FINAL REPORT

Summary Report
Riverview Facility
Schenectady, New York

Von Roll Isola USA, Inc.
Schenectady, New York

GE - Plastics
Pittsfield, Massachusetts

July 13, 1998

O'BRIEN & GERE
ENGINEERS, INC.

21371

Final Report

Summary Report
Riverview Facility
Schenectady, New York

Von Roll Isola USA, Inc.
Schenectady, New York 12306

GE - Plastics
Pittsfield, Massachusetts 01201

Guy A. Swenson, III, CPG
Senior Technical Associate

July 13, 1998

O'BRIEN & GERE
ENGINEERS, INC.

19 Walker Way
Albany, New York 12205

Contents

1. Introduction 1
1.1. Objective 1
1.2. Facility description 1
1.3. Site history 2

2. Scope of work 5
2.1. File review 5
2.2. Field reconnaissance 5
2.3. Monitoring well network inspection 5
2.4. Data analysis and summary report preparation 6

3. Environmental setting 9
3.1. Site geology 9
3.2. Hydrogeology 10
3.2.1. Site ground water flow 10
3.2.2. Regional ground water flow 11
3.3. Ground water quality 12
3.3.1. Historical on-site ground water sampling 12
3.3.2. Off-site ground water sampling 14
3.4. Riverview monitoring well condition and ground water flow 16
3.5. Constituents of concern in ground water 17
3.6. Surface water 19
3.7. Seep water 19

4. Synopsis of potential areas of concern 21
4.1. RV-14 varnish room leach field/dry well (SWMU #6) 21
4.2. RV-14 former superior boiler underground fuel oil tank (SWMU #8) 21
4.3. RV-14 boiler dry well (not identified as a SWMU) 22
4.4. RV-37 former RCRA tank (SWMU #19) 22
4.5. RV-33 raw material tank farm (SWMU #18) 23
4.6. Former RCRA drum storage area (SWMU #25) 25
4.7. RV-30 former UST tank farm area (AOC B) 25
4.8. RV-14 outdoor underground tank (SWMU#7) 26
4.9. RV-33 leach field and dry well (SWMU #15) 27
4.10. Building RV-42 hazardous waste storage warehouse (SWMU #22) 27

4.11. Former outdoor container storage area (SWMU #26) 28
4.12. Former outdoor container storage area 2 (SWMU #27) 28
4.13. Empty drum storage area (SWMU #29) 29
4.14. RV-33 rail loading/unloading area (SWMU #16 and #17) . 30
4.15. RV-37 leach field and dry well (SWMU #21) 30
4.16. Former outdoor container storage area 3 (SWMU #28) 31
4.17. RV-33 truck loading area (AOC A) 31
4.18. RV-14 west loading area spill site (AOC C) 32

5. Previously identified potential areas of concern 33

6. Recommendation for additional activities 35
6.1. Site ground water monitoring well recommendations 35
6.2. Selection of areas of concern for additional investigation ... 35
6.3. Potential areas of concern recommendations 37
6.3.1. RV-14 varnish room leach field/dry well (SWMU #6) . 37
6.3.2. RV-14 former superior boiler underground fuel oil tank (SWMU #8) 37
6.3.3. RV-14 boiler dry well (not identified as a SWMU) 37
6.3.4. RV-37 former RCRA tank (SWMU #19) 38
6.3.5. RV-33 raw material tank farm (SWMU #18) 38
6.3.6. Former RCRA drum storage area (SWMU #25) 38
6.3.7. RV-30 former UST tank farm area (AOC B) 38
6.3.8. RV-14 outdoor underground storage tank (SWMU #7) . 38
6.3.9. RV-33 leach field and dry well (SWMU #15) 38
6.3.10. Building RV-42 hazardous waste storage warehouse (includes SWMU #22) 39
6.3.11. Former outdoor container storage area 1 (SWMU #26) 39
6.3.12. Former outdoor container storage area 2 (SWMU #27) 39
6.3.13. Empty drum storage area (SWMU #29) 39
6.3.14. RV-33 rail loading/unloading area (SWMU #16 and #17) 39
6.3.15. RV-37 leach field and dry well (SWMU #21) 39
6.3.16. Former outdoor container storage area 3 (SWMU #28) 39
6.3.17. RV-33 truck loading area (AOC A) 39
6.3.18. RV-14 west loading area spill site (AOC C) 40

7. Proposed scope of additional activities 41

Bibliography 45

Table

1 Water Level Information
2 Summary of Potential Areas of Concern

Appendices

A Spills and Building History
B Geologic Cross-Sections
C Ground Water Contour Maps
D Ground water analytical data -
Smith & Mahoney, P.C., March 1992 Report
E Ground water analytical data - GTI, January 1993 Report
F Ground water analytical data - Rust, February 1994 Report
G Ground water analytical data - WH&N, February 1995 Report
H Ground water analytical data - WCC, October 1989 Report
I Ground water analytical data - D&M, March 1998 Report

Plates

1 Site Map
2 Organic Analytical Results in Ground Water (most current data)
3 Inorganic Analytical Results in Ground Water (most current data)

1. Introduction

1.1. Objective

This report has been prepared by O'Brien & Gere Engineers, Inc. (O'Brien & Gere) for General Electric Company (GE) and Von Roll Isola USA, Inc. (VRI). Numerous environmental studies, investigations, assessments and remedial actions have been undertaken by GE, VRI and Insulating Materials, Inc. (IMI) at the Riverview facility. The objective of this report is to assimilate the information from the previous studies into a concise report which summarizes the environmental conditions at the Riverview facility. Available site information from New York State Department of Environmental Conservation (NYSDEC) central office files, and files supplied by VRI off-site files supplied by GE Power Systems of Schenectady were examined to identify the source, nature and extent of contamination at the site and to identify significant data gaps in the existing information which must be filled to address environmental concerns at the facility.

1.2. Facility description

The Riverview facility is located off the north side of West Campbell Road in the Town of Rotterdam near the border of the City of Schenectady. The property consists of approximately 52 acres, with 25 acres in active use as a liquid and solid insulation manufacturing facility. The active facility area is fenced as shown on the attached Plate 1. The facility is bounded on the north by a steep embankment and the Delaware and Hudson (D&H) Railroad, the D&H Railroad and Rotterdam Square Mall to the west, Campbell Road and the Town of Rotterdam publicly owned treatment works (POTW) and Campbell Plastics to the south, and residential areas to the east.

The Riverview facility is situated on a high, flat plateau about 80 feet above the Mohawk River Valley. The ground surface drops off quickly to the north-northeast toward the Mohawk River and more gently to the west and south. Soils underlying the site are composed primarily of medium to fine grained silty sand and are characterized as deep, coarse textured and well drained.

A broad line of insulating materials and composites for electrical insulating systems are produced at the Riverview facility. The liquids manufacturing line at the facility involves production of polyester, polyesteramide and blocked polyisocyanate resins in reactors. The facility also produces solid tapes which are composed of various substrates such as polyester-glass, paper, mica and polyester. The tapes are laminated with varnishes including polyester, epoxy, acrylate, latex and silicone. Following lamination, the tapes are cured in ovens, slit to correct widths and packaged.

Large quantities of liquid and solid raw materials, products and intermediates are stored on site. As identified by Wagner, Heindel and Noyes (WH&N) (1995), these chemicals are listed in Appendix A. Under Resource Conservation and Recovery Act (RCRA), the site is currently operating as less than 90 day storage facility for hazardous wastes generated on site. Hazardous wastes are stored in tote tanks and 55-gallon drums in building RV-42 and are hauled by an outside contractor to a hazardous waste disposal facility.

Thirteen buildings are currently used for manufacturing, storage, research and administration activities on the site (RV-12, RV-13, RV-13a, RV-14, RV-16, RV-17, RV-28, RV-30, RV-31, RV-32, RV-33, RV-37 and RV-42). In addition, several chemical and petroleum bulk storage tanks are located on the premises. An aboveground 10,000 gallon toluene tank is located in the east of RV-33. An empty 25,000 gallon aboveground tank containing two 12,500 gallon sections is located to the west of RV-42. This tank formerly contained chemicals used in the mine bolt resin process. Aboveground and underground piping connects many of these tanks to the process buildings. There are also a 500 and a 1,000-gallon No. 2 fuel oil aboveground storage tank located adjacent to buildings RV-12 and RV-28, respectively. These tanks are fuel sources for building heaters.

1.3. Site history

Prior to GE purchasing the site in the early 1940s, the site was occupied by a harness racing track and also used for agricultural purposes. GE purchased the site in 1942 and constructed radar development and testing facilities. GE operated the facility as a radar development plant until GE Insulating Materials group moved into the Riverview facility and began operating in 1959 or 1960. In March 1988, GE sold the facility and it was renamed Insulating Materials Incorporated (IMI). Following the purchase of the facility, IMI continued to produce electrical insulation products and the operations generally remained consistent with GE operations. The

facility was subsequently purchased by VRI in 1995. A table summarizing the construction and usage history for buildings at the Riverview site taken from WH&N (1995) is located in Appendix A.

In the course of operations, numerous spills have occurred at the facility. A chronology of Spills at the Riverview site, taken from the WH&N (1995) is located in Appendix A. A brief discussion of the most significant spills is presented below.

In 1978, the loss of approximately 4,000 gallons of trimethylphenol occurred in the tank farm area near building RV-33. Available records indicate that cleanup of the spilled material and visually impacted soil was conducted at that time. In 1986, additional soils contaminated with trimethylphenol were discovered when GE was excavating the diked area to reshape it. The additional contaminated soil was excavated in 1986 and disposed off site.

In May of 1985, approximately 250 pounds of Formalin (37% formaldehyde, 6-9% methanol, and 55-58% water) was spilled on the ground in the area east of RV-33. The contaminated soil was excavated and placed in 55-gallon drums for disposal. The soil was subsequently replaced with clean fill.

In March 1987, a RCRA-permitted waste solvent tank located approximately 75 feet south of building RV-33 was overfilled which resulted in a release of approximately 50 gallons of mixed solvents (cyclohexane, xylene, cresylic acid, phenols, tri-methylbenzene and naphtha) to the environment. Contaminated soil was removed by Clean Harbors and Associates (Clean Harbors) and an assessment of soil and ground water conditions in the vicinity of the RCRA tank was conducted by Groundwater Technology, Inc. (GTI). GTI installed and sampled two ground water monitoring wells adjacent to the tank. The results indicated subsurface contamination of soils and ground water from various organic compounds in the parts per million (ppm) range (toluene, ethyl benzene and xylenes).

The Riverview site is currently designated as a Class 2 Inactive Hazardous Waste Disposal Site (Site Code 447005) indicating that NYSDEC considers there to be a significant threat to the public health or the environment warranting further investigation. The site was originally classified as a "2A" (additional data necessary to fully classify the site) based primarily on a 1979 report of a hillside seep north of the facility that was described as a reddish oxidated iron leachate with a light oily sheen. In January of 1988, the NYSDEC notified GE that the status of the Riverview site had been upgraded to a Class 2 designation.

Based on the September 1989 Assessment of Environmental Conditions Report , NYSDEC requested that GE develop a work scope to complete an additional subsurface assessment of the site. GE compiled with the request, and a work scope for additional field investigation was compiled, and approved by the NYSDEC for implementation. The approved work scope was prepared by Groundwater Technology, Inc. (GTI) and is titled "Field Investigation Work Scope," dated December 5, 1991. Subsequently Order-on-Consent, Index #A4-0240-90-07 between GE and NYSDEC was executed on March 23, 1992. That scope of work was implemented by GTI and reported in the January 23, 1993 Report.

2. Scope of work

The scope of work for this project consists of assimilating technical information from numerous previous environmental studies into a concise report that illustrates the environmental conditions at the Riverview facility and presents recommendations for additional work to complete the site characterization. Four tasks were completed as part of this assimilation: file review; field reconnaissance; monitoring well network inspection; and, data analysis and report preparation. A description of each task follows.

2.1. File review

This task consisted of the review of available VRI and NYSDEC files. Selected VRI files were made available to O'Brien & Gere on May 4, 1998. The files were reviewed at the O'Brien & Gere, Albany, New York office and key documents and correspondence copied. NYSDEC files were reviewed by O'Brien & Gere on May 18, 1998 at the NYSDEC Central Office on Wolf Road. Copies of selected NYSDEC documents were ordered and copied by NYSDEC for O'Brien & Gere. In addition, files at GE Power Systems in Schenectady were reviewed.

2.2. Field reconnaissance

O'Brien & Gere performed a field reconnaissance to check the location and condition of monitoring wells and to visually inspect areas of potential past environmental concern. The initial reconnaissance was conducted on May 28, 1998. A follow-up site visit was conducted on June 17, 1998 to examine the former north tank farm area and the westernmost portion of the property beyond the western fence line.

2.3. Monitoring well network inspection

O'Brien & Gere performed a monitoring well network inspection of accessible monitoring wells at the site on May 28, 1998. The network inspection included the following:

- Visual inspection of above-grade monitoring well components for overall integrity and verification of each well location and identification on the site map provided by CT Male;

- Obtain water level measurements from each assessable ground water monitoring well; and

- Measure the depth of each well to determine amount of sediment buildup.

The above-grade monitoring well components of each accessible monitoring well at the site were visually inspected to determine their condition. The condition of exposed well casings and locks and caps were checked and items requiring repair were recorded on a field data sheet and/or site map.

Water level measurements from accessible ground water monitoring wells at the facility were obtained on May 28, 1998. Water level measurements were obtained with an electronic water level indicator. The depth to water was measured to the nearest 0.01 feet and, where present, the fiberglass reinforced resin riser pipe was used as the measuring point. The depth to water data were recorded on a field data sheet with the approximate times of measurement. Depths to water were converted to water level elevations with respect to mean sea level using the surveyed elevations reported in the GTI Field Investigation Report, dated January 26, 1993. The water level elevation data are presented in Table 2-1.

In addition to water level measurements, the total depth of each accessible monitoring well was measured on May 28, 1998. Measured total depths were also recorded on the field data sheet. Measured total depths and the amount of sediment buildup for each well screen is provided on Table 2-1.

2.4. Data analysis and summary report preparation

Using the information collected in the file review, this task consisted of the analysis of the data and preparation of this report summarizing the analysis and interpretation of site conditions. Available information and data on the facility background, including information on buildings, underground tanks, utilities, known past and present hazardous waste treatment or disposal areas are summarized. Available information on the nature and extent of chemicals at the facility have been assembled along with available information on geology, hydrogeology and sampling information for the

site. Remedial measures undertaken at and in the vicinity of the facility are documented.

The report briefly addresses the site history and layout and also presents a description of the site environmental setting. Maps, drawings and tables from previous reports are utilized to illustrate the site wide environmental settings.

For each area of past environmental concern, a synopsis of current conditions, in the context of an industrial site, has been prepared and is included in Section 4 of this report.

3. Environmental setting

3.1. Site geology

The Riverview facility is located within the Hudson-Mohawk Lowlands physiographic province of New York State. The general topography of the Mohawk Lowlands is the result of erosion along an outcrop belt of weak rocks lying between the Adirondack Mountains to the north and the Heldeberg Escarpment to the south. Bedrock underlying the Riverview facility consist of black and gray shales and sandstones belonging to the Schenectady Formation. The Schenectady Formation consists of gray to black interbedded shales and graywackes of Middle Ordovician Age. The bedrock dips gently to the west-southwest at an angle of generally less than five degrees.

The bedrock in the area is overlain by a thick mantle of unconsolidated deposits of glacial origin. Unconsolidated deposits underlying the Riverview facility consist primarily of a glaciolacustrine deltaic sand deposit. The glaciolacustrine deposit is best described as a light to medium brown fine to medium sand with a trace of silt. Based on site borings, the percentage of silt appears to increase with depth. As shown on the geologic cross-sections located in Appendix C, the texture of the sand deposit fines downward to clayey sands and silts at a depth of approximately 70 feet. The specific nature of unconsolidated deposits below approximately 80 feet in depth is unknown. However, given the glacial history of this area, it is believed that the unconsolidated deposits will continue to fine downward to a silty or silty clay deposit representative of deeper water, lower energy glaciolacustrine deposition. It is also likely that the shale bedrock is directly overlain by some thickness of dense glacial till. Typically, the bedrock is overlain by low permeability blanket like glacial till deposits consisting of a mixture of sand, gravel and clay.

The glaciolacustrine sand observed at the Riverview site was deposited by sediment laden discharge of the Ancestral Mohawk (Iromohawk) River into glacial Lake Albany (LaFleur, 1983). Lake Albany was a large glacial lake that occupied the Hudson Valley during the Late Pleistocene deglaciation of the area. The northern extent of Lake Albany consistently expanded with the receding of the Hudson Lobe of the Laurentide ice sheet some 15,000 years ago. The Schenectady delta was built out into Lake Albany

by the discharge of sediment laden glacial meltwater from the west into the lake basin. Dissection at the Fonda wash plain and Lake Amsterdam clays to the west of the study area provided fine grained sand, silt and clay for the construction of the Schenectady Delta to an elevation of approximately 340 feet above sea level. Continued northward recession of the Hudson Lobe toward Glens Falls was accompanied by lowering of Lake Albany through a series of lower lake stages (Lake Quaker Springs, Lake Coveville and Lake Fort Ann). During this period, the Schenectady deltaic sediments were dissected and reworked along the course of the present day Mohawk River. Episodic, high volume discharge events, eroded the deltaic sediment and deposited the coarse sands and gravels that comprise the Schenectady or Great Lakes aquifer located in the Mohawk River Valley to the north and east of the site. These highly permeable deposits were subsequently overlain by floodplain and channel deposits of sand, silt and clay.

3.2. Hydrogeology

3.2.1. Site ground water flow

At the Riverview facility, ground water is observed in unconsolidated deposits under unconfined or water table conditions. The water table is free to rise and fall in response to ground water recharge and discharge. The measured depth to ground water varies from approximately 60 to 70 feet below ground surface across the site. Recharge to the ground water is principally through infiltration of precipitation in permeable non-paved portions of the site.

As shown on ground water contour maps developed by GTI and WH&N (Appendix C), ground water levels at the facility are highest in the southwestern portion of the facility. Ground water flow in the eastern and northern portions of the facility is predominantly to the north and northeast, toward the escarpment bordering the facility on the north. In the western portion of the facility, a roughly east-west trending ground water divide has been mapped by both GTI and WH&N. The divide is defined by the relatively high ground water elevations measured in wells GT-1 and GT-10. As a result, there is a component of ground water flow to the south in the extreme southwestern portion of the facility near wells GT-11 and GT-12. Ground water level measurements collected by O'Brien & Gere on May 28, 1998 confirm the previous interpretations of ground water flow.

Hydraulic gradients vary widely across the facility. The highest hydraulic gradient at the facility is observed in the northeastern portion of the facility

(0.05 ft/ft) in the vicinity of GT-7 and GT-16. The hydraulic gradient in the north western portion of the site are a more typical (0.015 ft/ft).

In order to assess the hydraulic conductivity of saturated unconsolidated deposits at the Riverview site, GTI conducted in-situ permeability tests in six monitoring wells at the Riverview facility (GT-1, GT-2, GT-3, GT-4, GT-8 and GT-9). Methods and a detailed review of the results are contained in the May 16, 1988 assessment prepared by GTI. Results of the testing yielded a range of hydraulic conductivities from 4.05×10^{-4} to 1.25×10^{-2} cm/sec. The calculated geometric mean of hydraulic conductivity values is approximately 1.6×10^{-3} cm/sec.

3.2.2. Regional ground water flow

As detailed in the January 26, 1993 GTI Field Investigation Report, observation wells located on-site and downgradient of the Riverview facility were gauged by both GTI and Terran Research, Inc. personnel on November 30 and December 1, 1992. Water levels were measured in the Riverview facility observation wells, GE Power Systems Main Plant property observation wells, and Schenectady/Rotterdam well field observation wells. The purpose of the water level monitoring was to prepare a regional ground water contour map for the area.

As shown on the regional ground water contour map (Appendix C), ground water flow from the Riverview site is principally towards the north-northeast in the direction of the ground water seeps on the D&H Railroad property and the GE Power Systems Main Plant. Ground water flow in the northern portion of the Riverview site is toward the GE Power Systems Main Plant and is relegated to the area east of the roughly north-south ground water divide located just west of the GE Power Systems Main Plant. The location of the north-south ground water divide is well documented in numerous reports on the GE Power Systems Main Plant prepared by Terran Research, Inc. Ground water flow east of the divide is northeast toward the Mohawk River. In the area west of the hydrologic divide, ground water flow is to the northwest, toward the Schenectady and Rotterdam well fields.

The Riverview facility overlies an area described by the United States Geological Survey (USGS) (1981) as minor aquifer area. Well yields are typically limited to 5-20 gallons per minute. This area however, is a recharge area for the more permeable and productive major aquifer located in the valley. The most productive portions of the Great Flats or Schenectady aquifer are located in the narrow valley reach upstream of Scotia. The Schenectady and Rotterdam well fields are located in the easternmost portion of the coarsest, most productive portion of the aquifer.

The portion of the aquifer east of the north-south trending hydraulic divide described by Terran Research is composed of sand and silts deposited in a lower energy depositional environment and do not represent the same potential well yields as observed in the Rotterdam and Schenectady well fields.

The current conceptual hydrogeologic model of the site is that the ground water zones on the Riverview site and the GE Power Systems Main Plant site are not contiguous. The presence of the clayey sands and silts at an elevation of about 270 feet on the site is above the ground surface on the GE Power Systems Main Plant. This apparent separation of the ground water zones may explain the almost 50 foot difference in ground water elevations between the Riverview site and the GE Power Systems Main Plant. Therefore, ground water on the Riverview site is not in direct hydraulic connection with the Schenectady and Rotterdam well field aquifer. Proposed site ground water investigations will provide additional information for the conceptual model.

3.3. Ground water quality

3.3.1. Historical on-site ground water sampling

Smith & Mahoney, P.C.

On September 27, 1991, Smith & Mahoney, P.C. collected ground water samples from monitoring wells SMW-1 and SMW-2 located to the east and west of Building RV-42, respectively. The locations of monitoring wells SMW-1 and SMW-2 are shown on Plate 1. These two monitoring wells were installed and sampled as part of an Environmental Assessment Update of Building RV-42 Warehouse performed by Smith & Mahoney, P.C. in September 1991(Smith & Mahoney, P.C.; March 1992) for Insulating Materials Incorporated (IMI). The ground water samples collected from SMW-1 and SMW-2 were analyzed for volatile organic compounds (VOCs) using United States Environmental Protection Agency (EPA) Method 624, semi-volatile organic compounds (SVOCs) using EPA Method 625, total cyanide using EPA Method 335.2, sulfide using Standard Methods SM-427D, pH using EPA Method 150.1, EH by an undetermined method, specific conductance using EPA Method 120.1, and reactivity using EPA SW-846 Section 7.3. It should be noted that total xylenes were not on the VOC target compound list (TCL). A copy of the associated analytical data is provided in Appendix D.

Ground Water Technology, Inc.

On April 20 and May 27, 1987, GTI collected ground water samples from monitoring wells GT-1 and GT-2 located to the south and north of the former RCRA Storage Tank Location, south of Buildings RV-37 and RV-33 (GTI, January 1993). The location of these monitoring wells is shown on Plate 1. GTI collected ground water samples from GT-1 and GT-2 as part of an investigation to determine whether a 1987 spill next to the former RCRA Storage Tank impacted ground water. The ground water samples were analyzed for VOCs and a copy of the table summarizing the analytical results is presented in Appendix E. These two wells were sampled again on October 23, 1987 for organic compounds and a copy of the table containing the results is presented in Appendix E.

Between August 3 and 21, 1987, GTI collected two rounds of ground water samples from monitoring wells GT-1, GT-2, GT-3, GT-4, GT-5, GT-6, GT-7, GT-8 and GT-9. These monitoring wells are located throughout the Riverview site and are shown on Plate 1. GTI collected ground water samples from these monitoring wells as part of subsurface investigation to assess areas of concern throughout the Riverview site. The ground water samples were analyzed for VOCs and acid-extractable SVOCs and a copy of the table summarizing the analytical results is presented in Appendix E.

On February 18, 1988, GTI collected ground water samples from monitoring wells GT-1, GT-2, GT-10, GT-11 and GT-12. These monitoring wells are located throughout the Riverview site and are shown on Plate 1. GTI collected ground water samples from these monitoring wells as part of an additional subsurface investigation requested by NYSDEC (GTI, January 1993). The ground water samples were analyzed for VOCs by EPA Methods 503.1 and 601, and acid-extractable SVOC by EPA Method 625. A copy of the table summarizing the analytical results is presented in Appendix E.

On September 9, 1988, GTI collected ground water samples from monitoring wells GT-2, GT-3, GT-7, GT-8, GT-9, and GT-11. NYSDEC collected split samples from the same monitoring wells. These monitoring wells are located throughout the Riverview site and are shown on Plate 1. GTI collected ground water samples from these monitoring wells as part of an additional subsurface investigation requested by NYSDEC (GTI, January 1993). The ground water samples were analyzed for VOCs and total metals by undetermined methods. The ground water samples collected by NYSDEC were also analyzed for PCBs. A copy of the table summarizing the analytical results is presented in Appendix E.

Between September 8 and 11, 1992, GTI collected ground water samples from monitoring wells GT-1, GT-3, GT-4, GT-5, GT-7, GT-8, GT-9, GT-

10, GT-12, GT-13, GT-14, GT-15 and GT-16. These monitoring wells are located throughout the Riverview site and are shown on Plate 1. GTI collected ground water samples from these monitoring wells as part of an additional subsurface assessment program requested by NYSDEC. The ground water samples were analyzed for VOCs, SVOCs, pesticides/PCBs, total and/or dissolved metals, and total cyanide by New York State Analytical Services Protocol (ASP) Methods 91.1, 91.2, 91.3, ASP-Contract Laboratory Program (CLP) Metals, and 335.2, respectively. A copy of the table summarizing the analytical results is presented in Appendix E.

Rust Environment & Infrastructure, Inc. (Rust)

On September 2, 1993, Rust collected ground water samples from monitoring wells GT-9 and GT-13 located to the northwest and west of Building RV-33, respectively. Rust collected ground water samples from these monitoring wells to evaluate the potential impact of the June 1992 IMI wash solvent spill had on the ground water quality, if any (Rust, February 1994). The ground water samples collected from GT-9 and GT-13 were analyzed for VOCs using EPA SW-846 Method 8240 and acid-extractable SVOCs using EPA SW-846 Method 8270. A copy of the associated analytical data is provided in Appendix F. Rust also sampled, on a separate occasion, GT-4 associated with 73128 product discharge remediation (Rust, February 1994).

Wagner, Heindel and Noyes, Inc. (WH&N)

Between December 12 and 13, 1994, WH&N collected ground water samples from monitoring wells GT-1, GT-4, GT-5, GT-7, GT-9, GT-10, GT-12, GT-13, GT-14, GT-15 and GT-16. These monitoring wells are located throughout the Riverview site and are shown on Plate 1. WH&N collected ground water samples from these monitoring wells as part of a real estate transaction investigation (WH&N, February 1995). However, only the ground water samples collected from monitoring wells GT-1, GT-5, GT-7, GT-9, GT-13, and GT-16 were analyzed for VOCs by EPA SW-846 Method 8260 and SVOCs by EPA SW-846 Method 8270. The ground water samples from the remaining monitoring wells sampled were not analyzed based on WH&N's limited scope of work. The associated analytical data is provided in Appendix G.

3.3.2. Off-site ground water sampling

The GE Power Systems Main Plant is located to the north of the Riverview facility. The off-site ground water monitoring wells discussed below are located on the GE Power Systems Main Plant property and are hydraulically downgradient of the Riverview facility.

Woodward-Clyde Consultants (WCC)

The WCC October 1989 Field Investigation Report, Volume 1 of 3, prepared for the GE Power Systems Main Plant, contained a summary of the analytical data obtained from the ground water samples collected from monitoring well GE-11 on August 6, 1980 and January 28, 1986. The locations of the monitoring wells at the GE Power Systems Main Plant are provided in Figure 5 in Appendix C. The ground water samples were submitted for priority pollutant organic analyses and a copy of a table summarizing the analytical results is provided in Appendix H.

Dames & Moore (D&M)

The Dames & Moore Sampling and Analysis Report for the GE Power Systems Main Plant dated March 4, 1998, contained a historical summary of analytical results obtained from ground water samples obtained from monitoring wells GE-30 and GE-31 located in the southwest corner of the GE Power Systems Main Plant. Ground water samples were collected from GE-30 and GE-31 during 12 sampling events from March 1983 through December 1997 and submitted for the following analyses:

- VOC analysis during nine sampling events (i.e., August and November 1991, March , June and August 1992, June 1993, April 1994, May 1995, and December 1997);
- SVOC analysis during seven sampling events (i.e., April 1988, August and November 1991, March and June 1992, May 1995, and December 1997);
- Phenol analysis during two sampling events (i.e., September 1983 and July 1989);
- Pesticides and/or PCB analysis during six sampling events (i.e., August and November 1991, March and June 1992, May 1995, and December 1997);
- Total metal analyses during eleven sampling events (i.e., March, June, and September 1983, April 1988, July 1989, August and November 1991, March and June 1992, May 1995, and December 1997); and,
- Dissolved metal analyses during one sampling event (i.e., December 1997).

A copy of a table summarizing the analytical results is provided in Appendix I.

3.4. Riverview monitoring well condition and ground water flow

The results of the visual inspection of the monitoring wells indicate the following:

- Monitoring wells GT-6 and GT-11 have been damaged beyond repair. The protective casings and upper portion of the riser pipe were broken off the well and were observed lying on the ground next to the approximate location of the well. These wells should be located and properly decommissioned. Decommissioning could be accomplished by first locating the former well head and grouting in the screen and riser pipe to within three feet of the ground surface.

- Monitoring well GT-2 is obstructed approximately 4 feet below ground surface. The nature of the obstruction was not determined but it appears the riser pipe is bent below grade and a bailer is stuck in the riser pipe. This well needs to be either repaired or properly decommissioned.

- The protective casing and riser pipe at monitoring well GT-3 is loose and the concrete pad is cracked. The surface completion at this location needs to be repaired.

- Monitoring well GT-7 was previously damaged and repaired with a 3-inch steel pipe. The well needs a locking cap installed on it and needs to be resurveyed to determine the new measuring point elevation.

- Monitoring well GT-9 could not be located. The well head should be located and a determination on the integrity at the well should be completed.

- The flush mount well casing at monitoring well GT-15 needs to be replaced. The riser pipe of the well appears in good condition.

- Monitoring well SMW-1 was partially paved over. The well needs to be examined to determine its integrity.

- Based on site reconnaissance, existing monitoring wells examined exhibited significant silting of well screens.

- Observed ground water levels in wells measured and calculated ground water flow directions are consistent with previous GTI and WH&N reports.

- A review of ground water flow reports from the GE Power Systems Main Plant indicate that ground water flow to the north of the Riverview site is predominantly to the north/northeast across GE property toward the Mohawk River.

- A review of GE Power Systems Main Plant information indicates that three wells (GE-11, GE-30 and GE-31) are located in the southwestern portion of the GE Power Systems Main Plant are positioned downgradient of the Riverview site (see Figure 5 in Appendix C). Recent chemical analyses indicate that no VOCs have been detected in these wells.

- The Riverview facility area is described by USGS and NYSDEC as a minor aquifer area. Subsurface soils consist primarily of glaciolacustrine medium to fine silty sand.

- Most recent ground water sampling events are the comprehensive ground water sampling by GTI in 1992, and partial sampling rounds by Rust in 1994, and in 1994 by WH&N.

3.5. Constituents of concern in ground water

The following discussion includes the identification of the constituents of concern in the ground water at the Riverview site. Chemical compounds or elements detected in the ground water samples collected from the monitoring wells on-site are considered constituents of concern if the concentrations are equal to or greater than the associated NYSDEC, Division of Water, Technical and Operational Guidance Series (TOGS) 1.1.1 (March 12, 1998), ambient water quality standards for ground water utilized as drinking water (i.e., Class GA standard). Constituents detected at the Riverview site at concentrations at or above NYSDEC Class GA standards are considered constituents of concern, unless justifiable rationale (i.e., chemical concentration is consistent with background levels) is provided. Based on the analytical data generated from the ground water sampling events listed above, the following constituents of concern have been identified.

VOCs

Toluene, ethylbenzene, total xylenes, isopropylbenzene, p-isopropyltoluene, n-propylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, trichloroethene and tetrachloroethene are considered constituents of concern because concentrations at or above the NYSDEC

Class GA standard have been detected in ground water samples collected from the Riverview site.

