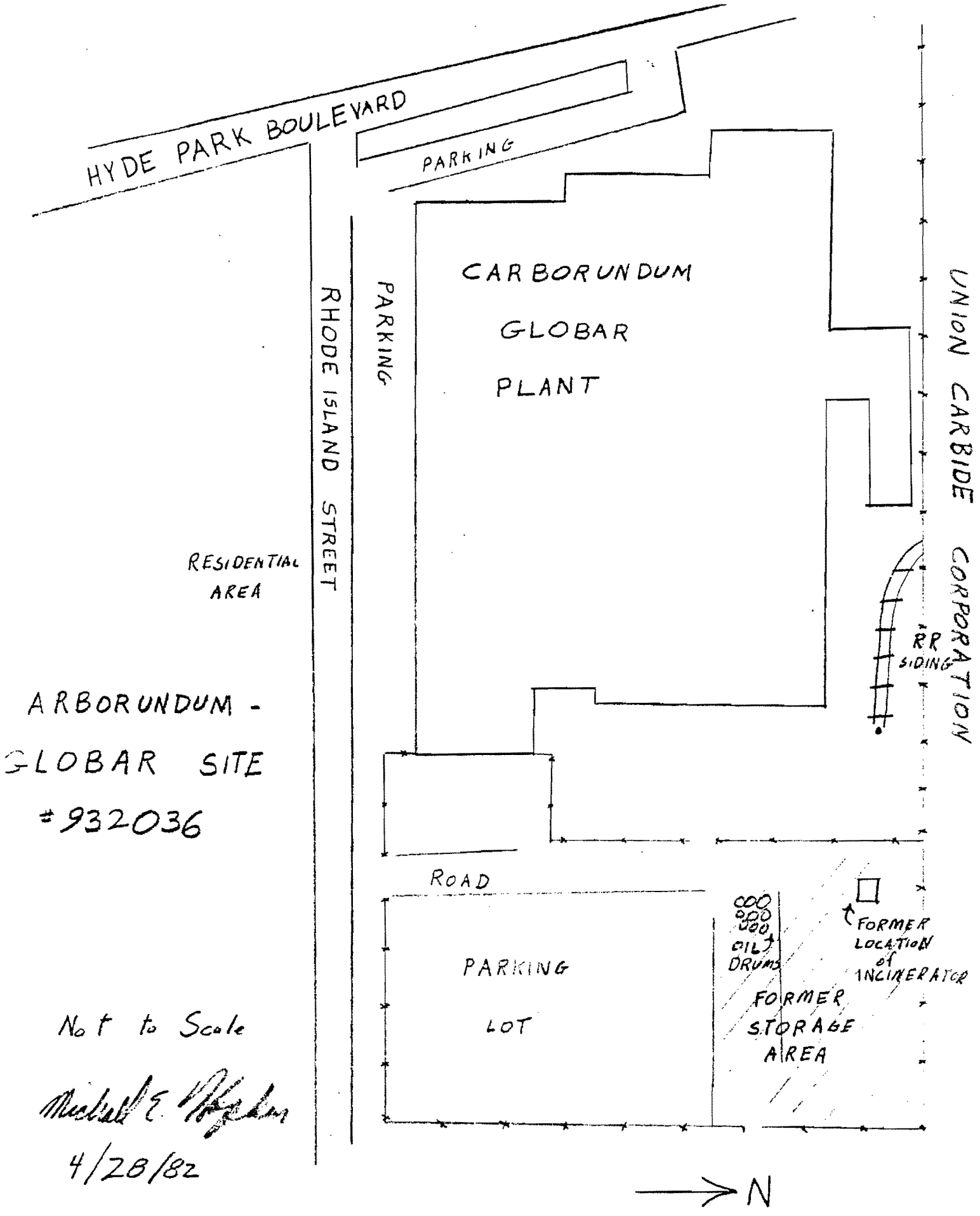
DIRECT CONTACT

The site is on the plant property and supervised by plant personnel. No toxic materials are known to be present.

CONCLUSIONS

This is a storage area or a former storage area, not a Landfill Site. Currently only scrap metal and oil awaiting recycling is stored here. Some minor contamination of the soil with oil is apparent.

A second inspection will be made in June, 1982, to assure that wastes are not stored longer than 90 days.


HYDE PARK BOULEVARD
PARKING
RHODE ISLAND STREET
PARKING
CARBORUNDUM
GLOBAR
PLANT
UNION CARBIDE CORPORATION
RESIDENTIAL AREA
RR SIDING
ARBORUNDUM - GLOBAR SITE #932036
ROAD
PARKING LOT
OIL DRUMS
FORMER LOCATION of INCINERATOR
FORMER STORAGE AREA
Not to Scale
4/28/82
N

NAME:

Town of Royalton (DEC #932092)

LOCATION:

This site is a five acre parcel located west of Griswold Street and 0.5 mile south of Rochester Road in Royalton, NY.

A site sketch is attached.

OWNERSHIP:

The property is owned by Mr. Douglas Ortman, 4240 Griswold Street, Middleport, NY. The site was operated by the Town of Royalton Highway Department.

HISTORY:

This site was used to dispose of municipal refuse collected by Bancroft and individual residents from the Town of Royalton and the Villages of Gasport and Middleport. The site was in use in the early 1960's and was officially open until 1978. No disposal of hazardous materials is known.

A 1964 NCHD inspection report states that open burning was being practiced and that cover was applied monthly at that time. From 1964 to 1972, numerous operating problems were reported. A hearing held in July 1973 ordered corrections and upgrading of the operation. From 1973 to 1978, reports indicate that the operation was essentially in compliance with existing codes. The site was closed in 1978.

Recent inspections show that the site is now inactive. Minor scavenger dumping of refuse has occurred since closure. Minor leachate problems ahve been noted. Except for these problems, the site is adequately closed.

PREVIOUS SAMPLING:

Soil and water samples were taken by DEC in 1982. The results of the analyses are attached. The water samples were taken from the drainage ditch; Sample No. 1 from the point of leachate entry and Sample No. 2 150 feet upstream. The results show an increase in each of the detectable parameters in the downstream sample (No. 1) although all concentrations except iron are within effluent standards. The iron concentration increases from 1.5 mg/ℓ upstream to 130 mg/ℓ downstream.

SOILS/GEOLOGY:

This site was originally a stone quarry prior to landfilling. It is expected that wastes were placed directly on bedrock. Surrounding areas have shallow soils (Farmington and Ontario/Limestone series) which are 20" to 40" deep over limestone substratum. Some of the limestone has probably been removed during the quarrying operation. The depth of waste burial is not known.

The site is on the Clinton outcropping forming part of the Niagara Escarpment. Bedrock is the portion of the Clinton Group which is typically below the Rochester Shale. Limestone, sandstone and shale stratum are present.

GROUNDWATER:

Little information is available on groundwater within the Clinton Group. According to Johnston (1964) this formation is physically capable of transmitting substantial volumes of groundwater, particularly within the limestone and sandstone members. However, this formation is overlain everywhere except along the Excarpment outcropping by the impervious Rochester Shale. Therefore, recharge of aquifers is severely limited. Reportedly, wells in this formation generally have low yields (often inadequate yields) and water quality is poor due to hardness and salinity.

Several wells are located south of the site; however, these tap the Lockport Dolomite which outcrops above the site. Therefore, this site poses no threat of contamination of these wells.

SURFACE WATER:

The ditch adjacent to the north side of the site enters a stream which flows into the Barge Canal at Middleport. There are no major users of water from the creek. The Barge Canal is an emergency source of water for the City of Lockport.

The site is not in a 100 year flood plain. There are no significant wetlands near this site.

AIR/FIRE/EXPLOSION:

No air emissions or odor problems have been noted since the site was closed. The potential of fire occurring is minimal.

The surrounding area is agricultural. The Village of Middleport is over one mile northeast. Population within one mile is estimated as under 100.

SECURITY/DIRECT CONTACT:

No toxic materials are known to be present. All wastes are covered. Small amount of leachate are exposed. Vehicular traffic is prevented by a cable across the access road. The site may eventually be used as pastureland.

CONCLUSIONS:

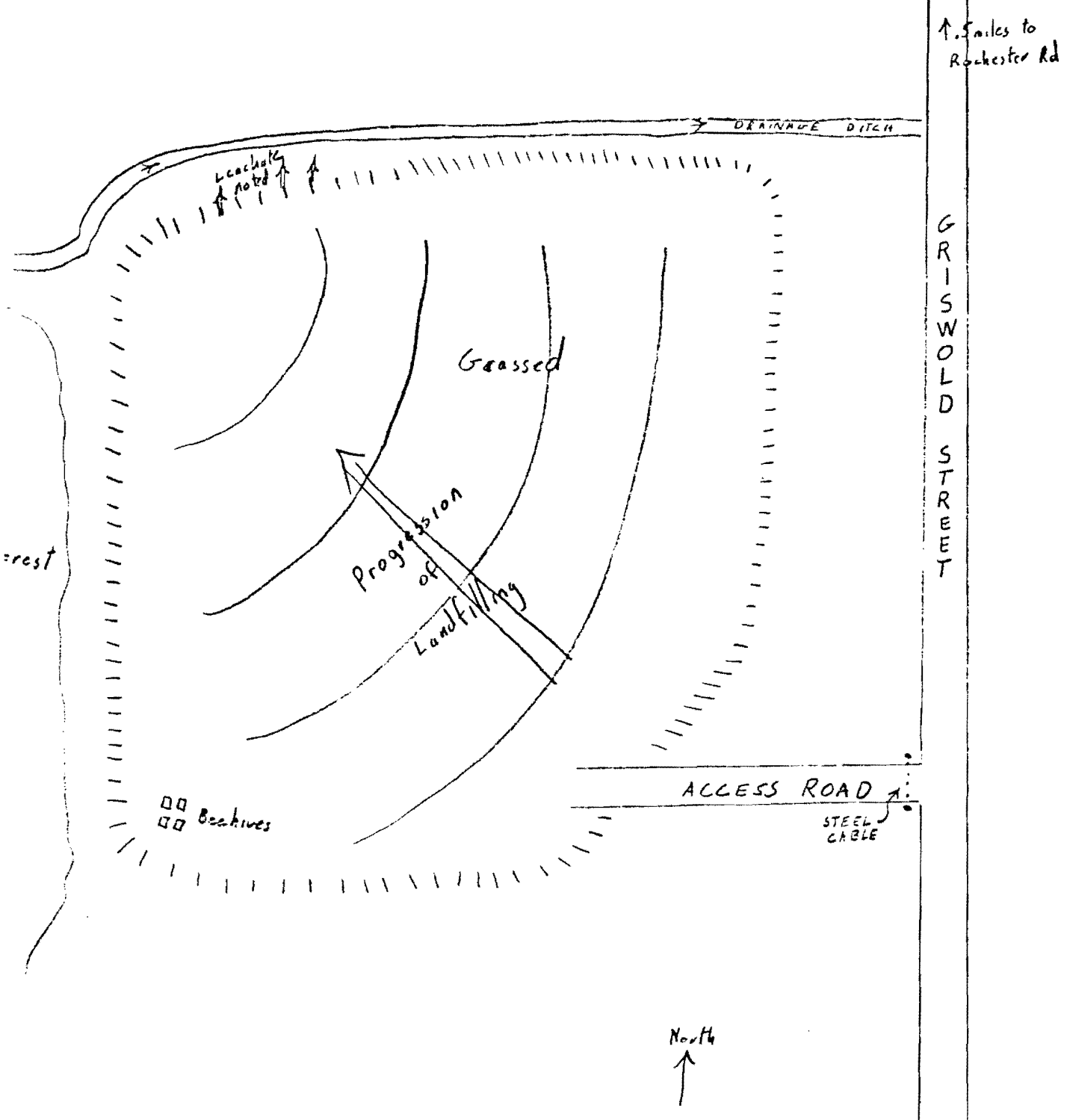
This site is an inactive municipal landfill which served about 7000 people for about 15 years. No hazardous materials are known to be present. The site is covered and grassed. Minor leachate problems have been noted.

RECOMMENDATIONS:

Periodic monitoring of leachate along the drainage ditch should continue. If the extent of the problems increases, remedial action should be considered. No other actions are considered necessary.

932092

TOWN OF ROYALTON LANDFILL



Not to scale
sketch only

Michael E Hopkins, NCHD
4/15/83

TOWN OF ROYALTON - Soil Analyses

COMPOUND	UNITS	SITE LOCATION #1
Antimony	ug/g dry	<5
Arsenic	ug/g dry	1.1
Beryllium	ug/g dry	<0.3
Cadmium	ug/g dry	0.29
Chromium	ug/g dry	7.5
Copper	ug/g dry	15
Iron	ug/g dry	29,000
Lead	ug/g dry	9.5
Mercury	ug/g dry	<0.06
Nickel	ug/g dry	3.8
Selenium	ug/g dry	<0.3
Silver	ug/g dry	<0.3
Thallium	ug/g dry	<3
Zinc	ug/g dry	160
Halogenated Organic Scan	ug/g dry as Cl_2 Lindane Standard	0.58
Dry Weight	%	51

TOWN OF ROYALTON LANDFILL - Water Analyses

COMPOUND	UNITS	SITE LOCATION (1)	SITE LOCATION (2)	EFFLUENT STANDARD
Antimony	mg/l	<0.2	<0.2	
Arsenic	ug/l	<5	<5	.05 mg/l
Beryllium	mg/l	<0.01	<0.01	
Cadmium	mg/l	<0.004	<0.004	.02 mg/l
Chromium	mg/l	0.020	0.004	.10 mg/l
Copper	mg/l	0.022	<0.005	1.0 mg/l
Iron	mg/l	130	1.5	0.6 mg/l
Lead	mg/l	<0.03	<0.03	0.05 mg/l
Mercury	ug/l	<1	<1	0.004 mg/l
Nickel	mg/l	<0.03	<0.03	2.0 mg/l
Selenium	ug/l	<5	<5	0.04 mg/l
Silver	mg/l	<0.01	<0.01	0.1 mg/l
Thallium	mg/l	<0.1	<0.1	
Zinc	mg/l	0.701	0.063	5.0 mg/l
Halogenated Organic Scan	ug/l as Cl_2 Lindane Standard	1.5	0.75	
Total Organic Carbon	mg/l	30	19	

NAME:

Walmore Road (DEC #932094)

LOCATION:

The Registry lists the location as Walmore Road near the railroad overpass. However, field investigation did not confirm the presence of a disposal site at this location. A site was found 1200 feet to the northeast; south of Lockport Road and east of Cayuga Creek, where industrial disposal had occurred. It is suspected that this is the site listed as the Walmore Road Site. A site sketch is attached.

OWNERSHIP:

As of 1982, this site was owned by Mr. Edward Struzik, 2284 Lockport Road, Wheatfield, NY. However, arrangements are being made for purchase of the property by the Church of God for purposes of erecting a church here. The contact person is Reverend Jack A. Hayes, 9605 Colvin Boulevard, Niagara Falls, NY, 283-4162.

HISTORY:

Carbon waste and inert industrial fill was used to raise a low area during the middle 1960's. Steve Washuta of Modern Disposal reportedly placed carbon dust here in 1965. This material came from Airco-Speer according to Mr. Washuta. A 1981 DEC inspection report indicates that 2000 cubic yards of carbon dust from Carborundum was placed here in 1965. It is suspected that this material is in fact the material deposited by Mr. Washuta.

The IATF report indicates that the Walmore Road site was used by Bell Aerospace for disposal of scrap wood, flyash and clay.

The fill was apparently placed to fill a low area adjacent to Cayuga Creek. The fill is said to be 6 feet to 8 feet in depth. Mr. Struzik owned the property when the property was filled and gave his permission to Mr. Washuta to fill it. Mr. Don MacSwan, Building Inspector for the Town of Wheatfield, inspected the placement of the fill and may have additional information in this matter. Mr. Ron Meall of Graybell Associates designed a sewer line which runs near or through the filled area and was unaware of anything unusual found in the excavations.

Currently, the site is an open field. Reverend Hayes intends to build a church on this site at a future date.

AERIAL PHOTOGRAPHS:

USDA Photos ARE 3V-82 (1958) and ARE 2V-31 (1966) were examined. Although interpretation was difficult, it appeared the area was not yet completely filled in 1966. It appears likely that a rectangular area 50 feet by 300 feet immediately adjacent to the creek would have been the only area filled.

ANALYTICAL RESULTS:

A soil sample collected by DEC personnel in 1982 showed low but detectable concentrations of Arsenic (2.3 ug/g), chromium (10 ug/g), copper (46 ug/g), lead (43 ug/g), nickle (61 ug/g) and zinc (200 ug/g). Additional samples were taken at this time but these were not analyzed.

SOILS/GEOLOGY:

Soils are listed as belonging to the Odesa - Lakemont Ovid association in the Soil Survey for Niagara County (U. S. Soil Conservation Service, 1966). Specifically, the site is listed as Hilton series (a minor soil type in the Odesa - Lakemont - Ovid association). Typically, soils of this association are somewhat poorly to very poorly drained and composed of Lacustrine clays and silts over Glacial Till. Experience with other sites in this area would also indicate native soil are likely to have been clay over till. It is noted that the soils at this site may have been classified prior to filling with wastes.

Bedrock is Lockport Dolomite. The depth to bedrock is expected to be 12 feet to 20 feet.

GROUNDWATER:

No specific information on groundwater flows was found. It is expected from experience with other nearby sites that the overburden aquifers may not be capable of producing significant yields. The bedrock-overburden interface may or may not produce significant yields. The Lockport Formation typically has several water bearing zones at various depths.

Any shallow groundwater is expected to enter Cayuga Creek. Regionally, bedrock aquifers tend to flow toward the south. However, specific data confirming these assumptions is not available.

It is not known if there are any wells in this area.

SURFACE WATER:

The site is immediately adjacent to Cayuga Creek. Runoff from the site apparently enters the creek.

There are no downstream users of water from Cayuga Creek. Cayuga Creek enters the Niagara River six miles downstream.

This site is not in a 100-year flood plain and is not adjacent to designated wetlands.

FIRE/EXPLOSION/AIR QUALITY:

The potential for contaminants becoming airborne, for fire or for explosion to occur is considered small. The site is covered and the waste material is relatively non-flammable and inert.

FIRE/EXPLOSION/AIR QUALITY - continued

The surrounding area is essentially agricultural. About 25 residences are located within one mile with the nearest being about 700 feet east on Walmore Road.

DIRECT CONTACT:

Access to the site is now restricted. The wastes are covered and are believed to be non-hazardous.

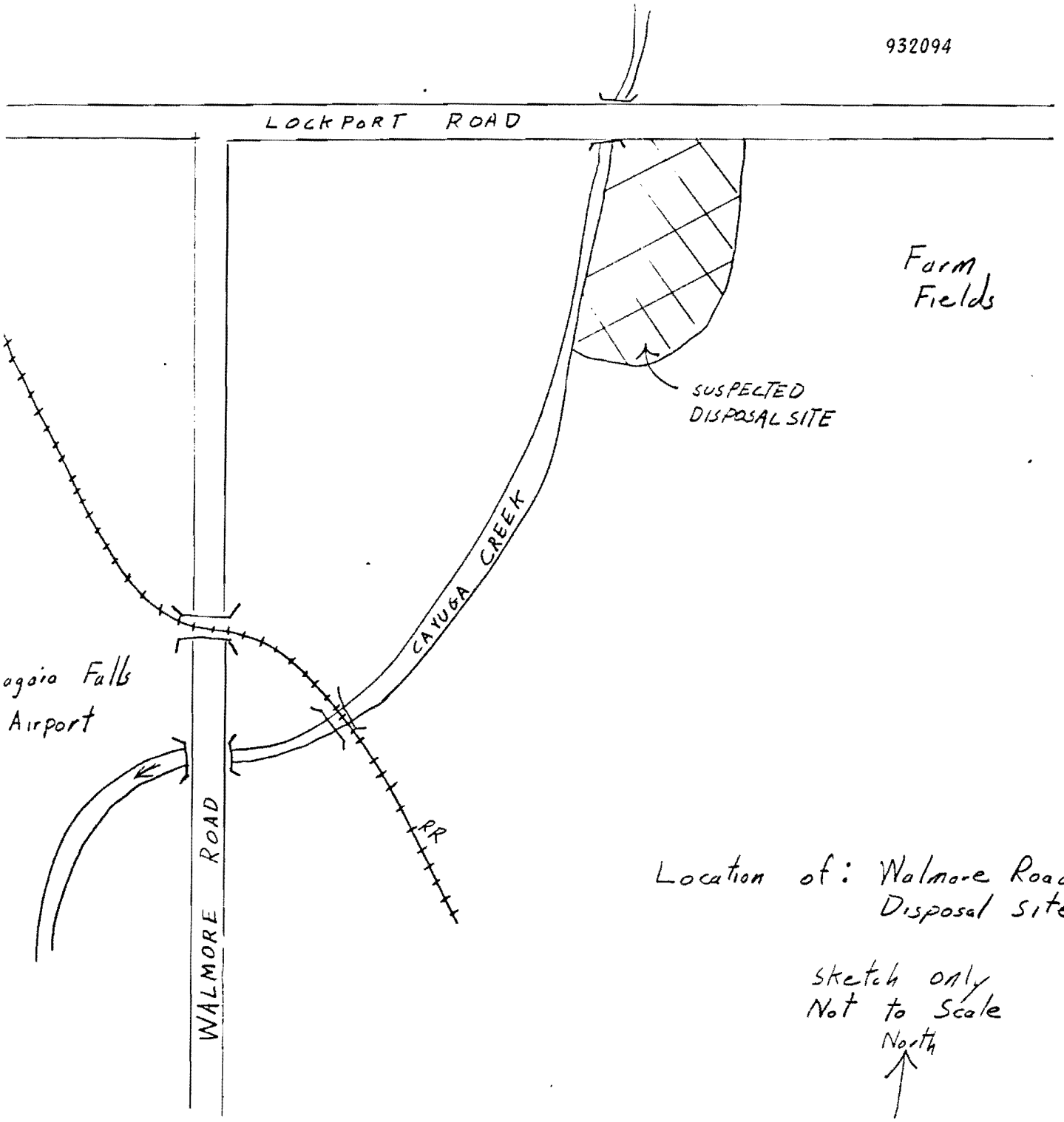
CONCLUSIONS:

This site received about 2000 cubic yards of carbon dust during the mid 1960's to raise a low area. No hazardous substances are known to be present.

RECOMMENDATIONS:

No further action at this site is recommended.

932094



Location of: Walmore Road Disposal Site

Sketch only
Not to Scale
North

Michael E Hopkins
5/2/83

NAME:

Town of Lewiston (DEC #932076)

LOCATION:

This site is located south of Pletcher Road and between Harold and Porter Center Roads in the Town of Lewiston.

A sketch is attached.

OWNERSHIP:

The property is owned by the Town of Lewiston. The contact person for information is Calvin Schultz, Highway Superintendent (754-8265).

HISTORY:

This site was in operation prior to 1964. Niagara Sanitation, Inc. disposed of municiple refuse from the Town and Village of Lewiston here until September of 1972. The site was operated by the Town of Lewiston Highway Department. Small quantities of commercial and non-hazardous industrial wastes, including plastic battery cases from Prestolite, Inc. were also disposed of here. There are no known hazardous materials present.

NCHD inspection reports from 1964 to 1970 indicate that refuse was routinely burned. Reports from 1968 to 1972 show numerous operational problems such as inadequate cover and leachate problems. After several warning notices given in 1971 - 1972, a hearing was held in February 1972. The site was subsequently closed in September 1972.

Since 1972, the site has been inactive except for minor scavenger dumping of refuse. A 1981 NCHD inspection revealed some protruding refuse but no evidence of leachate in drainage ditches. In 1982, samples were taken by DEC personnel.

RESULTS OF PREVIOUS SAMPLING:

The only samples known to have been collected were taken by DEC in April 1982. The results of this sampling are attached. Interpretation of these results is difficult since no upgradient data from drainage swales was obtained for use as background. However, values obtained are essentially within acceptable ranges.