Methylene chloride was also detected above NYSDEC Class GA standard in two ground water samples collected from monitoring well GT-1 in August 1987. However, methylene chloride (a common laboratory contaminant) is not considered a constituent of concern. Methylene chloride was only detected above the NYSDEC Class GA standard in ground water samples collected from GT-1 in August 1987 from the Riverview site. Methylene chloride was not detected in the samples collected from monitoring well GT-1 in two previous sampling events in 1987, as well as the four subsequent sampling events conducted between October 1987 and December 1994.

SVOCs

Total phenols, 4-methylphenol, isophorone, 4-nitroaniline and bis-2-ethylhexyl phthalate were detected at or above the NYSDEC Class GA standards in ground water samples collected at the Riverview site. However, bis-2-ethylhexyl phthalate is not considered a constituent of concern. Bis-2-ethylhexyl phthalate was detected once above the NYSDEC Class GA standard in ground water samples collected from the Riverview site. The bis-2-ethylhexyl phthalate was detected in the background monitoring well GT-8 in September 1992 and, therefore, may be an indication of upgradient contamination. It should also be noted that bis-2-ethylhexyl phthalate is also considered a common laboratory contaminant.

PCBs

PCBs were detected above the NYSDEC Class GA standard in one ground water sample collected from monitoring well GT-9. However, PCBs are not considered a constituent of concern because it was only detected once at a concentration of 3.0 parts per billion in the ground water sample collected from GT-9 by NYSDEC in September 1988. PCBs were not detected in the ground water samples from monitoring well GT-9 or wells GT-1, GT-3, GT-4, GT-5, GT-7, GT-8, GT-10, GT-12, GT-13, GT-14, GT-15 and GT-16 collected September 8 and 11, 1992 at the Riverview site.

Inorganic constituents of concern

Dissolved sodium is considered a constituent of concern because concentrations above NYSDEC Class GA standards have been detected in ground water samples collected from the Riverview site. A total concentration of dissolved manganese plus iron (868 ug/L) was detected above the Class GA standard in the ground water sample collected from

monitoring well GT-9. However, dissolved iron and manganese are not considered constituents of concern because they are likely contributed by native geological formations. According to Winslow (1965), both iron and manganese are native constituents of the shale bedrock, as well as the sand and gravel. A number of ground water samples collected in eastern Schenectady County from both overburden and bedrock wells in the area contained dissolved iron and manganese. Total concentrations of dissolved iron plus manganese ranged from 20 to 4,650 ug/L in the ground water samples collected in eastern Schenectady County.

3.6. Surface water

In April 1988 and July 1989, WCC collected surface water samples from the Poentic Kill (SW-1 & SW-5) and Poenties Kill (SW-3 & SW-4) (GTI, January 1993). Surface water samples were analyzed for VOCs. In November 1990, NUS collected surface water samples from the Poentic Kill (SW-1 & SW-5) and Poenties Kill (SW-4) (GTI, January 1993). Surface water samples were analyzed for total metals. Copies of tables summarizing the analytical results and a map showing the sampling locations is provided in Appendix E.

3.7. Seep water

As described in the January 1993 GTI report, sometime after 1979, GE collected a sample of a seep on the hillside north of the Riverview facility. The specific location of the hillside seep is unknown. The seep water sample was analyzed for undetermined organic and inorganic parameters. As reported by GTI in the January 1993 report, trace concentrations of organics were detected in the seep, and no unusual concentrations of inorganic elements were detected, with the exception of iron. The report also stated that the concentrations of constituents detected in the seep sample did not exceed primary drinking water standards.

Between March and September 1988, various hillside seep sampling programs were undertaken by GE and/or NYSDEC (GTI, January 1993). Again, the specific location of the hillside seep is unknown. The seep water sample was analyzed for undetermined organic parameter(s), total phenols, and priority pollutant total metals, plus iron and manganese. The GTI, January 1993 report states that no organics, total phenols, or total metals, with the exception of iron, were detected in the hillside seep sample.

4. Synopsis of potential areas of concern

Based on the site history, a number of areas of potential environmental concern have been identified. These sections present a synopsis of current conditions for each of the areas of potential concern.

4.1. RV-14 varnish room leach field/dry well (SWMU #6)

Location
Area is located outside the varnish room loading area on the east side of building RV-14 underneath the former Outdoor Container Storage Area #2.

Description
Between 1960 and 1980 flammable varnishes and solvents from the varnish room were directed into a dry well and leach field. The dry well leach field received solvents and resins spilled on the floor in the RV-14 varnish room, wash water and precipitation.

Analytical data
Photoionization detector (PID) vapor readings by WH&N in auger spoils ranged from 235 to 350 ppm at depths of 5 to 10 feet below grade. PID headspace screening of soils from 5 to 10 feet below grade yielded readings of 1,400 to 1,500 ppm and PID readings to 1,000 ppm at a depth of 15 feet. No sheens of free-phase product were observed. Results of a soil sample collected at a depth of 5 to 10 feet indicated the following principal constituents: xylene, 1,180 ppm; ethylbenzene, 133 ppm; toluene, 37 ppm; and 1,2,4-trimethylbenzene, 18.9 ppm.

4.2. RV-14 former superior boiler underground fuel oil tank (SWMU #8)

Location
Former fuel oil underground storage tank area is located outdoors at the northeast corner building RV-14.

Description
Between 1960 and 1987 the area was occupied by a 10,000 gallon steel underground storage tank and associated piping. The tank was originally used to store No. 6 fuel oil and at some point was changed over to No. 2 fuel oil. The tank was removed in 1987 and according to the RCRA Preliminary Review - Visual Site Inspection (PR-VSI), approximately 100 cubic yards of soil were removed and disposed off site by a contractor.

Analytical data
Area was investigated by WH&N and reported PID vapor readings of up to 120 ppm and evidence of subsurface oil down to depths of 20 feet below ground surface. One soil sample was collected from a depth of 17 to 20 feet and submitted to a laboratory for VOC analysis. Results of the soil sample indicate the following principal constituents: xylene, 6.03 ppm; 1,2,4-trimethylbenzene, 9.23 ppm; naphthalene, 3.53 ppm; and 1,3,5-trimethylbenzene, 3.74 ppm. Additionally, a total petroleum hydrocarbon (TPH) concentration of 40,000 ppm was reported.

4.3. RV-14 boiler dry well (not identified as a SWMU)

Location
The R-14/15 boiler dry well is located at the northeast corner of building RV-14 approximately midway between the RV-14 varnish room dry well and the RV-14 former superior boiler underground fuel oil tank areas.

Analytical data
One soil sample was collected from the RV-14 boiler dry well area by WH&N. Results indicate only naphthalene was detected at a concentration of 0.21 ppm.

4.4. RV-37 former RCRA tank (SWMU #19)

Location
The RV-37 former RCRA underground storage tank is located on the west side of the facility between buildings RV-33 and RV-37 and to the east of the intersection of the main road and the road to the RV-37 boiler house.

Description

The RV-37 former RCRA underground storage tank was a 10,000 gallon carbon steel holding tank for ignitable wastes. The unit began operations in 1961 and ceased operations in March 1987. Up to 79,000 gallons per year of waste process water containing 5 to 12 percent organics were managed in this unit. The unit underwent partial closure in November 1988 at which time the tank was removed along with 60 cubic yards of soil. April 6, 1989, NYSDEC indicated the closure activities to date were not sufficient due to PID readings. The NYSDEC required that ground water monitoring be performed.

Analytical Data

The RV-37 former RCRA tank was investigated by WH&N. Soil boring investigation indicated chemical odors and split-spoon sample PID reading of 2.2 ppm from 14 to 17 feet below grade. A soil sample was collected and submitted to the laboratory for TCL-VOC and SVOC analysis. Laboratory analysis of the sample collected in the R-7 RCRA tank area indicate no TCL-VOCs or SVOCs were detected.

Remedial activities

Closure activities for this tank were initiated on November 4, 1988 by Clean Harbors under the direction of Clough Harbour and Associates of Albany, New York (Clough Harbour). The underground storage tank was triple rinsed and all remaining residue removed. An HNU-PID was used to segregate clean and contaminated soil during the tank removal. After the tank was removed, contaminated soil was removed from the excavation and stockpiled on clear plastic sheeting. At the time the tank was excavated results of PID measurements indicate the highest PID readings in the northeastern portion of the excavated area with PID readings of up to 450 ppm, at a depth of 10 feet. The PID readings decreased to 70 ppm at a depth of 18 feet. At a depth of approximately 18 feet, soil at the bottom of the excavation showed no signs of contamination. Approximately 60 cubic yards of soil were removed. Due to the sandy soil and close proximity of several structures further lateral excavation of the soil to the northwest was not feasible. The December 9, 1988, Clough Harbour report indicates that the excavated soil was scheduled to be incinerated at an approved hazardous waste disposal site.

4.5. RV-33 raw material tank farm (SWMU #18)

Location

This area is located in the northwest corner of the facility behind Building RV-33.

Description

The RV-33 north tank farm contained eight aboveground storage tanks and piping within the 3-foot high diked area with the blue stone face on the southern wall. Aboveground storage tanks were installed by General Electric between 1960 and 1966. Piping from the tank farm extended to the tank track unloading area (SWUM #17) and rail car loading/unloading area (SWMU #16). In addition, wire enamels were transferred to tank cars at the rail car loading/unloading area. Many of the raw materials stored in the aboveground storage tanks were used in the manufacture of wire enamel at the facility.

Remedial activities

In November 1996 MC Environmental Services of South Glens Falls, New York (MCES), under the direction of Clough Harbour, closed the RV-33 tank farm, rail car unloading station, pump stations, and the associated piping. Prior to removal, each of the aboveground storage tanks were flushed, pressure washed, and decontaminated to a level where no visible residue or liquid were present and no vapors were detected. Following decontamination, each tank was mechanically dismantled and reinspected for presence of residual material. In early December 1996 MCES began demolition of the former rail car unloading station and pump stations. All pumps, piping supports and miscellaneous equipment in the truck unloading area and pump station south of the tank farms were removed. All piping and equipment was decontaminated. Some piping that was not decontaminated was cut up and placed in drums for disposal by IMI. Raw material lines extending from one loading area to tanks were also removed and decontaminated and disposed of. On February 18, 1997, Clough Harbour issued a Certification of Closure for the eight aboveground storage tanks and piping associated with the RV-33 north tank farm.

Analytical data

The tank farm was visually inspected for evidence of contamination prior to dismantling of the aboveground storage tanks and the associated piping. No visual or olfactory indications of contamination associated with the tank farm or piping were observed. Based on preliminary field observations, a test pit soil sampling program was implemented to investigate potential subsurface contamination in the RV-33 north tank farm area. A total of 10 test pits were excavated and soil samples collected for analysis by EPA Method 8260 and 8270. Analytical results indicate the presence of the following principal constituents: 2,4,6-trimethylphenol, xylene and trimethylbenzene.

4.6. Former RCRA drum storage area (SWMU #25)

Location

The former outdoor RCRA container storage area is located outdoors in the western portion of the facility southwest of building RV-37.

Description

The former drum storage area is a 75 by 65 foot macadam area used to store 55 gallon drums of hazardous waste generated at the facility from 1979 to 1989. Up to 670, 55 gallon drums were managed in this area at a time.

Analytical data

This area was evaluated by both test pit excavations and soil borings by WH&N. Two test pits were excavated in the west and south margins of the site and yielded PID vapor readings of up to 1.4 ppm in soils between 5 and 8 feet in depth. Soil borings were conducted inside the drum storage area. Auger spoils recovered during drilling to a depth of 15 feet yielded moderate chemical odors and PID vapor readings of up to 35 to 40 ppm. A sample of subsurface soil from this interval was collected and submitted for laboratory analysis. Results of the soil sample collected in the RCRA drum storage area labeled R-6A indicated n-propyl benzene was detected at 37.4 parts per billion (ppb) and 111 ppb total xylenes. No TCL-SVOCs were detected.

4.7. RV-30 former UST tank farm area (AOC B)

Location

This area is located outdoors northwest of building RV-30 and east of RV-33.

Description

The inactive underground storage tank (UST) farm consisted of three (3) tanks (2 single compartment 10,000 gallon tanks and one compartmentalized 30,000 gallon tank having three 10,000 gallon compartments) and was situated in an approximately 90 by 60 foot area located on the western portion of the facility property. The area is bordered by a tanker truck off-loading building (RV-30) and nitrogen storage to the south, production building RV-33 to the west, an aboveground toluene storage tank and associated diking to the northeast, and an access road to the east.

Analytical data

In December of 1994, this portion of the facility was investigated by WH&N. A soil sample was collected from this area for TCL-VOC and SVOC analysis as well as formaldehyde. Analytical results indicate no TCL-VOC or SVOCs or formaldehyde were detected in the sample collected.

Analytical results for conformation soil samples collected indicate that formaldehyde was not detected in soil samples associated with the formalin tank underground storage tank removal program in 1994.

Analysis of soil samples collected from the area of the 30,000 gallon underground storage tank areas do not indicate the presence of contaminants in the soil associated with the excavation of these tanks.

Remedial activities

In 1994, McLaren Hart Environmental Engineering Corporation (McLaren Hart) observed the removal of the Formalin underground storage tank. The underground storage tank was observed in good condition with no visual leaks or damage. No visual contamination or elevated field screening readings were observed for the soil removed. In 1994 McLaren Hart also observed the removal of toluene/di-isocyanate (TDI) tank associated soil from this same area. Additionally, McLaren Hart observed the excavation and removal of a 30,000 gallon underground storage tank from the same general location. These additional tanks were observed to be in good conditions with no visual leaks or damage.

4.8. RV-14 outdoor underground tank (SWMU#7)

Location

This tank is located outside the central portion of the south wall of building RV-14.

Description

The unit is a 10,000 gallon underground storage tank constructed of steel coated with asphalt. Approximately 9,000 gallons per year of corrosive cleaning solution were handled in this tank annually. The unit began operations in 1976 and ceased operation in 1985. The tank is scheduled for removal in August 1998.

Analytical data
This area was investigated by WH&N. Based on soil sampling in this area, no evidence of contamination was observed.

4.9. RV-33 leach field and dry well (SWMU #15)

Location
The RV-33 leach field and dry well is located underneath the warehouse area added to the northwest corner of building RV-33.

Description
Prior to 1980, storm water runoff around building RV-33 was collected in this unit. The unit began operations in 1960 and ceased operations in 1980. The unit is currently completely covered by blacktop parking area in building RV-33.

Analytical data
The RV-33 dry well area was investigated by WH&N. As part of the work, a soil boring was drilled and PID vapor reading measurements collected. A maximum PID vapor reading of 1.1 ppm was observed at a depth of 6 to 8 feet. No other observations or subsurface contamination were detected.

4.10. Building RV-42 hazardous waste storage warehouse (SWMU #22)

Location
Building RV-42 is located between buildings RV-28 and RV-30 in the southwestern portion of the facility.

Description
Building RV-42 is an approximately 15,000 square foot building constructed of steel framing and slab on grade concrete floor. It was constructed in 1975 for use as the Mine Bolt Operation area. In 1984 following shutdown of the Mine Bolt Process Operation the building was converted into a warehouse for flammable components. In January 1989, the RCRA Hazardous Waste Storage area in building RV-42 became operational.

Analytical data
The RV-42 building area was investigated by Smith & Mahoney, P.C. in 1992. Two test borings and monitoring wells were drilled and installed in the area as close to building RV-42 as practical to detect potential

contaminants. Two subsurface soil samples were analyzed for VOCs by EPA Method 8240 and total phenols. The two soil samples did not indicate the presence of constituents above detection limits other than acetone which is a common laboratory artifact. Ground water samples were also collected from both monitoring well locations in September of 1991. No VOCs were detected in the two ground water samples.

4.11. Former outdoor container storage area (SWMU #26)

Location

This unit is located outdoors, north of the main parking area, to the east of Building RV-14, in the northeast corner of the facility.

Description

This unit is a 40- by 12-foot macadam area, fenced on three sides. From the early 1970s to 1985, 55 gallon drums and smaller containers of hazardous waste generated in Buildings RV-12, RV-13 and RV-14 were stored in the area prior to disposal off-site. From 1980 to 1985 waste containers requiring greater than 90 day storage were moved to the Former Outdoor RCRA Container Storage Area (SWMU No. 25) to await shipment off-site for disposal.

In 1985 the facility began storing wastes generated in Buildings RV-12, RV-13 and RV-14 at the Former Outdoor Container Storage Area 2 (SWMU No. 27). After 1985, the unit was used for the storage of uncleaned empty drums and totes, and product drums. There are no known releases associated with this area.

Analytical data

As part of their 1995 assessment, WH&N excavated two test pits to a depth of eight feet in the area adjacent to the former drum storage area. No odors were discernable in the two test pits nor was there any noticeable soil discoloration. PID readings were very low ranging from 0.4 to 1.0 ppm.

4.12. Former outdoor container storage area 2 (SWMU #27)

Location

The former outdoor container storage area 2 is located along the fence separating the main parking area and building RV-14, on the east side of the facility.

Description
This 30x10-foot macadam area is used to store up to 40 55-gallon drums of hazardous waste for less than 90 days. The area was used to store waste generated in buildings RV-12, RV-13 and RV-14 from 1985 to early 1989. Wastes were stored at this area prior to being moved to the former outdoor RCRA container storage area to await shipment off-site for disposal.

Since January 1989, the wastes generated at Buildings RV-12, RV-13 and RV-14 have been transferred to the RV-42 RCRA container storage area and this area has been used for the storage of empty, uncleaned drums and product drums. Waste containers are placed in this area for less than a day prior to being moved to the RV-42 RCRA container storage area. There are no known releases associated with this area.

Analytical data
As part of WH&N's 1995 assessment, a test pit was excavated through the asphalt pavement to observe subsurface soil conditions at this area. No evidence of contamination was observed.

4.13. Empty drum storage area (SWMU #29)

Location
The empty drum storage area is located on the south side of the facility, to the west of building RV-42.

Description
The area is an approximately 30 by 40-foot partially paved area of the facility where uncleaned empty waste drums and tote tanks have been stored. The containers are stored in this area until there are sufficient numbers to warrant transport offsite for cleaning prior to reuse. The area has been used for container storage since at least 1988 and is currently active. There are no documented releases from this unit.

Analytical data
As part of the WH&N, a test pit was excavated on the south side of the empty drum storage area. The test pit was excavated to a depth of nine feet. No odors in soil and discoloration was discernable. PID readings ranged from 0 to 1.7 ppm.

4.14. RV-33 rail loading/unloading area (SWMU #16 and #17)

Location

The RV-33 rail loading/unloading area was located outdoors, in the northwest corner of the facility, behind building RV-33.

Description

The area consisted of six rail car loading/unloading stations, designated A-F, the associated aboveground piping and the macadam covered ground beneath the area. The unit had been in use for various operations since the building was built in 1960. Up until November, 1989 raw material was brought onsite by railroad tank cars, entering the facility through the rail gate in the northeast corner of the facility.

Remedial activities

In early December 1996 MCES began demolition of the former rail car unloading station and pump stations. All pumps, piping supports and miscellaneous equipment in the truck unloading area and pump station south of the tank farms were removed. All piping and equipment was decontaminated. Some piping that was not decontaminated was cut up and placed in drums for disposal by IMI. Raw material lines extending from one loading area to tanks were also removed and decontaminated and disposed of. No evidence of significant contamination was noted in this area.

4.15. RV-37 leach field and dry well (SWMU #21)

Location

The RV-37 leach field and dry well is located outdoors, adjacent to the north side of building RV-37.

Description

The leach field received boiler blow down water until October 1989 from three boilers located in RV-37.

Analytical data

As part of their assessment of the Riverview facility, WH&N drilled a soil boring adjacent to the RV-37 dry well on the north side of the building to a depth of 17 feet. No significant evidence of contamination was observed. No odors, discoloration or other visible signs of contamination were observed. PID vapor readings were 0 down to a depth of 15 feet and 1.2 ppm from 15 to 17 feet in depth.

4.16. Former outdoor container storage area 3 (SWMU #28)

Location

The former outdoor container storage area 3 is located on the west side of the facility to the east of the former outdoor RCRA storage area.

Description

The former outdoor container storage area 3 is a 100 by 30-foot macadam area where up to 200-55 gallon drums of hazardous waste were stored for less than 90 days. The area was used for hazardous waste storage from the early 1980s to early 1989. During that time period containerized waste generated in building RV-33 was brought to the area when the former outdoor RCRA container storage area was full. The containers were stored at this unit only until there was room for them in the RCRA area. The unit ceased to handle hazardous waste in early 1989 when the RV-42 RCRA container storage area began operations.

Analytical data

As part of WH&N's 1995 assessment, a test pit was excavated to a depth of 4 feet on the south side of the container storage area. The highest PID reading observed was 1.0 ppm with no discernable odors or soil discoloration observed.

4.17. RV-33 truck loading area (AOC A)

Location

The area is located outdoors on the west side of building RV-33.

Description

This area is a tank truck loading area. Varnishes and resins from the product storage tanks in building RV-33 were loaded onto trucks. A concrete pad is located under the area. The area was covered and secondary containment was added in 1990.

Analytical data
As part of their assessment of the facility, WH&N completed a hand auger boring in this area. No evidence of contamination was detected.

4.18. RV-14 west loading area spill site (AOC C)

Location
This area is located on the west side of building RV-14 opposite the overhead door in the shipping and receiving area.

Description
In 1981 a spill of product containing cresylic acid and trimethylphenol reportedly cleaned up by facility personnel.

Analytical data
As part of their assessment of the facility, WH&N completed a soil boring in this area. No evidence of contamination was detected.

5. Previously identified potential areas of concern

The USEPA identified 32 solid waste management units (SWMUs) and three areas of concern (AOCs) in the RCRA Facility Assessment (RFA) (1992). The RFA concluded that 15 of the SWMUs (SWMUs # 1, 2, 3, 4, 5, 9, 10, 11, 12, 13, 14, 20, 22, 23, and 24) did not require further action. SWMUs #22, 23 and 24 are also contained in potential area of concern RV-42 Hazardous Waste Storage. Two of the SWMUs (SWMU #30 Soil Pile and SWMU #31 Storm Sewer System) have been eliminated from consideration by this report. The Soil Pile (SWMU #30) was removed in 1994 and disposed of off site. The Storm Sewer System (SWMU #31) is part of the SPDES discharge system with combined storm water and non-contact process cooling water discharge. VRI is under an agreement with the NYSDEC to clean the catch basins. The manhole covers were modified to allow facility personnel to place a sealing cap over the opening in the event of a spill. No soil or ground water investigations were recommended.

AOC B has been included in this summary report as part of the potential area of concern RV-30 Former UST Tank Farm.

6. Recommendation for additional activities

6.1. Site ground water monitoring well recommendations

- Former wells GT-6 and GT-11 be properly abandoned.
- Repair well GT-2. If repair is not possible, properly abandon.
- Repair wells GT-3 and GT-15 protective casing.
- Locate or replace well GT-9.
- Redevelop all existing monitoring wells.
- Resurvey all existing and new monitoring well elevations/locations.
- Conduct a round of ground water sampling in existing and newly installed monitoring wells for the site compounds of concern.
- As part of the site investigation, the hillside north of the Riverview facility should be investigated for seeps previously reported. Samples of up to three distinct seeps should be obtained and analyzed for site specific compounds of concern.

6.2. Selection of areas of concern for additional investigation

Considerable investigatory activities have been completed on the site. These activities have developed information on soil and ground water quality for many of the potential areas of concern on the site. In addition, remedial activities have been completed at some of the potential areas of concern.

This site has a long history as an industrial facility. Currently site is zoned for industrial use and continues to operate as an industrial facility with the associated access restrictions. The access and zoning mean that the pathways for potential human health and environmental impacts are via ground water and contact with soils under an industrial setting.

With respect to the ground water there is both a site wide monitoring well network and a historical data base of site ground water quality. In addition, there is an off-site ground water data from monitoring wells located downgradient of the site. These ground water data provide the basis for identifying the need for additional ground water monitoring locations instead of relying upon potential impacts based upon soil quality.

In order to provide for effective investigation and remediation of the potential areas of concern a screening of the potential areas of concern has been completed. This screening has separated those potential areas of concern which will require additional evaluation from the areas which require no further action. This screening focused on the ground water and soil contact pathways. Based upon the screening, areas which have impacted the ground water, have the potential for soil contact risk, or have insufficient data have been identified for additional evaluation of soil or ground water. Based upon previous investigations, areas which have no evidence of soil or ground water contamination or do not poise a risk to ground water or a soil contact risk represent areas for no further action.

For potential areas of concern where laboratory data has documented compounds in the soil, the criteria used for the screening include the site ground water monitoring data, the NYSDEC Technical Administrative Guidance Memorandum (TAGM) 3028, and the USEPA Region III Risk-Based Concentration Table (EPA RBCs). The site ground water data provides a more realistic indication of ground water impacts than projected impacts based upon soil concentrations. The thick unsaturated zone, which facilitates the adsorption and volatilization of compounds, likely plays a significant role in restricting ground water impacts from site soil contamination. TAGM 4046 provides guidance soil concentrations which may impact ground water quality, however the calculations used in this TAGM are overly conservative for this site and the conclusions based upon this TAGM are not supported by the site ground water data. Given the extensive ground water data at this site, the evaluation of potential impacts to ground water from soils is best addressed by the site ground water quality data and not TAGM estimates. With regards to the potential soil contact risk poised by soil contamination, TAGM 3028 and the EPA RBCs provide a useful tool for screening potential areas of concern. Potential

areas of concern with soil concentrations below TAGM 3028 and EPA RBCs values are considered to not present a soil contact risk.

6.3. Potential areas of concern recommendations

The following text presents the recommendations for the potential areas of concern. These recommendations are summarized on Table 2.

6.3.1. RV-14 varnish room leach field/dry well (SWMU #6)

VOCs reported were below applicable NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 3028 guidance values and EPA RBCs for both industrial and residential exposure scenarios. No SVOCs were detected by EPA Test Method 8270. Based on the available analytical information, it appears unlikely that subsurface soils in this area will contain VOCs in excess of TAGM 3028 and EPA RBCs. However, two borings (SB98-1 and SB98-2, Plate 1) are recommended in the immediate vicinity of the dry well/leach field and soil samples collected for VOC analysis based on PID readings. Ground water downgradient of this area will also be evaluated.

6.3.2. RV-14 former superior boiler underground fuel oil tank (SWMU #8)

All VOCs reported were below applicable NYSDEC TAGM 3028 guidance values and EPA RBCs for both industrial and residential exposure scenarios. Results from ground water monitoring well GT-7, downgradient of the source area, do not indicate the presence of any TCL volatile organic chemicals. Based on the available analytical information, it appears unlikely that subsurface soils in this area will contain VOCs in excess of TAGM 3028 and EPA RBCs. However, one boring (SB98-3, Plate 1) is recommended in the immediate vicinity of the RV-14 former fuel oil tank area. Soil samples will be collected for VOC analysis based on PID readings to confirm the previous results.

6.3.3. RV-14 boiler dry well (not identified as a SWMU)

The concentration of naphthalene reported is well below the NYSDEC TAGM 3028 and EPA RBCs for both industrial and residential exposure scenarios. No other VOCs or TCL SVOCs were detected. Based on the available analytical information, no additional soil sampling is recommended for this area. Ground water in this part of the facility will be

evaluated by well GT-7, GT-16, and two additional wells proposed for this area of the facility (VRI-6 and VRI-7, Plate 1).

6.3.4. RV-37 former RCRA tank (SWMU #19)

Based on the available data, it appears unlikely that existing subsurface soils in this area are not expected to contain VOCs in excess of TAGM 3028 and EPA RBCs. The NYSDEC required ground water monitoring of the area. Ground water in this portion of the facility will be evaluated utilizing existing monitoring wells and proposed new monitoring wells (VRI-1, VRI-2 and VRI-3, Plate 1) in this portion of the facility.

6.3.5. RV-33 raw material tank farm (SWMU #18)

Based on the available analytical information, it appears that subsurface soils in this area contain elevated concentrations of VOCs and SVOCs. As a result, new ground water monitoring wells (VRI-2, VRI-3, and VRI-4, Plate 1) are recommended down gradient of the former RV-33 tank farm area and four soil borings (SB98-4, SB98-5, SB98-6 and SB98-7, Plate 1) will be installed and samples collected for VOC analysis to better evaluate this area as a potential ground water contaminant source.

6.3.6. Former RCRA drum storage area (SWMU #25)

The available analytical data do not indicate any significant releases of hazardous constituents in this part of the facility. Therefore, no additional borings or soil samples are proposed for this area. Ground water in this western portion of the facility will be evaluated with existing and proposed new wells for this portion of the facility.

6.3.7. RV-30 former UST tank farm area (AOC B)

Based on the past remedial activities and the available analytical information, no further action is recommended for this area.

6.3.8. RV-14 outdoor underground storage tank (SWMU #7)

Based on the WH&N work, no further action is proposed for this area.

6.3.9. RV-33 leach field and dry well (SWMU #15)

Based on the available analytical information, no additional soil sampling is recommended for this area. Ground water will be evaluated using the existing and proposed monitoring wells.

6.3.10. Building RV-42 hazardous waste storage warehouse (includes SWMU #22)

Based on the available analytical information no further action is recommended for the RV-42 warehouse area.

6.3.11. Former outdoor container storage area 1 (SWMU #26)

Based on the available analytical data, no further action is recommended for this area.

6.3.12. Former outdoor container storage area 2 (SWMU #27)

Based on the site history and the test pit observations by WH&N, no further action is recommended for this area.

6.3.13. Empty drum storage area (SWMU #29)

Based on the available information, no further action is recommended in the empty drum storage area.

6.3.14. RV-33 rail loading/unloading area (SWMU #16 and #17)

Based on the available information, no further action is recommended for the RV-33 rail loading/unloading area.

6.3.15. RV-37 leach field and dry well (SWMU #21)

Based on the available information, no further action is recommended for the RV-37 dry well/leach field area.

6.3.16. Former outdoor container storage area 3 (SWMU #28)

Based on the information available, no further action is recommended for this area.

6.3.17. RV-33 truck loading area (AOC A)

Based on the available information, no further action is recommended for this area.

6.3.18. RV-14 west loading area spill site (AOC C)

Based on the available information, no further action is recommended for this area.

7. Proposed scope of additional activities

- Based on the examination of the existing monitoring well network at the site, each existing monitoring well should be redeveloped to remove fine-grained materials from the well.

- Following redevelopment, a round of water level measurements will be collected to confirm previous results.

- Two soil borings (SB98-1 and SB98-2) are proposed for the immediate vicinity of the RV-14 varnish room leach field/dry well (Plate 1) to evaluate the extent of VOCs in the soil. The specific locations of the borings will be identified in the field. Soil borings will be advanced to minimum 20 foot depth and extend below evidence of impacts or to the ground water table. Drilling will be performed using hollow stem auger drilling techniques and soil samples will be collected in two foot intervals according to ASTM Method D-1586. Soil samples will be screened for the presence of VOCs with a portable PID. Selected samples, which will include documentation of the vertical extent of impacts will be submitted to the laboratory for VOC analysis by EPA SW-846 Method 8260.

- One soil boring (SB98-3) will be advanced in the immediate vicinity of the former superior boiler underground fuel oil tank (Plate 1). Soil samples will be collected, screened and analyzed for VOCs in accordance with the protocols outlined for the RV-14 varnish room leach field/dry well area.

- Four soil borings (SB98-4, SB98-3, SB98-6 and SB98-7) will be advanced in the RV-33 north tank farm (Plate 1). Soil samples will be collected and screened in accordance with the protocols outlined for the RV-14 varnish room leach field/dry well area. In addition to VOCs, soil samples submitted to the laboratory will be analyzed for SVOCs.

- Attempts will be made to repair GT-2. If it is not possible, to repair the well, it will be decommissioned in a manner consistent with NYSDEC guidance.

- Based on field observations, existing monitoring wells GT-6 and GT-11 cannot be repaired and should be properly decommissioned, in a manner consistent with NYSDEC guidance, by grouting the well from the bottom with a cement/bentonite grout. Existing soil gas monitoring points will be similarly abandoned by grouting. Additionally, the protective casing for monitoring wells GT-3 and GT-15 should be replaced and locking cap installed on well GT-7.