SOILS/GEOLOGY:

Soils in this area are generally deep and nearly impermeable. Data taken from active disposal sites nearby shows a profile of miscellaneous fill, topsoil, etc, to up to 8feet, over Glacial till (5 to 15 feet thick) over Glaciolacustrine silts and clays (6 to 30 feet thick) over 3 feet to 10 feet of dense glacial till over bedrock. Depth to bedrock is typically 25 feet to 40 feet. The natural soils in nearby areas have consistently been found to exhibit in situ permeabilities of 10^{-5} to 10^{-8} cm/sec, with values generally in the range of 10^{-7} to 10^{-8} in the Glaciolacustrine stratum.

Bedrock is Queenston Shale. The Queenston is relatively impermeable with any appreciable amount of water being found in the fractured layer typically found at the bedrock-soil interface.

GROUNDWATER:

Due to the relatively impervious nature of the soils and bedrock, the flow of groundwater is expected to be minimal. Studies at nearby sites (Modern Disposal and SCA) tend to confirm this statement. The only aquifer of significance is contained in the fractured upper section of the Queenston Shale, However, this aquifer is over laden with nearly impervious soils and it seems unlikely that contamination of this aquifer would occur. Localized pockets of groundwater may occur throughout this area in the unconsolidated material but these pockets are not generally interconnected and are not likely to act as conduits for migration from the site.

SURFACE WATER:

Runoff from the site is carried by drainage swales which run along the north and west side of the landfill and eventually enter Twelve Mile Creek which enters Lake Ontario. These swales are intermittent.

The site is not in a flood prone area. The nearest declared wetland is about one mile north.

There are no drinking water or industrial intakes on Twelve Mile Creek.

AIR/FIRE/EXPLOSION:

Although a potential for odors exists at any inactive landfill site, no complaints have been recorded since the site was closed. The potential for fire, explosion or methane generation is not considered significant.

Land use in the surrounding area is industrial (active waste disposal), agricultural or idle. All of the area to the north and northwest within 2 miles is used for waste disposal while the remaining area surrounding the site is agricultural or idle. Only four residences are located within one half mile and less than 25 within one mile. The nearest residence is 1500 feet west of the site. It is not known whether any nearby residents have or use domestic wells.

ACCESS/DIRECT CONTACT:

The entrance is blocked but the site is not fenced. However, since no toxic substances are known to be present, the potential of a contact hazard is small.

CONCLUSIONS:

This site is regarded as an inactive municiple landfill. Inspection reports by NCHD (1981) and DEC (1982) indicate that the site is adequately closed. Results of samples taken by DEC in 1982 do not indicate serious problems at this site.

RECOMMENDATION:

No further action is considered necessary.

932076

TOWN OF LEWISTON LANDFILL - Soil Analysis (4/2/92)

PARAMETER	UNITS OF MEASURE	SAMPLE IDENTIFICATION (Station #) (1)	(2)	(3)
Arsenic	ug/g dry	4.0	3.1	2.7
Beryllium	ug/g dry	<0.8	<0.8	<0.6
Cadmium	ug/g dry	2.4	0.54	<0.4
Chromium	ug/g dry	21	27	23
Copper	ug/g dry	21	24	19
Lead	ug/g dry	4.2	82	11
Mercury	ug/g dry	<0.04	0.07	<0.03
Nickel	ug/g dry	7.6	7.9	37
Selenium	ug/g dry	<0.2	<0.2	<0.2
Silver	ug/g dry	<0.8	<0.8	<0.6
Thallium	ug/g dry	<6	<8	<6
Antimony	ug/g dry	<8	<8	65
Zinc	ug/g dry	92	100	64
Iron	ug/g dry	620	590	530
Dry Weight	%	51	50	65

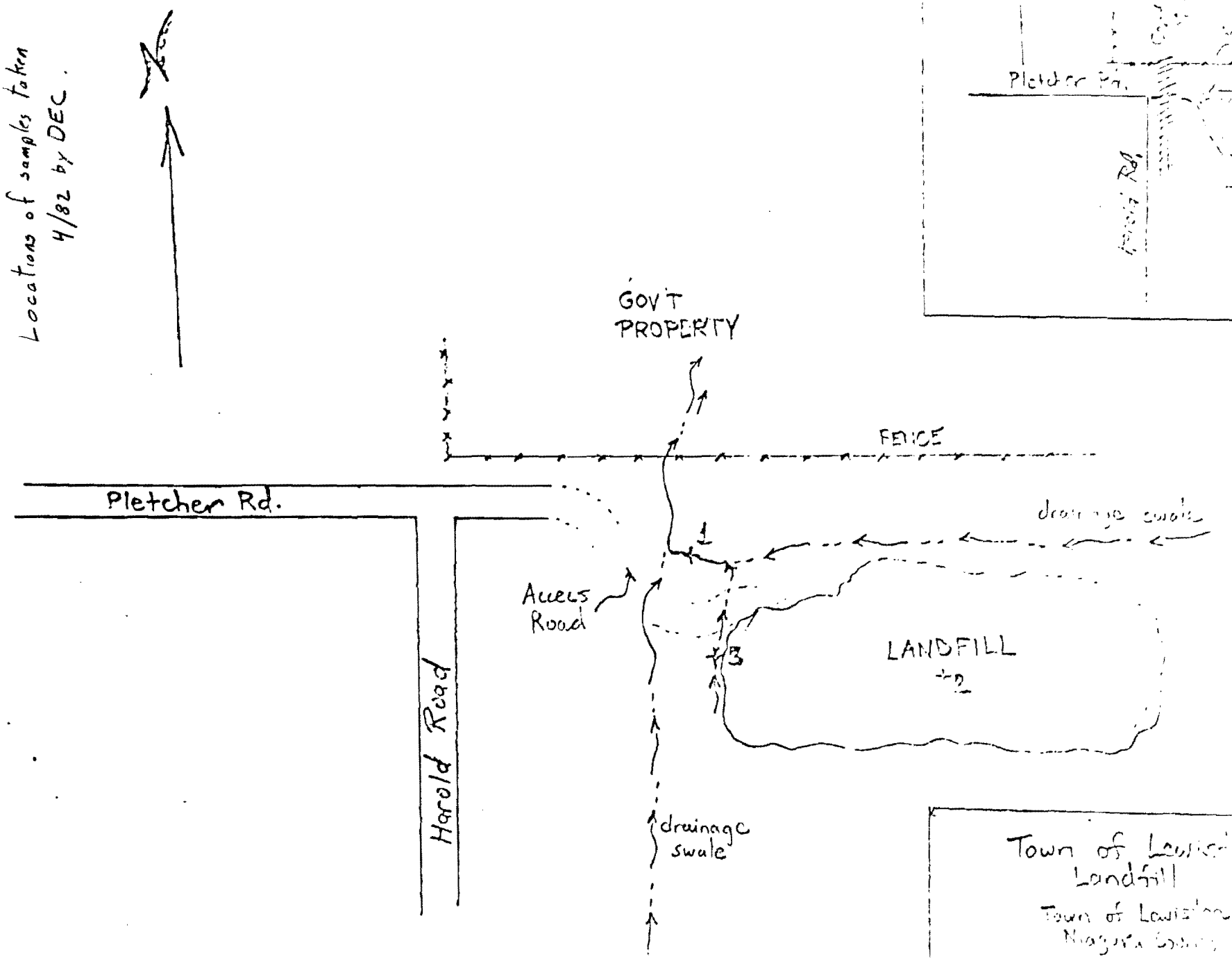
932076

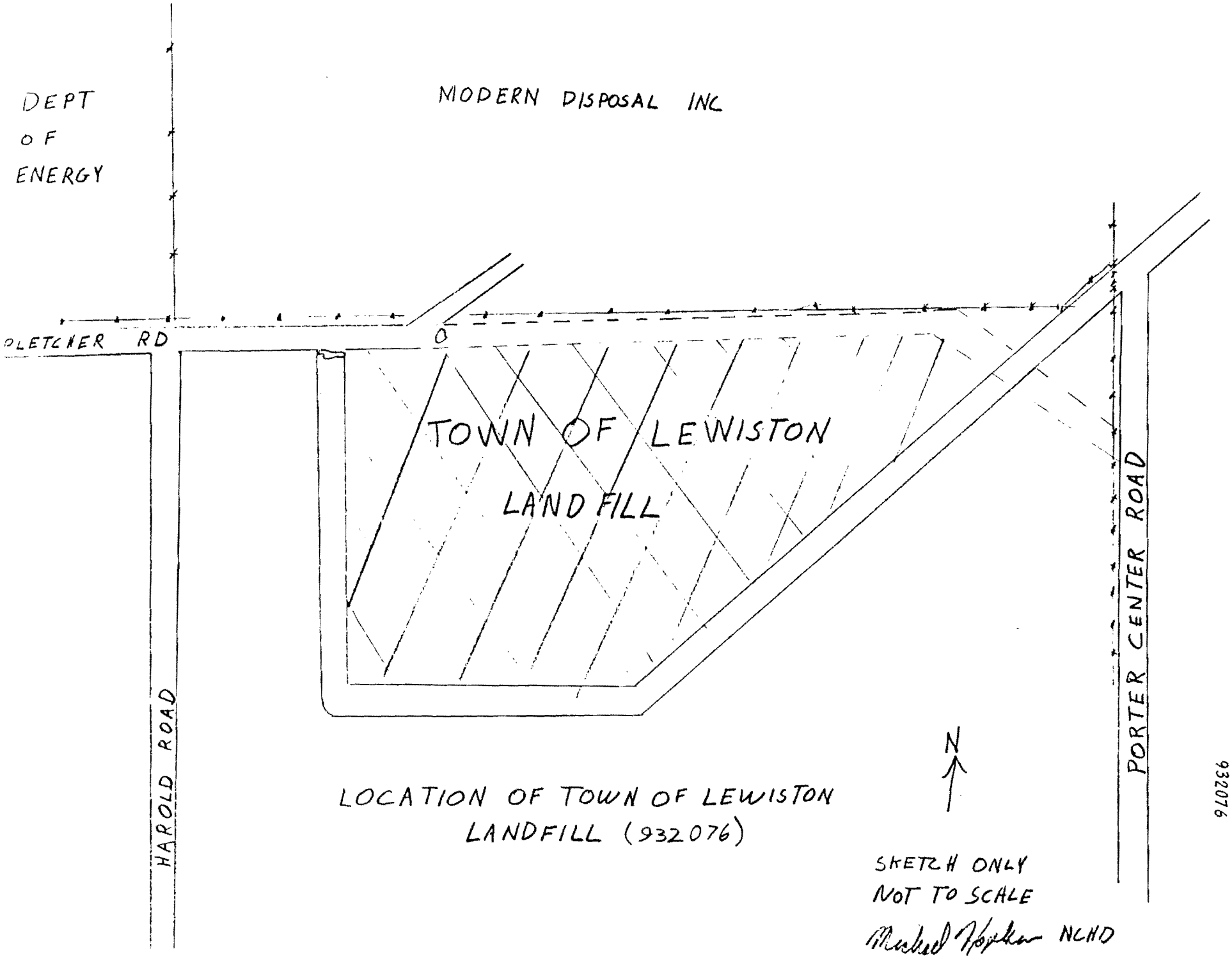
TOWN OF LEWISTON LANDFILL - Water Analyses (4/2/83)

COMPOUND	UNITS OF MEASURE	SAMPLE IDENTIFICATION (Station #) (1)	(2)	(3)
Arsenic	ug/l	<5	21	<5
Beryllium	mg/l	<0.01	<0.01	<0.01
Cadmium	mg/l	0.057	<0.005	<0.005
Chromium	mg/l	0.014	0.058	<0.004
Copper	mg/l	0.054	0.084	<0.004
Lead	mg/l	0.05	0.34	0.07
Mercury	ug/l	<0.5	<0.5	<0.5
Nickel	mg/l	0.17	0.17	0.19
Selenium	ug/l	<5	<5	<5
Silver	mg/l	<0.01	<0.01	<0.01
Thallium	mg/l	<0.1	<0.1	<0.1
Antimony	mg/l	<0.2	<0.2	<0.2
Zinc	mg/l	0.062	1.1	0.049
Iron	mg/l	0.90	7.0	0.98
Total Organic Carbon	mg/l	12	220	15

932076

Locations of samples taken 4/82 by DEC.