- Eight new monitoring wells are proposed for the (VRI-9) site. Additionally, well GT-9 is proposed to be replaced by a new well if the existing well GT-9 cannot be located. Monitoring wells will be drilled using hollow stem auger drilling techniques and soil sampling according to ASTM Method D-1586-84. Descriptions of soil sample texture, composition, color, consistency, moisture content and recovery will be recorded by the onsite geologist or hydrogeologist. Soil samples from these wells will also be screened with a PID for health and safety purposes.

  Monitoring wells will consist of two-inch ID threaded PVC or FRE, flush joint casing and screens completed approximately 8 to 10 feet into the ground water. Screens will be 10 to 15 feet in length and slot openings will be 0.010 inches. The annulus around the screens will be backfilled with an appropriate size of silica sand such as Morie #0 sand to a minimum height of two feet above the top of the screen. A bentonite pellet seal will be placed above the sand pack to form a seal at least two feet thick. The seal will be allowed to hydrate before placement of grout above the seal.

  The remainder of the annular space will be filled with a cement-bentonite grout to ground surface. The grout will be pumped through a tremie pipe. The grout mixture will be prepared in accordance with ASTM D5092-90. New monitoring wells will be completed with either standpipe or flush mounted lockable protective casings. Following installation, each new well will be developed in preparation for ground water sampling and water level measurements.

- Install two new wells (VRI-3 and VRI-4, Plate 1) between existing wells GT-14 and GT-15 to investigate ground water quality downgradient of the RV-33 north tank farm area.

- Install two new wells (VRI-1 and VRI-2, Plate 1) west of the western site fence line, northwest of building RV-33 to investigate ground water to the west of building RV-33 and wells GT-6 and GT-13.

Additionally, provide water level data to better define ground water flow in the northwestern portion of the site.

- In order to further evaluate the hydrogeology of the site and its relationship with the ground water on the GE Power Systems Main Site, one deep well (VRI-5, Plate 1) will be installed adjacent to existing well GT-15. This deep well will also be used to evaluate vertical hydraulic gradients and deeper overburden ground water quality.

- Install two new upgradient well (VRI-8, Plate 1) near the entrance road to provide additional background water quality data, especially inorganic parameters.

- Install two new wells (VRI-6 and VRI-7, Plate 1) in the northeastern portion of the facility to investigate potential ground water impacts from the RV-14 varnish room dry well/leach field, RV-14 former Superior Boiler oil storage tanks and RV-14/15 boiler dry well. One well should be located immediately north of building 13 and one well located southeast of building 13.

- The newly installed soil borings and monitoring wells will be surveyed to accurately determine their locations. In addition, newly installed and pre-existing monitoring wells will be surveyed for top-of-casing elevations.

- In-situ hydraulic conductivity tests will be performed on each new monitoring well to determine the hydraulic conductivity of the unconsolidated deposits.

- Following the completion and development of the new monitoring wells, a comprehensive round of ground water sampling and analysis will be conducted. In addition to each on-site pre-existing and new monitoring well, the ground water sampling round is proposed to include three wells (GE-11, GE-30 and GE-31) located in the southwestern portion of the GE Power Systems Main Plant. Samples from each well will be collected and analyzed for VOCs and SVOCs.

- As part of the site investigation, the hillside north of the Riverview facility will be investigated for seeps previously reported. Samples of up to three distinct seeps will be sampled and analyzed for VOCs and SVOCs (EPA SW-846 methods 8260 and 8270) compounds of concern. The seeps will be marked in the field and surveyed to accurately determine the locations and elevations.

- The additional investigatory activities will be completed using a Health and Safety Plan and a Quality Assurance Project Plan consistent with NYSDEC requirements. In addition, laboratory analysis will be completed by a NYS certified laboratory.

- Data developed from the field investigation will be combined with pre-existing data and information to form the basis of the Focused Remedial Investigation Report. Data generated will be arranged and presented in a clear and logical format using tables, graphs and figures. The report will present a clear, concise summary of existing conditions at the potential areas of concern subject to additional investigation and site ground water quality. The report will also present the results of a Focused Feasibility Study.

Bibliography

A.T. Kearney, Inc. April 1991. *Preliminary Review Report for the Insulating Materials, Inc., Riverview Plant, Schenectady, New York, EPA I.D. No. NYD052987096.*

A.T. Kearney, Inc. August 1992. *RCRA Facility Assessment Report for the Insulating Materials, Inc., Riverview Plant, Rotterdam, New York, EPA ID No. NYD052987096.*

Clough, Harbour & Associates. Reinemann, J. March 24, 1987. Correspondence regarding RCRA Tank #34 Excavation, Soil & Groundwater Analysis Report - CHA File: 86414-01.

Clough, Harbour & Associates. Rasmussen, S. December 1988. Correspondence regarding Interim Report for the Partial Closure of One (1) Waste Solvent Storage Tank Located at the Insulating Materials Riverview site at One Campbell Road, Schenectady, New York. EPA NY052987096. CHA Project No. 87-883-07.

Clough, Harbour and Associates, LLP. January 1997. *Field Observations of the Sub-Surface Environment During the Closure Activities of the Aboveground Storage Tanks within the RV33 North Tank Farm at Insulating Materials Incorporated's Riverview Facility.*

Clough, Harbour & Associates, LLP. February 19, 1997. *Closure Certification Report for the RV33 North Tank Farm and Piping at Insulating Materials Incorporated, Schenectady, New York.*

Dames & Moore. January 14, 1997. *Area of Concern Report, GE Main Plant, Schenectady, New York. Appendix A. Geology and Hydrogeology Report.* Volume II of VII.

Dunn Corporation. June 1993. *Limited Environmental Evaluation, Insulating Materials Incorporated, Schenectady, New York.*

GE Plastics. Bishop, L.L. February 6, 1994. Correspondence regarding Demand for Information, Insulating Materials, Inc. Riverview Site, Registry No. 447005.

GE Silicones. Moses, M. June 8, 1992. Correspondence regarding comments dated May 7, 1992 regarding the Quality Assurance Project Plan (QAPP) prepared by Ground Water Technology, Inc. (GTI) for the former GE Riverview Plant.

General Electric Company. Moses, M. A. January 11, 1985. Correspondence requesting deletion of site code 447005 from the registry of suspected hazardous waste disposal sites.

General Electric Company. July 29, 1987. Memorandum regarding RCRA Tank Clean-up.

General Electric Company. December 14, 1987. Memorandum regarding RCRA Tank Removal and Clean-up Activities.

Groundwater Technology, Inc. Basile, Jr., J.L., Misiolek, T.M. August 4, 1992. Correspondence regarding Equipment Decontamination Procedure Modification, QAPP Amendment #1 Former GE Riverview Plant.

Groundwater Technology, Inc. Basile, Jr., J.L., Misiolek, T.M. August 25, 1992. Correspondence regarding Former General Electric Company, Riverview Road, Schenectady NY Site. QAPjP Amendment #2. Monitoring Well Locations, Filtered Water Sample Collection Protocol.

Groundwater Technology, Inc. July 28, 1987. *Assessment of Soil Contamination, General Electric Co., Riverview Plant.*

Groundwater Technology, Inc. October 1987. *Assessment of Soil and Ground Water Phase III Report, General Electric Company, Riverview Plant, Schenectady, New York.*

Groundwater Technology, Inc. Hixon, R.A. October 7, 1987. Letter Report regarding findings resulting from the preliminary assessment of soil and ground water at the GE Riverview plant.

Groundwater Technology, Inc. December 2, 1987. *Summary of Ground Water Sampling Results, General Electric Company, Riverview Plant, Schenectady, New York.*

Groundwater Technology, Inc. May 16, 1988. *Assessment of Ground Water Contamination General Electric Corporation, Riverview. Plant, Schenectady, New York.*

Groundwater Technology, Inc. December 5, 1991. *Field Investigation Work Scope*

Groundwater Technology, Inc. January 26, 1993. *Field Investigation Report.*

Insulating Materials Incorporated. Bivona, G.C. April 3, 1992. Correspondence regarding comments on A.T. Kearney's draft RCRA Facility Assessment Report.

Insulating Materials Incorporated. Drake, A.L. November 8, 1994. Correspondence regarding Insulating Materials, Inc., EPA ID No.: NYD052987096, RCRA Facility Assessment Status.

Insulating Materials Incorporated. Mellon, D.M., December 22, 1994. Correspondence regarding Insulating Materials, Inc., EPA ID No.: NYD052987096, RCRA Facility Assessment Status.

Insulating Materials Incorporated. Mellon, D.M. March 24, 1995. Correspondence regarding Insulating Materials, Inc. EPA ID No.: NYD052987096, RCRA Facility Assessment Status.

Insulating Materials Incorporated. Mellon, D.M. January 15, 1997. Correspondence regarding Insulating Materials Incorporated Riverview Site, EPA ID No.: NYD052987096, Additional Data on SWMU 18 RV33 Raw Material Tank Farm and General Electric Inactive Waste Site #4-47-005.

LaFleur, R.G. 1983. *Mohawk Valley Episodic Discharges - The Geomorphic and Glacial Sedimentary Record.*

McLaren/Hart Environmental Engineering Corporation. December 15, 1994. *Underground Storage Tank Removal Report*

McLaren/Hart Environmental Engineering Corporation. January 30, 1997. *Interim Status Hazardous Waste Management Unit Closure Report, RV-42 Container Storage Area.*

McNamee, Lochner, Titus & Williams, P.C. Privitera, J.J. February 25, 1997. Correspondence regarding questions as to whether corrective action is required at any of the identified solid waste management units (SWMUs) and resolution of the GE inactive hazardous waste site, Insulating Materials, Inc. (Riverview).

New York State Department of Environmental Conservation. Ricotta, P.E., F. January 14, 1987. Correspondence regarding maintenance of a registry of all inactive disposal sites suspected or known to contain hazardous waste.

New York State Department of Environmental Conservation, Region 4. Van Guilder, C., PE. February 21, 1997. Correspondence regarding Closure of Hazardous Waste Storage Area in RV42 EPA Identification Number: NYD052987096.

Rust Environmental & Infrastructure. February 1994. *Insulating Materials, Inc., Wash Solvent Discharge Investigation.*

Rust Environmental & Infrastructure. February 1994. *Insulating Materials, Inc., 73128 Product Discharge Remediation*

Smith & Mahoney, P.C. March 1992. *Report of an Environmental Assessment Update and a Limited Hydrogeologic Evaluation. Building RV-42 Warehouse Insulating Materials Incorporated.*

United State Environmental Protection Agency. Bellina, A., PE. November 3, 1993. Correspondence regarding Insulating Materials, Inc., Draft Hazardous and Solid Waste Amendments Permit, EPA I.D. No.: NYD052987096.

United States Geological Survey. Brown, G.A., Moore, R.B., Mahon, K.I. and R.V. 1981. *Geohydrology of the Valley-Fill Aquifer in the Schenectady Area, Schenectady County, New York*

Wagner, Heindel, and Noyes, Inc. February 9, 1995 *Insulating Materials Incorporated Schenectady, NY Contaminant Source Investigation*

Woodward-Clyde Consultants. October 1989. *Field Investigation Report, Volume 1 of 3.*

TABLE 2-1

WATER LEVEL AND TOTAL DEPTH INFORMATION
FOR MAY 28, 1998
Riverview Facility
Schenectady, New York

WELL ID	Ground Surface Elevation (ft amsl)	Measuring Point Elevation (ft amsl)	Depth to Water (ft bmp)	Ground Water Elevation (ft amsl)	Installed Total Depth (ft bmp)	Measured Total Depth (ft bmp)	Calculated Accumulated Sediment (ft)
GT-1	341.7	343.49	62.89	280.60	71.9	69.40	2.50
GT-2	341.7	344.37	NM	obstruction	NA	NM	NA
GT-3	339.8	340.97	61.43	279.54	70.3	65.55	4.75
GT-4	337.0	339.31	60.70	278.61	72.3	69.92	2.38
GT-5	341.7	344.95	60.15	284.80	72.14	70.58	1.56
GT-6	341.2	343.71	NM	destroyed	70.6	NM	NA
GT-7	341.8	344.38	62.43	281.95	72.2	70.50	1.70
GT-8	341.7	344.94	53.79	291.15	62.2	56.75	5.45
GT-9	340.9	340.76	NM	NA	71.14	NM	NA
GT-10	342.7	345.67	64.57	281.10	74.2	72.42	1.78
GT-11	341.1	343.98	NM	destroyed	NA	NM	NA
GT-12	340.0	342.37	62.37	280.00	72.25	70.41	1.84
GT-13	342.0	341.71	61.58	280.13	74.1	74.50	-0.40
GT-14	341.3	340.93	64.09	276.84	71.7	69.60	2.10
GT-15	341.7	341.30	70.24	271.06	78.8	77.15	1.65
GT-16	339.8	339.72	68.86	270.86	78.8	76.86	1.94
SMW-1	NA	NA	NM	NA	73.2	NM	NA
SMW-2	NA	340.97	65.08	275.89	73	72.27	0.73

Notes:

1. The installed total depth is based on the reported well depth measured on September 9, 1992 by GTI.
2. All elevations are expressed in feet above mean sea level.
3. "NM" indicates water level not measured.
3. "NA" indicates information not avaliable

TABLE 2

Summary of Potential Areas of Concern

Potential Area of Concern	Constituents detected in soil	Remedial Activities	Recommendations
RV-14 varnish room leach field/dry well (SWMU #6)	xylene, ethylbenzene, toluene, trimethylbenzene, PID	1980 drain lines sealed	2 borings, SB98-1, SB98-2, Soil sample analysis for VOCs, evaluate ground water
RV-14 fuel oil UST (SWMU #8)	xylene, trimethylbenzene, naphthalene, sec-butylbenzene, n-propylbenzene, TPH, PID	Tank and soil removed, 1987.	1 boring, SB98-3, soil sample analysis for VOC
RV-14 boiler dry well	naphthalene		Evaluate ground water
RV-37 former RCRA tank (SWMU #19)	toluene, ethybenzene, xylene, trimthylbenzene cyclohexane, cresylic acid, phenols, naphtha, PID	Tank and soils removed, but limited due to structures (11/88)	Evaluate ground water
RV-33 raw material tank farm (SWMU #18)	ethylbenzene, trimethylphenol, dimethylphenol, xylene, trimethlybenzene	Farm closed 1996	4 borings SB98-4, 5, 6 & 7 soil samples for VOCs & SVOCs 3 wells, VRI-2, VRI-3, VRI-4
Former RCRA drum storage (SWMU #25)	n-propyl benzene, xylene	closed 1989	Evaluate ground water
RV-30 former UST tank farm (AOC B)	phenol	tanks removed (1994)	No further action
RV-14 10,000 UST (SWMU #7)	None detected	scheduled for removal	No further action

TABLE 2
(continued)

Summary of Potential Areas of Concern

Potential Area of Concern	Constituents detected in soil	Remedial Activities	Recommendations
RV-33 leach field and dry well (SWMU #15)	None detected	ceased use 1980	No further action
RV-42 hazardous waste storage (SWMU #22)	None detected		No further action
Former outdoor container storage area 1 (SWMU #26)	None detected	ceased use 1985	No further action
Former outdoor container storage area 2 (SWMU #27)	None detected	ceased use 1989	No further action
Empty drum storage (SWMU #29)	None detected		No further action
RV-33 rail loading/unloading (SWMU #16)	1987 spill None detected	closed 1996	No further action
RV-33 Truck unloading area (SWMU #17)	cresylic acid, n-methylpyrolidone, phenol, trimethylphenol. xylene, trimethylbenzene, phenol	closed 1996	No further action
RV-37 leach field and dry well (SWMU #21)	None detected	ceased use 1989	No further action
Former outdoor container storage area 3 (SWMU #28)	None detected		No further action
RV-33 Truck Loading Area (AOCA)	None detected		No further action

TABLE 2
(continued)

Summary of Potential Areas of Concern

Potential Area of Concern	Constituents detected in soil	Remedial Activities	Recommendations
RV-14 West Loading Area Spill Site (AOCC)	None detected		No further action

APPENDICES

APPENDIX A

Spills and building history

TABLE 1

1993 CHEMICAL USAGE AND STORAGE LOCATIONS

INSULATING MATERIALS INCORPORATED - RIVERVIEW PLANT

Schenectady, New York

IMI FACILITY STORAGE LOCATION (See Appendix 1, Figure 6)	CHEMICAL
12, 28	Heating oil No. 2
TF1, 33, PD3	Aromatic 100 (06097)
33	Glycerine (06099)
PD3, PD1	Isopropanol (06104)
TF2	Aromatic 150 (06135)
14	Mica (O6M5015)
PD1, 14	Silicone gum (06M5177)
14	Glass fabric (06M5181) (06M5853)
14	Fiber glass yarn (06M5394)
TF2	Dibasic ester (06M6006)
42, 33	Adipic acid (06M6012)
33, 42	Fumaric acid (06M6022)
33, 42	Isophthalic acid (06M6028)
42	Purified terephthalic acid (06M6041)
PD3, 14, PD1	Ethanol (06M6050)
TF1, 33	Mesitol - Trimethylphenol (06M6173) (phenol, o-cresol)
TF1	Cresylic acid (06M6197) (CA433) (phenol, o-cresol)
TF1, 14	Diallyl phthalate (06M6206)
33	Dicyclopentadiene (06M6212)
14, 42, PD1	2-ethyl hexyl acrylate (06M6239)
TF2	37% formaldehyde solution (06M6250) (formaldehyde)
33, 42	Formvar 7/95E resin (06M6251) 15/95E (06M6486)
42	Neopentyl glycol (06M6269)
PD3	Propylene glycol (06M6270)
33, 42	Resimene 881 Melamine solution (06M6331) (formaldehyde)
42	Triaryl sulfonium chloride (06M6335)
42	Phthalic anhydride (06M6476)

TABLE 1

1993 CHEMICAL USAGE AND STORAGE LOCATIONS

INSULATING MATERIALS INCORPORATED - RIVERVIEW PLANT

Schenectady, New York

IMI FACILITY STORAGE LOCATION (See Appendix 1, Figure 6)	CHEMICAL
42	Epoxy resin ERL 4221E (06M6501) (epoxy resin sol. 18123)
33, 42	Epoxy novolac (06M6579) DEN 438
TF1	Silica crystalline quartz (06M6609)
24	Propylene carbonate (06M6627)
TF1	Trimetylol propane molten (06M6656)
42	Vinyl toluene (06M6675)
PD2	Polyester resin solution (18161) unsaturated polyester sol. (18181)
14, 42	Epoxy-phenolic solution (18185) (phenol)
14, 42 [PD1, 33, 14]	Polyester resin solution (18622)(18203)(18204)[18205]
PD1, 22, 14	Polyester resin solution (18207)
33, PD2	Phenolic formaldehyde resin (18227) (phenol, o-cresol)
PD2	Phenolic resin (18263) (formaldehyde)
14, 42 [PD2, 42] {42}	Unsaturated polyester (18270) [3255]{73524}
33 (storage 3)	Epoxy-polyurethane resin sol. (18519H) (phenol, o-cresol)
33	Cresylic-epoxy resin sol. (18524) (phenol, o-cresol)
33 (storage 1,2,5,6)	Polyester wire enamel (331079) (phenol)
42	Unsaturated polyester resin (704A)
33	Phenolic polyurethane resin (73039) (phenol, o-cresol)
33 (storage 4)	Nylon wire enamel (73112) (phenol)
TF2	Blocked polyurethane (73128) (phenol, o-cresol)
PD2	Epoxy-polyorethane wire enamel (73134N) (phenol, o-cresol)
33	Phenol blocked isocyanate sol. (73135) (phenol)
33 (storage 1,2,5,6)	Polyester wire enamel (73250) (phenol, o-cresol)
33	73251 (phenol, o-cresol)
42, 14	Phenolic epoxy solution (74024)
14, PD1	Acrylate-polyester solution (7551BU)

TABLE 1

1993 CHEMICAL USAGE AND STORAGE LOCATIONS

INSULATING MATERIALS INCORPORATED - RIVERVIEW PLANT

Schenectady, New York

IMI FACILITY STORAGE LOCATION (See Appendix 1, Figure 6)	CHEMICAL
14	Filled silicone rubber sol. (76469)
33	Polyester resin (9519) (phenol, o-cresol)
42	Polyester phenolic resin (9637)
33	Silicone resin sol. (PSA590)
TF2, 33	Nitrogen, LIN
33, 42	Therminol 59 heat transfer fluid

[IMI.T1A/LGOLDSMITH]

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
1/78	RV-33 unloading station.	Wire enamel: 4,000 gal.	Hose rupture during unloading (human error).	Unknown	Unknown	78-1	G.E.
4/5/78	RV-33 tank farm.	Xylenol: 4,400 gal.	#6 tank - bottom cleaned out - cover not closed (human error).	Unknown	Unknown	78-2	G.E.
4/27/78	RV-33 tank farm.	Cresylic acid: 20 gal.	#3 tank overflowed during fill.	Unknown	Unknown	78-3	G.E.
10/5/78	RV-14 varnish room.	BF3 epoxy: 55 gal.	Overheated and exotherming (human error).	Unknown	Unknown	78-4	G.E.
10/20/78	RV-33 tank farm.	Xylenol: 400 gal.	Overfill (instrumentation).	Unknown	Unknown	78-5	G.E.
1/30/79	RV-33 5,000 gal. reactor.	Xylenol: 400 gal.	Overfilled reactor (instrumentation) Flow meter malfunctioned.	Unknown	Unknown	79-1	G.E.
2/9/79	RV-33 unloading station.	Xylenol: 50 gal.	Improper vendor unloading.	Unknown	Unknown	79-2	G.E.
4/10/79	RV-33 piping yard.	73162 wire enamel: 50 gal.	Face seal flange gasket failed	Unknown	Unknown	79-5A	G.E.
4/10/79	RV-33 storage #5.	73162 wire enamel: 200 gal.	Overflow tank.	Cleanup of Coastal Services, Inc.	Unknown	79-5	G.E.

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
6/16/79	Bldg. RV-33 (transfer line between bldg. and tank car loading station).	73162 wire enamel (21% phenol, 28% cresylic acid, 20% solvesso, 30% resins): 200 - 400 gal.	Gasket failure.	Cleanup by Coastal Services, Inc.	Unknown	79-6	G.E.
7/6/79	RV-33 tank car unloading station.	9517 wire enamel: 1,500 gal.	Overfilling.	Cleanup by Coastal Services, Inc.	Unknown	79-7	G.E.
7/6/79	Bldg. RV-33	73162 wire enamel: 50 gal.	Gasket failure.	Cleanup by Coastal Services, Inc.	Unknown	79-8	G.E.
10/23/79	RV-42 storage tank farm.	Polyester resin 18266: 50 gal.	Human error.	Removal of sand and crushed rock and disposed.	Unknown	79-9	G.E.
1/4/80	RV-33 roof.	Naptha and cresylic acid: approximately 50 gal.	Valve failed to close properly allowing material to overflow out onto roof surface. No human or environmental consequences	Unknown	Unknown	80-2	G.E.
1/8/80	RV-33 basement	Dowtherm G: 1,000 gal.	Reactor failure.	Spill contained and remediated for disposal.	No	80-1	G.E.

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
6/18/80	Unclear (between RV-42 and RV-42 storage tank impoundment area).	Water containing phenol contaminate: 40 gal.	Drum cover slipped off while moving.	Speedi-dri, adsorption material placed into drums for disposal.	No	80-3	G.E.
3/20/81	RV-33 Tank Car Pad	Cresylic acid: 2 - 5 lbs.	Leak at bottom discharged valve of tank car.	Absorbed and disposed.	No	81-2	G.E.
5/4/81	East side of drum storage area of RV-33.	RMC6164 (n-methyl pyrrolidone): 20 gal.	Leak in drum.	Unknown	No	81-3	G.E.
5/5/81	Blacktop area outside receiving dock on west side of RV-14.	Silicone adhesive: 20 gal.	Falling of drum onto driveway.	Speedi-dri and recovery of material.	No	81-4	G.E.
6/15/81	Basement floor of RV-33.	Dowtherm A: 50 gal.	Pump failure.	Soaked up and placed in drums for disposal.	No	81-5	G.E.
6/18/81	Blacktopped drum storage area on east side of RV-33.	18292 intermediate (solvesso 100, mondur SH, phenol and cresylic acid): 100 lbs.	Drum leaking.	Speedi-dri and placed in drum for dispsal.	No	81-6	G.E.
6/22/81	RV-14, cold room	18297 intermediate (47% MEK and epoxy resins): 3 gal.	Rack puncture of a drum.	Absorbed with Speedi-dry and disposed in drum.	No	81-8	G.E.

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
6/25/81	RV-33 basement	Downtherm A: 100 gal.	Seal of Dowtherm pump failed	Speedi-dri absorbed and disposed.	No	81-9	G.E.
6/27/81	RV-33 basement	Dowtherm A: 100 gal.	Equipment leakage.	Speedi-dri absorbed and disposed.	No	81-10	G.E.
8/5/81	Blacktop storage area opposite RV-14.	Product 73160 (containing ester-imide resin, cresylic acid, trimethyl, solvesso 100) 165 lbs.	Forks puncturing drums.	Speedi-dri used and truck cleaned by shipping personnel.	No report	81-11	G.E.
On or about 8/10/81	Varnish room floor RV-14.	Varnish: 30 gal.	Unclear	Unclear	Unknown	81-18	G.E.
9/15/81	Ground above buried tank containing 2-ethyl hexyl acrylate.	2 ethyl hexyl acrylate tank at G.E.: 75 gal (555 lbs.)	Pipeline blow out.	Pumping, removing of dirt and flushing.	No	81-12	G.E.
12/17/81	Blacktop in RV-14 outside varnsish storage area	18265 varnish (an alkyd resin dissolved in xylene): 150 lbs xylene: 75 lbs.	Slit in a drum while snowplowing.	Speedi-dri spread and contaminated material removed from snowbank. Scraped material placed in a drum and disposed.	No	81-16	G.E.

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
2/10/81	Tote tank in back of RV-14 (uncertain and ineligible)	Xylene: 300 gal.	Ineligible	Unclear	Unknown	81-17	G.E.
1/19/82	RV-14 drum storage pad adjacent to the east end. "Materials Handling Spill"	18206 (an intermediate varnish containing ethyl and isopropyl alcohol, MEK and toluene): 90 lbs.	Head clamp not fully tightened.	Speedi-dri and placed into drums for disposal	No	82-2	G.E.
6/3/82	RV-33 behind tank wagon unloaing pad.	RMC6173 (trimethyl phenol): 3 gal.	Discharge valve left slightly open.	Sand thrown on spill and shoveled into kits.	No	82-4	G.E.
9/2/82	RV-33 on concrete floor near new drum scle.	AI-630 (containing amid imide resin, n-mathyl pyrrolidone, solvesso 100): 10 gal.	Overflow reported.	Unknown	No	82-5	G.E.
9/13/82	Inside RV-42	RMC6761 (polyester resin containing styrene and vinytoluene): 400 gal. (approximately 660 lbs of styrene and 440 lbs of vinytoluene).	Pump left running.	Limestone used to absorb the resin.	No.	82-7	G.E.
3/16/83	Blacktop drum storage area to the east of RV-33.	Product 73166: less than 1 gal.	Drum puncture from fork of truck.	Not indicated in report.	No	83-3	G.E.

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
4/25/83	RV-14 concrete pad	No. 2 fuel oil: 5 - 10 gal.	Truck hit aboveground oil piping.	Speedi-dri and removal of contaminated dirt and replacement with fresh sand.	No	83-4	G.E.
2/11/84	RV-16 ground and catch basin to teh east of R-16.	Dowtherm A (73.5 / 26.5 diphenyl oxide / diphenyl) heat transfer fluid: 500 lbs	Relief valve opened and overflowed.	Dirt shoveled into drums for disopsal.	DEC notified of water contamination .	84-1	G.E.
4/9/84	BIC room. RV-33	TDI - quantity unknown	Dripping from previously drained and flushed pipes.	TDI sprayed with water, TDI room closed off, clean up continued until the monitor reached 10 ppbs.	No	None listed	G.E.
11/14/84	Floor near new banding tape installation. RV-14	18270 resin: approximately 10 gal.	Not listed	Material contained and cleaned up.	Unknown	None listed	G.E.
5/20/85	RV-33 ground and pavement by pump shaft to the underground storage tank east of RV-33.	Formalin (RMC6250, 37% formaldehyde, 60% methanol): 227 lbs.	Unloading from tank truck wihtout venting the tank	Recovery of dirt into 55 gal. drums for disposal. Replacement with clean dirt.	Yes: DEC #850935	85-1	G.E.

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
1/29/86	Ground area around the receiving station. RV-33	TMP (6652): amount unclear - approximately over 1,200 gal.	A hole near the elbow causing a leak.	Matrial picked up.	Yes	None listed	G.E.
3/12/86	RV-33 blacktop at south end.	Product 73027 (xylene, cresylic acid, and phenol): 1 gal.	Leak in drum	Speedi-dri absorbed contaminated material and placed in drum.	No	None listed	G.E.
3/31/86	Uncertain from contents of report	5 gal. (50% methylene chloride, 50% varnish)	Unclear from contents of report	Speedi-dri.	No	None listed	G.E.
1/10/87	RV-33 area. Gasket between 2 flanges on the trimethylol propane line.	Trimethylol propane: approximately 30 gal.	Rupture in propane line.	Report does not indicate.	Yes: DEC #866316		G.E.
3/16/87	RCRA tank. Located in southwest area of site, approximately 75' south of Bldg. RV-37.	D001 waste liquid (containing water, xylene, toluene, cyclohexane, naptha, cresylic acid and phenol): approximately 50 gal.	RCRA tank overflow.	Removal of contaminated dirt by Clean Harbors. Two groundwater monitor wells Installed in April 1987 (GT-1 and GT-2)	Yes: DEC #867647 & National Response Center, #2983		G.E.
11/24/87	Uncertain from contents of report.	No. 2 fuel oil: quantity unknown.	Unclear from contents of report.	Tank pulled and looked at for contamination	Yes; 11/24/87 DEC #877281		G.E.