LOCATION OF TOWN OF LEWISTON
LANDFILL (932076)

932076

NAME:

Town of Hartland (DEC #932075)

LOCATION:

The site is a ten acre parcel located at the end of Ryan Road, 2000 feet south of Ditch Road in Hartland, NY.

A site sketch is attached.

OWNERSHIP:

The property is owned by the Town of Hartland.

HISTORY:

This parcel was purchased by the Town in 1962 and used as a municipal landfill from 1963 to 1973. Early inspection reports (1964 to 1969) indicate that refuse was separated into burnable and non-burnable wastes. The burnable portion was burned on-site. The remaining material was covered monthly. A trench method of landfilling was used. Refuse was hauled by individual residents (no public collection).

From 1969 to 1973, numerous operational problems are noted in NCHD inspection reports. These resulted in informal and then later formal hearings in 1973 which culminated in the closing of the site in December 1973.

The most recent inspection by the NCHD noted that the site was weed covered and inactive. Some refuse was apparently never covered; however, the refuse was well decayed and stabilized. No odors were noted.

There are no reports indicating that this site contains any industrial or hazardous waste.

PREVIOUS SAMPLING:

There is no record of any samples being taken at this site.

SOILS/GEOLOGY:

The soils at this site are classified as Appleton-Hilton-Sun Association soils in the Soil Survey for Niagara County (U.S. Soil Conservation Service). These soils are described as deep, moderately well to very poorly drained glacial till. Slopes vary from level to gently sloping.

The site is essentially flat. Adjacent areas are poorly drained and often swampy. A NCHD inspection report (1964) states that the depth to bedrock is greater than six feet.

Bedrock is Queenston Shale. The only significant aquifer in the Queenston is generally the fractured zone at the Queenston/overburden interface. Wells in the Queenston generally have low yields and produce water of poor quality due to salinity and high mineral content.

GROUNDWATER:

Little data is available on groundwater flows in this area. Typically, the only significant bedrock aquifer is the fractured zone atop the formation. Information found in NCHD files indicates that a shallow overburden aquifer is present within three feet of the surface. This fact implies that wastes are likely to be buried below the water table.

Many area residents currently use well water as a drinking water supply; however, public water is expected to be available to many of these residents in the near future. It is estimated that 200 people live within one mile of this site and currently use groundwater for drinking. The nearest well is believed to be 3000 feet from the site along Ditch Road.

SURFACE WATER:

This area is poorly drained. It is unclear whether runoff from this site enters drainage swales or whether it is "dead ended" in the swampy areas to the north and east. No permanent streams drain this area. Intermittent flows in ditches and swales may drain some runoff at times. These channels generally flow north.

There are no users of surface water in this area. Much of the surrounding area is wetlands. Much of the site has standing water after heavy rains.

AIR/FIRE/EXPLOSION:

No significant potential for fire, explosion or air emissions is expected. Since the nearest residence is 3000 feet away, no public impacts from these sources are expected.

DIRECT CONTACT:

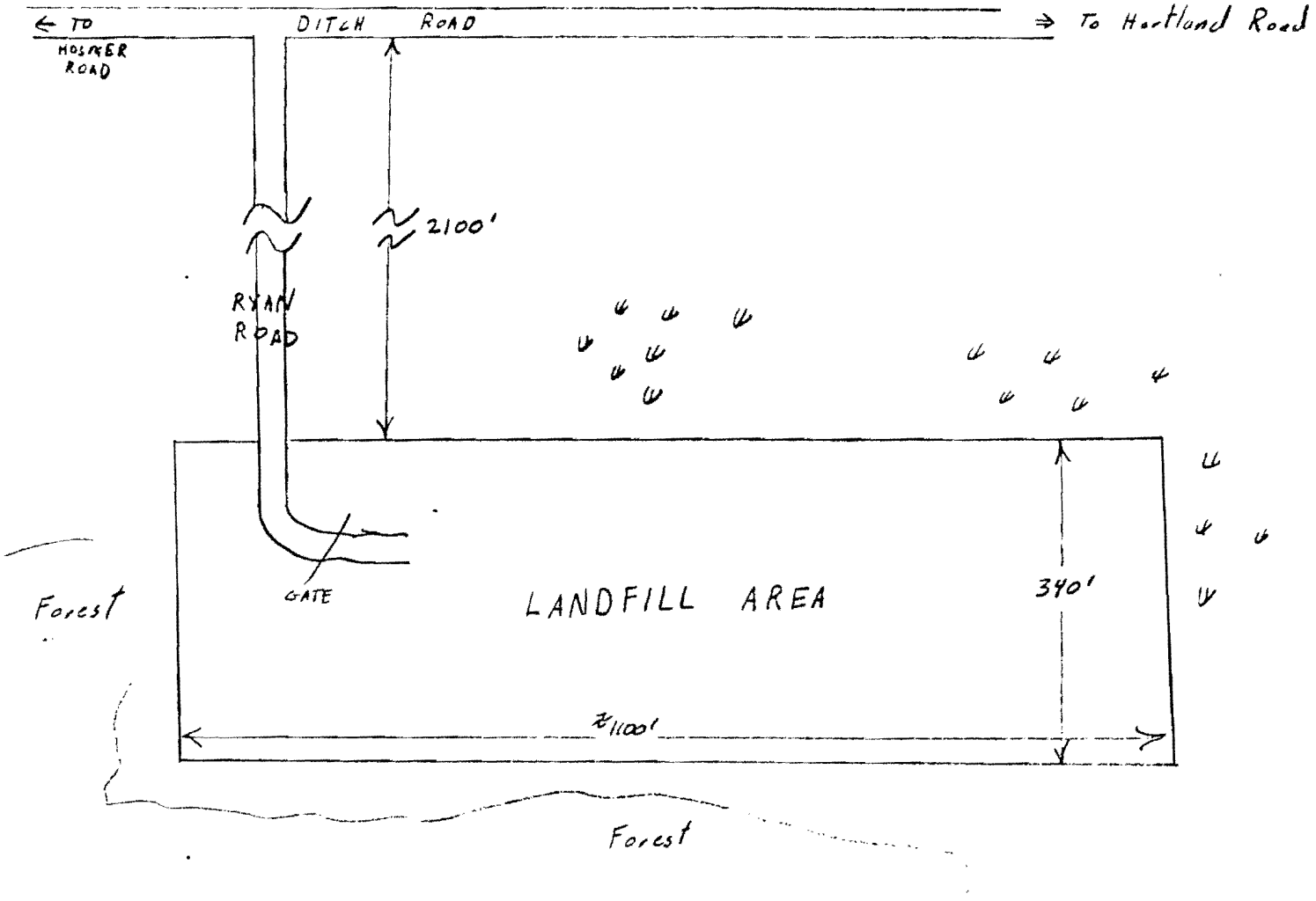
Public access to the site is possible; however, the risk of hazardous contact is minimized since no toxic materials are known to be present.

CONCLUSIONS:

This site was a municipal dump site serving less than 5000 people. This site has been inactive since 1973 but was never properly closed. No hazardous materials are suspected.

RECOMMENDATIONS:

Since the putrescible material has been in place for over 10 years and is now somewhat stabilized, the need for cover is now reduced. Considering the location and sparce population in this area, this department considers remedial work to be a low priority. If such work was to be done, then cover, grading and seeding would be needed.



Town of Hartland Landfill (#932075)

North ↑

Not to Scale

M Hopkins NCHD

4/15/83

NAME:

Airco Alloys (DEC #932001)

LOCATION:

The former and active disposal areas are located on a 62-acre area southeast of Witmer Road, 1500 feet northeast of the intersection of Hyde Park Boulevard in the Town of Niagara.

A sketch is attached.

OWNERSHIP:

This area is currently owned by SKW Alloys, Inc. (37 acres), 3801 Highland Avenue, Niagara Falls, NY 14305 and by Airco Properties, Inc. (25 acres), 4861 Packard Road, Niagara Falls, NY 14302. Past owners include Airco Alloys, Inc. and the Vanadium Corporation of America.

The contact person for the Airco property is Ronald Spears of Airco Speer Carbon Graphite (285-9381) and for SKW, the contact is William Favero (285-1252).

HISTORY:

The site was first used from 1920 to 1964 by the Vanadium Corporation for disposal of slag and refuse. The volume of slag disposed of is estimated as 594,000 tons by the IATF and as 350,000 tons in the Application for a Solid Waste Management Facility for Airco Properties, Inc. The IATF also reports that 88,000 tons of refuse were disposed of. The majority of this waste was disposed of on the property now owned by Airco. A portion of the slag may have been removed after disposal for use as fill.

Airco Alloys began using the Witmer Road site in 1964 for wastes essentially the same as those of Vanadium. In 1971, baghouse collectors were installed at the Airco Plant and the dusts collected were disposed of at this site. Waste volumes disposed of by Airco Alloys included 6000 tons of ferrochrome silicon and 43,000 tons of ferrosilicon dusts (slurried). Again, most of this disposal occurred on the present Airco property although storage of various materials such as coke, ores and raw materials occurred on the present SKW property. Some of this material was never removed.

Part 360 permits to operate disposal facilities were issued to Airco Speer and SKW during the 1980's. Both firms now operate landfills for their own use. SKW disposes of slurried ferrosilicon and ferrochrome silicon baghouse dusts in two cells occupying about 5 acres total. Airco-Speer disposes of "hard" wastes such as brick, concrete, coke, etc., and collector dust and carbon fines in their facility. Airco's permit calls for closure of about 20 acres upon completion of disposal activities. This will close the majority of the former disposal area as well.

Monitoring of eight on-site wells and of surface water on-site is performed quarterly by a mutual consultant of Airco and SKW. The results are sent to DEC-Region 9 (Robert Mitrey).

Recent inspections (Winter 1983) of both the Airco and SKW properties have confirmed much of the above information. Both active facilities were found to be essentially in compliance with codes and permit conditions.

PREVIOUS SAMPLE RESULTS:

Groundwater and surface water samples have been taken prior to issuance of 360 permits and quarterly thereafter. Analytic parameters include pH, conductivity, COD, TOC, Barium, Chromium, Iron, Manganese, Silicon and Zinc. The results of 1979 and 1980 sampling are given in Application for Solid Waste Management Facility for the Airco Properties, Inc. (1980) and Support Document for Application to Construct and Operate a Solid Waste Management Facility for SKW Alloys, Inc. (1980). Subsequent analytical reports have been sent to DEC-Buffalo.

In general, the results show minimal or no contamination of groundwater but they do show increase in total chromium occurring across the site in the surface water samples. Chromium concentrations in surface water leaving the site ranged from 0.35 to 2.2 mg/l in 1980 and were higher than background concentrations by two to three times. It was noted that conductivity decreases across the site, apparently due to dilution.

EXAMINATION OF AERIAL PHOTOS:

Examination of aerial photographs provided no new information but confirmed that disposal occurred primarily on the present Airco property. USDA (1958 and 1966) and SKW Alloys (1980) photos were used.

SOILS/GEOLOGY:

Soils at this site were studied by Earth Dimensions, Inc. prior to the design of the active landfill facilities. Details and boring logs are available in the document accompanying SKW's and Airco's applications.

Essentially, soils are characterized as consisting of 1 to 9 feet of miscellaneous fill material (waste in some cases), over 2 to 12 feet of clay, over 0 to 7 feet of water sorted stratified sediments, over 1 to 7 feet of Glacial Till. Refusal occurred at depths of 11 to 24 feet. The fill thickness is the dominate factor affecting depth to bedrock.

Bedrock is Lockport Dolomite. Bedrock reportedly dips to the south at a slope of 1/2%. The Lockport Formation may contain several water bearing zones at various depths.

GROUNDWATER:

The Support Document accompanying SKW's 360 permit application indicates that two aquifers are present beneath the site. The first is an artesian aquifer in the Lockport Formation. The second is an unconfined aquifer in the unconsolidated material. The direction of flow of the unconfined aquifer is to the southwest. The direction of flow of the bedrock aquifer has not been determined.