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
3/3/88	Ground near stainer in the 73128 line, and the catch basin by the receiving shed.	Phenol and cresol: 1,500 lbs (approximately 225 gal.)	Gasket failure.	Remediated: catch basin diked; water shut-off; pumped water from and cleaned catch basins using vacuum truck; steamed all lines from catch basin. C.T. Male sampled Poentic Kill discharge per DEC request.	Yes: DEC # 8710175	88-1	G.E.
5/17/88	RV-33 Dowtherm pump.	600 ppb biphenyl, 200 ppb biphenylether (1-2 lbs. Dowthern A) in discharge water/ Poentic Kill. Dowtherm A (composed of byphenol and biphenyl ether.) Total amount not mentioned in report; however, CTM reported 600 ppb of biphenyl and 2,000 ppbs of biphenyl ether in discharge water.	Dowtherm storage tank overflowed due to pressure.	Clean Harbors remediated.	Yes: DEC #8801505	88-2	IMI

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
10/9-10/10/88	RV-33 inside floor.	88182 (Resin): 60-70 gal.	Pallet broke apart while being lifted.	Spill cleaned.	No; material contained to concrete floor inside RV-33 and remediated.	88-3	IMI
4/12/88	Concrete unloading pad by GT-9.	Toluene (<50%); and Benzene (<1%): 75 gal./608 lbs.		Spill contained on concrete pad.	No		IMI
1/11/89	Concrete under and around a tank wagon.	18519 (epoxy-polyurethane wire enamel) and 18521 (epoxy-polyurethane solution) green dye solution: approximately 200 gal.	Overflow while filling tank wagon.	Diked with Speedi-Dri. Spill contained on concrete pad. No solution entered the ground or drainage system; spill cleaned up.	No; spill contained on concrete pad and remediated.	89-1	IMI
4/12/89	Concrete unloading pad only by GT-9.	Trimethyl phenol: 75 gal./608 lbs.	Valve failed because frozen material held it open.	Completely cleaned up. Spill contained on concrete pad.	No; spill contained on concrete pad and remediated.	89-2	IMI

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
5/12/89	RV-33 near wash storage area northwest side of new factory area.	Toluene: 153 lbs. Ethyl alcohol: 103 lbs.	Pallet broke, drum fell and broke open.	Absorbent placed on spill and cleaned up; small catch basin (not connected to plant drain pipes) was pumped out.	Yes: DEC #89-01396	89-3	IMI
Between 12/19/89 and 1/10/90	RV-14 storage pad on asphalt.	18205 (varnish intermediate and xylene): 420 lbs.	Hole in drum- 1" from bottom; apparantly punctured with fork or pallet; with snow and ice spill not noticed until ice melted.	Material contained on pad and cleaned up on 1/10/90.	No; material contained to pad and remediated.	90-1	
1/18/90 and 1/20/90	RV-33 LTR 2 reactor in new factory.	74031: 3,00 lbs epoxy resin, 300 lbs. phenolic resin, 180 lbs. catechol exothermed.	Reaction in processing equipment.	Clean Harbors fully remediated.	Yes: DEC #8909984	90-2	IMI
6/13/90	RV-33 north tank farm (into sand).	Phenol: 10 gal./ 88lbs.	Phenol tank overfilled.	Remediated.	Yes: DEC #9002914	90-3	IMI
10/20/90	RV-33, cellar.	702A (polyster): approximately 900 lbs.	Gasket failure.	Contained and cleaned with Speedi-dri.	No; material contained inside and remediated.	90-1	IMI

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
3/11/91	RV-33 tank wagon loading pad.	18519H (clear wire enamel) on concrete pad: 30 lbs., and 3 lbs. of same on ground.	Open line not disconnected by a tagged and locked-out valve.	Absorbent spread-contaminated material remediated.	Yes: DEC #9012655	91-1	IMI
4/16/91	Rotterdam landfill.	1-3 bags of maleic anhydride: 55 lbs./bag	BFI dumped a 30-yard dumpster from IMI at Rotterdam landfill.	Clean Harbors responded and remediated.	Yes: DEC #9100607	91-2	IMI
5/10/91	Blacktop in front of RV-14 compactor.	Hydraulic fluid: several drops on blacktop only.	Hydraulic line on the BFI transporter burst.	Responded with Speedi-dri and brooms; spill cleaned up. BFI responded with sand truck. BFI driver took materials to Rotterdam depot and placed materials in W553 drums for disposal.	No; petroleum product.	91-3	IMI

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
8/16/91	Grass below pump area on underground tank.	37% formaldehyde: 44lbs. 7% methanol: 8lbs. 56% water	When pump turned on a small trickle of formaldehyde solution.	West Central Environmental remediated and removed 5 drums of dirt. Drums moved to RCRA storage area snd disposed of as U122 Hazardous Waste.	Yes: DEC #9105326	91-4	IMI
5/20/92	Interior concrete floor of RV-33, 2,000 gal. reactor.	Phenol-formalin mixture: 10 gal. (approximately 67.5 lbs. of phenol; 8.3 lbs. of formaldehyde; 1.6 lbs. of methanol; 12.6 lbs. of water). Total of 90 lbs.	Leak from agitator shaft onto concrete floor.	Material pumped into a tote tank and placed in open head drums. Speedi-dri added and shoveled up. Neutralizing solution added to floor. Mixture of phenol and formalin in the reactor was pumped into closed head drums.	No; material contained to interior of RV-33 and remediated.	92-1	IMI

CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
6/6/92	Railcar used to store cleaning solution.	Cleaning solution (50% cresylic acid, 25% aromatic 100, and 25% xylene): 10 gal./85lbs.	Railcar overfilled	Clean Harbors - see report submitted to DEC. (Date and name of report and when submitted.)	Yes: DEC #9202750	92-2	IMI
10/23/92	RV-33, press room	73250 (wire enamel): phenol (10-30%); cresylic acid (10-30%); organic esters (10-30%); and xylenol (1-5%): 40-50 gal.	Failure of pipe.	Spill contained in building and cleaned up.	No; materials contaned in building and remediated.	92-3	IMI
4/22/93	RV-42 Pad 2.	IMI Product #3255 (237.74 lbs diallyl phthalate; 271.21 lbs. polyester resin; and .05 lbs. tertiary butyl catechol): 545 lbs.	Truck forks punctured drum while lifting.	Clay absorbant spread and cleaned up; West Central Environmental vacuumed collected rain water and used a high pressure spray to clean blacktop; oil pads placed around catch basins.	Yes: DEC #9301050	93-1	IMI

92-1

APPENDIX 1: TABLE 4
CHRONOLOGY OF SPILLS AT THE RIVERVIEW SITE
Schenectady, New York

Date	Location	Material/ Quantity	Cause	Remedial Measures	Reported to DEC/Other (Spill No.)	Internal Spill No.	Ownership
5/6/93	RV-3 ground in southeast corner.	IMI Product No. 73128: 440 lbs. of mixture 73128 Composition blocked isocyanate resin, 41.97%; dibutylin dilaurate, .03%; aromatic 100, 30.8%; dibasic esters, 6.6%; phenol, 12.7%; mesitol, 7.3%; cresylic acid, .6%.	Pin hole leak in pipe line.	Contaminated soil removed by IMI and West Central Environmental	Yes: DEC #9301681	93-2	IMI

*Memo form R.L. Cotton to R.H. Ferrow dated 10/14/86 re: added lems of interest - insulating materials. The substance of this memo is as follows. Tasso laborers uncovered gross cresylic acid contamination in the RV-33 tank farm last week when restoring the dikes. In 1978, there was a 4,000 gal. spill of Selkirk "bottoms" that was apparently poorly cleanup at that time. We immediately brought in Clean Harbors to clean up the contaminated earth and properly diposed of it. As Clean Harbors dug in, they discovered that the saturation went 2-3 feet deep in places and stretched across the whole width of the tank farm. The spill was contained, but soaked into a lot the sand base in that half of the tank farm. The rest of the memo talks about the cost of the response.

Source: The table above is compiled from a document developed by IMI Environmental Compliance Division based on RCRA Facility Assessment Report for IMI, 1992, A. T. Kearney, Inc.

[U:\goldsmith\wpdocs\imitabl4]

TABLE 6

BUILDING HISTORY SUMMARY

INSULATING MATERIALS INCORPORATED - RIVERVIEW PLANT
Schenectady, New York

Building	Construction Date	Original Building Use	Subsequent Building Use	Current Building Use
RV-12 (former Q-10 bldg.)	1940s	Radar testing; (development of submarine sodium pump)	Research and development test facility for insulated materials, mine bolt resin	Testing lab for IMI products
RV13	1960 - 1964	Test facility for insulated materials; marketing research	-	Electrical testing for IMI products (gelatin test, viscosity test)
RV13A	1968	Hazardous chemical storage shed	-	Not in use
RV14 (former bldg. 5)	1945 (additions: 1951, 1963, 1965, 1969, 1984)	Radar development and manufacturing	Insulated materials manufacturing (mica products and insulating tapes); offices	Insulated materials manufacturing (mica products and insulating tapes); offices; product lab/development lab; QA/QC lab; varnish storage/mixing; wire tower process
RV16 (former bldg. 4)	1944	Radar development and testing (gyro control, electronics development, shielded test room, simulator)	calendered rubber production; blown plastic film manufacturing; electric tapes	low hazard waste storage (metal drums, fiberboard)
RV17	1960 - 1964	storage; tape slitting and packaging process	-	high voltage electrical testing area
RV28	1943	radar testing and development	administrative offices	administrative offices
RV30	1980	tanker truck unloading station for transfer of chemicals to underground storage tanks	-	tanker truck unloading station
RV31	1960 - 1964	maintenance shop; engineering offices; drafting offices	-	maintenance shop; engineering offices; drafting offices
RV32	1960 - 1964	oil and grease storage	-	oil and grease storage; landscaping equipment

TABLE 6

BUILDING HISTORY SUMMARY

INSULATING MATERIALS INCORPORATED - RIVERVIEW PLANT
Schenectady, New York

Building	Construction Date	Original Building Use	Subsequent Building Use	Current Building Use
RV33	1960 (additions: 1980, 1984)	varnish and wire enamel production	-	varnish, silicone, and wire enamel production
RV37	1960 - 1964	steam boiler house (waste solvent energy recovery)	-	boiler house
RV42	1973 (addition: 1977)	mine bolt resin production	high hazard storage area (cold room, catalyst area, RCRA storage area, red-label storage)	high hazard storage area (cold room, catalyst area, RCRA storage area, red-label storage)

[IMI.T4/LGOLDSMITH]

APPENDIX B

Geologic cross-sections

A (NW)

A' (SE)

GT-6 GT-14 ? GT-15 ? GT-16 GT-7

VERTICAL SCALE IN FEET

350 340 330 320 310 300 290 280 270 260 255

0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000 1050 1100 1150 1200 1250 1300 1350 1400 1450 1500

HORIZONTAL SCALE IN FEET

INFERRED PERCHED WATER ZONE (OBSERVED DURING DRILLING)

WATER TABLE (9/11/92)

SCREENED INTERVAL

VERY FINE SANDS & SILTS

COARSE & MEDIUM SANDS

FINE SANDS

CLAYEY SANDS & SILTS

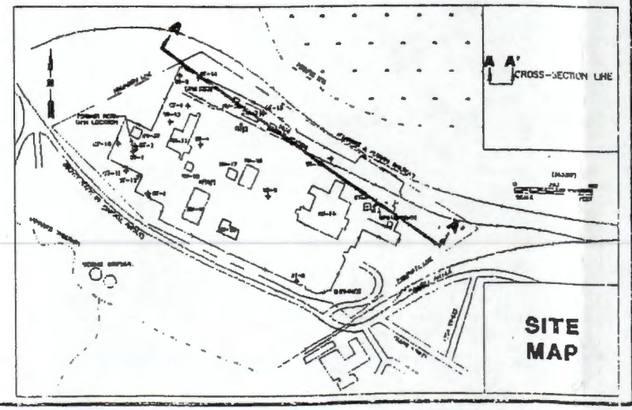
FINE TO MEDIUM SAND

CLAY

MEDIUM SANDS

BOTTOM OF EXPLORATION

NOTES: -ALL CONTACTS ARE INFERRED
-VERTICAL EXAGGERATION = 8.35

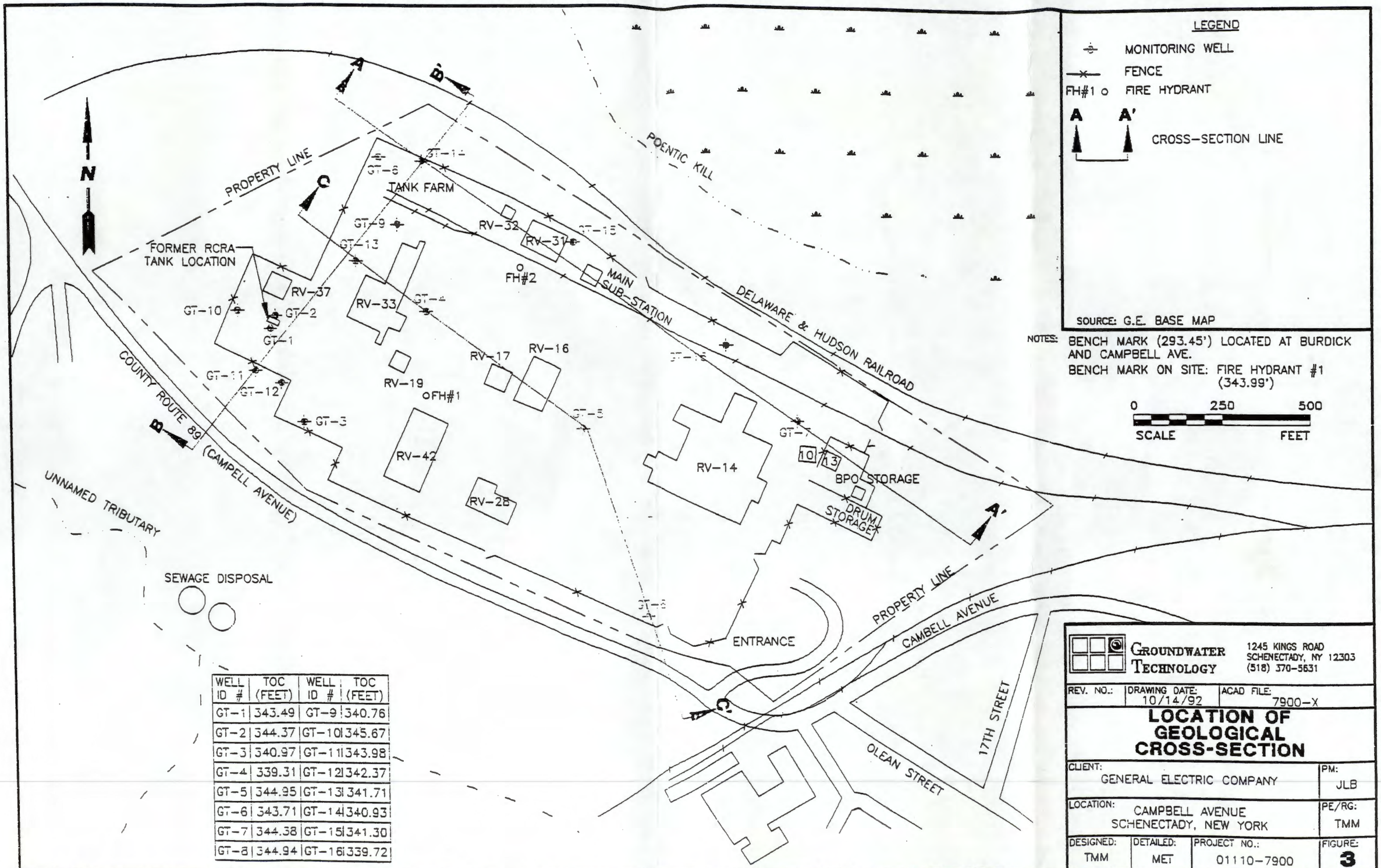


GROUNDWATER TECHNOLOGY
1245 KINGS ROAD
SCHENECTADY, NY 12303
(518) 370-5631

REV. NO.:	DRAWING DATE: 12/17/92	ACAD FILE: CROSS-A

GEOLOGICAL CROSS-SECTION A - A'

CLIENT: GENERAL ELECTRIC COMPANY			PM: JLB
LOCATION: FORMER G.E. FACILITY CAMPBELL AVENUE SCHENECTADY, NEW YORK			PE/RG: TMM
DESIGNED: TMM	DETAILED: MET	PROJECT NO.: 01110-7900	FIGURE:



LEGEND

- MONITORING WELL
- FENCE
- FH#1 o FIRE HYDRANT
- A A' CROSS-SECTION LINE

SOURCE: G.E. BASE MAP

NOTES: BENCH MARK (293.45') LOCATED AT BURDICK AND CAMPBELL AVE.
BENCH MARK ON SITE: FIRE HYDRANT #1 (343.99')

0 250 500
SCALE FEET

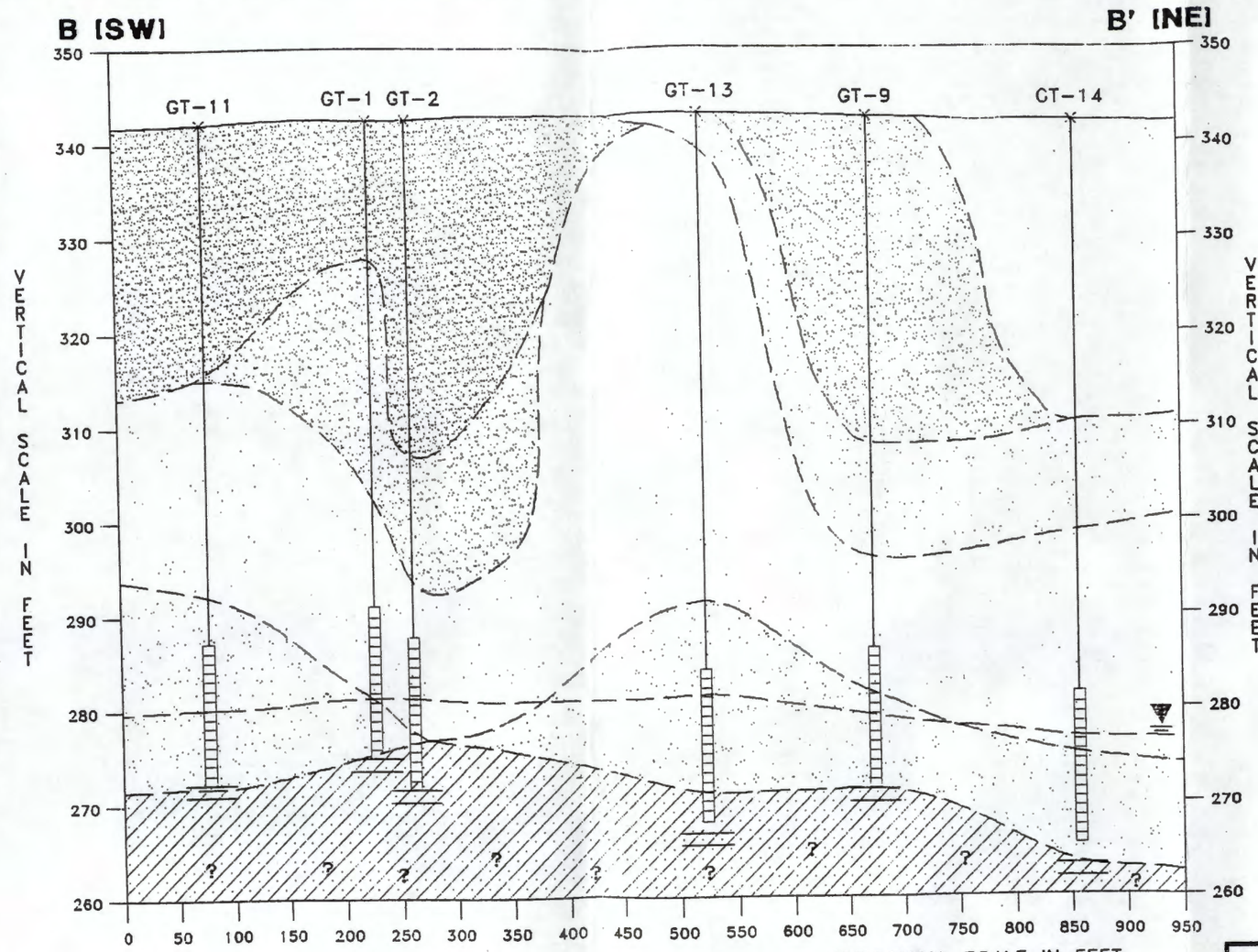
WELL ID #	TOC (FEET)	WELL ID #	TOC (FEET)
GT-1	343.49	GT-9	340.76
GT-2	344.37	GT-10	345.67
GT-3	340.97	GT-11	343.98
GT-4	339.31	GT-12	342.37
GT-5	344.95	GT-13	341.71
GT-6	343.71	GT-14	340.93
GT-7	344.38	GT-15	341.30
GT-8	344.94	GT-16	339.72

GROUNDWATER TECHNOLOGY
1245 KINGS ROAD
SCHENECTADY, NY 12303
(518) 370-5631

REV. NO.:	DRAWING DATE:	ACAD FILE:
	10/14/92	7900-X

LOCATION OF GEOLOGICAL CROSS-SECTION

CLIENT: GENERAL ELECTRIC COMPANY			PM: JLB
LOCATION: CAMPBELL AVENUE SCHENECTADY, NEW YORK			PE/RG: TMM
DESIGNED: TMM	DETAILED: MET	PROJECT NO.: 01110-7900	FIGURE: 3



WATER TABLE (9/11/92)

VERY FINE SANDS & SILTS

FINE SANDS

FINE TO MEDIUM SAND

MEDIUM SANDS

SCREENED INTERVAL

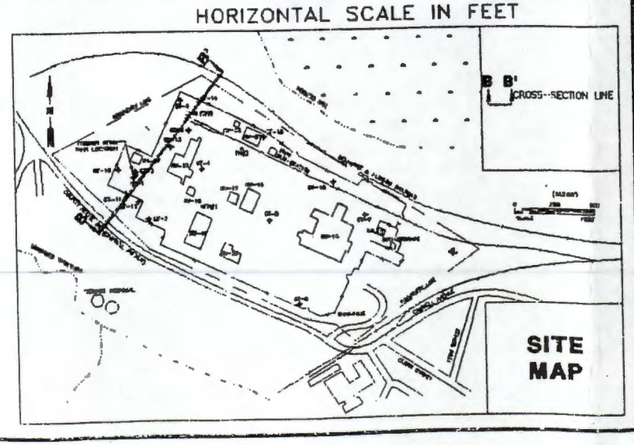
COARSE & MEDIUM SANDS

CLAYEY SANDS & SILTS

CLAY

BOTTOM OF EXPLORATION

NOTES: -ALL CONTACTS ARE INFERRED
-VERTICAL EXAGGERATION = 8.35

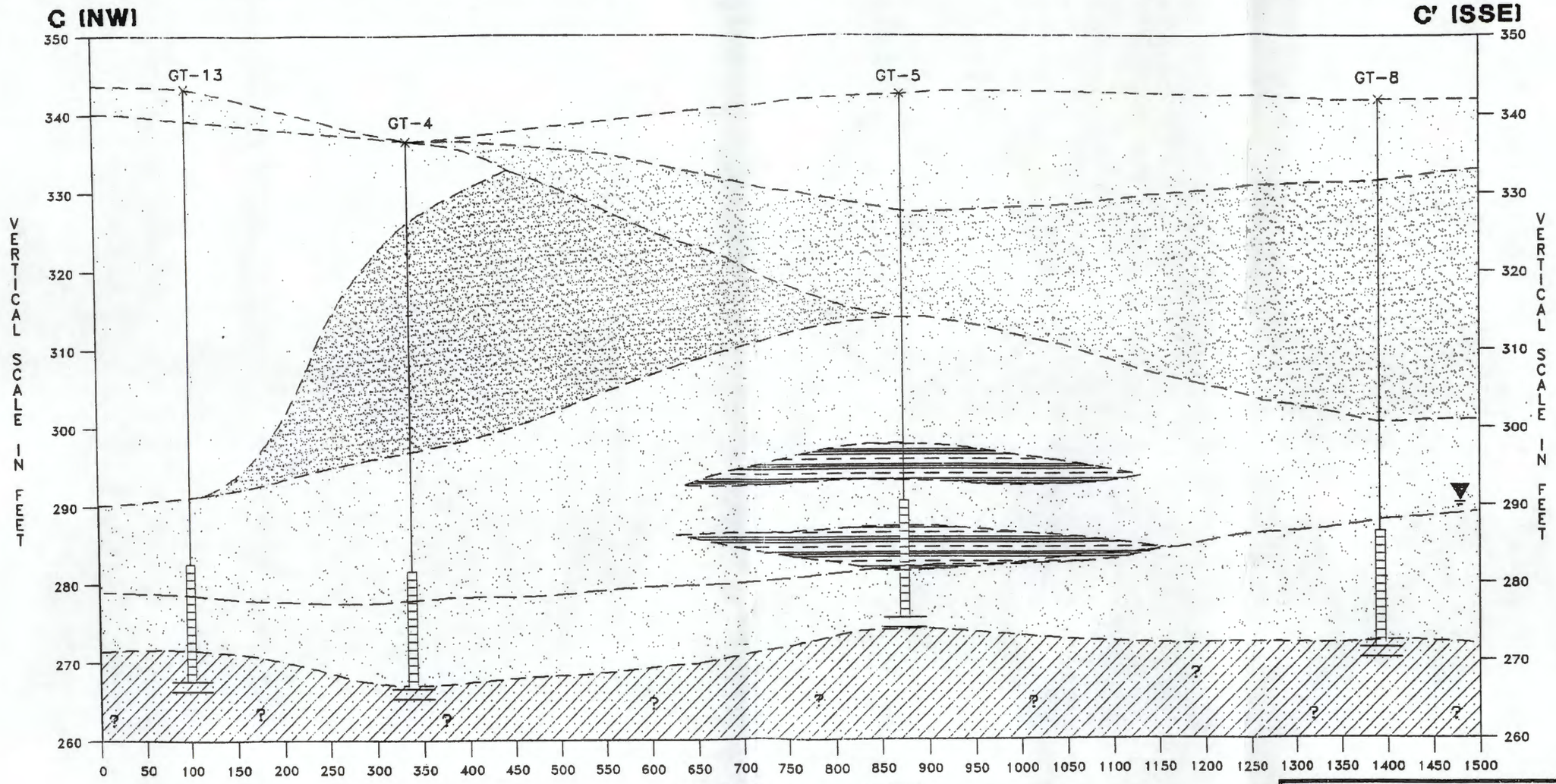


GROUNDWATER TECHNOLOGY
1245 KINGS ROAD
SCHENECTADY, NY 12303
(518) 370-5631

REV. NO.:	DRAWING DATE: 10/26/92	ACAD FILE: CROSS-B

GEOLOGICAL CROSS-SECTION B - B'

CLIENT: GENERAL ELECTRIC COMPANY			PM: JLB
LOCATION: FORMER G.E. FACILITY CAMPBELL AVENUE SCHENECTADY, NEW YORK			PE/RG: TMM
DESIGNED: TMM	DETAILED: MET	PROJECT NO.: 01110-7900	FIGURE:



WATER TABLE (9/11/92)

VERY FINE SANDS & SILTS

FINE SANDS

FINE TO MEDIUM SAND

MEDIUM SANDS

SCREENED INTERVAL

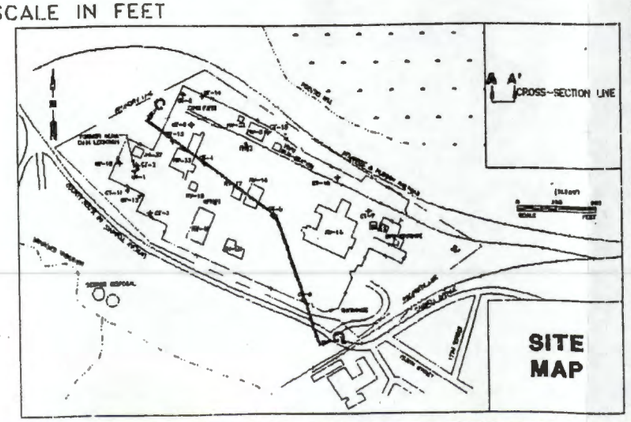
COARSE & MEDIUM SANDS

CLAYEY SANDS & SILTS

CLAY

BOTTOM OF EXPLORATION

NOTES: -ALL CONTACTS ARE INFERRED
-VERTICAL EXAGGERATION = 8.35



GROUNDWATER TECHNOLOGY
1245 KINGS ROAD
SCHENECTADY, NY 12303
(518) 370-5631

REV. NO.:	DRAWING DATE:	ACAD FILE:
	10/21/92	CROSS-C

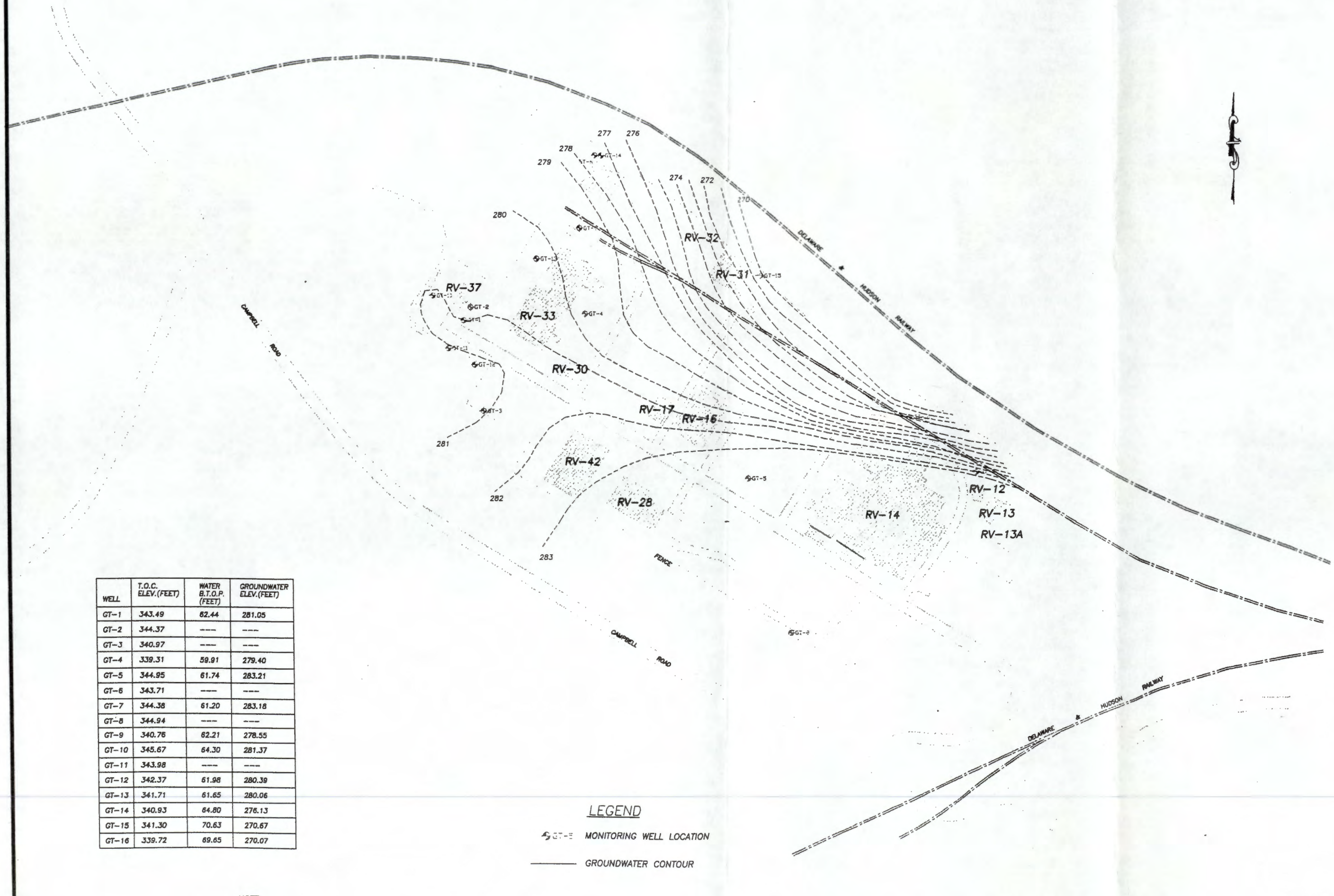
GEOLOGICAL CROSS-SECTION C - C'

CLIENT:	PM:
GENERAL ELECTRIC COMPANY	JLB
LOCATION: FORMER G.E. FACILITY CAMPBELL AVENUE SCHENECTADY, NEW YORK	PE/RG: TMM

DESIGNED:	DETAILED:	PROJECT NO.:	FIGURE:
TMM	MET	01110-7900	

APPENDIX C

Ground water contour maps



WELL	T.O.C. ELEV.(FEET)	WATER B.T.O.P. (FEET)	GROUNDWATER ELEV.(FEET)
GT-1	343.49	62.44	281.05
GT-2	344.37	---	---
GT-3	340.97	---	---
GT-4	339.31	59.91	279.40
GT-5	344.95	61.74	283.21
GT-6	343.71	---	---
GT-7	344.38	61.20	283.18
GT-8	344.94	---	---
GT-9	340.76	62.21	278.55
GT-10	345.67	64.30	281.37
GT-11	343.98	---	---
GT-12	342.37	61.98	280.39
GT-13	341.71	61.65	280.06
GT-14	340.93	64.80	276.13
GT-15	341.30	70.63	270.67
GT-16	339.72	69.65	270.07

LEGEND

GT-5 MONITORING WELL LOCATION

GROUNDWATER CONTOUR

NOTE:
GROUNDWATER MONITORING WELL LOCATIONS CORRECTED FROM GTI FIGURE 2: SITE MAP

SOURCE: GROUNDWATER TECHNOLOGY, INC. (GTI) FIELD REPORT, 1993 – FIGURE 2: SITE MAP.