The nearest known drinking water well is 3500 feet north. The locations of other wells are unknown. There are no industrial users of groundwater in this area.

SURFACE WATER:

An intermittent stream passes through the site. This stream may be dry during the late spring and summer. The nearest permanent body of surface water is the Niagara River, 6000 feet west. There are no water intakes within three miles downstream on the Niagara River.

The site is not in a 100 year flood plain and is not within one mile of a designated wetland.

AIR:

The only potentially significant air emission problem associated with this site is dust. No volatile or organic wastes are known to be present.

Approximately 2000 people live within one mile of this site. The nearest population is 2000 feet southwest.

Land use within two miles includes industrial, residential and commercial in roughly even proportions.

FIRE/EXPLOSION:

Due to the nature of the wastes present, there appears to be no potential for fire at this site.

DIRECT CONTACT:

Access is restricted to the public. The wastes present should not present significant health problems if contacted.

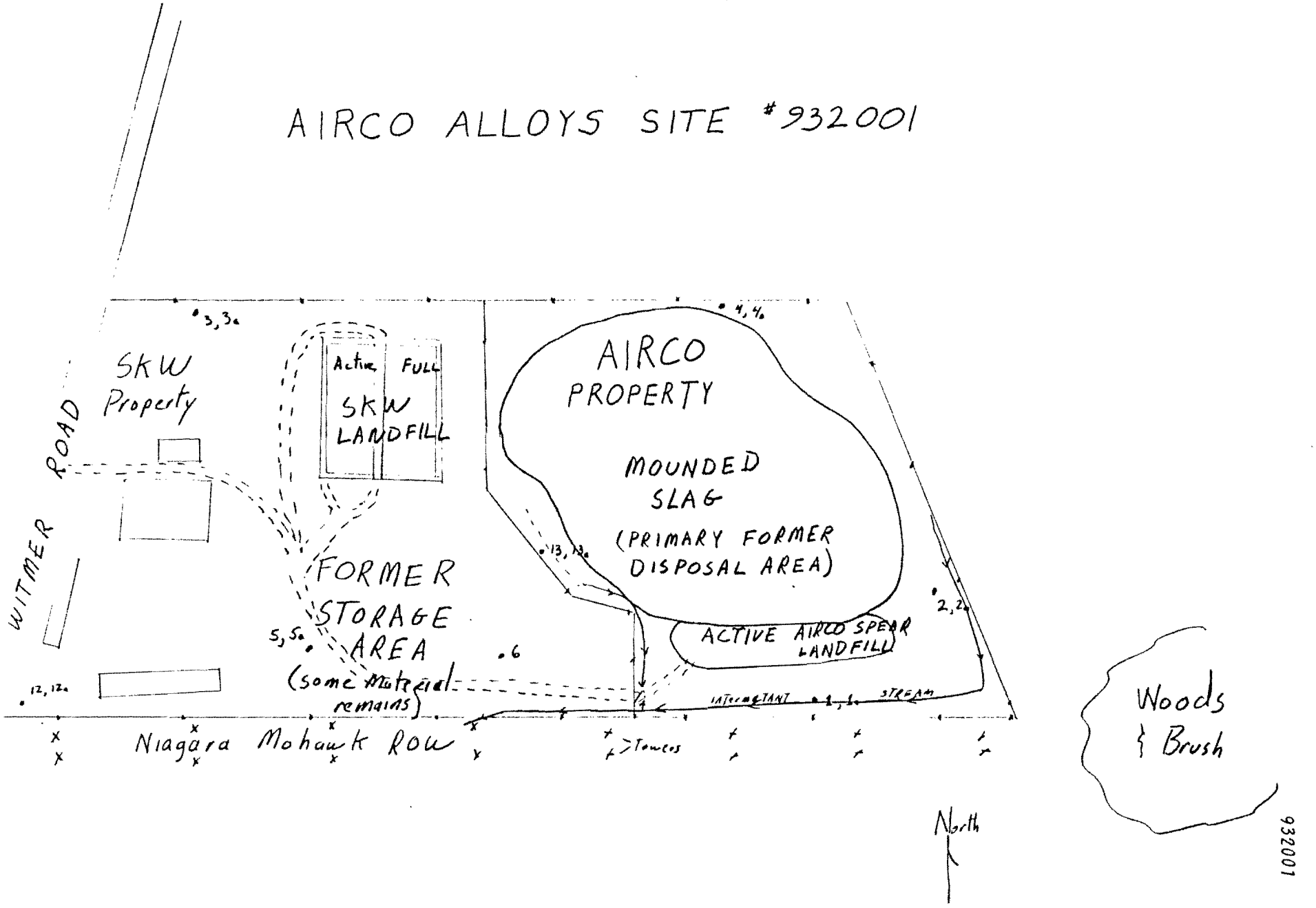
CONCLUSIONS:

This site has been used for disposal for over 60 years and is still active. The wastes present are primarily inorganic and largely consist of slag and collector dusts. The concentration of chromium in the wastes is not known. Chromium is apparently the primary contaminant of concern. The active facilities are permitted and are essentially in compliance with Part 360.

RECOMMENDATIONS:

Continued monitoring and closure of active facilities as provided by the operating permits should be adequate to prevent significant impacts from this site. No additional action beyond that specified in the operating permits is considered necessary.

AIRCO ALLOYS SITE #932001



Not to Scale
sketch only

M. Hopkins NCHD
4/8/83

NAME:

NORTON LABS (DEC No. 932029)

LOCATION:

This site is a one acre inactive landfill located in Lockport, NY 100 feet south of Mill Street and 20 feet east of the top of slope of the Somerset Railroad Corporation cut.

A site sketch is attached.

OWNERSHIP:

This property was owned by Norton Labs, Inc. at the time of disposal. The current owner was not determined.

HISTORY:

Norton Labs operated plants in Lockport until bankruptcy forced their closing in 1982. The original plant was located at 520 Mill Street and was later moved to 521 Mill Street. Norton manufactured plastic parts from polyester resin with glass strands and sisal fillers and from phenolic resin with wood flour filler. A 1977 estimate of waste generation was 1000 pounds per day, of which 80 to 90% was associated with the polyester based plastics and the remainder with the phenolic based plastics. The primary wastes were solid waste plastic and defective plastic parts. The Interagency Task Force report states that 250 gallons of waste oil per year were dumped here. The source of this information is not known.

Until the mid 1970's, Norton Labs operated a disposal area south of Mill Street. After that time, most of the wastes were either recycled or hauled off-site for disposal. Some inert plastic material may have been disposed of west of the parking area west of the plant building at 521 Mill St. As the company is now defunct, Norton personnel were not available to confirm this information.

The site south of Mill Street was covered with soil in 1976 at the request of this department. This area was not subsequently used for disposal although an adjacent area was used for dumping of demolition debris by McGonigle and Hilger Roofing of 520 Mill Street from 1978 to 1982.

In August 1982, Lane Construction, Inc. inadvertently uncovered a portion of the landfill during construction of the Somerset Railroad. The railroad cut is adjacent to the landfill. A steel drum was punctured, emitting a solvent -like odor. Also, a thick green liquid seeped to the surface nearby which had an odor similar to a non-solvent degreaser (Lysol). The majority of the fill appeared to be plastic waste and small plastic parts (distributor rotors, door knobs, etc). Fifteen cubic yards of contaminated earth were removed for secure landfill disposal (although analysis found no hazardous characteristics). The Railroad agreed to cover the remaining exposed wastes.

Once completed, the Somerset Railroad plans to monitor any seepage into the railroad cut and the water collected in the associated drainage system.

RESULTS OF PREVIOUS SAMPLING:

Samples were taken by SCA Chemical Services of the waste materials prior to disposal of material uncovered in August 1982. The analysis was unable to identify the components of the wastes. The material was found to exhibit none of the characteristics of a hazardous waste(corrosivity, ignitability, reactivity and EP toxicity) and was considered non-hazardous by the testing firm (Recra Research).

EXAMINATION OF AERIAL PHOTOGRAPHY:

Aerial photography provided no additional information.

SOILS/GEOLOGY:

Soils in this area are characteristically shallow and stony. It is possible that some of the soil may have been removed prior to landfilling.

The U. S. Soil Conservation Service classifies this area as "Rockland - nearly level" in Soil Survey of Niagara County. This classification indicates that 70 to 80% of the surface is covered with stones or rock outcrops. Surrounding areas are designated "Rockland - steep" or "Quarry".

Vegetation is sparce grass and scrub brush. Rock outcrops cause many bald areas.

Bedrock is of the Clinton and Albion groups of various shales and sandstones to over 100 feet in depth. According to Johnston (1964) these units are capable of transmitting groundwater, primary through joints and fractures, but recharge is limited by the nearly impervious Rochester shale unit overlying most of the formation. Wells in these formations generally produce low yields (2 to 3 gpm). Water quality is generally poor because of hardness and salinity.

GROUNDWATER:

Boring records from nearby sites indicate that very little free water is available in the bedrock and that overburden wells are intermittent.

The cuts to be made (up to 26 feet) adjacent to the site for the railroad ROW are likely to collect any groundwater from the site and railroad drainage would discharge this water to Eighteen Mile Creek. Therefore, this cut could act as a conduit for leachate from this site, if leachate is generated.

There are no known drinking water wells in this area and no known users of groundwater.

SURFACE WATER:

Eighteen-Mile Creek is located 600 feet south of the disposal area at an elevation 110 feet below the landfill. A very steep embankment (nearly vertical) over 100 feet high begins at the creek bank. It is obvious that runoff from the landfill area enters the creek.

SURFACE WATER (continued)

It is noted that Eighteen Mile Creek receives discharges from several industries and the Lockport Wastewater Treatment Plant. It would appear that the effect of the Norton site, if any, on water quality would be small by comparison.

Eighteen-Mile Creek enters Lake Ontario twelve miles downstream at Olcott. There are no drinking water intakes downstream.

There are no wetlands near the site and the site is not in a 100-year flood plain.

AIR/FIRE/EXPLOSION:

No problems with air emissions, fire or explosion potential are likely as long as the wastes remain covered. When uncovered in 1982, solvent odors were emitted. The flashpoint of a sample of waste material was greater than 160° F. No methane generation is anticipated.

The site is over 1000 feet from any residence. The area to the south and east is industrial, the area to the west is idle and the area to the north and northwest are vacant industrial (former Norton Plant) within 1000 feet and residential beyond 1000 feet.