FIGURE 2

GROUNDWATER ELEVATION CONTOUR MAP

INSULATING MATERIALS, INC. – RIVERVIEW SITE

SCHENECTADY, NEW YORK

PROJECT NO. 94318

FILE: C:\SCHENECT\WT

DRAWN BY: M. Luman

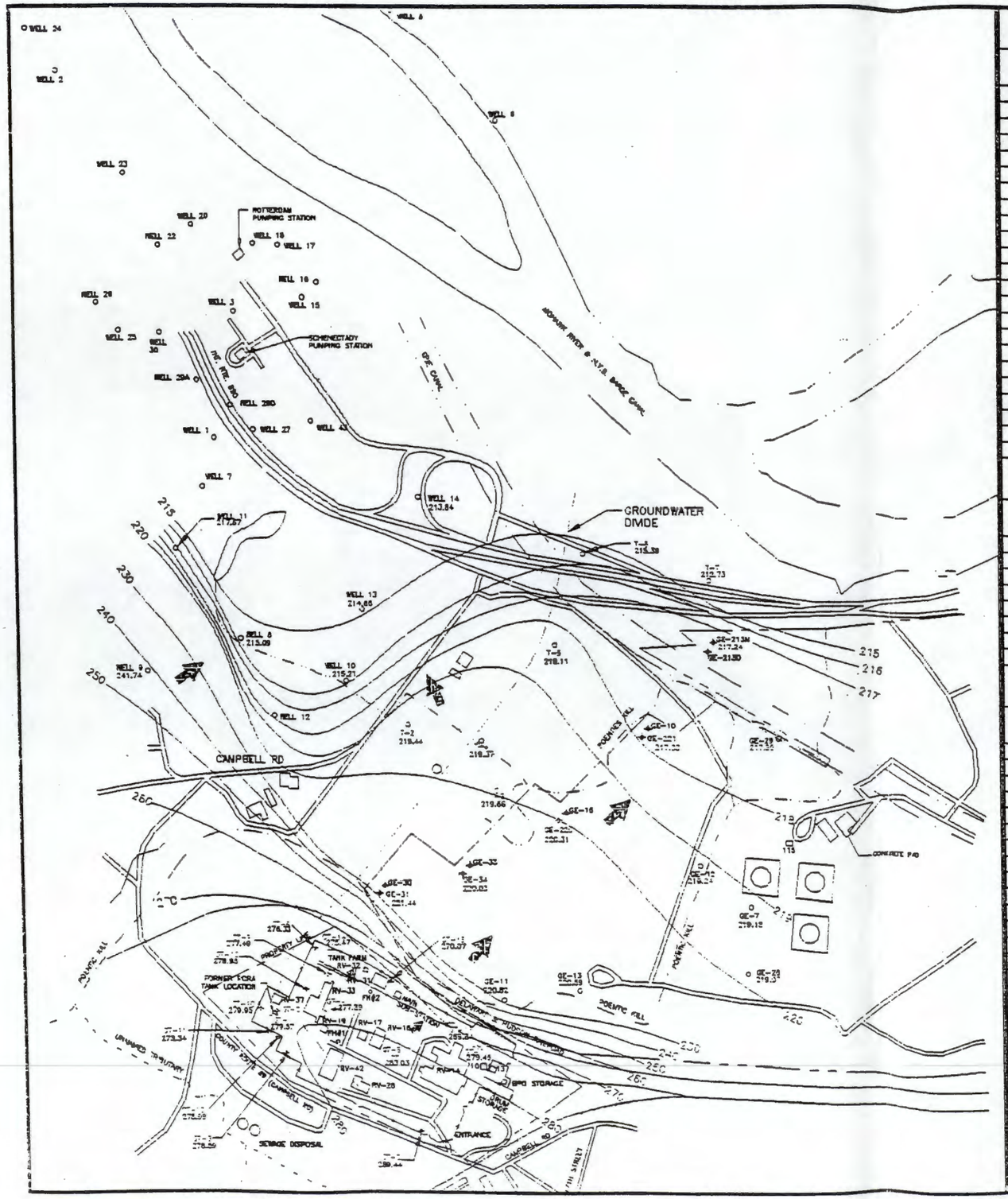
APPROVED: J. Noyes

Wagner, Heindel, and Noyes, Inc.

CONSULTING SCIENTISTS AND ENGINEERS

• Hydrogeology • Ecology •

• Environmental Engineering •



GROUNDWATER ELEVATIONS NOVEMBER 30, 1992

WELL ID	GROUNDWATER ELEVATION (FEET)	GEOLOGICAL FORMATION SCREENED
GE-7	219.18	FC
GE-10	217.79	FC
GE-221	217.93	FP
GE-11	220.82	FC
GE-12	219.24	FC
GE-13	220.59	FC
GE-15	219.69	FC
GE-220	220.31	FP
GE-26	219.07	FP
GE-28	217.33	FC
GE-29	217.95	FP
GE-30	220.42	FC
GE-31	221.44	FP
GE-33	220.16	FC
GE-34	220.03	FP
GE-213M	217.24	FP
GE-213D	217.10	FC
T-2	219.44	FC
T-3	219.66	FC
T-4	219.37	FC
T-5	218.11	FC
T-6	215.39	FC
T-7	212.73	FC

ROTTERDAM AND SCHENECTADY OBSERVATION WELLS

WELL ID	GROUNDWATER ELEVATION (FEET)	GEOLOGICAL FORMATION SCREENED
7	209.93	SCHENECTADY AQUIFER
8	215.09	FC
9	241.74	UNKNOWN
10	215.21	FC
11	217.67	FC
12	213.48	SCHENECTADY AQUIFER
13	214.66	FC
14	213.84	FC

GROUNDWATER TECHNOLOGY WELLS DECEMBER 1, 1992

WELL ID	GROUNDWATER ELEVATION (FEET)	GEOLOGICAL FORMATION SCREENED
GT-1	279.57	D
GT-3	278.59	D
GT-4	277.89	D
GT-5	283.03	D
GT-6	276.33	D
GT-7	279.45	D
GT-8	289.44	D
GT-9	277.49	D
GT-10	279.95	D
GT-11	278.34	D
GT-12	278.99	D
GT-13	278.95	D
GT-14	275.47	D
GT-15	270.07	D
GT-16	269.84	D

LEGEND

- GROUNDWATER TECHNOLOGY MONITORING WELL
- DEEP MONITORING WELL
- SHALLOW MONITORING WELL
- T-6 ○ TERRAN INC. MONITORING WELL
- GE-26 ○ GENERAL ELECTRIC MONITORING WELL
- WELL 15 ○ ROTTERDAM/SCHENECTADY OBSERVATION WELLS
- WATER
- FENCE
- PROPERTY LINE
- APPROXIMATE LOCATION LINE
- FH#1 ○ FIRE HYDRANT
- 220– GROUNDWATER CONTOUR (FEET)
- FC– FLUVIAL CHANNEL DEPOSITS
- FP– FLOODPLAIN DEPOSITS
- D– DELTAIC DEPOSITS
- DIRECTION OF GROUNDWATER FLOW

NOTES:

1.) BENCH MARK (293.45') LOCATED AT BURDICK AND CAMPBELL AVE.
BENCH MARK ON SITE: FIRE HYDRANT #1 (343.99')

2.) MAP IS A COMPOSITE OF DAMES AND MOORE DWG; MONITOR WELL LOCATIONS (JOB #1674-879-006) TERRAN RESEARCH INC. DWG; GE WATER LEVEL DIVIDE STUDY AND GTI BASE MAP.

N

0 1000 2000

APPROXIMATE SCALE IN FEET

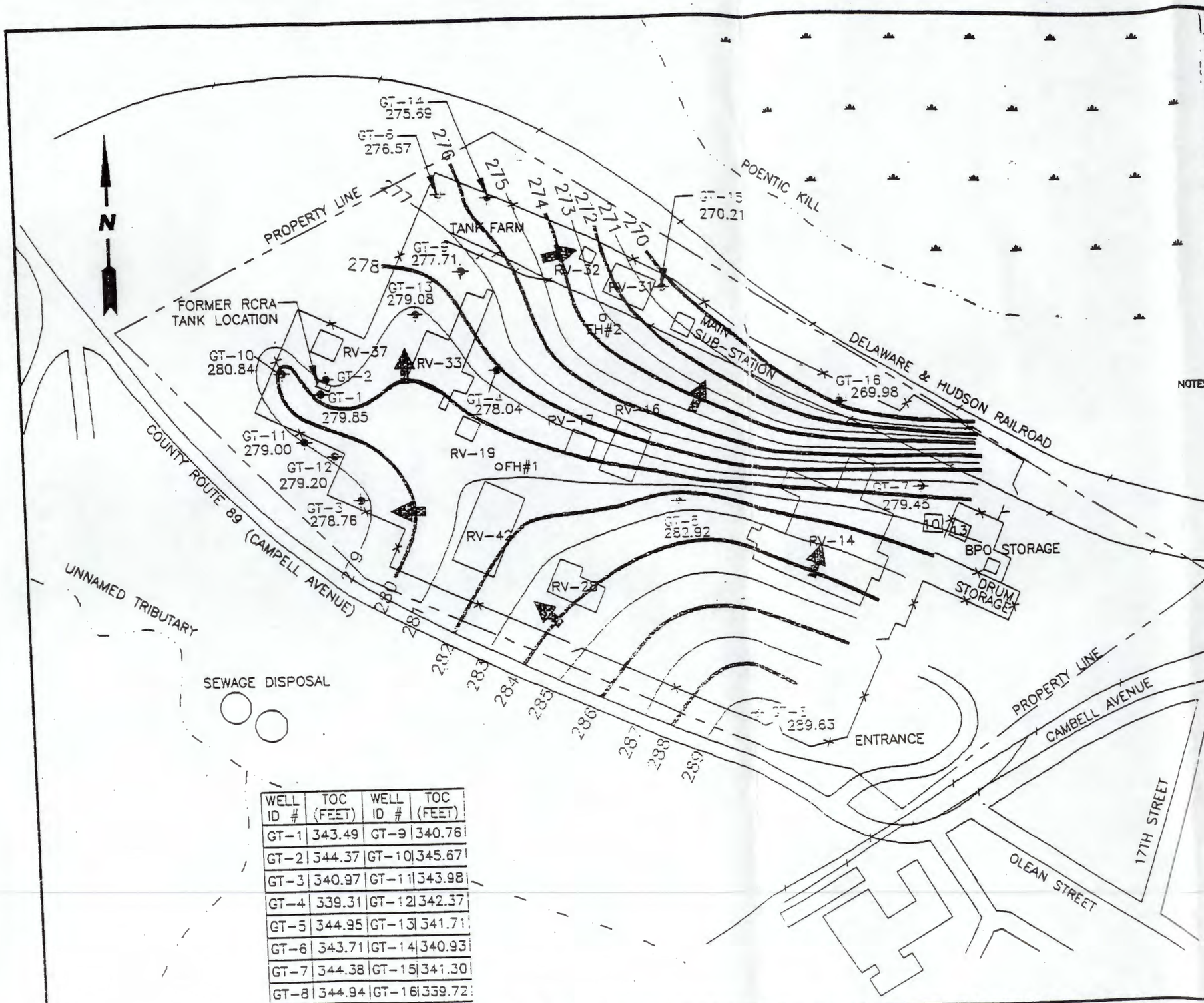
GROUNDWATER TECHNOLOGY
1245 KINGS ROAD
SCHENECTADY, NY 12303
(518) 370-5631

REV. NO.:	DRAWING DATE:	ACAD FILE:
	1/22/93	7900-RCM

REGIONAL GROUNDWATER CONTOUR MAP

CLIENT:	PM:
GENERAL ELECTRIC COMPANY	JLB
LOCATION: CAMPBELL AVENUE SCHENECTADY, NY	PE/RG: TMM

DESIGNED:	DETAILED:	PROJECT NO.:	FIGURE:
TMM	MET	01110-7900	5



WELL ID #	TOC (FEET)	WELL ID #	TOC (FEET)
GT-1	343.49	GT-9	340.76
GT-2	344.37	GT-10	345.67
GT-3	340.97	GT-11	343.98
GT-4	339.31	GT-12	342.37
GT-5	344.95	GT-13	341.71
GT-6	343.71	GT-14	340.93
GT-7	344.38	GT-15	341.30
GT-8	344.94	GT-16	339.72

LEGEND

- MONITORING WELL
- FENCE
- FH#1 o FIRE HYDRANT
- 289.63– GROUNDWATER ELEVATION (FEET)
- 271– GROUNDWATER CONTOUR (FEET)
- DIRECTION OF GROUNDWATER FLOW
- MONITORING DATE: 9/11/92

SOURCE: G.E. BASE MAP

NOTES: BENCH MARK (293.45') LOCATED AT BURDICK AND CAMPBELL AVE.
BENCH MARK ON SITE: FIRE HYDRANT #1 (343.99')

0 250 500
SCALE FEET

GROUNDWATER TECHNOLOGY
1245 KINGS ROAD
SCHENECTADY, NY 12303
(518) 370-5631

REV. NO.:	DRAWING DATE: 9/17/92	ACAD FILE: GWSEPT92

GROUNDWATER CONTOUR MAP

CLIENT: GENERAL ELECTRIC COMPANY			PM: JLB
LOCATION: CAMPBELL AVENUE SCHENECYADY, NEW YORK			PE/RG: TMM
DESIGNED: TMM	DETAILED: MET	PROJECT NO.: 01110-7900	FIGURE: 4

APPENDIX D

Ground water analytical data
Smith & Mahoney, P.C.
March 1992 Report

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

LABORATORY REPORT

for

Smith & Mahoney, P.C.
79 North Pearl Street
Albany, NY 12201

Attention: Vernon Weiss

Purchase Order #: 5081300VW

Report date: 10/21/91
Number of samples analyzed: 5
AES Project ID: 910927 X
Invoice #: 109380

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 1
AES sample #: 910927 X01

Samples taken by: Kenneth Koonz Location: Rotterdam NY
MATRIX: ground water grab

Date Sampled: 09/27/91
Date sample received: 09/27/91

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DAT
pH	EPA-150.1	7.2	su	PH-F-10	09/27/9
EH	Orion	177	mv	EH-B-41	10/11/9
Specific Conductance	EPA-120.1	1140	umhos/cm	EH-B-42	10/11/9
Reactivity	SW-846 Sec.7.3	Non	Reactive	CN-D-32	10/01/9
Cyanide,Total	EPA-335.2	<0.01	mg/l	CN-D-32	10/01/9
Sulfide	SM-427D	1.7	mg/l	SI-B-13	09/30/
Chloromethane	EPA-624	<10	ug/l	GCMS-Y-11	10/03/
Bromomethane	EPA-624	<10	ug/l	GCMS-Y-11	10/03/
Vinyl Chloride	EPA-624	<10	ug/l	GCMS-Y-11	10/03/
Chloroethane	EPA-624	<10	ug/l	GCMS-Y-11	10/03/
Methylene Chloride	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
Trichlorofluoromethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
1,1 Dichloroethene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
1,1 Dichloroethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
1,2-Dichloroethene Total	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
Chloroform	EPA-624	<5	ug/l	GCMS-Y-11	10/03
1,2 Dichloroethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03
1,1,1 Trichloroethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03
Carbon Tetrachloride	EPA-624	<5	ug/l	GCMS-Y-11	10/03
Bromodichloromethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 1
AES sample #: 910927 X01

Date Sampled: 09/27/91
Date sample received: 09/27/91
Samples taken by: Kenneth Koonz Location: Rotterdam NY
MATRIX: ground water grab

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DATE
1,2-Dichloropropane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
t-1,3-Dichloropropene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
Trichloroethene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
Benzene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
Dibromochloromethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
1,1,2-Trichloroethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
cis-1,3-Dichloropropene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
2-Chloroethylvinylether	EPA-624	<10	ug/l	GCMS-Y-11	10/03/9
Bromoform	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
1,1,2,2-Tetrachloroethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
Tetrachloroethene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
Toluene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
Chlorobenzene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
Ethylbenzene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
Acenaphthene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Acenaphthylene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Anthracene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Benzo(a)anthracene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Benzo(b)fluoranthene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Benzo(k)fluoranthene	EPA-625	<10	ug/l	GCMS-X-27	10/08/

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 1
AES sample #: 910927 X01

Date Sampled: 09/27/91
Date sample received: 09/27/91
Samples taken by: Kenneth Koonz Location: Rotterdam NY
MATRIX: ground water grab

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DAT
Benzo(g,h,i)perylene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Benzo(a)pyrene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Benzidine	EPA-625	<80	ug/l	GCMS-X-27	10/08/9
Butyl benzyl phthalate	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Bis(2-Chloroethoxy)methane	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Bis(2-Chloroethyl)ether	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Bis(2-Chloroisopropyl)ether	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Bis(2-ethylhexyl)phthalate	EPA-625	<10	ug/l	GCMS-X-27	10/08/
4-Bromophenylphenyl ether	EPA-625	<10	ug/l	GCMS-X-27	10/08/
2-Chloronaphthalene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
4-Chlorophenylphenyl ether	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Chrysene	EPA-625	<10	ug/l	GCMS-X-27	10/08
Dibenzo(a,h)anthracene	EPA-625	<10	ug/l	GCMS-X-27	10/08
Di-n-butyl phthalate	EPA-625	<10	ug/l	GCMS-X-27	10/08
1,2 Dichlorobenzene	EPA-625	<10	ug/l	GCMS-X-27	10/08
1,3 Dichlorobenzene	EPA-625	<10	ug/l	GCMS-X-27	10/08
1,4 Dichlorobenzene	EPA-625	<10	ug/l	GCMS-X-27	10/08
3,3'-Dichlorobenzidine	EPA-625	<20	ug/l	GCMS-X-27	10/08
Diethyl phthalate	EPA-625	<10	ug/l	GCMS-X-27	10/08
Dimethyl phthalate	EPA-625	<10	ug/l	GCMS-X-27	10/08

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 1
AES sample #: 910927 X01

Date Sampled: 09/27/91
Date sample received: 09/27/91
Samples taken by: Kenneth Koonz Location: Rotterdam NY
MATRIX: ground water grab

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DAT
2,4 Dinitrotoluene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
2,6 Dinitrotoluene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Di-n-octyl phthalate	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Fluoranthene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Fluorene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Hexachlorobenzene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Hexachlorobutadiene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Hexachlorocyclopentadiene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Hexachloroethane	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Indeno(1,2,3-cd)pyrene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Isophorone	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Naphthalene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Nitrobenzene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
N-Nitrosodi-n-propylamine	EPA-625	<10	ug/l	GCMS-X-27	10/08/
N-Nitrosodiphenylamine	EPA-625	<10	ug/l	GCMS-X-27	10/08/
N-Nitrosodimethylamine	EPA-625	<10	ug/l	GCMS-X-27	10/08
1,2-Diphenylhydrazine	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Phenanthrene	EPA-625	<10	ug/l	GCMS-X-27	10/08
Pyrene	EPA-625	<10	ug/l	GCMS-X-27	10/08
1,2,4 Trichlorobenzene	EPA-625	<10	ug/l	GCMS-X-27	10/08

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 1
AES sample #: 910927 X01

Date Sampled: 09/27/91
Date sample received: 09/27/91
Samples taken by: Kenneth Koonz Location: Rotterdam NY
MATRIX: ground water grab

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DAT
4-Chloro-3-methylphenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
2-Chlorophenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
2,4 Dichlorophenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
2,4 Dimethylphenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
2,4 Dinitrophenol	EPA-625	<50	ug/l	GCMS-X-27	10/08/9
2-Methyl-4,6-Dinitrophenol	EPA-625	<50	ug/l	GCMS-X-27	10/08/
4-Nitrophenol	EPA-625	<50	ug/l	GCMS-X-27	10/08/
2-Nitrophenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Pentachlorophenol	EPA-625	<50	ug/l	GCMS-X-27	10/08/
Phenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/
2,4,6 Trichlorophenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 2
AES sample #: 910927 X02

Date Sampled: 09/27/91
Date sample received: 09/27/91
Samples taken by: Kenneth Koonz Location: Rotterdam NY
MATRIX: ground water grab

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DAT
pH	EPA-150.1	7.2	su	PH-F-10	09/27/9
EH	Orion	180	mv	EH-B-41	10/11/9
Specific Conductance	EPA-120.1	1230	umhos/cm	EH-B-42	10/11/9
Reactivity	SW-846 Sec.7.3	Non	Reactive	CN-D-32	10/01/9
Cyanide,Total	EPA-335.2	<0.01	mg/l	CN-D-32	10/01/9
Sulfide	SM-427D	0.72	mg/l	SI-B-13	09/30/9
Chloromethane	EPA-624	<10	ug/l	GCMS-Y-11	10/03/9
Bromomethane	EPA-624	<10	ug/l	GCMS-Y-11	10/03/
Vinyl Chloride	EPA-624	<10	ug/l	GCMS-Y-11	10/03/
Chloroethane	EPA-624	<10	ug/l	GCMS-Y-11	10/03/
Methylene Chloride	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
Trichlorofluoromethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
1,1 Dichloroethene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
1,1 Dichloroethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
1,2-Dichloroethene Total	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
Chloroform	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
1,2 Dichloroethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
1,1,1 Trichloroethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
Carbon Tetrachloride	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
Bromodichloromethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 2
AES sample #: 910927 X02

Date Sampled: 09/27/91
Date sample received: 09/27/91
Samples taken by: Kenneth Koonz Location: Rotterdam NY
MATRIX: ground water grab

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DAT
1,2-Dichloropropane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
t-1,3-Dichloropropene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
Trichloroethene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
Benzene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/9
Dibromochloromethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
1,1,2-Trichloroethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
cis-1,3-Dichloropropene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
2-Chloroethylvinylether	EPA-624	<10	ug/l	GCMS-Y-11	10/03/
Bromoform	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
1,1,2,2-Tetrachloroethane	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
Tetrachloroethene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
Toluene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
Chlorobenzene	EPA-624	<5	ug/l	GCMS-Y-11	10/03/
Ethylbenzene	EPA-624	<5	ug/l	GCMS-Y-11	10/03
Acenaphthene	EPA-625	<10	ug/l	GCMS-X-27	10/08
Acenaphthylene	EPA-625	<10	ug/l	GCMS-X-27	10/08
Anthracene	EPA-625	<10	ug/l	GCMS-X-27	10/08
Benzo(a)anthracene	EPA-625	<10	ug/l	GCMS-X-27	10/08
Benzo(b)fluoranthene	EPA-625	<10	ug/l	GCMS-X-27	10/08
Benzo(k)fluoranthene	EPA-625	<10	ug/l	GCMS-X-27	10/08

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 2
AES sample #: 910927 X02

Date Sampled: 09/27/91
Date sample received: 09/27/91
Samples taken by: Kenneth Koonz Location: Rotterdam NY
MATRIX: ground water grab

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DAT
Benzo(g,h,i)perylene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Benzo(a)pyrene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Benzidine	EPA-625	<80	ug/l	GCMS-X-27	10/08/9
Butyl benzyl phthalate	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Bis(2-Chloroethoxy)methane	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Bis(2-Chloroethyl)ether	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Bis(2-Chloroisopropyl)ether	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Bis(2-ethylhexyl)phthalate	EPA-625	<10	ug/l	GCMS-X-27	10/08/
4-Bromophenylphenyl ether	EPA-625	<10	ug/l	GCMS-X-27	10/08/
2-Chloronaphthalene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
4-Chlorophenylphenyl ether	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Chrysene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Dibenzo(a,h)anthracene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Di-n-butyl phthalate	EPA-625	<10	ug/l	GCMS-X-27	10/08/
1,2 Dichlorobenzene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
1,3 Dichlorobenzene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
1,4 Dichlorobenzene	EPA-625	<20	ug/l	GCMS-X-27	10/08/
3,3'-Dichlorobenzidine	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Diethyl phthalate	EPA-625	<10	ug/l	GCMS-X-27	10/08
Dimethyl phthalate					

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 2
AES sample #: 910927 X02
Samples taken by: Kenneth Koonz
MATRIX: ground water

Date Sampled: 09/27/91
Date sample received: 09/27/91
Location: Rotterdam NY
grab

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DAT
2,4 Dinitrotoluene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
2,6 Dinitrotoluene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Di-n-octyl phthalate	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Fluoranthene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Fluorene	EPA-625	<10	ug/l	GCMS-X-27	10/08/9
Hexachlorobenzene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Hexachlorobutadiene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Hexachlorocyclopentadiene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Hexachloroethane	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Indeno(1,2,3-cd)pyrene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Isophorone	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Naphthalene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Nitrobenzene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
N-Nitrosodi-n-propylamine	EPA-625	<10	ug/l	GCMS-X-27	10/08/
N-Nitrosodiphenylamine	EPA-625	<10	ug/l	GCMS-X-27	10/08/
N-Nitrosodimethylamine	EPA-625	<10	ug/l	GCMS-X-27	10/08/
1,2-Diphenylhydrazine	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Phenanthrene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Pyrene	EPA-625	<10	ug/l	GCMS-X-27	10/08/
1,2,4 Trichlorobenzene	EPA-625	<10	ug/l	GCMS-X-27	10/08/

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 2
AES sample #: 910927 X02
Samples taken by: Kenneth Koonz
MATRIX: ground water

Date Sampled: 09/27/91
Date sample received: 09/27/91
Location: Rotterdam NY
grab

continued:

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DA
4-Chloro-3-methylphenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/
2-Chlorophenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/
2,4 Dichlorophenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/
2,4 Dimethylphenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/
2,4 Dinitrophenol	EPA-625	<50	ug/l	GCMS-X-27	10/08/
2-Methyl-4,6-Dinitrophenol	EPA-625	<50	ug/l	GCMS-X-27	10/08/
4-Nitrophenol	EPA-625	<50	ug/l	GCMS-X-27	10/08/
2-Nitrophenol	EPA-625	<10	ug/l	GCMS-X-27	10/08/
Pentachlorophenol	EPA-625	<50	ug/l	GCMS-X-27	10/08/
Phenol	EPA-625	<10	ug/l	GCMS-X-27	10/08
2,4,6 Trichlorophenol	EPA-625	<10	ug/l	GCMS-X-27	10/08

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 1-Field Blank
AES sample #: 910927 X03
Samples taken by: Kenneth Koonz
MATRIX: ground water

Date Sampled: 09/27/91
Date sample received: 09/27/91
Location: Rotterdam NY
grab

PARAMETER	PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DA
HOLD			Not	Analyzed		09/27/

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: 2-Field Blank
AES sample #: 910927 X04
Samples taken by: Kenneth Koonz
MATRIX: ground water

Date Sampled: 09/27/91
Date sample received: 09/27/91
Location: Rotterdam NY
grab

PARAMETER	PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DAT
HOLD			Not	Analyzed		09/27/9

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CLIENT: Smith & Mahoney, P.C.
CLIENT'S SAMPLE ID: Trip Blank
AES sample #: 910927 X05
Samples taken by: Kenneth Koonz
MATRIX: ground water

Date Sampled: 09/27/91
Date sample received: 09/27/91
Location: Rotterdam NY
grab

PARAMETER PERFORMED	METHOD	RESULT	UNITS	NOTEBK REF	TEST DAT
HOLD		Not	Analyzed		09/27/9

APPROVED BY: Frank Sweden
Report date: 10/21/91

Adirondack Environmental Services, Inc.
314 North Pearl Street
Albany, New York 12207
518-434-4546/434-0891 FAX

A full service analytical research laboratory offering solutions to environmental concerns

CHAIN OF CUSTODY RECORD

CLIENT NAME: Smith & Mahoney, P.C.
ADDRESS: 79 N. Pearl St. N. Pearl St. Albany, N.Y. 12207
PROJECT NAME (Location): Rotterdam
PO NUMBER: 5081300VW
SAMPLERS' (Names): Kenneth M. Koonz
SAMPLERS: (Signature): Kenneth M. Koonz

AES SAMPLE NUMBER	CLIENT SAMPLE IDENTIFICATION & LOCATION	DATE SAMPLED	TIME A=a.m. P=p.m.	MATRIX	COMP	GRAB	NUMBER OF CONT'S	ANALYSIS REQUIRED
	(SMW-1) 1 KK.	9-27	2 P	GW		✓	6	624, 625, pH, T-Cyanide, Sulfide, Spec. Con
	(SMW-2) 2 KK	9-27	3:30 P	GW		✓	6	624, 625, pH, T-Cyanide, Sulfide, Spec.
HOLD	1 - FB	9-27				✓	1	624
HOLD	2 - FB	9-27					2	624-625

Turnaround Time

Laboratory Approval:

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Kenneth M. Koonz		
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by: (Signature)	Date/Time

Dispatched by: (Signature)	Date/Time	Received for Laboratory by:	Date/Time
		[signature]	9/27/11 4:30

Method of Shipment:

Send Report To: Vern Weiss

Client Phone No.:

The Laboratory reserves the right to return hazardous samples to the client or may levy a fee of $10.00 per container for disposal.

WHITE - Lab Copy YELLOW - Sampler Copy PINK - Generator Copy

APPENDIX E

Ground water analytical data
GTI, January 1993 Report

APPENDIX E

Ground water analytical data
GTI, January 1993 Report

TABLE 4 (updated 3/17/93)
SUMMARY OF GROUNDWATER SAMPLING RESULTS – COMPARISON
MATRIX OF POSITIVE SAMPLING DETECTIONS
GENERAL ELECTRIC CO.
FORMER RIVERVIEW SITE
ALL PARAMETERS REPORTED IN PARTS PER MILLION (PPM)

DATE:	04/20/87	05/27/87	08/03/87	08/04/87	08/20/87	08/21/87	10/23/87	02/18/88	09/09/88	09/09/88	9/8–11/92
SAMPLER:	GROUNDWATER TECHNOLOGY	GROUNDWATER TECHNOLOGY	GROUNDWATER TECHNOLOGY	GROUNDWATER TECHNOLOGY	GROUNDWATER TECHNOLOGY	GROUNDWATER TECHNOLOGY	GROUNDWATER TECHNOLOGY	GROUNDWATER TECHNOLOGY	GROUNDWATER TECHNOLOGY	NYS DEC	GROUNDWATER TECHNOLOGY
WELL											
GT–1	Tol.350; E.Bnz.160; Tot. Xylenes 1.130; Sub. Benz. 1.200	Sub. Phenol .012	NOT SAMPLED THIS DATE	Meth. Chlor .085; Tol .010; Tot Xy .340; Sub. Benz .530; Sub Phenol .002	Meth Chlor .051; E. Benz. .027; Tot Xyl .190; Sub Benz. .031	NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	Phenol .027	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	Untn Voa 0.18 Isoph 0.001 Untn Semi–Voa. 0.007 Zn 0.047 Ba 0.07 Mg 13.5 Na 125 Ca 138 Mn 0.004 Zn 0.019 Cr 0.005 K 0.8
GT–2	Toluene .003; Xylene .004	ORG. CMPDS NOT DETECTED	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	Tetrachlor. .002	ORG. CMPDS NOT DETECTED	Pb .042	NOT SAMPLED THIS DATE
GT–3			NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	As .030; Be .007; Cr .145; Pb .134	Al 37.7 Sb 0.026 As 0.01 Cn 0.002 Ba 0.288 Be 0.002 Cr 0.051 Co 0.047 Cu 0.098 Fe 94.1 Pb 0.057 Mg 49.1 Mn 3.26 Ni 0.083 K 7.17 Na 85.9 V 0.098 Zn 0.258 Al 0.046 Fe 0.097 Mn 0.047 Ba 0.033 Pb 0.001 K 1.06 Ca 90.8 Mg 9.89 Na 93.7
GT–4			NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	Al 16.6 As 0.081 Ba 0.19 Be 0.001 Co 0.019 Pb 0.024 Ni 0.035 V 0.036 Ca 194 Cu 0.05 Mg 27.9 K 4.23 Zn 0.136 Cr 0.027 Fe 39.6 Mn 1.44 Na 154 Ba 0.059 Mn 0.003 Zn 0.029 Ca 101 K 0.808 Mg 13.1 Na 157
GT–5			NOT SAMPLED THIS DATE	Chloroform .001; Trichlor. .005	NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	Chloroform 0.002 Unknown Semi–VOA. 0.01 Al 0.951 Cr 0.004 Pb 0.003 K 2.06 Zn 0.023 Ba 0.05 Cu 0.003 Mg 12.9 Na 53.5 Cn 0.002 Ca 112 Fe 1.71 Mn 0.053 V 0.004
GT–6			NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE
GT–7			NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	Pb .034	Al 0.305 Be 0.03 Ca 83 Cu 0.005 Fe 0.814 Mn 0.033 K 0.867 Mg 8.65 Zn 37.9 Cn 0.001 Pb 0.003
GT–8			NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	Ba 1.440; Be .010; Cr .177; Pb .447	bis(2–Eth.)pht. 0.210 Unkn Semi–Voa 0.053 Al 24.5 Ba 0.23 Cr 0.031 Fe 57.8 Mn 1.74 Zn 0.006 Al 0.029 Fe 0.065 Mn 0.003 Na 4.74 Be 0.002 Co 0.028 Pb 0.031 Ni 0.054 V 0.055 Ba 0.029 Pb 0.001 K 1.06 As 0.009 Ca 190 Cu 0.085 Mg 25.9 K 5.16 Zn 0.186 Ca 62.4 Mg 8.77 Na 3.88
GT–9			NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	Xylenes .141; Sub. Benzene .093	Xy .036; Phen .005; Sub. Benz .170; PCB .003; Pb .057; Be .004	Al 3.31 As 0.002 Ba 0.088 Xylenes 6.3 Untn Subs Benz 25.7 Ca 152 Cr 0.006 Fe 6.96 Mn 1.28 V 0.008 Cu 0.011 Mg 18.8 K 1.73 Zn 0.077 Untn Semi–Voa 4.07 Untn Arom. 7.05 Ba 0.059 Mg 16.6 Na 6.7 Ca 142 Mn 0.868 Zn 0.024 Cu 0.004 K 0.87
GT–10								ORG. CMPDS NOT DETECTED	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	Al 0.49 Ba 0.043 Cd 0.003 Ca 109 Fe 1.21 Mn 0.068 Zn 0.017 Cr 0.004 Pb 0.003 K 1.04 Cu 0.007 Mg 11.2 Na 10.1
GT–11								ORG. CMPDS NOT DETECTED	ORG. CMPDS ND; As .021; Ba .002; Cr .03; Cu .09; Pb .14; Ni .08; Th .07; Zn .18	Tot. Phtal. .012; Pb .031	NOT SAMPLED THIS DATE
GT–12								Trichlor .001	NOT SAMPLED THIS DATE	NOT SAMPLED THIS DATE	PCE 0.005 Unkn. Voa 0.073 Butylbenzylpht. 0.001 Unkn. Semi–Voa 0.057 Al 28 Be 0.002 Co 0.029 Pb 0.036 Ni 0.053 V 0.057 As 0.005 Ca 222 Cu 0.076 Mg 33.6 K 4.98 Zn 0.234 Ba 0.236 Cr 0.041 Fe 67.5 Mn 2.02 Na 114 Cn 0.001 Ba 0.053 Pb 0.001 K 0.871 Ca 102 Mg 10.7 Na 106 Cr 0.004 Mn 0.002 Zn 0.026
GT–13											4–Methylph. 0.001 2,4–dimethylph. 0.001 Naphth. 0.006 Unkn Aromatics 2.38 Unk Semi–Voa 0.201 Xylenes 0.82 Unkn Subs Benz 3.93 Al 8.83 Ba 0.126 Co 0.007 Pb 0.007 Ni 0.016 V 0.017 As 0.001 Ca 172 Cu 0.022 Mg 23.4 K 3.85 Zn 0.217 Cr 0.013 Fe 16.8 Mn 0.672 Na 47.6 Cn 0.001 Ba 0.059 Pb 0.001 K 1.38 Ca 135 Mg 16.1 Na 36.7 Cu 0.005 Mn 0.173 Zn 0.026
GT–14											Phenol 0.016 Unkn Semi–Voa 0.032 Al 20 Be 0.001 Co 0.019 Pb 0.026 Ni 0.041 V 44 As 0.005 Ca 230 Cu 0.053 Mg 37.2 K 5.16 Zn 0.184 Ba 0.198 Cr 0.036 Fe 45.4 Mn 1.51 Na 4.67 Cn 0.001 Ba 0.043 Mg 15.4 Na 3.36 Ca 107 Mn 0.006 Zn 0.023 Pb 0.001 K 1.88
GT–15											Chloroform 0.002 TCE 0.009 Butylbenzylpht. 0.001 Unkn Semi–Voa 0.011 Unkn Hydroc. 0.02 Al 1.23 As 0.001 Cr 0.006 Pb 0.007 K 1.54 Zn 0.029 Ba 0.0763 Cu 0.014 Mg 12.9 Na 22.9 Ca 92.6 Fe 4.82 Mn 0.164 V 0.005
GT–16											Chloroform 0.002 Carbon Tetrachl. 0.002 TCE 0.026 Unkn Semi–Voa 0.029 Unkn Hydroc. 0.009 Al 1.31 Ca 121 Fe 3.04 Mn 0.133 V 0.005 As 0.001 Cr 0.005 Pb 0.004 K 1.51 Zn 0.016 Ba 0.074 Cu 0.006 Mg 17.4 Na 35.6

THESE WELLS NOT INSTALLED AT THIS TIME

KEY:
[ ] – FILTERED SAMPLE

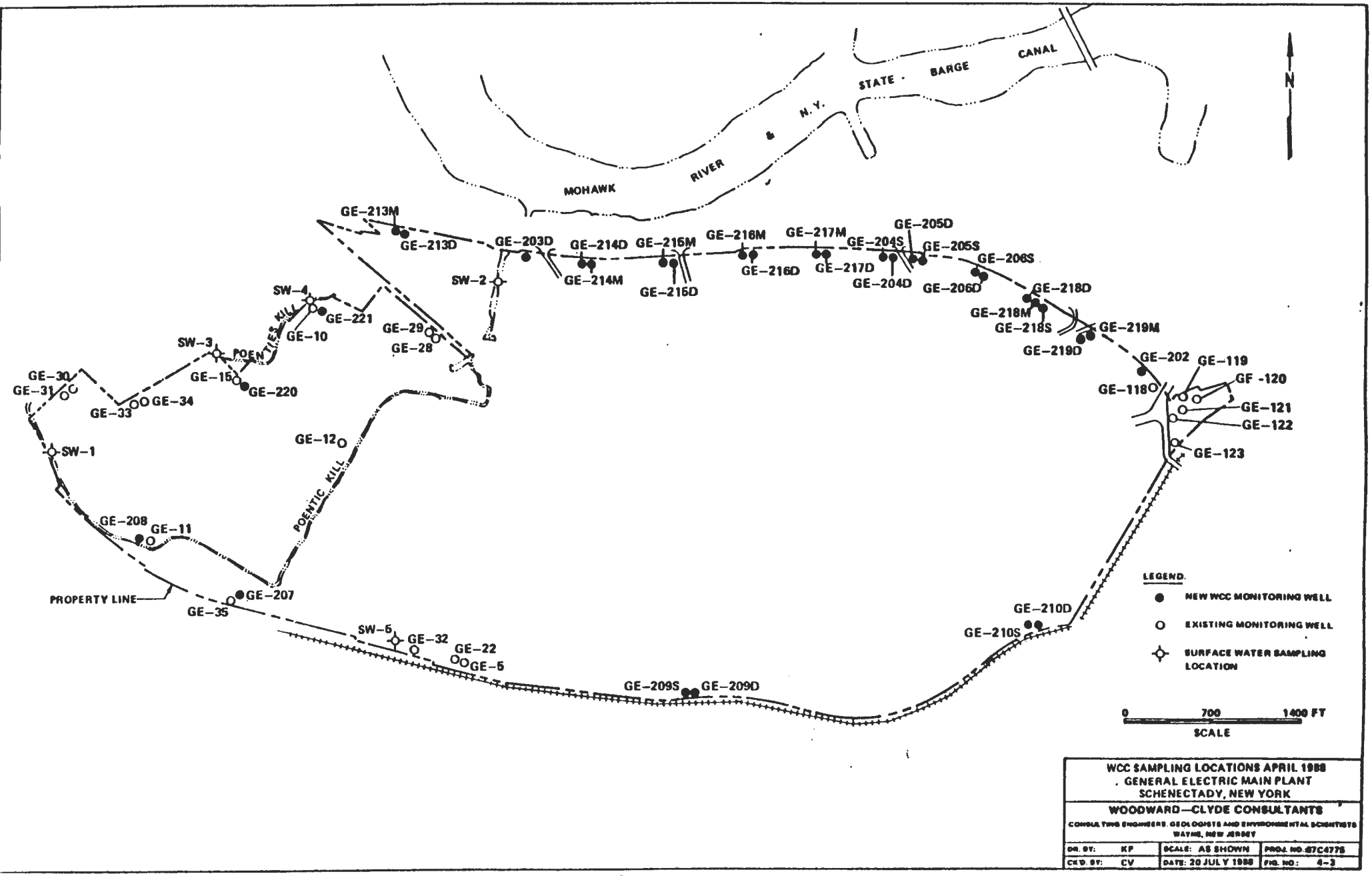
NOTE: NOT ALL ANALYTICAL METHODS WERE CONSISTENTLY COMPLETED AT EACH WELL LOCATION.
PLEASE REFER TO LABORATORY REPORTS FOR SAMPLING EVENTS DATED ABOVE.

TABLE 5
SUMMARY OF SELECTED OFF-SITE SAMPLING RESULTS
MATRIX OF POSITIVE SAMPLING DETECTIONS
ALL PARAMETERS REPORTED IN PARTS PER MILLION (PPM)

SAMPLING LOCATION / COMPANY	SAMPLING DATE							
GROUNDWATER SAMPLING	4/88	7/88	11/90	8/91	11/91	3/92	6/92	11/92
GE-30 (FC) D & M	-	-	-	As 0.002,Ba 0.139,Pb 0.001	cis-1,2-Dichloroethene 0.001,Ba 0.076	Ba 0.148	Ba 0.112	-
GE-31 (FP) D & M	-	-	-	As 0.002,Ba 0.08,Pb 0.007	Pentachlorophenol 0.003,As 0.001,Ba 0.069	Ba 0.065	Ba 0.138	-
GE-33 (FC) D & M	-	-	-	As 0.002,Ba 0.176,Cd 0.001,Pb 0.01	Ethylbenzene 0.0003 n-Procylbenzene 0.0001,Ba 0.152	cis-1,2-Dichloroethene 0.0002,As 0.002,Ba 0.134	Ba 0.183	-
GE-34 (FP) D & M	-	-	-	As 0.01,Ba 0.139,Pb 0.014	Ethylbenzene 0.0002,As 0.005,Ba 0.126	As 0.007,Ba 0.14,Cr 0.007	As 0.006,Ba 0.109	-
GE-15 (FC) D & M	-	-	-	Chloroethane 0.009,cis-1,2-Dichloroethene 0.062 Xylenes 0.002,As 0.002, Ba 0.152,Cr 0.005 Pb 0.016	Benzene 0.0002,1,1-Dichloroethane 0.0008 cis-1,2-Dichloroethene 0.068,trans-1,2-Dichloroethene 0.0007 Ethylbenzene 0.0001,Trichloroethene 0.0003 As 0.002,Ba 0.227	1,1-Dichloroethane 0.0008,cis-1,2-Dichloroethene 0.07 Trichloroethene 0.001,Ba 0.224	cis-1,2-Dichloroethene 0.063, Vinyl Chloride 0.005 Ba 0.205	-
GE-220 (FP) D & M	-	-	-	cis-1,2-Dichloroethene 0.002 As 0.007,Ba 0.224,Pb 0.007	cis-1,2-Dichloroethene 0.002 As 0.003,Ba 0.198	cis-1,2-Dichloroethene 0.0002 As 0.005,Ba 0.224	As 0.003,Ba 0.236	-
GE-10 (FC) D & M	-	-	-	cis-1,2-Dichloroethene 0.002,Xylene 0.002 Ba 0.24,Cd 0.002,Pb 0.035	cis-1,2-Dichloroethene 0.002, Vinyl Chloride 0.0002 As 0.001,Ba 0.121,Pb 0.227	cis-1,2-Dichloroethene 0.001 Ba 0.161	Hexachlorobutadiene 0.0002,Naph.0.003, Ba 0.151 1,2,3-Trichlorobenz.0.001,1,2,4-Trichlorobenz. 0.0004	-
GE-221 (FP) D & M	-	-	-	cis-1,2-Dichloroethene 0.002 As 0.004,Ba 0.197,Cr 0.005,Pb 0.007	cis-1,2-Dichloroethene 0.0007 As 0.003,Ba 0.138	cis-1,2-Dichloroethene 0.001,Ba 0.142	As 0.003,Ba 0.162	-
SURFACE WATER SAMPLING								
SW-1 (WCC) WCC	Meth. Chlor.0.001	ND	-	-	-	-	-	-
SW-2 (WCC) WCC	Meth. Chlor.0.001 Benz.0.0009, Toluene 0.009	Benz.0.0008, Toluene 0.007 Ethylbenz.0.0008	-	-	-	-	-	-
SW-3 (WCC) WCC	1,2-Dichloroethenes 0.046 Toluene 0.002, Chlorobenz.0.006	ND	-	-	-	-	-	-
SW-4 (WCC) WCC	1,2-Dichloroethenes 0.008	ND	-	-	-	-	-	-
SW-5 (WCC) WCC	Bromoform 0.006 1,1,2,2-Tetrachloroethane 0.011	NA	-	-	-	-	-	-
SW1 (NUS) NUS	-	-	Ca 71.8,Fe 0.36,Mg 12.7 Mn 0.078, Na 55.6	-	-	-	-	-
SW2 (NUS) NUS	-	-	Ca 78.1, Fe 1.3 Mg 14.6,Mn 0.197, Na 55.7	-	-	-	-	-
SW4 (NUS) NUS	-	-	Al 3.39, Ca 25.5, Fe 6.39,Pb 0.023 Mg 6.33, Mn 0.596, Na 10.3	-	-	-	-	-
SW5 (NUS) NUS	-	-	Ba 0.481,Ca 145, Fe 22.1 Mg 26.7, Mn 0.804, Na 32.4	-	-	-	-	-
KILLS-CONVO1WA-1110 GE (11/12/92)	-	-	-	-	-	-	-	OIL & GREASE <1 ALL VOCs<0.001 ALL PAHs<0.005 PCBs<0.00007
MOHAWK-ATKIL-WA-1110 GE (11/12/92)	-	-	-	-	-	-	-	OIL&GREASE<1 ALL VOCs<0.001 except Toluene 0.006 ALL PAHs<0.005 PCBs<0.00007
POENTI-KILUP-WA-1111 GE (11/13/92)	-	-	-	-	-	-	-	PCBs<0.00007 OIL&GREASE 1.2

KEY:

- - NOT SAMPLED AT THIS DATE
FP -FLOODPLAIN DEPOSITS FC - FLUVIAL CHANNEL DEPOSITS
WCC - WOODWARD-CLYDE CONSULTANTS (OCTOBER,1989 RPT)
D & M - DAMES AND MOORE (SEPTEMBER, 1992 RPT)
GE - GENERAL ELECTRIC (NOVEMBER 12 AND 13, 1992 LETTERS)
NUS - NUS CORPORATION (MARCH, 1991 REPORT)
KILLS-CONVO1WA-1110 - CONVERGENECE POINT OF POENTIC AND POENTIES KILL WHICH IS DOWNSTREAM OF OUTFALL
MOHAWK-ATKIL-WA-1110 - 100 FT OUT IN MOHAWK, 100 FT DOWNSTREAM OF POENTIC KILL OUTLET
POENTI-KILUP-WA-1111 - POENTIC KILL UPSTREAM OF FLANGE INSTALLATION WORK



WCC SAMPLING LOCATIONS APRIL 1988
. GENERAL ELECTRIC MAIN PLANT
SCHENECTADY, NEW YORK

WOODWARD—CLYDE CONSULTANTS

CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS
WAYNE, NEW JERSEY

DR. BY: KP	SCALE: AS SHOWN	PROJ. NO. 87C4775
CK'D. BY: CV	DATE: 20 JULY 1988	FIG. NO: 4-3

APPENDIX H
FIELD INVESTIGATION GROUNDWATER SAMPLING RESULTS - VOLATILE ORGANIC COMPOUNDS

VOLATILE ORGANIC COMPOUNDS
(METHOD NYS DEC ASP 91.1)

FORMER GENERAL ELECTRIC FACILITY, SCHENECTADY NY
FIELD INVESTIGATION WORK SCOPE
SUMMARY OF DETECTED PARAMETERS (IN PPB)

GROUNDWATER SAMPLING ROUND (9/8/92 to 9/11/92)

		WELL/SAMPLE I.D.																													
DETECTED COMPOUND	NYS DEC GW STD	GT-8	Q	GT-1	Q	GT-3	Q	GT-4	Q	GT-5	Q	** GT-6	Q	GT-7	Q	GT-9DL	Q	GT-10	Q	** GT-11	Q	GT-12	Q	GT-13DL	Q	GT-14	Q	GT-15	Q	GT-18 (GT-15Dup)	Q
																												2	J	2	J
Chloroform	7									2	J																				
Carbon Tetrachloride	5																											9	J	4	J
Trichloroethene (TCE)	5																					5	J								
Tetrachloroethene (PCE)	5															6300								620							
Xylene (total)	5																														
TOTAL UNKOWN:		0		182		0		0		0		0		0		0		0		0		73		0		0		0		0	
TOTAL UKN SUB BENZENE:		0		0		0		0		0		0		0		25700		0		0		0		3930		0		0		0	

KEY:
J – THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY
DL – DILUTED SAMPLE
Q – DATA VALIDATION QUALIFIER
** – SAMPLING NOT REQUIRED AS PER QAPJP
– CONCENTRATION AT OR ABOVE THE CONCENTRATION DETECTED IN BACKGROUND WELL
– CONCENTRATION AT OR ABOVE GROUNDWATER STANDARD/GUIDANCE VALUE

FIELD INVESTIGATION GROUNDWATER SAMPLING RESULTS

VOLATILE ORGANIC COMPOUNDS (CONT.)

(METHOD NYS DEC ASP 91.1)

FORMER GENERAL ELECTRIC FACILITY, SCHENECTADY NY

FIELD INVESTIGATION WORK SCOPE

SUMMARY OF DETECTED PARAMETERS (IN PPB)

GROUNDWATER SAMPLING ROUND (9/8/92 to 9/11/92)

DETECTED COMPOUND	NYS DEC GW STD	GT-16	Q	GT-17 (GT-16Dup)	Q	GT-19 (FLD BLK)	Q	GT-22 (FLD BLK)	Q	GT-20 (EQ BLK)	Q	TB-1 (TRP BLK)	Q	TB-2 (TRP BLK)	Q	TRIP BLANK	Q
Chloroform	7	2	J	3	J												
Carbon Tetrachloride	5	2	J	2	J												
Trichloroethene (TCE)	5	28		28													
Tetrachloroethene (PCE)	5																
Xylene (total)	5																
TOTAL UNKOWN:		0		0		0		0		0		0		0		0	
TOTAL UKN SUB BENZENE:		0		0		0		0		0		0		0		0	

APPENDIX I
FIELD INVESTIGATION GROUNDWATER SAMPLING RESULTS - SEMI-VOLATILE ORGANIC COMPOUNDS

FIELD INVESTIGATION GROUNDWATER

SEMI-VOLATILE ORGANIC COMPOUNDS

(METHOD NYS DEC ASP 91.2)

FORMER GENERAL ELECTRIC FACILITY, SCHENECTADY, NY
FIELD INVESTIGATION WORK SCOPE
SUMMARY OF DETECTED PARAMETERS (IN PPB)

GROUNDWATER SAMPLING ROUND (9/8/92 to 9/11/92)

		WELL/SAMPLE I.D.																							
DETECTED COMPOUND	NYS DEC GW STD	GT-8	Q	GT-8DL	Q	GT-1	Q	GT-3	Q	GT-4	Q	GT-5	Q	GT-6	Q	GT-7	Q	GT-9	Q	GT-9DL	Q	GT-10	Q	GT-11	Q	GT-12	Q
enzyl alcohol	50 (USP)							N		N				N		N						N		N		3	U
-Methylphenol	1							O		O				O		O						O		O			
sophorone	50 (GV)					2	J	T		T				T		T		110				T		T			
,4 Dimethylphenol	1																					S		S			
henol	1							S		S				S		S						A		A		2	U
iethylphtalate	50 GV							A		A				A		A						M		M		1	J
utylbenzylphtalate	50 GV							M		M				M		M		5				P		P		10	U
i-n-butylphtalate	50	3	U			3	U	P		P		1	U	P		P		6	U			L		L		7	U
is(2-Ethylhexyl)phtalate	50	230	E	420	D			L		L		9	U	L		L		1	U	26	U	E		E		7	U
i-n-octylphtalate	50 GV	12	U					E		E		6	U	E		E		3	U			D		D			
Naphthalene	10 GV							D		D				D		D											
4-Nitroaniline	5																	1300	E								
Fluoranthene	50 GV																	0.5	J								
Pyrene	50 GV																	0.4	J								
bis(2-Chloroisopropyl)ether	50 (USP)																	1500	E								
N-Nitroso-Di-n-propylamine	50 (USP)																	5100	E								
TOTAL UNKOWN SEMIVOAS:		106		0		14		0		0		32		0		0				8120		0		0		114	
																				0		0		0		0	
TOTAL UNKWN HYDROCARBONS:		0		0		0		0		0		0		0		0											
																				14270		0		0		0	
TOTAL UKNOWN AROMATICS:		0		0		0		0		0		0		0		0											

GV – GUIDANCE VALUE
USP – UNSPECIFIED COMPOUND
DL – DILUTED SAMPLE

Q – DATA VALIDATION QUALIFIER
E – REPORTED VALUE IS ESTIMATED DUE TO QUANTITATION ABOVE THE CALIBRATION RANGE
U – COMPOUND WAS ANALYZED BUT NOT DETECTED AT OR ABOVE CRQL, OR IT IS NOT DETECTED DUE TO QUALIFICATION THROUGH THE METHOD DETECTION BLANK
D – REPORTED RESULT TAKEN FROM DILUTED SAMPLE ANALYSIS
J – THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED QUANTITY

– CONCENTRATION AT OR ABOVE THE CONCENTRATION DETECTED IN BACKGROUND WEL

– CONCENTRATION AT OR ABOVE GROUNDWATER STANDARD/GUIDANCE VALUE

FIELD INVESTIGATION GROUP

SEMI-VOLATILE ORGANIC COMPOUNDS (CONT.)

(METHOD NYS DEC ASP 91.2)

FORMER GENERAL ELECTRIC FACILITY, SCHENECTADY, NY
FIELD INVESTIGATION WORK SCOPE
SUMMARY OF DETECTED PARAMETERS (IN PPB)

GROUNDWATER SAMPLING ROUND (9/8/92 to 9/11/92)

DETECTED COMPOUND	NYS DEC GW STD	GT-13	Q	GT-14	Q	GT-15	Q	GT-18 (GT-15Dup)	Q	GT-16	Q	GT-17 (GT-16Dup)	Q	GT-19 (FLD BLK)	Q	GT-22 (FLD BLK)	Q	GT-20 (EQ BLK)	Q	TB-1 (TRP BLK)	Q	TB-2 (TRP BLK)	Q
Benzyl alcohol	50 (USP)															N				N		N	
4-Methylphenol	1	2	J													O				O		O	
Isophorone	50 (GV)															T				T		T	
2,4 Dimethylphenol	1	2	J																				
Phenol	1			32												S				S		S	
Diethylphtalate	50 GV					2	U	1	J			7	J			A				A		A	
Butylbenzylphtalate	50 GV					2	U	2	U					2	U	M				M		M	
Di-n-butylphtalate	50	6	U			2	U	2	U	3	U	10	U	1	U	P				P		P	
bis(2-Ethylhexyl)phtalate	50	1	U	3	U	6	U	3	U			3	U			L				L		L	
Di-n-octylphtalate	50 GV					2	U									E				E		E	
Naphthalene	10 GV	12														D				D		D	
4-Nitroaniline	5																						
Fluoranthene	50 GV																						
Pyrene	50 GV																						
bis(2-Chloroisopropyl)ether	50 (USP)																						
N-Nitroso-Di-n-propylamine	50 (USP)																						
TOTAL UNKOWN SEMIVOAS:		402		64		22		32		52		88		32		0		0		0		0	
TOTAL UNKWN HYDROCARBONS:		0		0		40		66		24		18		0		0		0		0		0	
TOTAL UKNOWN AROMATICS:		2360		0		0		0		0		0		0		0		0		0		0	

APPENDIX J
FIELD INVESTIGATION GROUNDWATER SAMPLING RESULTS - ASP METALS AND CYANIDE

INORGANIC ANALYESES – ASP METALS AND CYANIDE
(NYS DEC ASP–CLP METALS & NYS DEC 335.2)

FORMER GENERAL ELECTRIC FACILITY, SCHENECTADY, NY
FIELD INVESTIGATION WORK SCOPE
SUMMARY OF DETECTED PARAMETERS (IN PPB)

GROUNDWATER SAMPLING ROUND (9/8/92 to 9/11/92)

		WELL/SAMPLE I.D.																													
ETECTED ANALYTE	NYS DEC GW STD	GT–8	Q	GT–8F	Q	GT–1	Q	GT–1F	Q	GT–3	Q	GT–3F	Q	GT–4	Q	GT–4F	Q	GT–5	Q	GT–6	Q	GT–7	Q	GT–9	Q	GT–9F	Q	GT–10	Q		
luminum	100	24500		29.3	B	3480				37700		45.5	B	16800				951		N		305		3310				490			
ntimony	3 GV									26.1	B									O											
rsenic	25	9.3	J			2.5	J			9.7	J			8.1	J					T				2.2	J						
arium	1000	230		28.5	B	109	B	69.9	B	288		33.4	B	190	B	59	B	50.7	B			29.7	B	88.2	B	59.3	B	42.5	B		
eryllium	3 GV	1.6	B							2.3	B			1.1	B					S								2.5	B		
admium	10																			A											
alcium	NL	190000		82400		173000		136000		326000		90800		194000		101000		112000		M		83000		152000		142000		109000			
hromium	50	30.7				8.8	B	5.2	B	51.4				26.8				3.7	B	P				5.7	B			4.2	B		
obalt	110 GV/sw	28	B							47.1	B			19	B					L											
opper	200	65.1				14	B			98				47.8				3.3	B	E		5	B	11.2	B	3.9	B	7	B		
on	300	57800	J	65.2	J	8970	J			94100	J	97.1	J	39600	J			1710		D		614	J	6980	J			1210	J		
ead	25	30.9		1	B	7.9				57.3		1	B	24.4				3.1				2.5	B	6.6				2.9	B		
agnesium	35000 GV	25900		8770		17800		13500		49100		9890		27900		13100		12900				8650		18800		16600		11200			
anganese	300	1740		3	B	405		3.7	B	3260		4.7	B	1440		3.1	B	53				33.4		1280		868		67.9			
ickel	NL–ga	53.6								83.1				35.2	B																
otassium	NL	5160		1060	B	1460	B	801	B	7170		1060	B	4230	B	808	B	2060	B			867	B	1730	B	670	B	1040	B		
elenium	10																														
ilver	50																					37900		8660		8700		10100			
odium	20000	4740	B	3880	B	120000		125000		95900		93700		164000		157000		53500					R		R		R		R		
hallium	4 GV		R		R		R		R		R		R		R		R		R					8.1	B						
anadium	190 SW	55.2				7.3	B			98.7				36.3	B			3.5	B												
inc	300	186		6.1	J	46.8	J	18.8	J	258	J	9.6	J	136	J	29.4	J	22.7	J			7.2	J	76.5	J	23.5	J	17.2	J		
ercury	2																														
										1.7	B							1.5	B			1.3	B	19.6							
yanide	100																														
										50+				50+				17.3				28		50+				41.2			
TU Value:		50+				50+																									

KEY:

– CONCENTRATION AT OR ABOVE THE CONCENTRATION DETECTED IN BACKGROUND WE

– CONCENTRATION AT OR ABOVE GROUNDWATER STANDARD/GUIDANCE VALUE

Q – DATA VALIDATION QUALIFIER
J – REPORTED VALUE IS ESTIMATED DUE TO VARIANCE FROM QUALITY CONTROL LIMITS
B – INDICATES ANALYTE RESULT BETWEEN INSTRUMENT DETECTION LIMIT (IDL) AND CRQL
R – REPORTED VALUE IS UNUSABLE AND REJECTED DUE TO VARIANCE FROM QUALITY CONTROL LIMITS
NL – NOT LISTED
NL–ga – NOT LISTED FOR GROUNDWATER
GV/sw – GUIDANCE VALUE FOR SURFACE WATER
SW – FOR SURFACE WATER
F – FILTERED SAMPLE

FIELD INVESTIGATION

INORGANIC ANALYESES – ASP METALS AND CYANIDE (CONT.)