DIRECT CONTACT:

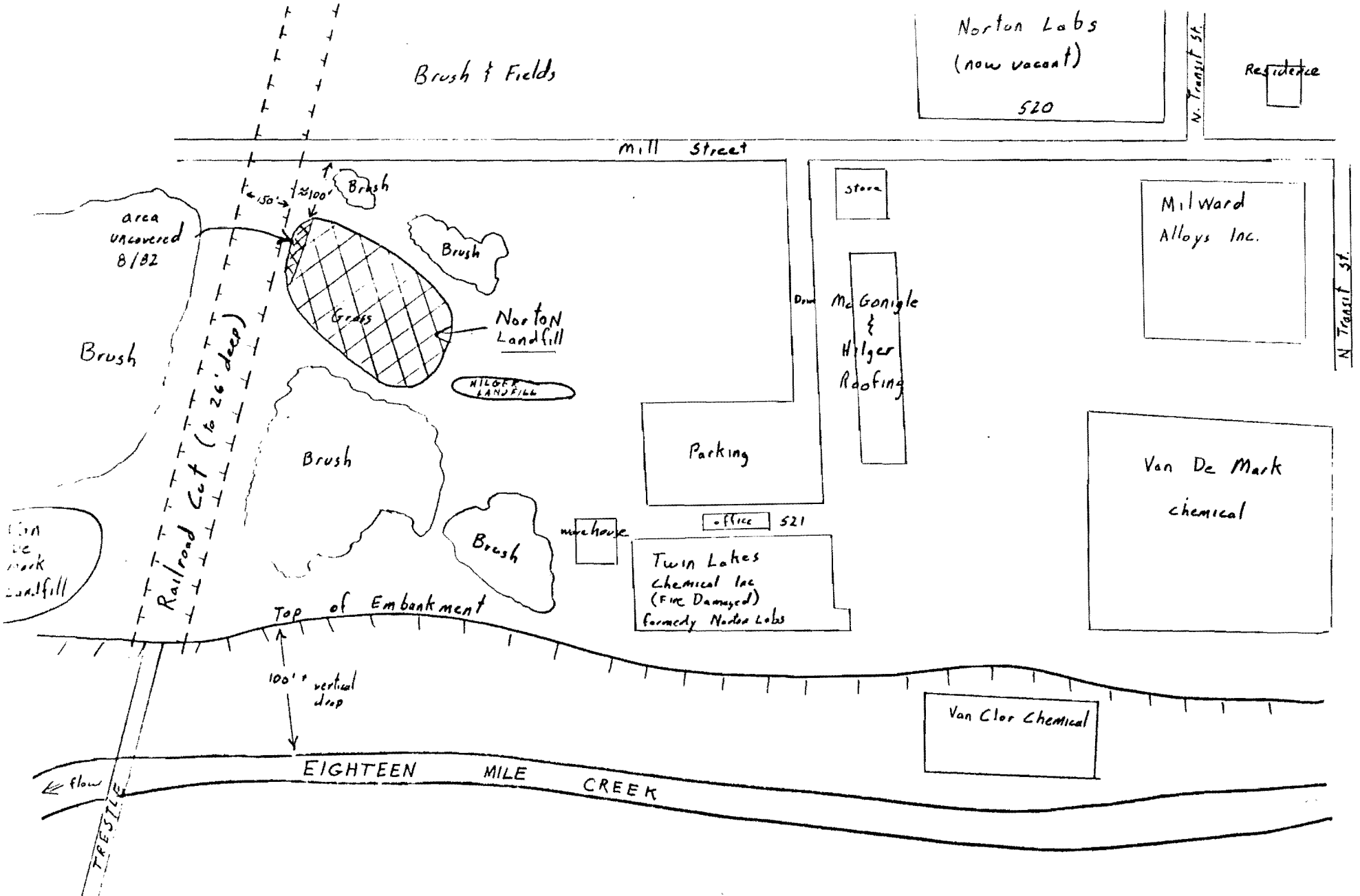
The materials buried here are not known to be toxic or irritating. If the wastes remain covered, the potential for direct contact is slight. In addition, public use of this area is minimal.

SUMMARY:

The majority of wastes disposed of at this site are waste plastics which are essentially inert and non-toxic. Small quantities of other unknown wastes may be present. A potential pathway for migration exists in the adjacent railroad cut.

RECOMMENDATIONS:

The rock cut and side slopes of the railroad cut should be inspected at least annually for visible seepage from the landfill. A follow-up inspection should be made upon the completion of the railroad construction to determine whether or not the landfill is adequately closed. No sampling or further investigation is considered necessary unless seepage or other problems are found. The Somerset Railroad Company will reportedly monitor the drainage water prior to discharge to Eighteen-Mile Creek.



Location of Norton Labs Landfill
#932029

SKETCH ONLY
Not to Scale

Michael E Hopkins NCHD
Michael E Hopkins

NAME

J & T SALVAGE (DEC #932074)

LOCATION

This site is operated as an automotive wrecking yard under the name of J & T Salvage and Recycling. The site is located at 1209 Balmer Road in Porter, New York. The property is four acres in area and is enclosed by fencing.

A site sketch is attached.

OWNERSHIP

J & T Auto Salvage and Recycling is owned by Mr. Charles Boos, 1209 Balmer Road, Youngstown, New York 14174 (745-3973 or 745-7079).

HISTORY

This property has been used as an automotive junk yard since the 1960's. Prior to 1976, cinders and other materials were used to stabilize the soil in wet areas to provide access. When the property was acquired by Mr. Boos, the area was filled with "hard" industrial wastes such as broken grinding wheels, abrasives, brick, collector fines and similar materials. The purpose was to provide dry access ways within the junk yard. The wastes came from Carborundum. The use of such materials for fill was approved by the Town of Porter and the Niagara County Health Department in 1976. Wastes were accepted, at least to a limited extent, until 1981.

Inspections were made in June 1981 by Mr. M. Hopkins, Niagara County Health Department, and in April 1982 by DEC personnel.

AERIAL PHOTOGRAPHS

A review of aerial photographs revealed no relevant information except to verify the presence of a junk yard in 1966. The facility has expanded since that time.

PREVIOUS SAMPLING

Soil and water were sampled in April 1982 by the DEC. The analytical results show elevated levels of zinc (53,000 ppm) and antimony (99 ppm) in a soil sample taken from within the site. A water sample showed low level (0.32 mg/l) phenolics. The results of the sample analyses are attached.

SOILS/GEOLOGY

According to the Soil Conservation Service, Soil Survey for Niagara County, the soils in the area of this site are of the Rhinebeck-Ovid-Madalin Association. These soils are notably flat and somewhat poorly to very poorly drained. Drainage problems dominate use on these soils unless artificially drained. This would account for the access problems prior to placing fill.

It is noted that a letter from Mr. Boos to the Niagara County Health Department (February 1, 1976) states that some of the top soil was removed from the site. The extent of removal and any effect on soil characteristics is unknown.

Experience with nearby facilities indicates that permeable lenses may exist below the surface at random locations. It is not known if such lenses occur beneath the J & T site. The Soil Survey does indicate gravel and sand spots in this area.

Bedrock is Queenston Shale. The shale is typically overlain with a band of gravel and fractured shale. Groundwater occurs principally in this region with very little yield within the unfractured shale. The water bearing zone may be less than one foot in thickness. The shale may be up to 1200 feet thick.

GROUNDWATER

Groundwater is used locally for domestic and farm use. Large diameter wells are often required to obtain sufficient yields. Groundwater is often of poor quality due to salt, hydrogensulfide and hardness. This condition is typical of wells in the Queenston Shale.

Several wells are located within one mile. The residence 1000 feet east of the site uses well water for drinking. This well is known to contain hydrogen sulfide. As many as 100 people within one mile may use groundwater.

SURFACE WATER

The nearest surface water is Four Mile Creek located 5500 feet west of the site. However, the area between the site and the creek is flat and poorly drained. It does not appear likely that runoff from the J & T property could enter the Creek.

Four Mile Creek enters Lake Ontario two miles downstream. There are no users of water from the Creek.

Much of the area within one mile of the site is wetlands.

AIR/FIRE/EXPLOSION

The possibility of noticeable air emissions is very low due to the inert nature of the wastes. Likewise, the potential for fire occurring in the fill material is slim, except where contaminated with oil or gasoline from junked cars.

The nearest residence is 1000 feet away. This residence is the nearest off-site structure. Nearly all the land within a one mile radius is either industrial (USAF Plant 38 and SCA Chemical Services) or agricultural (corn, cabbage and orchards). A trailer park is located about one mile west. Except for this trailer park, less than 200 people live within one mile.

DIRECT CONTACT

The site is surrounded by fencing although portions of the fence need repair. There is no suspected hazard from contact with materials found here.

RECOMMENDATIONS/CONCLUSIONS

The material used as fill is largely inert and apparently non-hazardous. No problems were found during inspections. It appears that auto salvage operations have affected this site more than the disposal of wastes. No further action is recommended.

J. T. SALVAGE - Polynuclear Aromatic Hydrocarbon (4/29/82)

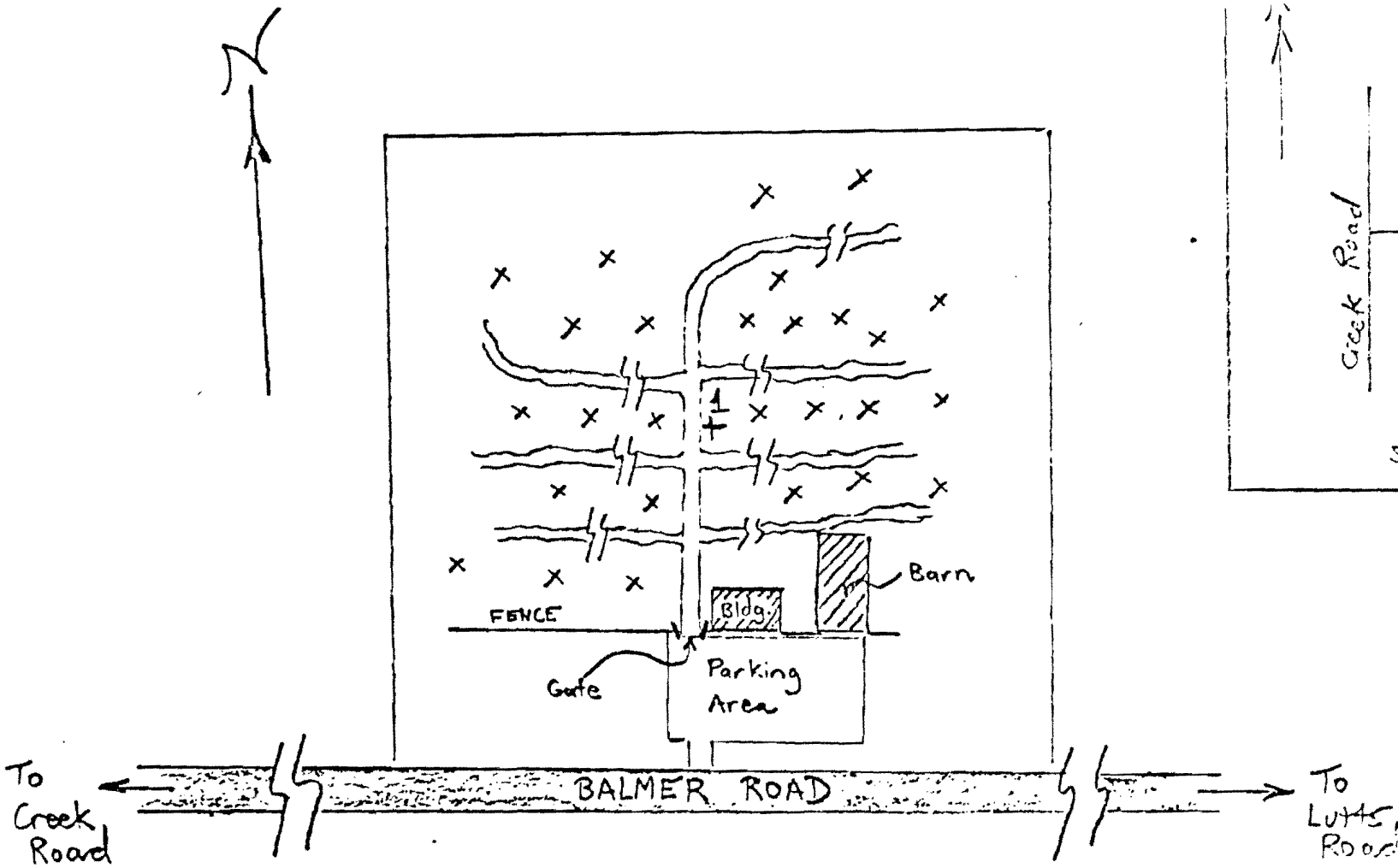
COMPOUND	UNITS OF MEASURE	SAMPLE IDENTIFICATION Station #1
Acenaphthene	ug/g dry	<40
Acenaphthylene	ug/g dry	<70
Anthracene	ug/g dry	5.8
Benzo(a)anthracene	ug/g dry	29
Benzo(a)pyrene	ug/g dry	69
Benzo(b)fluoranthane	ug/g dry	57
Benzo(g,h,i)perylene	ug/g dry	57
Benzo(k)fluoranthene	ug/g dry	36
Chrysene	ug/g dry	42
Dibenzo(a,h)anthracene	ug/g dry	66
Fluoranthene	ug/g dry	53
Fluorene	ug/g dry	2.9
Indeno(1,2,3-cd)pyrene	ug/g dry	27
Naphthalene	ug/g dry	1.3
Phenanthrene	ug/g dry	17
Pyrene	ug/g dry	58

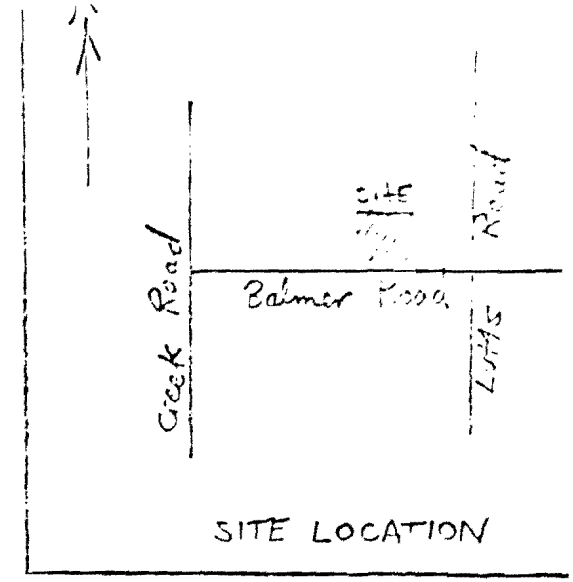
J. T. SALVAGE - Soil Analyses (4/29/82)

PARAMETER	UNITS OF MEASURE	SAMPLE IDENTIFICATION (Station #1)
Arsenic	ug/g dry	1.6
Beryllium	ug/g dry	<0.4
Cadmium	ug/g dry	1.2
Chromium	ug/g dry	5.7
Copper	ug/g dry	22
Lead	ug/g dry	26
Mercury	ug/g dry	<0.2
Nickel	ug/g dry	57
Selenium	ug/g dry	0.83
Silver	ug/g dry	<0.4
Thallium	ug/g dry	<4
Antimony	ug/g dry	99
Zinc	ug/g dry	53,000
Calcium	ug/g dry	37,000
Dry Weight	%	48
Halogenated Organic Scan	ug/g dry as Cl_2 Lindane Standard	2.8
Phenolics	ug/g dry	0.88
Total Polychlorinated Biphenyls	ug/g dry as Aroclor 1242	<1

J.T. SALVAGE - Water Analyses

Phenolics	mg/l	0.32





LEGEND

x– Numerous Junked Automobiles

J.T. SALVAGE
Town of Porter
Niagara County

NAME

BELL AEROSPACE AIR FORCE PLANT #38 (DEC #932005)

LOCATION

The plant is located on Balmer Road between Lutts Road and Porter-Center Road in Porter, NY and is currently known as the Bell Test Center. The disposal area is located at the east side of the plant and includes an incinerator and a storage area.

A site sketch (taken from a 1982 DEC inspection report) is attached.

OWNERSHIP

The plant is located on Federal Land and is operated by the Bell Aerospace-Textron Corporation, P. O. Box One, Buffalo, NY 14240. The contact persons are Mr. Earl Kramer, Manager, HRD, Safety and Environmental Affairs and Mr. Clyde Willis, Plant Engineer.

HISTORY

Bell Aerospace has operated a test center for rocket engines and components at this location since about 1950. The Test Center is currently on inactive status.

An on-site incinerator (the "Blue Goose") is used to burn waste fuels. Waste for incineration and wastes for off-site disposal are stored nearby while awaiting disposal. These wastes include waste fuels, alcohols, solvents and various incombustibles.

Mr. Willis of Bell has stated that no on-site burial of wastes has occurred and that the incineration of fuels leaves no residue. Residue from test engines is discharged to Four-mile Creek as permitted by SPDES Permit No. NY 0000582.

At this time, about 10 drums of waste , several only partially full, are stored in this area. The incinerator is now out of service. The remaining wastes will be removed to the Wheatfield Bell Plant where they will be kept until off-site disposal can be arranged. These wastes are reportedly hazardous, primarily because of low flush points. Bell will send a confirmation letter when the wastes are removed from this site.

PREVIOUS SAMPLING

No samples have been taken at this site except routine discharge samples taken to fulfill SPDES permit requirements.

AERIAL PHOTOGRAPHS

Aerial photographs examined were not of sufficient scale or resolution to provide any information on waste disposal activities. No obvious signs of burial were found.

SOILS - GEOLOGY

Data from the U. S. Soil Conservation Service's Soil Survey for Niagara County indicates that this site is located on a fringe area between soils of the Appleton-Hilton-Sun Association and the Rhinebeck-Ovid-Madalin Association. The properties of both associations are reasonably similar. Slowly permeable subsoils and poor drainage dominate these areas. Artificial drainage is often required.

GROUNDWATER

Groundwater principally occurs at the bedrock-overburden interface and in local perched water tables above the glacial till. The perched water tables consist largely of permeable lens and most are not interconnected. Yields of wells in this area are generally low and water is typically of poor quality.

The nearest residence is over 3000 feet northeast of the storage area. Less than 200 residents live within one mile. Many of these residents use wells for drinking or farm use.

Due to the nature of the site, the potential for groundwater contamination is low.

SURFACE WATER

Drainage from the plant area enters Four Mile Creek via a controlled discharge under SPDES permit. This discharge is sampled and analyzed semi-annually.

The potential for contamination of surface water by waste materials is considered low due to the relatively small quantities of waste stored and the fact that they are removed periodically. When the wastes are finally removed from the site, the potential for contamination from waste materials will be extremely low.

There are no users of water from Four Mile Creek. Four Mile Creek enters Lake Ontario two miles downstream.

There are several wet land areas within one mile.

AIR

The potential for significant air emissions is small due to the volume and nature of the wastes. Other operations at the plant are expected to create a greater potential for emissions than the wastes stored here. It is again noted that the wastes are scheduled for removal.

FIRE/EXPLOSION

The wastes stored on site are flammable. However, they are present in small quantity, stored in an open area and most should burn clearly, without dangerous fumes, if ignited.

The majority of the surrounding area is industrial or agricultural and population is sparce.

DIRECT CONTACT

Public entry to the plant site is prohibited. The wastes stored here should not create major problems if contacted.

CONCLUSIONS

This site is an inactive storage area for primarily flammable wastes. Wastes are scheduled for removal and the plant is now inactive. No problems are anticipated. Bell should confirm when the wastes are removed from the site. Once waste removal is confirmed, no further action is considered necessary.

NAME:

Diamond Shamrock (DEC #932071)

LOCATION:

Diamond Shamrock operates a plant on Ohio Street in Lockport, NY. The plant occupies about one half of a six acre parcel. The extent and exact location of any disposal site on this property is unknown, but if present, it would most likely be in the northeast corner of the property. A site sketch is attached.

OWNERSHIP:

The property is owned by the Diamond Shamrock Corporation, 1149 Ellsworth Drive, Pasadena, Texas 77501. The local plant address is Ohio Street, Lockport. The contact person at the plant is Mr. Gary Ernst (434-4077).

HISTORY:

Diamond Shamrock began operations in Lockport in the 1920's. Liquid sodium silicate was the only product until 1980 when production of sodium silicate insulation was added. The processes consist of blast furnace processing of soda ash and silica sand to produce sodium silicate, dissolving sodium silicate in water and production of sodium silicate based insulation (since 1980).

The only hazardous material used in the process is 50% caustic soda. None of the wastes generated including paper, wood, waste sand, waste soda ash and occasionally bi-product absorbant (usually recycled on-site) are hazardous. All furnaces, boilers, etc. are now gas, oil or electric fired. Originally (1920's), a coal fired boiler was used. Ash from this source may have been placed in the field north of the plant. It was not determined when this boiler was removed.

An inspection by NCHD personnel in February 1982 concluded that currently no hazardous wastes are generated or stored on site. No positive evidence of previous disposal was found. Traces of ash and cinders were found in the area north of the plant. Solid waste is placed into rolloff containers and removed by Modern Disposal. At one time, Diamond Shamrock operated vehicles with 364 permits to remove wastes but this practice has been discontinued . Mr. Ernst of Diamond Shamrock said that he was unaware of any former on-site disposal activities, except the possible dumping of coal ash and cinders when the coal burners were in use (1920's & 1930's).

SOILS/GEOLOGY:

According to the Soil Conservation Service Soil Survey for Niagara County, soils in this area are of the Odessa-Lakemont-Ovid association. The site is reportedly located in an area of elevated glacial till and is expected to be somewhat better drained than other areas of this association . Soil types include Odessa, Hilton/Cayuga and Cayuga/Cazenovia. Natural drainage is poor, however, in portions of these areas. Surficial soils are expected to be underlain with calcareous loamy glacial till.

Bedrock is Lockport Dolomite to unknown depths.

GROUNDWATER:

Little information on groundwater is available. The direction of groundwater flow is assumed to be southerly to the Barge Canal. Both shallow and bedrock aquifers are expected to be present.

There are no known wells in this area. All surrounding areas are served by public water.

The potential for groundwater contamination is considered small since no significant quantities of toxic materials are suspected to be present.

SURFACE WATER:

The nearest surface water is the Erie Barge Canal, located 1000 feet southeast. The Canal serves as an emergency water source for the City of Lockport. The Canal is partially drained in the winter.

The site is not in a flood plain or near designated wetlands.

As with groundwater, the potential for surface water contamination is considered to be small.

AIR/FIRE/EXPLOSION:

The potential for fire, explosion or air emissions is considered to be very small due to the suspected small quantity (possibly none) and types of wastes believed to be present (boilerash). The nearest residence is 1200 feet away and nearly all the surrounding area is industrial.

DIRECT CONTACT:

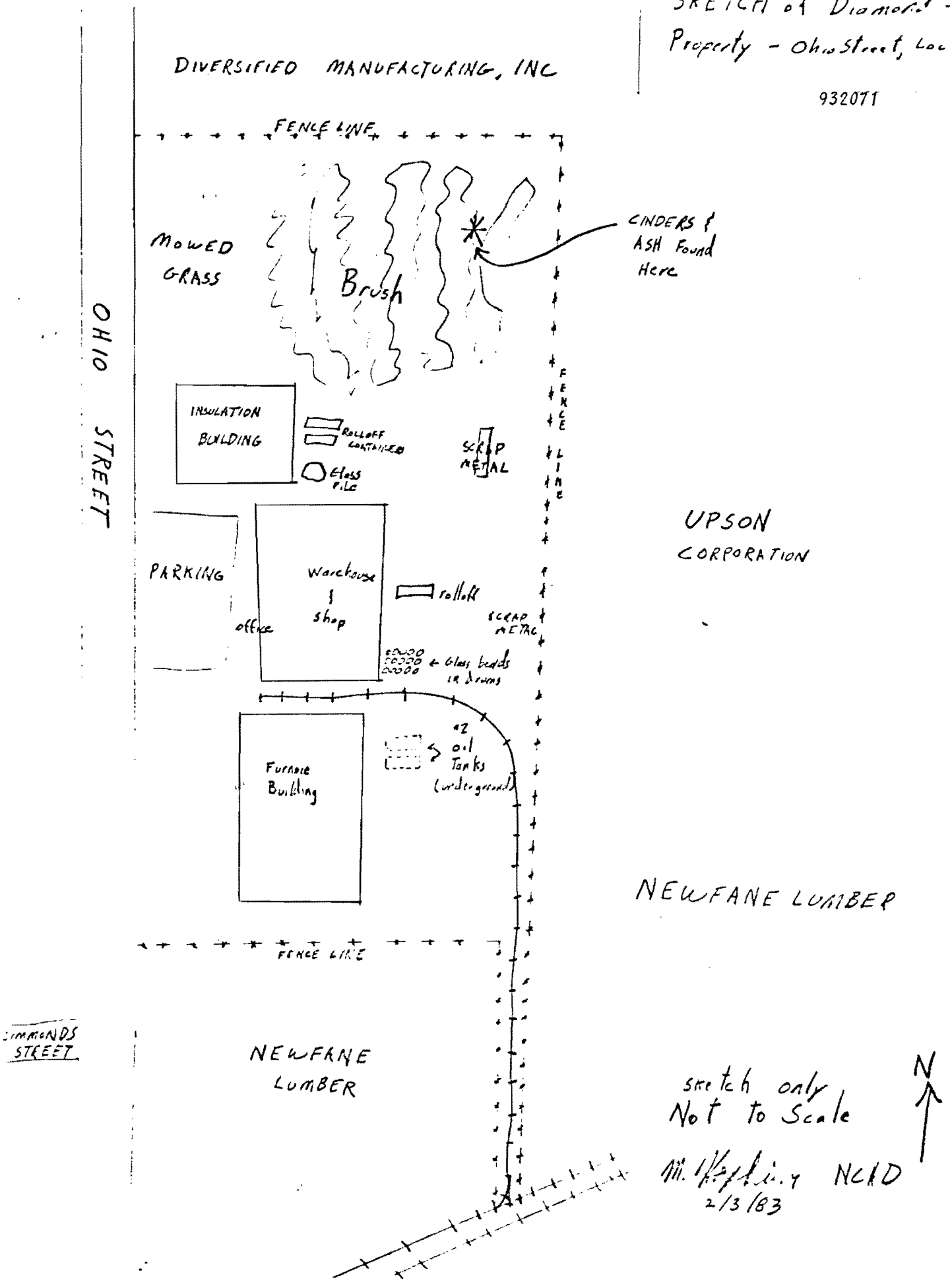
Access to the plant area is regulated by plant personnel. The area is surrounded by fence on three sides. The field north of the plant is physically accessible but is apparently seldom if ever entered. No exposed wastes except for small amounts of cinders were found. No problems with direct contact are anticipated.