(NYS DEC ASP–CLP METALS & NYS DEC 335.2)

FORMER GENERAL ELECTRIC FACILITY, SCHENECTADY, NY

FIELD INVESTIGATION WORK SCOPE

SUMMARY OF DETECTED PARAMETERS (IN PPB)

GROUNDWATER SAMPLING ROUND (9/8/92 to 9/11/92)

DETECTED ANALYTE	NYS DEC GW STD	GT–11	Q	GT–12	Q	GT–12F	Q	GT–13	Q	GT–13F	Q	GT–14	Q	GT–14F	Q	GT–15	Q	GT–18 (GT–15Dup)	Q	GT–16	Q	GT–17 (GT–16Dup)	Q	GT–19 (FLD BLK)	Q	GT–22 (FLD BLK)	Q
Aluminum	100	N		26000				8830				20000				1230		702		1310		987				N	
Antimony	3 GV	O																								O	
Arsenic	25	T		4.7	J			1.4	J			5.2	J			1.3	J	1.3	J	1.2	J	1.5	J			T	
Barium	1000			236		52.8	B	126	B	59.3	B	198	B	42.8	B	72.8	B	69.7	B	74.2	B	68.8	B				
Beryllium	3 GV	S		1.5	B							1.2	B													S	
Cadmium	10	A																								A	
Calcium	NL	M		222000		102000		172000		135000		230000		107000		92600		87800		121000		112000				M	
Chromium	50	P		40.5		4.1	B	13.3				36.4				5.9	B	4.7	B	4.5	B	3.8	B			P	
Cobalt	110 GV/sw	L		28.7	B			6.9	B			19.3	B													L	
Copper	200	E		75.9				21.5	B	5	B	52.5				14.4	B	11.6	B	5.9	B	6.7	B			E	
Iron	300	D		67500	J			16800	J			45400	J			4820	J	2500	J	3040	J	2550	J	19.8	J	D	
Lead	25			35.8		1.4	B	6.6		1.2	B	26.3		1.3	B	6.5		5		3.8		4.3					
Magnesium	35000 GV			33600		10700		23400		16100		37200		15400		12900		13000		17400		16300					
Manganese	300			2020		1.5	B	672		173		1510		5.9	B	164		114		133		118					
Nickel	NL–ga			53.4				16.4	B			40.7															
Potassium	NL			4980	B	871	B	3850	B	1380	B	5160		1880	B	1540	B	1200	B	1510	B	1280	B				
Selenium	10																										
Silver	50																										
Sodium	20000			114000		106000		47600		38700		4570	B	3360	B	22900		28800		35600		36400					
Thallium	4 GV		R		R		R		R		R		R		R		R		R		R		R		R		R
Vanadium	190 SW			57				17	B			44	B			4.5	B			4.7	B	5.2	B				
Zinc	300			234	J	27.9	J	217		25.6	J	184	J	23.3	J	29.3	J	32.2	J	15.5	J	15	J	3.1	J		
Mercury	2																										
Cyanide	100			0.82	B			1.3	B			1.3	B					1	B								
NTU Value:				50+				50+				50+				5.88		5.88		18		18		N/A		N/A	

LD INVESTIGATION GROUNDWATER SAMPLING RESULTS
RGANIC ANALYESES – ASP METALS AND CYANIDE (CONT.)
IYS DEC ASP-CLP METALS & NYS DEC 335.2)

RMER GENERAL ELECTRIC FACILITY, SCHENECTADY, NY
LD INVESTIGATION WORK SCOPE
JMMARY OF DETECTED PARAMETERS (IN PPB)

IOUNDWATER SAMPLING ROUND (9/8/92 to 9/11/92)

DETECTED ANALYTE	NYS DEC GW STD	GT-20 (EQ BLK)	Q	TB-1 (TRP BLK)	Q	TB-2 (TRP BLK)	Q
uminum	100			N		N	
ntimony	3 GV			O		O	
senic	25			T		T	
arium	1000						
eryllium	3 GV			S		S	
admium	10			A		A	
alcium	NL			M		M	
hromium	50			P		P	
obalt	110 GV/sw			L		L	
opper	200			E		E	
on	300	12.9	J	D		D	
ead	25						
agnesium	35000 GV						
anganese	300						
ickel	NL-ga						
otassium	NL						
elenium	10						
ilver	50						
odium	20000	213	B				
hallium	4 GV		R				R
anadium	190 SW						
inc	300	3.4	J				
ercury	2						
yanide	100	2.1	B				
TU Value:		N/A		N/A		N/A	

APPENDIX F

Ground water analytical data
Rust, February 1994 Report

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
PO. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

GC/MS
GC
ICAP
Sampling Services

RUST ENV. & INFRASTRUCTURE
12 METRO PARK
ALBANY NY 12205

CTM PROJECT #: 93.04019

CTM Task #: 930901M

Attention: MR. MARK WILLIAMS

Purchase Order Number: 236019
Date Sampled: 09/01/93 Time: 12;15 PM
Sampled By : SLATER
Sample Id: GT-9
Location : SCHENECTADY, NY

CTM Sample No: 930901M 01
Date Received: 09/01/93
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	POL	Unit	Analyst Re
SW-846 8240 VOLATILES		COMPLETED			9/2/93
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			9/2/93
CHLOROMETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
VINYL CHLORIDE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
BROMOMETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
CHLOROETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
1,1-DICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
METHYLENE CHLORIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRANS 1,2-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CIS 1,2-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CHLOROFORM	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,1-TRICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CARBON TETRACHLORIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,2-DICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,2-DICHLOROPROPANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BROMODICHLOROMETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRANS-1,3-DICHLOROPROPENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TOLUENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CIS-1,3-DICHLOROPROPENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,2-TRICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TETRACHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
DIBROMOCHLOROMETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CHLOROBENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
ETHYLBENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BROMOFORM	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,2,2-TETRACHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
STYRENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
ACETONE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
CARBON DISULFIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2

(CONTINUES ON NEXT PAGE)

REMARKS:

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
P.O. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

GC/MS
GC
ICAP
Sampling Services

RUST ENV. & INFRASTRUCTURE
12 METRO PARK
ALBANY NY 12205

CTM PROJECT #: 93.04019

CTM Task #: 930901N

Attention: MR. MARK WILLIAMS

Purchase Order Number: 236019
Date Sampled: 09/01/93 Time: 12;15 PM
Sampled By : SLATER
Sample Id: GT-9
Location : SCHENECTADY, NY

CTM Sample No: 930901N 01
Date Received: 09/01/93
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Re
	(CONTINUED FROM PREVIOUS PAGE)				
VINYL ACETATE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
2-HEXANONE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
XYLENE (TOTAL)	SW-846 METHOD 8240	150	5	MCG/L	MCG:96 9/2
4-METHYL-2-PENTANONE (MIBK)	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
2-BUTANONE (MEK)	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
SW-846 8270 ACID EXTRACTABLES		COMPLETED			9/8/93
ACID EXTRACTION SW 846 3500		EXTRACTED			00 9/3/93
PHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2-CHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2-NITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2,4-DIMETHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2,4-DICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
4-CHLORO-3-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	10	MCG/L	GCMSD:72 9/
2,4,6-TRICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2,4-DINITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/
4-NITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/
2-METHYL-4,6-DINITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/
PENTACHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/
2-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
4-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2,4,5-TRICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/

REMARKS:

CTM ANALYTICAL LABORATORIES, LTD.
VOLATILE ORGANICS
LIBRARY SEARCH
EPA METHOD 8240

CLIENT: Rust

CTM PROJECT #: 93.04019
CTM TASK #: 930901N
CTM SAMPLE NO.: 930901N-01
DATE SAMPLED: 9-1-93
DATE RECEIVED: 9-1-93
SAMPLED BY: Slater
DATE RUN: 9-2-93
CUSTOMER ID: GT-9
MATRIX: Water

PEAK #	R.T.	TENTATIVELY IDENTIFIED COMPOUNDS	CAS#	EST. CONC.	UNITS
1	18.26	1-methylethyl-benzene	98828	26	mcg/l
2	18.92	propyl-benzene	103651	31	mcg/l
3	19.11	1-ethyl-2-methyl-benzene	611143	91	mcg/l
4	19.22	isomer trimethyl-benzene		26	mcg/l
5	19.56	1-ethyl-4-methyl-benzene	622968	77	mcg/l
6	19.86	isomer trimethyl-benzene		68	mcg/l
7	20.60	isomer trimethyl-benzene		50	mcg/l
8	20.96	1H-indene,2,3-dihydro	496117	6	mcg/l

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
P.O. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

GC/MS
GC
ICAP
Sampling Services

RUST ENV. & INFRASTRUCTURE
12 METRO PARK
ALBANY NY 12205

CTM PROJECT #: 93.04019

CTM Task #: 930902G

Attention: MR. MARK WILLIAMS

Purchase Order Number: 236019
Date Sampled: 09/02/93 Time: 10:05 AM
Sampled By : SLATER
Sample Id: GT-13
Location : SCHENECTADY, NY

CTM Sample No: 930902G 01
Date Received: 09/02/93
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Ref
SW-846 8240 VOLATILES		COMPLETED			9/2/93
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			9/2/93
CHLOROMETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
VINYL CHLORIDE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
BROMOMETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
CHLOROETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
1,1-DICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
METHYLENE CHLORIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRANS 1,2-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CIS 1,2-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CHLOROFORM	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,1-TRICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CARBON TETRACHLORIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,2-DICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,2-DICHLOROPROPANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BROMODICHLOROMETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRANS-1,3-DICHLOROPROPENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TOLUENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CIS-1,3-DICHLOROPROPENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,2-TRICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TETRACHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
DIBROMOCHLOROMETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CHLOROBENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
ETHYLBENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BROMOFORM	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,2,2-TETRACHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
STYRENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
ACETONE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
CARBON DISULFIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2

(CONTINUES ON NEXT PAGE)

REMARKS:

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
PO. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

GC/MS
GC
ICAP
Sampling Services

RUST ENV. & INFRASTRUCTURE
12 METRO PARK
ALBANY NY 12205

Attention: MR. MARK WILLIAMS

CTM PROJECT #: 93.04019

CTM Task #: 930902G

Purchase Order Number: 236019
Date Sampled: 09/02/93 Time: 10:05 AM
Sampled By : SLATER
Sample Id: GT-13
Location : SCHENECTADY, NY

CTM Sample No: 930902G 01
Date Received: 09/02/93
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Refe
	(CONTINUED FROM PREVIOUS PAGE)				
VINYL ACETATE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
2-HEXANONE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
XYLENE (TOTAL)	SW-846 METHOD 8240	170	5	MCG/L	MCG:96 9/2
4-METHYL-2-PENTANONE (MIBK)	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
2-BUTANONE (MEK)	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
SW-846 8270 ACID EXTRACTABLES		COMPLETED			9/8/93
ACID EXTRACTION SW 846 3500		EXTRACTED			DO 9/3/93
PHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2-CHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2-NITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2,4-DIMETHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2,4-DICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
4-CHLORO-3-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	10	MCG/L	GCMSD:72 9/8/
2,4,6-TRICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2,4-DINITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/8/
4-NITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/8/
2-METHYL-4,6-DINITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/8/
PENTACHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/8/
2-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
4-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2,4,5-TRICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/

REMARKS:

END OF REPORT

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G

CTM ANALYTICAL LABORATORIES, LTD.
VOLATILE ORGANICS
LIBRARY SEARCH
EPA METHOD 8240

CLIENT: Rust

CTM PROJECT #: 93.04019
CTM TASK #: 930902G
CTM SAMPLE NO.: 930902G-01

DATE SAMPLED: 9-2-93
SAMPLED BY: Slater
CUSTOMER ID: GT-13

DATE RECEIVED: 9-2-93
DATE RUN: 9-3-93
MATRIX: Water

PEAK #	R.T.	TENTATIVELY IDENTIFIED COMPOUNDS	CAS#	EST. CONC.	UNITS
1	18.33	(1-methylethyl)-benzene	98828	27	mcg/l
2	19.22	isomer trimethyl benzene		1300	mcg/l
3	20.21	isomer trimethyl benzene		830	mcg/l
4	20.99	isomer trimethyl benzene		290	mcg/l
5	21.35	1-propenyl-benzene	637503	58	mcg/l
6	22.23	1-methyl-3-(1-methylethyl) benzene	535773	110	mcg/l
7	23.01	1-ethyl-3,5-dimethyl benzene	585740	8	mcg/l
8	23.33	1-methyl-4-(1-methhyl ethyl) benzene	99876	22	mcg/l

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
PO. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

GC/MS
GC
ICAP
Sampling Services

RUST ENV. & INFRASTRUCTURE
12 METRO PARK
ALBANY NY 12205

CTM PROJECT #: 93.04019

CTM Task #: 930901N

Attention: MR. MARK WILLIAMS

Purchase Order Number: 236019
Date Sampled: 09/01/93 Time: 12;15 PM
Sampled By : SLATER
Sample Id: GT-9
Location : SCHENECTADY, NY

CTM Sample No: 930901N 01
Date Received: 09/01/93
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Re
SW-846 8240 VOLATILES		COMPLETED			9/2/93
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			9/2/93
CHLOROMETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
VINYL CHLORIDE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
BROMOMETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
CHLOROETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
1,1-DICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
METHYLENE CHLORIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRANS 1,2-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CIS 1,2-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CHLOROFORM	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,1-TRICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CARBON TETRACHLORIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,2-DICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,2-DICHLOROPROPANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BROMODICHLOROMETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRANS-1,3-DICHLOROPROPENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TOLUENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CIS-1,3-DICHLOROPROPENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,2-TRICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TETRACHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
DIBROMOCHLOROMETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CHLOROBENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
ETHYLBENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BROMOFORM	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,2,2-TETRACHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
STYRENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
ACETONE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
CARBON DISULFIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2

(CONTINUES ON NEXT PAGE)

REMARKS:

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
P.O. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

GC/MS
GC
ICAP
Sampling Services

RUST ENV. & INFRASTRUCTURE
12 METRO PARK
ALBANY NY 12205

CTM PROJECT #: 93.04019

CTM Task #: 930901N

Attention: MR. MARK WILLIAMS

Purchase Order Number: 236019
Date Sampled: 09/01/93 Time: 12:15 PM
Sampled By : SLATER
Sample Id: GT-9
Location : SCHENECTADY, NY

CTM Sample No: 930901N 01
Date Received: 09/01/93
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Re
	(CONTINUED FROM PREVIOUS PAGE)				
VINYL ACETATE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
2-HEXANONE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
XYLENE (TOTAL)	SW-846 METHOD 8240	150	5	MCG/L	MCG:96 9/2
4-METHYL-2-PENTANONE (MIBK)	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
2-BUTANONE (MEK)	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
SW-846 8270 ACID EXTRACTABLES		COMPLETED			9/8/93
ACID EXTRACTION SW 846 3500		EXTRACTED			DO 9/3/93
PHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2-CHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2-NITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2,4-DIMETHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2,4-DICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
4-CHLORO-3-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	10	MCG/L	GCMSD:72 9/
2,4,6-TRICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2,4-DINITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/
4-NITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/
2-METHYL-4,6-DINITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/
PENTACHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/
2-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
4-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/
2,4,5-TRICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/

REMARKS:

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCC

CTM ANALYTICAL LABORATORIES, LTD.
VOLATILE ORGANICS
LIBRARY SEARCH
EPA METHOD 8240

CLIENT: Rust

CTM PROJECT #: 93.04019
CTM TASK #: 930901N
CTM SAMPLE NO.: 930901N-01

DATE SAMPLED: 9-1-93
SAMPLED BY: Slater
CUSTOMER ID: GT-9

DATE RECEIVED: 9-1-93
DATE RUN: 9-2-93
MATRIX: Water

PEAK #	R.T.	TENTATIVELY IDENTIFIED COMPOUNDS	CAS#	EST. CONC.	UNITS
1	18.26	1-methylethyl-benzene	98828	26	mcg/l
2	18.92	propyl-benzene	103651	31	mcg/l
3	19.11	1-ethyl-2-methyl-benzene	611143	91	mcg/l
4	19.22	isomer trimethyl-benzene		26	mcg/l
5	19.56	1-ethyl-4-methyl-benzene	622968	77	mcg/l
6	19.86	isomer trimethyl-benzene		68	mcg/l
7	20.60	isomer trimethyl-benzene		50	mcg/l
8	20.96	1H-indene,2,3-dihydro	496117	6	mcg/l

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
P.O. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

GC/MS
GC
ICAP
Sampling Services

RUST ENV. & INFRASTRUCTURE
12 METRO PARK
ALBANY NY 12205

CTM PROJECT #: 93.04019

CTM Task #: 930902G

Attention: MR. MARK WILLIAMS

Purchase Order Number: 236019
Date Sampled: 09/02/93 Time: 10:05 AM
Sampled By : SLATER
Sample Id: GT-13
Location : SCHENECTADY, NY

CTM Sample No: 930902G 01
Date Received: 09/02/93
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	PQL	Unit	Analyst Ref:
SW-846 8240 VOLATILES		COMPLETED			9/2/93
PURGE & TRAP EXTRACTION	SW-846 METHOD 5030	COMPLETED			9/2/93
CHLOROMETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
VINYL CHLORIDE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
BROMOMETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
CHLOROETHANE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
1,1-DICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
METHYLENE CHLORIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRANS 1,2-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CIS 1,2-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1-DICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CHLOROFORM	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,1-TRICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CARBON TETRACHLORIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,2-DICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRICHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,2-DICHLOROPROPANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BROMODICHLOROMETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TRANS-1,3-DICHLOROPROPENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TOLUENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CIS-1,3-DICHLOROPROPENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,2-TRICHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
TETRACHLOROETHENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
DIBROMOCHLOROMETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
CHLOROBENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
ETHYLBENZENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
BROMOFORM	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
1,1,2,2-TETRACHLOROETHANE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
STYRENE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
ACETONE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
CARBON DISULFIDE	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2

(CONTINUES ON NEXT PAGE)

REMARKS:

CTM Analytical Laboratories, Ltd.

15 Century Hill Drive
PO. Box 727
Latham, NY 12110
518-786-7100
FAX 518-786-7139

GC/MS
GC
ICAP
Sampling Services

RUST ENV. & INFRASTRUCTURE
12 METRO PARK
ALBANY NY 12205

CTM PROJECT #: 93.04019

CTM Task #: 930902G

Attention: MR. MARK WILLIAMS

Purchase Order Number: 236019
Date Sampled: 09/02/93 Time: 10:05 AM
Sampled By : SLATER
Sample Id: GT-13
Location : SCHENECTADY, NY

CTM Sample No: 930902G 01
Date Received: 09/02/93
Collection Method: GRAB
Matrix: WATER

Parameters and Standard Methodology Used		Results	POL	Unit	Analyst Refe
	(CONTINUED FROM PREVIOUS PAGE)				
VINYL ACETATE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
2-HEXANONE	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
XYLENE (TOTAL)	SW-846 METHOD 8240	170	5	MCG/L	MCG:96 9/2
4-METHYL-2-PENTANONE (MIBK)	SW-846 METHOD 8240	ND	5	MCG/L	MCG:96 9/2
2-BUTANONE (MEK)	SW-846 METHOD 8240	ND	10	MCG/L	MCG:96 9/2
SW-846 8270 ACID EXTRACTABLES		COMPLETED			9/8/93
ACID EXTRACTION SW 846 3500		EXTRACTED			DO 9/3/93
PHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2-CHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2-NITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2,4-DIMETHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2,4-DICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
4-CHLORO-3-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	10	MCG/L	GCMSD:72 9/8/
2,4,6-TRICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2,4-DINITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/8/
4-NITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/8/
2-METHYL-4,6-DINITROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/8/
PENTACHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	25	MCG/L	GCMSD:72 9/8/
2-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
4-METHYLPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/
2,4,5-TRICHLOROPHENOL	SW-846 METHOD 8270 ACID EXTRACTABLES	ND	5	MCG/L	GCMSD:72 9/8/

REMARKS:

END OF REPORT

LEGEND: MG/KG=PPM, MCG/KG=PPB, MG/L=PPM, MCG/L=PPB, MCG/G

CTM ANALYTICAL LABORATORIES, LTD.
VOLATILE ORGANICS
LIBRARY SEARCH
EPA METHOD 8240

CLIENT: Rust

CTM PROJECT #: 93.04019
CTM TASK #: 930902G
CTM SAMPLE NO.: 930902G-01

DATE SAMPLED: 9-2-93
SAMPLED BY: Slater
CUSTOMER ID: GT-13

DATE RECEIVED: 9-2-93
DATE RUN: 9-3-93
MATRIX: Water

PEAK #	R.T.	TENTATIVELY IDENTIFIED COMPOUNDS	CAS#	EST. CONC.	UNITS
1	18.33	(1-methylethyl)-benzene	98828	27	mcg/l
2	19.22	isomer trimethyl benzene		1300	mcg/l
3	20.21	isomer trimethyl benzene		830	mcg/l
4	20.99	isomer trimethyl benzene		290	mcg/l
5	21.35	1-propenyl-benzene	637503	58	mcg/l
6	22.23	1-methyl-3-(1-methylethyl) benzene	535773	110	mcg/l
7	23.01	1-ethyl-3,5-dimethyl benzene	585740	8	mcg/l
8	23.33	1-methyl-4-(1-methhyl ethyl) benzene	99876	22	mcg/l

APPENDIX G

Ground water analytical data
WH&N, February 1995 Report

ABLE 1

ROUNDWATER INVESTIGATION RESULTS
UMMARY OF LABORATORY VOCs ANALYSIS (EPA METHOD 8260)
nsulating Materials Incorporated-Riverview Plant
chencectady, New York

PARAMETER	GT-1	GT-5	GT-7	GT-9	GT-13	GT-16	NYSDEC Water Quality Regulations 1	NYSDEC Effluent Limitation 2	NYSDEC Ambient Water Standard and Guidance Value 3
ethylbenzene	ND	ND	ND	23.3 ppb	ND	ND	-	5 ppb	5 ppb
isopropylbenzene	ND	ND	ND	146 ppb	29.9 ppb	ND	-	5 ppb	5 ppb
p-isopropyltoluene	ND	ND	ND	ND	48.4 ppb	ND	-	5 ppb	5 ppb
naphthalene	ND	ND	ND	ND	TBQ	ND	-	10 ppb	10 ppb
n-propylbenzene	ND	ND	ND	225 ppb	37.7 ppb	ND	-	5 ppb	5 ppb
trichloroethene	ND	ND	ND	ND	ND	21.7 ppb	-	10 ppb (standard)	5 ppb (standard)
1,2,4 trimethylbenzene	ND	ND	ND	1.54 ppm	2.59 ppm	ND	-	5 ppb	5 ppb
1,3,5 trimethylbenzene	ND	ND	ND	1.69 ppm	2.88 ppm	ND	-	5 ppb	5 ppb
total xylenes	ND	ND	ND	1.04 ppm	115 ppb	ND	-	5 ppb	5 ppb
all other target compounds	ND	ND	ND	ND	ND	ND	-	-	-
# of unidentified peaks	0	0	0	4	5	0	NA	NA	NA
peak characterization	-	-	-	alkylated benzenes	alkylated benzenes	-	NA	NA	NA
peak concentration	-	-	-	250-2,000 ppb	250-2,000 ppb	-	NA	NA	NA

(1) NYSDEC Water Quality Regulations and Standards; surface water and groundwater (10/7/93).
(2) NYSDEC Groundwater Effluent Standards and Limitations-TOGS 1.1.2 (8/1/94). Values listed are Limitations unless otherwise noted
(3) NYSDEC Ambient Water Quality Standards and Guidance Values-TOGS 1.1.1 (10/93). Values listed are (Standard+Guidance Value) unless otherwise noted
NA= not applicable
ND= none detected
TBQ= trace below quantitation limit
ppb= parts per billion
ppm= parts per million

TABLE 2

GROUNDWATER INVESTIGATION RESULTS
SUMMARY OF LABORATORY SVOCs ANALYSIS (EPA METHOD 8270)
Insulating Materials Incoroporated-Riverview Plant
Schenectady, New York

PARAMETER	GT-1	GT-5	GT-7	GT-9	GT-13	GT-16	NYSDEC Standard [1]
naphthalene	ND	ND	ND	4.4 ppb	3.4 ppb	ND	10 ppb
all other target compounds	ND	ND	ND	ND	ND	ND	-
# of unidentified peaks	> 10	> 10	> 10	> 10	> 10	> 10	NA
peak characterization	aliphatic and cyclic hydro-carbons	aliphatic hydrocarbons and carboxylic acids	aliphatic hydrocarbons and carboxylic acids	alkylated benzenes and carboxylic acids	alkylated benzenes and carboxylic acids	aliphatic hydrocarbons and alkylated aromatics	NA
peak concentration	2-10 ppb	5-100 ppb	5-50 ppb	5-200 ppb(benzenes) 5-40 ppb(acids)	5-200 ppb(benzenes) 5-40 ppb(acids)	5-50 ppb	NA

(1) NYSDEC Groundwater Effluent Standards and Limitations-TOGS1.1.2 (6/1/94)
NA= not applicable
ND= none detected
ppb= parts per billion

ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Wagner, Heindel, and Noyes, Inc.
PROJECT NAME: George/Von Roll
DATE REPORTED: January 3, 1995
DATE SAMPLED: December 12-14, 1994

PROJECT CODE: HNGV1721
REF. #: 68,852, 68,854, 68,855
68,857, 68,858, 68,861

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody record.

Chain of custody indicated sample preservation with Sodium Azide.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate data was determined to be within Laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

ENDYNE, INC.

9.6
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Wagner, Heindel, and Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: January 3, 1995
DATE SAMPLED: December 12, 1994
DATE RECEIVED: December 16, 1994
ANALYSIS DATE: December 23, 1994

PROJECT CODE: HNGV1721
REF #: 68,852
STATION: GT 1
TIME SAMPLED: 4:00 p.m.
SAMPLER: F. Schuele/L. Goldsmith

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
(2&4)Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

ENDYNE, INC.

9.7
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,852

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	ND
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	2	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene chloride	10	ND
Naphthalene	2	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	ND
Toluene	2	ND

ENDYNE, INC.

9-8
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,852

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	ND
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane:	94.%
Toluene-d8:	96.%
4-Bromofluorobenzene:	83.%

Notes:

1 None detected

ENDYNE, INC.

4-9
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Wagner, Heindel, and Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: January 3, 1995
DATE SAMPLED: December 13, 1994
DATE RECEIVED: December 16, 1994
ANALYSIS DATE: December 27, 1994

PROJECT CODE: HNGV1721
REF #: 68,858
STATION: GT 5
TIME SAMPLED: 5:25 p.m.
SAMPLER: F. Schuele/L. Goldsmith

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
(2&4)Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

ENDYNE, INC.

9-10
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,858

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	ND
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	2	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene chloride	10	ND
Naphthalene	2	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	ND
Toluene	2	ND

ENDYNE, INC.

9-11
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,858

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	ND
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane:	106.%
Toluene-d8:	94.%
4-Bromofluorobenzene:	96.%

Notes:

1 None detected

ENDYNE, INC.

9-12
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Wagner, Heindel, and Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: January 3, 1995
DATE SAMPLED: December 13, 1994
DATE RECEIVED: December 16, 1994
ANALYSIS DATE: December 27, 1994

PROJECT CODE: HNGV1721
REF #: 68,857
STATION: GT 7
TIME SAMPLED: 4:05 p.m.
SAMPLER: F. Schuele/L. Goldsmith

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
(2&4)Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

ENDYNE, INC.

9-13
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,857

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	ND
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	2	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene chloride	10	ND
Naphthalene	2	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	ND
Toluene	2	ND

ENDYNE, INC.

9-14
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,857

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	ND
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	ND
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane:	100.%
Toluene-d8:	97.%
4-Bromofluorobenzene:	96.%

Notes:

1 None detected

ENDYNE, INC.

9-15
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Wagner, Heindel, and Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: January 3, 1995
DATE SAMPLED: December 14, 1994
DATE RECEIVED: December 16, 1994
ANALYSIS DATE: December 28, 1994

PROJECT CODE: HNGV1721
REF #: 68,861
STATION: GT 9
TIME SAMPLED: 10:15 a.m.
SAMPLER: F. Schuele/L. Goldsmith

Parameter	Detection Limit (ug/L)[1]	Concentration (ug/L)
Benzene	20	ND[2]
Bromobenzene	20	ND
Bromochloromethane	20	ND
Bromodichloromethane	20	ND
Bromoform	20	ND
Bromomethane	50	ND
n-Butylbenzene	20	ND
sec-Butylbenzene	20	ND
Carbon tetrachloride	20	ND
Chlorobenzene	20	ND
Chloroethane	50	ND
Chloroform	50	ND
Chloromethane	10	ND
(2&4)Chlorotoluene	20	ND
Dibromochloromethane	20	ND
1,2-Dibromo-3-chloropropane	20	ND
1,2-Dibromoethane	20	ND
Dibromomethane	20	ND

ENDYNE, INC.

9-16
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,861

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	20	ND
1,3-Dichlorobenzene	20	ND
1,4-Dichlorobenzene	20	ND
Dichlorodifluoromethane	100	ND
1,1-Dichloroethane	20	ND
1,2-Dichloroethane	20	ND
1,1-Dichloroethene	20	ND
cis-1,2-Dichloroethene	20	ND
trans-1,2-Dichloroethene	20	ND
1,2-Dichloropropane	20	ND
1,3-Dichloropropane	20	ND
2,2-Dichloropropane	20	ND
1,1-Dichloropropene	20	ND
Ethylbenzene	20	23.3
Hexachlorobutadiene	20	ND
Isopropylbenzene	20	146.
p-Isopropyltoluene	20	ND
Methylene chloride	100	ND
Naphthalene	20	TBQ[3]
n-Propylbenzene	20	225.
Styrene	20	ND
1,1,1,2-Tetrachloroethane	20	ND
1,1,2,2-Tetrachloroethane	20	ND
Tetrachloroethene	20	ND
Toluene	20	ND

ENDYNE, INC.

9-17
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,861

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2,3-Trichlorobenzene	20	ND
1,2,4-Trichlorobenzene	20	ND
1,1,1-Trichloroethane	20	ND
1,1,2-Trichloroethane	20	ND
Trichloroethene	20	ND
Trichlorofluoromethane	20	ND
1,2,3-Trichloropropane	20	ND
1,2,4-Trimethylbenzene	20	1,540.
1,3,5-Trimethylbenzene	20	1,690.
Vinyl chloride	100	ND
Total Xylenes	20	1,040.
MTBE	50	ND

NUMBER OF UNIDENTIFIED PEAKS: 4

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane:	107.%
Toluene-d8:	92.%
4-Bromofluorobenzene:	88.%

Notes:

1 Detection limit was raised due to high levels of non-target contaminants.
2 None detected
3 Trace below quantitation limit

ENDYNE, INC.

9-18
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Wagner, Heindel, and Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: January 3, 1995
DATE SAMPLED: December 13, 1994
DATE RECEIVED: December 16, 1994
ANALYSIS DATE: December 29, 1994

PROJECT CODE: HNGV1721
REF #: 68,855
STATION: GT 13
TIME SAMPLED: 10:45 a.m.
SAMPLER: F. Schuele/L. Goldsmith

Parameter	Detection Limit (ug/L)[1]	Concentration (ug/L)
Benzene	20	ND[2]
Bromobenzene	20	ND
Bromochloromethane	20	ND
Bromodichloromethane	20	ND
Bromoform	20	ND
Bromomethane	50	ND
n-Butylbenzene	20	ND
sec-Butylbenzene	20	ND
Carbon tetrachloride	20	ND
Chlorobenzene	20	ND
Chloroethane	50	ND
Chloroform	50	ND
Chloromethane	10	ND
(2&4)Chlorotoluene	20	ND
Dibromochloromethane	20	ND
1,2-Dibromo-3-chloropropane	20	ND
1,2-Dibromoethane	20	ND
Dibromomethane	20	ND

ENDYNE, INC.

9-19
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,855

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	20	ND
1,3-Dichlorobenzene	20	ND
1,4-Dichlorobenzene	20	ND
Dichlorodifluoromethane	100	ND
1,1-Dichloroethane	20	ND
1,2-Dichloroethane	20	ND
1,1-Dichloroethene	20	ND
cis-1,2-Dichloroethene	20	ND
trans-1,2-Dichloroethene	20	ND
1,2-Dichloropropane	20	ND
1,3-Dichloropropane	20	ND
2,2-Dichloropropane	20	ND
1,1-Dichloropropene	20	ND
Ethylbenzene	20	ND
Hexachlorobutadiene	20	ND
Isopropylbenzene	20	29.9
p-Isopropyltoluene	20	48.4
Methylene chloride	100	ND
Naphthalene	20	TBQ[3]
n-Propylbenzene	20	37.7
Styrene	20	ND
1,1,1,2-Tetrachloroethane	20	ND
1,1,2,2-Tetrachloroethane	20	ND
Tetrachloroethene	20	ND
Toluene	20	ND

ENDYNE, INC.

9-20
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,855

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2,3-Trichlorobenzene	20	ND
1,2,4-Trichlorobenzene	20	ND
1,1,1-Trichloroethane	20	ND
1,1,2-Trichloroethane	20	ND
Trichloroethene	20	ND
Trichlorofluoromethane	20	ND
1,2,3-Trichloropropane	20	ND
1,2,4-Trimethylbenzene	20	2,590.
1,3,5-Trimethylbenzene	20	2,880.
Vinyl chloride	100	ND
Total Xylenes	20	115.
MTBE	50	ND

NUMBER OF UNIDENTIFIED PEAKS: 5

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane:	105.%
Toluene-d8:	98.%
4-Bromofluorobenzene:	80.%

Notes:

1 Detection limit was raised due to high levels of non-target contaminants.
2 None detected
3 Trace below quantitation limit

ENDYNE, INC.

9-21
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8260 WATER MATRIX

CLIENT: Wagner, Heindel, and Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: January 3, 1995
DATE SAMPLED: December 13, 1994
DATE RECEIVED: December 16, 1994
ANALYSIS DATE: December 27, 1994

PROJECT CODE: HNGV1721
REF #: 68,854
STATION: GT 16
TIME SAMPLED: 9:15 a.m.
SAMPLER: F. Schuele/L. Goldsmith

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	2	ND[1]
Bromobenzene	2	ND
Bromochloromethane	2	ND
Bromodichloromethane	2	ND
Bromoform	2	ND
Bromomethane	5	ND
n-Butylbenzene	2	ND
sec-Butylbenzene	2	ND
Carbon tetrachloride	2	ND
Chlorobenzene	2	ND
Chloroethane	5	ND
Chloroform	5	ND
Chloromethane	10	ND
(2&4)Chlorotoluene	2	ND
Dibromochloromethane	2	ND
1,2-Dibromo-3-chloropropane	2	ND
1,2-Dibromoethane	2	ND
Dibromomethane	2	ND

ENDYNE, INC.

9-22
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,854

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Dichlorodifluoromethane	10	ND
1,1-Dichloroethane	2	ND
1,2-Dichloroethane	2	ND
1,1-Dichloroethene	2	ND
cis-1,2-Dichloroethene	2	ND
trans-1,2-Dichloroethene	2	ND
1,2-Dichloropropane	2	ND
1,3-Dichloropropane	2	ND
2,2-Dichloropropane	2	ND
1,1-Dichloropropene	2	ND
Ethylbenzene	2	ND
Hexachlorobutadiene	2	ND
Isopropylbenzene	2	ND
p-Isopropyltoluene	2	ND
Methylene chloride	10	ND
Naphthalene	2	ND
n-Propylbenzene	2	ND
Styrene	2	ND
1,1,1,2-Tetrachloroethane	2	ND
1,1,2,2-Tetrachloroethane	2	ND
Tetrachloroethene	2	ND
Toluene	2	ND

ENDYNE, INC.

9-23
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REF #: 68,854

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
1,2,3-Trichlorobenzene	2	ND
1,2,4-Trichlorobenzene	2	ND
1,1,1-Trichloroethane	2	ND
1,1,2-Trichloroethane	2	ND
Trichloroethene	2	21.7
Trichlorofluoromethane	2	ND
1,2,3-Trichloropropane	2	ND
1,2,4-Trimethylbenzene	2	ND
1,3,5-Trimethylbenzene	2	ND
Vinyl chloride	10	ND
Total Xylenes	2	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane:	104.%
Toluene-d8:	97.%
4-Bromofluorobenzene:	105.%

Notes:

1 None detected

ENDYNE, INC.

9-24
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

CHARACTERIZATION OF UNIDENTIFIED PEAKS

Client: Wagner, Heindel, and Noyes, Inc.
Project: George/Von Roll
Analysis: EPA Method 8260
Reference #: 68,861
Station I.D.: GT-9
Unidentified Peaks: 4
Project Code: HNGV1721

Unidentified peak characterization is achieved by direct comparison of sample and library spectral data. The unidentified peaks in this sample consist of Alkylated Benzenes ranging from 250-2000 ug/L.

ENDYNE, INC.