CONCLUSIONS/RECOMMENDATIONS:

If a disposal site exists on this property, it is likely that only non-hazardous materials would be present. No further action is recommended.

SKETCH of Diamond Shamrock Property - Ohio Street, Lockport

932071



NAME:

Forest Glen Subdivision (Not listed in DEC Registry)

LOCATION:

The Forest Glen Subdivision is located in the City of Niagara Falls between the Niagara Expressway (I-190) and the Conrail Foote Yard, north of the Expressway Village Trailer Court. The subdivision is accessible via Service Road, off of Porter Road.

The exact extent and location of disposal areas within the subdivision is not known.

A site sketch is attached.

OWNERSHIP:

Currently, the property is owned by numerous individual owners. A history of ownership is provided in the History section.

HISTORY:

Prior to the 1960's, this site was a wooded swampy area. A 1927 City of Niagara Falls street map shows streets to be present in this area but it is suspected that these represent only proposed streets which were never built. During the late 1950's and early 1960's, the surrounding area was modified by several major construction projects including the construction of the Power Authority conduits (2500 foot west) and subsequently used a parcel 500 feet west as a spoils area for removed shot rock, construction of the Niagara Expressway (300 feet east) and the expansion of the railyard adjacent to the site. No direct impacts of these projects on the subdivision sites are known. Maps and aerial photographs show that a trailer park or subdivision existed north of the site in the late 1950's. This may have been a temporary housing area for Power Project workers and later removed to allow construction of the I-190.

During the early 1970's, the low areas of the site, including a former creek bed, were filled with unknown materials. Wastes were apparently included in the fill material. The sources of these wastes is unknown. Records of the Niagara Falls Fire Department show that a "dump fire" occurred at this location in 1972. A fireman was interviewed and reported that he remembers the area as being a popular area for scavenger dumping at that time. Aerial photographs showed the area to be cleared in 1966 and rough graded with numerous piles of material on site in 1972. The piles could have been waste materials. The 1966 photo showed that the creek which formerly flowed through the site had been rerouted and the creek bed filled.

Prior to 1973, the property was owned by four parties: The Power Authority of the State of New York (11 acres), Michigan-Mayne Realty Company (3 acres), Ernest Booth and James Strong (6 acres) and Sanford Brownles (1 acre). These properties were purchased by Mr. Thomas G. Sottile, 949 McKinley Avenue, Niagara Falls, NY 14305, who incorporated the Niagara Falls USA Campsite Corporation on March 23, 1973. The Niagara Falls USA Campsite Corporation divided the property and sold lots to individuals for the placement of mobile homes.

Subdivision plans were initially submitted in 1973. Sewers were installed in 1973 and 1974. The contractor, Yarussi Construction of Niagara Falls, recalled finding ash in some excavations. A surveyor for the City of Niagara Falls who was on-site during sewer installation reported seeing small pieces of black plastic and pockets (10 to 15 tons) of white solid material in the excavations.

Sale of individual lots began in the late 1970's. By 1980, about half of the lots were sold. Currently, nearly all the lots have been sold.

In June 1980, Mrs. Andrea Schneckler of 31 Lisa Lane requested soil and water samples to be taken on her property. Mrs. Schneckler reported that she suspected the soil was contaminated and that 55 gallon drum tops and resin were present on the ground surface. Analyses of the resin-like material showed it to be a phenolic resin. Mr. Sottile was ordered by NCHD to clean up the area and to remove any wastes to an approved landfill. The extent to which this was done is unknown.

In August 1981, National Fuel Gas personnel encountered white solid material and 55 gallon steel drums in an excavation along Carrie Drive. The substance was identified as polyvinylchloride dust or grindings and was considered non-hazardous. At this time, several residents were interviewed and all were of the opinion that this area was a former industrial disposal site.

In December 1982, Mr. Norton Douglas of 43 Lisa Lane reported a resin-like substance seeping to the surface on his property. The substance was identified as carboxy methyl cellulose, although the results were not confirmatory (IR spectrum comparison only). If the substance is as identified, no major health or environment problems are anticipated.

In January 1983, the Niagara County Health Department requested that this site be listed in the DEC Disposal Site Registry.

AERIAL PHOTOGRAPHS:

A review of available aerial photographs revealed the following information:

USDA Photo No. ARE 3V-82 (9/15/50) showed that at this time:

(1) The entire area was wooded,
(2) A creek meandered through the site,
(3) A subdivision was located north of the site,
(4) The I-190 was not yet constructed, and
(5) There was evidence of dumping across the railroad tracks from the site.

USDA Photo No. ARE 2GG-50 (6/12/66) show that at this time:

(1) The creek had been rerouted north of the site,
(2) The site was cleared of trees,
(3) The subdivision north of the site is now gone,
(4) The I-190 is in place. The area to the west is dominated by the PASNY conduit right-of-way, and
(5) Two permanent homes on Edgewater Drive were in place.

USDA Photo No. 36063-177-90-5 (1980 series) shows the area in essentially its current condition with the exception that only half the trailers were in place.

Two other photos taken in 1972 and 1981 were also examined. These pictures were taken for the Town of Niagara and kept by Wegman Engineers for the Town. The 1972 photo shows the site to be cleared, unevenly graded and with many small piles of unknown material. These piles are not believed to be waste material but this cannot be confirmed.

PREVIOUS SAMPLING:

Samples were taken on three occasions. The results of the subsequent analyses are as follows:

1. A sample of surface resin collected June 1980 was analyzed by infrared and solution characteristic analyses. This sample was found to be soluable in Methylene Chloride (high), Benzene (moderate) and Chloroform (high) and insoluable to marginally soluable in Freon. The infrared analysis gave characteristics resembling phenol or phenolic compounds. Another sample of this material was given to a local industry for analysis and was found to be a phenol formaldehyde type resin (free phenol 1.6%). Analytical reports are on file with the NCHD.

2. Soil and water samples were taken by the Niagara County Health Department from the National Fuel Gas excavations at 14 Carrie Drive in 1981. These samples were analyzed by the State Laboratory in Buffalo (Frances Yang) and found to contain no detectable THO and 10 ppm TOC in the soil only. Samples obtained by National Fuel Gas of a white substance found in the excavations, were analyzed by ACTS Testing Labs and found to be polyvinylchloride resins.

3. A sample of a yellow-black "jelly-like" substance was analyzed by Recra in December 1982. This substance was identified as carboxy methyl cellose by IR analysis (spectra-comparison only). Carboxy methyl cellose is used as a food additive and as a stabilizer. The black color in the sample may be due to metal sulfides. Due to the nature of the sample, MS analysis was not possible.

SOILS - GEOLOGY:

Native soils in this area are listed as Odessa silty-clay loam in the USSCS Soil Survey for Niagara County. According to the Soil Survey these soils are deep, somewhat poorly drained, moderately fine textured soils. These soils are characterized by various stratum of silty clay and silty clay loam. Seasonal high water tables of 6 to 12 inches below the surface commonly occur in Spring and in excessively wet periods.

Much of this area has been filled with unknown materials; therefore, the characteristics of the layer above the native soils is unknown.

Bedrock is Lockport Dolomite. The depth to bedrock is unknown; however, it is suspected to be 10 to 20 feet below the surface.

GROUNDWATER:

The occurrence of groundwater in the Lockport has been well documented. In addition, perched aquifers in the Odessa soils may occur. Data on flow rates and flow direction of groundwater are unavailable.

There are no known wells in the area and there are no known users of groundwater. All nearby residences are served by public water.

SURFACE WATER:

The site is adjacent to the East Branch of Gill Creek. Originally, the creek ran through the site but was later rerouted to the North.

Storm sewers from the subdivision empty into Gill Creek.

There are no users of water from Gill Creek. The Creek is dammed one mile downstream to form Hyde Park Lake. Gill Creek enters the Niagara River three miles downstream.

There are no major wetlands in this area. This site is not believed to be in a 100-year flood plain.

AIR/FIRE/EXPLOSION:

The potential for air emissions, fire and explosion are unknown since the nature of any wastes present is unknown.

Over 50 families live in the Forest Glen Subdivision. In addition, an estimated 200 more live in the Expressway Village, immediately south of Forest Glen. There are only two permanent homes in this area; the remainder are mobile homes. The area to the west is railroad yard, vacant land and golf course. There is no development north of the site. The area to the east is dominated by the I-190.

DIRECT CONTACT:

There is a possibility of direct contact with wastes. Surface seepage of resins has been found on two occasions. The health danger from contact with these materials is unknown. As this is a residential area, access is not restricted.

CONCLUSIONS:

It appears that wastes are buried beneath the Forest Glen Subdivision. This is a residential area and is adjacent to Gill Creek. Industrial wastes have been identified here on several occasions.

RECOMMENDATIONS:

Further study is needed to properly assess the situation at this site. Groundwater monitoring should be considered. Random borings could be used to attempt to locate and classify any wastes buried here. Any sampling program should concentrate on the former creek bed area and areas where industrial wastes have been previously identified, namely the area within roughly a 200 foot radius of 43 Lisa Lane. It may be possible to use a hand held auger for

RECOMMENDATIONS (continued):

preliminary exploration and to collect grab samples. It is expected that borings would not be required to depths greater than ten feet. Water samples from storm sewers and Gill Creek could also be collected. It does not appear necessary to collect samples from areas containing large trees, as these areas do not appear to have been filled.

It is recommended that NCHD or DEC inspect any future excavations in this area and investigate any additional reports of surfaced wastes.

It is also recommended that this site be listed in the DEC's disposal site registry (Hazardous Waste Disposal Sites in New York State) and that it be listed and scored for consideration in the State Superfund Program.

NAME:

Ross Steel Company (DEC No. 932058)

HISTORY:

The Ross Steel Company is reported to have received wastes from Olin Chemical from 1957 to 1960. These wastes are said to include carbon dust (47 drums), hexachlorobenzene (1 drum), pentachloronitrobenzene (1 drum) and flyash (8000 cubic yards).

The original address of Ross Steel was 4237 Pine Avenue. However, this location was in the path of the PASNY conduits and therefore is suspected to have been completely excavated. If any wastes were present at that time, they would have been removed to an unknown location.

Unconfirmed reports indicated that a site west of Connecting Road may have been the disposal site. This is the site also known as the "Basic Carbon" site and the "64th Street - North" site. Specifics on these sites can be found in profile reports written by this department in 1981 and 1982. In addition, samples were collected by USGS in the summer of 1982 and by DEC in the Winter of 1982.

The current address of Ross Steel is 8555 Packard Road, Town of Niagara. No disposal site is suspected at this site.

CONCLUSIONS/RECOMMENDATIONS:

If the wastes were buried at the 4237 Pine Avenue site, they would have been removed during the PASNY conduit construction and their present whereabouts unknown. If the Connecting Road site was used, then the site is located in an area of previous landfilling which has already been studied and sampled.

It is recommended that no further action be undertaken with regard to this site.