9-25
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

CHARACTERIZATION OF UNIDENTIFIED PEAKS

Client: Wagner, Heindel, and Noyes, Inc.
Project: George/Von Roll
Analysis: EPA Method 8260
Reference #: 68,855
Station I.D.: GT-13
Unidentified Peaks: 5
Project Code: HNGV1721

Unidentified peak characterization is achieved by direct comparison of sample and library spectral data. The unidentified peaks in this sample consist of Alkylated Benzenes ranging from 250-2000 ug/L.

ENDYNE, INC.

32 Jamy Brown Drive
Williston, Vermont 05495
(802) 879-4333

68,852 – 895

CHAIN-OF-CUSTODY RECORD

12692

9-26

Project Name: GEORGE/VON ROLL Site Location: IMI - Schenectady, NY	Reporting Address: WHN	Billing Address: WHN
Endyne Project Number: HNGV1721	Company: Contact Name/Phone #: WHN	Sampler Name: Frederic Schwele/Linda Goldsmith Phone #: 802-658-0820

Lab #	Sample Location	Matrix	GRAB	COMP	Date/Time	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Ru:
68,852	GT-1	Water	X		12/12/94 4PM	2	40 ml vial	VOC's	8260	NaN_3	
	"	"			"	2	1 l amber	semi-VOC's	8270		
68,853	GT-15				" 4:45	2	40 ml	VOCs	8260	NaN_3	
	"				" "	2	1 l amber	semi-VOC's	8270		
68,854	GT-16				12/13/94 9:15A	2	40 ml vial	VOC's	8260	NaN_3	
	"				" ~~10:15~~	2	1 l amber	semi-VOC's	8270		
68,855	GT-13				10:45AM ~~11:50~~	2	40 ml	VOC's	8260	NaN_3	
	"				" "	2	1 l	semi-VOC's	8270		
68,856	GT-14				" 11:30AM	2	40 ml	VOC's	8260	NaN_3	
	"				" "	2	1 l	semi-VOC's	8270		
68,857	GT-7				" 4:05PM	2	40 ml	VOC's	8260	NaN_3	
	"				" "	2	1 l	semi-VOC's	8270		

Relinguished by: Signature Frederick Schwele	Received by: Signature Jim Webster	Date/Time 12/14/94 12 NOON
Relinguished by: Signature	Received by: Signature	Date/Time

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD_5	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										

ENDYNE, INC.

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

12693

CHAIN-OF-CUSTODY RECORD

9-27

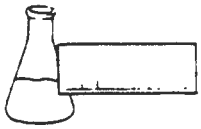
Project Name: GEORGE/VON ROLL Site Location: IMI - Schenectady, NY	Reporting Address: WHN	Billing Address: WHN
Endyne Project Number: HN6V	Company: Contact Name/Phone #: WHN	Sampler Name: Frederic Schuele / Linda Goldsmith Phone #: 658-0820

Lab #	Sample Location	Matrix	GRAB	COMP	Date/Time	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
68,858	GT-5				12/13/94 5:25PM	2	40ml	VOC's	8260	NaN_3	
	"				"	2	1l	semi-VOC's	8270	~~NaN_3~~	
68,859	GT-4				" 3:40PM	2	40ml	VOC's	8260	NaN_3	
	"				"	2	1l	semi-VOC's	8270		
68,860	GT-10				" 5PM	2	40ml	VOC's	8260	NaN_3	
	"				" "	2	1l	semi-VOC's	8270		
68,861	GT-9				12/14/94 10:15AM	2	40ml	VOC's	8260	NaN_3	
	"				"	2	1l	semi-VOC's	8270		
68,862	GT-12				" 10:55AM	2	40ml	VOC's	8260	NaN_3	
	"	↓	↓		"	2	1l	semi-VOC's	8270		
68,863	F-16-1 (RV-16 floor drain)	Soil	X		12/13/94 2PM	1	250ml amber	VOC's, semi-VOC's	8260/8270	NaN_3	

Relinguished by: Signature Frederic Schuele	Received by: Signature Jon Wetmore	Date/Time 12/16/94 12:00PM
Relinguished by: Signature	Received by: Signature	Date/Time

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD_5	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										



ENDYNE, INC.

9-28 LG

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Wagner, Heindel, & Noyes, Inc.
PROJECT NAME: George/Von Roll
DATE REPORTED: December 30, 1994
DATE SAMPLED: December 12-14, 1994

PROJECT CODE: HNGV1722
REF. #: 68,864, 68,866, 68,867, 68,869, 68,870, 68,873, 68,875

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody record.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate data was determined to be within Laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

ENDYNE, INC.

9-29
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8270 (LIQUID) -- GC/MS BASE/NEUTRALS AND ACIDS

CLIENT: Wagner, Heindel, & Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: December 30, 1994
SAMPLER: F. Schucle/L. Goldsmith
DATE SAMPLED: December 12, 1994
DATE RECEIVED: December 16, 1994
DATE EXTRACTED: December 19, 1994

PROJECT CODE: HNGV1722
ANALYSIS DATE: December 22, 1994
STATION: GT-1
REF. #: 68,864
TIME SAMPLED: 4:00 p.m.

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
BASE/NEUTRAL EXTRACTABLES:		
Acenaphthene	2	ND[1]
Acenaphthylene	2	ND
Acetophenone	2	ND
Aldrin	10	ND
Anthracene	2	ND
4-Aminobiphenyl	2	ND
Benzidine	10	ND
Benzo(a)anthracene	2	ND
Benzo(b,k)fluoranthene	2	ND
Benzo(a)pyrene	2	ND
Benzo(ghi)perylene	2	ND
Benzyl butyl phthalate	10	ND
alpha-BHC	10	ND
beta, gamma-BHC	10	ND
delta-BHC	10	ND
Bis(2-chloroethyl)ether	2	ND
Bis(2-chloroethoxy)methane	2	ND
Bis(2-ethylhexyl)phthalate	10	ND
Bis(2-chloroisopropyl)ether	10	ND
4-Bromophenyl phenyl ether	2	ND
Butyl benzyl phthalate	10	ND
4-Chloroaniline	5	ND
Chlordane	30	ND
1-Chloronaphthalene	2	ND
2-Chloronaphthalene	2	ND
4-Chlorophenyl phenyl ether	2	ND
Chrysene	2	ND
4,4'-DDD	20	ND
4,4'-DDE	20	ND
4,4'-DDT	20	ND
Dibenzofuran	2	ND

ENDYNE, INC.

9-30
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued)

REF. #: 68,864

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
Dibenz(a,j)acridine	2	ND
Dibenzo(a,h)anthracene	2	ND
Di-n-butylphthalate	10	ND
1,3-Dichlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
3,3'-Dichlorobenzidine	5	ND
Dieldrin	10	ND
Diethyl phthalate	10	ND
Dimethyl phthalate	10	ND
p-Dimethylaminoazobenzene	5	ND
7,12-Dimethylbenz(a)anthracene	10	ND
2,4-Dinitrotoluene	5	ND
2,6-Dinitrotoluene	5	ND
Diphenylamine & N-Nitrosodiphenylamine	5	ND
1,2-Diphenylhydrazine	2	ND
Di-n-octylphthalate	10	ND
Endosulfan I	20	ND
Endosulfan II	20	ND
Endosulfan sulfate	20	ND
Endrin	20	ND
Endrin aldehyde	20	ND
Ethyl methanesulfonate	5	ND
Fluoranthene	2	ND
Fluorene	2	ND
Heptachlor	10	ND
Heptachlor epoxide	20	ND
Hexachlorobenzene	5	ND
Hexachlorobutadiene	5	ND
Hexachlorocyclopentadiene	20	ND
Hexachloroethane	5	ND
Indeno(1,2,3-cd)pyrene	2	ND
Isophorone	2	ND
Methoxychlor	5	ND
3-Methylcholanthrene	5	ND
Methyl methanesulfonate	10	ND
2-Methylnaphthalene	2	ND
Naphthalene	2	ND
1-Naphthylamine	5	ND
2-Naphthylamine	5	ND
2-Nitroaniline	20	ND
3-Nitroaniline	20	ND
4-Nitroaniline	20	ND
Nitrobenzene	5	ND
N-Nitroso-di-n-butylamine	5	ND

ENDYNE, INC.

4-31
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued) REF. #: 68,864

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
N-Nitrosodimethylamine	10	ND
N-Nitrosodipropylamine	10	ND
N-Nitrosopiperidine	10	ND
PCB-1016	30	ND
PCB-1221	30	ND
PCB-1232	30	ND
PCB-1242	30	ND
PCB-1248	30	ND
PCB-1254	30	ND
PCB-1260	30	ND
Phenacetin	5	ND
Phenanthrene	2	ND
2-Picoline	10	ND
Pronamide	5	ND
Pyrene	2	ND
Pyridine	10	ND
Toxaphene	20	ND
1,2,4-Trichlorobenzene	2	ND
1,2,4,5,-Tetrachlorobenzene	2	ND
ACID EXTRACTABLES:		
Benzyl alcohol	10	ND
4-Chloro-3-methylphenol	10	ND
2-Chlorophenol	5	ND
2,4-Dichlorophenol	5	ND
2,6-Dichlorophenol	5	ND
2,4-Dimethylphenol	5	ND
4,6-Dinitro-2-methylphenol	50	ND
2-Methylphenol (o-cresol)	5	ND
3&4-Methylphenol (m&p-cresol)	5	ND
2-Nitrophenol	10	ND
Pentachlorophenol	50	ND
Phenol	5	ND
2,3,4,6,-Tetrachlorophenol	20	ND
2,4,5-Trichlorophenol	10	ND
2,4,6-Trichlorophenol	10	ND

NUMBER OF UNIDENTIFIED PEAKS: >10

SURROGATE RECOVERY:

2-Fluorophenol: 48%	2-Fluorobiphenyl: 70%
Phenol-d5: 31%	2,4,6-Tribromophenol: 54%
Nitrobenzene-d5: 65%	Terphenyl-d14: 77%

NOTES:

1 None detected

ENDYNE, INC.

9-32
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8270 (LIQUID) -- GC/MS BASE/NEUTRALS AND ACIDS

CLIENT: Wagner, Heindel, & Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: December 30, 1994
SAMPLER: F. Schucle/L. Goldsmith
DATE SAMPLED: December 13, 1994
DATE RECEIVED: December 16, 1994
DATE EXTRACTED: December 20, 1994

PROJECT CODE: HNGV1722
ANALYSIS DATE: December 27, 1994
STATION: GT-5
REF. #: 68,870
TIME SAMPLED: 5:25 p.m.

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
BASE/NEUTRAL EXTRACTABLES:		
Acenaphthene	2	ND[1]
Acenaphthylene	2	ND
Acetophenone	2	ND
Aldrin	10	ND
Anthracene	2	ND
4-Aminobiphenyl	2	ND
Benzidine	10	ND
Benzo(a)anthracene	2	ND
Benzo(b,k)fluoranthene	2	ND
Benzo(a)pyrene	2	ND
Benzo(ghi)perylene	2	ND
Benzyl butyl phthalate	10	ND
alpha-BHC	10	ND
beta, gamma-BHC	10	ND
delta-BHC	10	ND
Bis(2-chloroethyl)ether	2	ND
Bis(2-chloroethoxy)methane	2	ND
Bis(2-ethylhexyl)phthalate	10	ND
Bis(2-chloroisopropyl)ether	10	ND
4-Bromophenyl phenyl ether	2	ND
Butyl benzyl phthalate	10	ND
4-Chloroaniline	5	ND
Chlordane	30	ND
1-Chloronaphthalene	2	ND
2-Chloronaphthalene	2	ND
4-Chlorophenyl phenyl ether	2	ND
Chrysene	2	ND
4,4'-DDD	20	ND
4,4'-DDE	20	ND
4,4'-DDT	20	ND
Dibenzofuran	2	ND

ENDYNE, INC.

9-33
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued) REF. #: 68,870

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
Dibenz(a,j)acridine	2	ND
Dibenzo(a,h)anthracene	2	ND
Di-n-butylphthalate	10	ND
1,3-Dichlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
3,3'-Dichlorobenzidine	5	ND
Dieldrin	10	ND
Diethyl phthalate	10	ND
Dimethyl phthalate	10	ND
p-Dimethylaminoazobenzene	5	ND
7,12-Dimethylbenz(a)anthracene	10	ND
2,4-Dinitrotoluene	5	ND
2,6-Dinitrotoluene	5	ND
Diphenylamine & N-Nitrosodiphenylamine	5	ND
1,2-Diphenylhydrazine	2	ND
Di-n-octylphthalate	10	ND
Endosulfan I	20	ND
Endosulfan II	20	ND
Endosulfan sulfate	20	ND
Endrin	20	ND
Endrin aldehyde	20	ND
Ethyl methanesulfonate	5	ND
Fluoranthene	2	ND
Fluorene	2	ND
Heptachlor	10	ND
Heptachlor epoxide	20	ND
Hexachlorobenzene	5	ND
Hexachlorobutadiene	5	ND
Hexachlorocyclopentadiene	20	ND
Hexachloroethane	5	ND
Indeno(1,2,3-cd)pyrene	2	ND
Isophorone	2	ND
Methoxychlor	5	ND
3-Methylcholanthrene	5	ND
Methyl methanesulfonate	10	ND
2-Methylnaphthalene	2	ND
Naphthalene	2	ND
1-Naphthylamine	5	ND
2-Naphthylamine	5	ND
2-Nitroaniline	20	ND
3-Nitroaniline	20	ND
4-Nitroaniline	20	ND
Nitrobenzene	5	ND
N-Nitroso-di-n-butylamine	5	ND

ENDYNE, INC.

9-34
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued)

REF. #: 68,870

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
N-Nitrosodimethylamine	10	ND
N-Nitrosodipropylamine	10	ND
N-Nitrosopiperidine	10	ND
PCB-1016	30	ND
PCB-1221	30	ND
PCB-1232	30	ND
PCB-1242	30	ND
PCB-1248	30	ND
PCB-1254	30	ND
PCB-1260	30	ND
Phenacetin	5	ND
Phenanthrene	2	ND
2-Picoline	10	ND
Pronamide	5	ND
Pyrene	2	ND
Pyridine	10	ND
Toxaphene	20	ND
1,2,4-Trichlorobenzene	2	ND
1,2,4,5,-Tetrachlorobenzene	2	ND
ACID EXTRACTABLES:		
Benzyl alcohol	10	ND
4-Chloro-3-methylphenol	10	ND
2-Chlorophenol	5	ND
2,4-Dichlorophenol	5	ND
2,6-Dichlorophenol	5	ND
2,4-Dimethylphenol	5	ND
4,6-Dinitro-2-methylphenol	50	ND
2-Methylphenol (o-cresol)	5	ND
3&4-Methylphenol (m&p-cresol)	5	ND
2-Nitrophenol	10	ND
Pentachlorophenol	50	ND
Phenol	5	ND
2,3,4,6,-Tetrachlorophenol	20	ND
2,4,5-Trichlorophenol	10	ND
2,4,6-Trichlorophenol	10	ND

NUMBER OF UNIDENTIFIED PEAKS: >10

SURROGATE RECOVERY:

2-Fluorophenol: 53%	2-Fluorobiphenyl: 45%
Phenol-d5: 30%	2,4,6-Tribromophenol: 63%
Nitrobenzene-d5: 56%	Terphenyl-d14: 75%

NOTES:

1 None detected

ENDYNE, INC.

9-35
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8270 (LIQUID) -- GC/MS BASE/NEUTRALS AND ACIDS

CLIENT: Wagner, Heindel, & Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: December 30, 1994
SAMPLER: F. Schucle/L. Goldsmith
DATE SAMPLED: December 13, 1994
DATE RECEIVED: December 16, 1994
DATE EXTRACTED: December 20, 1994

PROJECT CODE: HNGV1722
ANALYSIS DATE: December 27, 1994
STATION: GT-7
REF. #: 68,869
TIME SAMPLED: 4:05 p.m.

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
BASE/NEUTRAL EXTRACTABLES:		
Acenaphthene	2	ND[1]
Acenaphthylene	2	ND
Acetophenone	2	ND
Aldrin	10	ND
Anthracene	2	ND
4-Aminobiphenyl	2	ND
Benzidine	10	ND
Benzo(a)anthracene	2	ND
Benzo(b,k)fluoranthene	2	ND
Benzo(a)pyrene	2	ND
Benzo(ghi)perylene	2	ND
Benzyl butyl phthalate	10	ND
alpha-BHC	10	ND
beta, gamma-BHC	10	ND
delta-BHC	10	ND
Bis(2-chloroethyl)ether	2	ND
Bis(2-chloroethoxy)methane	2	ND
Bis(2-ethylhexyl)phthalate	10	ND
Bis(2-chloroisopropyl)ether	10	ND
4-Bromophenyl phenyl ether	2	ND
Butyl benzyl phthalate	10	ND
4-Chloroaniline	5	ND
Chlordane	30	ND
1-Chloronaphthalene	2	ND
2-Chloronaphthalene	2	ND
4-Chlorophenyl phenyl ether	2	ND
Chrysene	2	ND
4,4'-DDD	20	ND
4,4'-DDE	20	ND
4,4'-DDT	20	ND
Dibenzofuran	2	ND

ENDYNE, INC.

9-36
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued)

REF. #: 68,869

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
Dibenz(a,j)acridine	2	ND
Dibenzo(a,h)anthracene	2	ND
Di-n-butylphthalate	10	ND
1,3-Dichlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
3,3'-Dichlorobenzidine	5	ND
Dieldrin	10	ND
Diethyl phthalate	10	ND
Dimethyl phthalate	10	ND
p-Dimethylaminoazobenzene	5	ND
7,12-Dimethylbenz(a)anthracene	10	ND
2,4-Dinitrotoluene	5	ND
2,6-Dinitrotoluene	5	ND
Diphenylamine & N-Nitrosodiphenylamine	5	ND
1,2-Diphenylhydrazine	2	ND
Di-n-octylphthalate	10	ND
Endosulfan I	20	ND
Endosulfan II	20	ND
Endosulfan sulfate	20	ND
Endrin	20	ND
Endrin aldehyde	20	ND
Ethyl methanesulfonate	5	ND
Fluoranthene	2	ND
Fluorene	2	ND
Heptachlor	10	ND
Heptachlor epoxide	20	ND
Hexachlorobenzene	5	ND
Hexachlorobutadiene	5	ND
Hexachlorocyclopentadiene	20	ND
Hexachloroethane	5	ND
Indeno(1,2,3-cd)pyrene	2	ND
Isophorone	2	ND
Methoxychlor	5	-ND
3-Methylcholanthrene	5	ND
Methyl methanesulfonate	10	ND
2-Methylnaphthalene	2	ND
Naphthalene	2	ND
1-Naphthylamine	5	ND
2-Naphthylamine	5	ND
2-Nitroaniline	20	ND
3-Nitroaniline	20	ND
4-Nitroaniline	20	ND
Nitrobenzene	5	ND
N-Nitroso-di-n-butylamine	5	ND

ENDYNE, INC.

9-37
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued) REF. #: 68,869

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
N-Nitrosodimethylamine	10	ND
N-Nitrosodipropylamine	10	ND
N-Nitrosopiperidine	10	ND
PCB-1016	30	ND
PCB-1221	30	ND
PCB-1232	30	ND
PCB-1242	30	ND
PCB-1248	30	ND
PCB-1254	30	ND
PCB-1260	30	ND
Phenacetin	5	ND
Phenanthrene	2	ND
2-Picoline	10	ND
Pronamide	5	ND
Pyrene	2	ND
Pyridine	10	ND
Toxaphene	20	ND
1,2,4-Trichlorobenzene	2	ND
1,2,4,5,-Tetrachlorobenzene	2	ND
ACID EXTRACTABLES:		
Benzyl alcohol	10	ND
4-Chloro-3-methylphenol	10	ND
2-Chlorophenol	5	ND
2,4-Dichlorophenol	5	ND
2,6-Dichlorophenol	5	ND
2,4-Dimethylphenol	5	ND
4,6-Dinitro-2-methylphenol	50	ND
2-Methylphenol (o-cresol)	5	ND
3&4-Methylphenol (m&p-cresol)	5	ND
2-Nitrophenol	10	ND
Pentachlorophenol	50	ND
Phenol	5	ND
2,3,4,6,-Tetrachlorophenol	20	ND
2,4,5-Trichlorophenol	10	ND
2,4,6-Trichlorophenol	10	ND

NUMBER OF UNIDENTIFIED PEAKS: >10

SURROGATE RECOVERY:

2-Fluorophenol: 65%	2-Fluorobiphenyl: 85%
Phenol-d5: 40%	2,4,6-Tribromophenol: 88%
Nitrobenzene-d5: 51%	Terphenyl-d14: 69%

NOTES:

1 None detected

ENDYNE, INC.

9-38
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8270 (LIQUID) -- GC/MS BASE/NEUTRALS AND ACIDS

CLIENT: Wagner, Heindel, & Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: December 30, 1994
SAMPLER: F. Schucle/L. Goldsmith
DATE SAMPLED: December 14, 1994
DATE RECEIVED: December 16, 1994
DATE EXTRACTED: December 21, 1994

PROJECT CODE: HNGV1722
ANALYSIS DATE: December 27, 1994
STATION: GT-9
REF. #: 68,873
TIME SAMPLED: 10:15 a.m.

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
BASE/NEUTRAL EXTRACTABLES:		
Acenaphthene	2	ND[1]
Acenaphthylene	2	ND
Acetophenone	2	ND
Aldrin	10	ND
Anthracene	2	ND
4-Aminobiphenyl	2	ND
Benzidine	10	ND
Benzo(a)anthracene	2	ND
Benzo(b,k)fluoranthene	2	ND
Benzo(a)pyrene	2	ND
Benzo(ghi)perylene	2	ND
Benzyl butyl phthalate	10	ND
alpha-BHC	10	ND
beta, gamma-BHC	10	ND
delta-BHC	10	ND
Bis(2-chloroethyl)ether	2	ND
Bis(2-chloroethoxy)methane	2	ND
Bis(2-ethylhexyl)phthalate	10	ND
Bis(2-chloroisopropyl)ether	10	ND
4-Bromophenyl phenyl ether	2	ND
Butyl benzyl phthalate	10	ND
4-Chloroaniline	5	ND
Chlordane	30	ND
1-Chloronaphthalene	2	ND
2-Chloronaphthalene	2	ND
4-Chlorophenyl phenyl ether	2	ND
Chrysene	2	ND
4,4'-DDD	20	ND
4,4'-DDE	20	ND
4,4'-DDT	20	ND
Dibenzofuran	2	ND

ENDYNE, INC.

9-34
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued)

REF. #: 68,873

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
Dibenz(a,j)acridine	2	ND
Dibenzo(a,h)anthracene	2	ND
Di-n-butylphthalate	10	ND
1,3-Dichlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
3,3'-Dichlorobenzidine	5	ND
Dieldrin	10	ND
Diethyl phthalate	10	ND
Dimethyl phthalate	10	ND
p-Dimethylaminoazobenzene	5	ND
7,12-Dimethylbenz(a)anthracene	10	ND
2,4-Dinitrotoluene	5	ND
2,6-Dinitrotoluene	5	ND
Diphenylamine & N-Nitrosodiphenylamine	5	ND
1,2-Diphenylhydrazine	2	ND
Di-n-octylphthalate	10	ND
Endosulfan I	20	ND
Endosulfan II	20	ND
Endosulfan sulfate	20	ND
Endrin	20	ND
Endrin aldehyde	20	ND
Ethyl methanesulfonate	5	ND
Fluoranthene	2	ND
Fluorene	2	ND
Heptachlor	10	ND
Heptachlor epoxide	20	ND
Hexachlorobenzene	5	ND
Hexachlorobutadiene	5	ND
Hexachlorocyclopentadiene	20	ND
Hexachloroethane	5	ND
Indeno(1,2,3-cd)pyrene	2	ND
Isophorone	2	ND
Methoxychlor	5	-ND
3-Methylcholanthrene	5	ND
Methyl methanesulfonate	10	ND
2-Methylnaphthalene	2	ND
Naphthalene	2	4.4
1-Naphthylamine	5	ND
2-Naphthylamine	5	ND
2-Nitroaniline	20	ND
3-Nitroaniline	20	ND
4-Nitroaniline	20	ND
Nitrobenzene	5	ND
N-Nitroso-di-n-butylamine	5	ND

ENDYNE, INC.

9-40
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued)

REF. #: 68,873

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
N-Nitrosodimethylamine	10	ND
N-Nitrosodipropylamine	10	ND
N-Nitrosopiperidine	10	ND
PCB-1016	30	ND
PCB-1221	30	ND
PCB-1232	30	ND
PCB-1242	30	ND
PCB-1248	30	ND
PCB-1254	30	ND
PCB-1260	30	ND
Phenacetin	5	ND
Phenanthrene	2	ND
2-Picoline	10	ND
Pronamide	5	ND
Pyrene	2	ND
Pyridine	10	ND
Toxaphene	20	ND
1,2,4-Trichlorobenzene	2	ND
1,2,4,5,-Tetrachlorobenzene	2	ND
ACID EXTRACTABLES:		
Benzyl alcohol	10	ND
4-Chloro-3-methylphenol	10	ND
2-Chlorophenol	5	ND
2,4-Dichlorophenol	5	ND
2,6-Dichlorophenol	5	ND
2,4-Dimethylphenol	5	ND
4,6-Dinitro-2-methylphenol	50	ND
2-Methylphenol (o-cresol)	5	ND
3&4-Methylphenol (m&p-cresol)	5	ND
2-Nitrophenol	10	ND
Pentachlorophenol	50	ND
Phenol	5	ND
2,3,4,6,-Tetrachlorophenol	20	ND
2,4,5-Trichlorophenol	10	ND
2,4,6-Trichlorophenol	10	ND

NUMBER OF UNIDENTIFIED PEAKS: >10

SURROGATE RECOVERY:

2-Fluorophenol: 56%	2-Fluorobiphenyl: 65%
Phenol-d5: 35%	2,4,6-Tribromophenol: 103%
Nitrobenzene-d5: 76%	Terphenyl-d14: 74%

NOTES:

1 None detected

ENDYNE, INC.

9-41
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8270 (LIQUID) -- GC/MS BASE/NEUTRALS AND ACIDS

CLIENT: Wagner, Heindel, & Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: December 30, 1994
SAMPLER: F. Schucle/L. Goldsmith
DATE SAMPLED: December 13, 1994
DATE RECEIVED: December 16, 1994
DATE EXTRACTED: December 20, 1994

PROJECT CODE: HNGV1722
ANALYSIS DATE: December 23, 1994
STATION: GT-13
REF. #: 68,867
TIME SAMPLED: 10:45 a.m.

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
BASE/NEUTRAL EXTRACTABLES:		
Acenaphthene	2	ND[1]
Acenaphthylene	2	ND
Acetophenone	2	ND
Aldrin	10	ND
Anthracene	2	ND
4-Aminobiphenyl	2	ND
Benzidine	10	ND
Benzo(a)anthracene	2	ND
Benzo(b,k)fluoranthene	2	ND
Benzo(a)pyrene	2	ND
Benzo(ghi)perylene	2	ND
Benzyl butyl phthalate	10	ND
alpha-BHC	10	ND
beta, gamma-BHC	10	ND
delta-BHC	10	ND
Bis(2-chloroethyl)ether	2	ND
Bis(2-chloroethoxy)methane	2	ND
Bis(2-ethylhexyl)phthalate	10	ND
Bis(2-chloroisopropyl)ether	10	ND
4-Bromophenyl phenyl ether	2	ND
Butyl benzyl phthalate	10	ND
4-Chloroaniline	5	ND
Chlordane	30	ND
1-Chloronaphthalene	2	ND
2-Chloronaphthalene	2	ND
4-Chlorophenyl phenyl ether	2	ND
Chrysene	2	ND
4,4'-DDD	20	ND
4,4'-DDE	20	ND
4,4'-DDT	20	ND
Dibenzofuran	2	ND

ENDYNE, INC.

9-42
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued)

REF. #: 68,867

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
Dibenz(a,j)acridine	2	ND
Dibenzo(a,h)anthracene	2	ND
Di-n-butylphthalate	10	ND
1,3-Dichlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
3,3'-Dichlorobenzidine	5	ND
Dieldrin	10	ND
Diethyl phthalate	10	ND
Dimethyl phthalate	10	ND
p-Dimethylaminoazobenzene	5	ND
7,12-Dimethylbenz(a)anthracene	10	ND
2,4-Dinitrotoluene	5	ND
2,6-Dinitrotoluene	5	ND
Diphenylamine & N-Nitrosodiphenylamine	5	ND
1,2-Diphenylhydrazine	2	ND
Di-n-octylphthalate	10	ND
Endosulfan I	20	ND
Endosulfan II	20	ND
Endosulfan sulfate	20	ND
Endrin	20	ND
Endrin aldehyde	20	ND
Ethyl methanesulfonate	5	ND
Fluoranthene	2	ND
Fluorene	2	ND
Heptachlor	10	ND
Heptachlor epoxide	20	ND
Hexachlorobenzene	5	ND
Hexachlorobutadiene	5	ND
Hexachlorocyclopentadiene	20	ND
Hexachloroethane	5	ND
Indeno(1,2,3-cd)pyrene	2	ND
Isophorone	2	ND
Methoxychlor	5	ND
3-Methylcholanthrene	5	ND
Methyl methanesulfonate	10	ND
2-Methylnaphthalene	2	ND
Naphthalene	2	3.4
1-Naphthylamine	5	ND
2-Naphthylamine	5	ND
2-Nitroaniline	20	ND
3-Nitroaniline	20	ND
4-Nitroaniline	20	ND
Nitrobenzene	5	ND
N-Nitroso-di-n-butylamine	5	ND

ENDYNE, INC.

9-43
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued)

REF. #: 68,867

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
N-Nitrosodimethylamine	10	ND
N-Nitrosodipropylamine	10	ND
N-Nitrosopiperidine	10	ND
PCB-1016	30	ND
PCB-1221	30	ND
PCB-1232	30	ND
PCB-1242	30	ND
PCB-1248	30	ND
PCB-1254	30	ND
PCB-1260	30	ND
Phenacetin	5	ND
Phenanthrene	2	ND
2-Picoline	10	ND
Pronamide	5	ND
Pyrene	2	ND
Pyridine	10	ND
Toxaphene	20	ND
1,2,4-Trichlorobenzene	2	ND
1,2,4,5,-Tetrachlorobenzene	2	ND
ACID EXTRACTABLES:		
Benzyl alcohol	10	ND
4-Chloro-3-methylphenol	10	ND
2-Chlorophenol	5	ND
2,4-Dichlorophenol	5	ND
2,6-Dichlorophenol	5	ND
2,4-Dimethylphenol	5	ND
4,6-Dinitro-2-methylphenol	50	ND
2-Methylphenol (o-cresol)	5	ND
3&4-Methylphenol (m&p-cresol)	5	ND
2-Nitrophenol	10	ND
Pentachlorophenol	50	ND
Phenol	5	ND
2,3,4,6,-Tetrachlorophenol	20	ND
2,4,5-Trichlorophenol	10	ND
2,4,6-Trichlorophenol	10	ND

NUMBER OF UNIDENTIFIED PEAKS: >10

SURROGATE RECOVERY:

2-Fluorophenol: 52%	2-Fluorobiphenyl: 87%
Phenol-d5: 32%	2,4,6-Tribromophenol: 67%
Nitrobenzene-d5: 85%	Terphenyl-d14: 78%

NOTES:

1 None detected

ENDYNE, INC.

9-44
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8270 (LIQUID) -- GC/MS BASE/NEUTRALS AND ACIDS

CLIENT: Wagner, Heindel, & Noyes, Inc.
PROJECT NAME: George/Von Roll
REPORT DATE: December 30, 1994
SAMPLER: F. Schucle/L. Goldsmith
DATE SAMPLED: December 13, 1994
DATE RECEIVED: December 16, 1994
DATE EXTRACTED: December 20, 1994

PROJECT CODE: HNGV1722
ANALYSIS DATE: December 23, 1994
STATION: GT-16
REF. #: 68,866
TIME SAMPLED: 9:15 p.m.

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
BASE/NEUTRAL EXTRACTABLES:		
Acenaphthene	2	ND[1]
Acenaphthylene	2	ND
Acetophenone	2	ND
Aldrin	10	ND
Anthracene	2	ND
4-Aminobiphenyl	2	ND
Benzidine	10	ND
Benzo(a)anthracene	2	ND
Benzo(b,k)fluoranthene	2	ND
Benzo(a)pyrene	2	ND
Benzo(ghi)perylene	2	ND
Benzyl butyl phthalate	10	ND
alpha-BHC	10	ND
beta, gamma-BHC	10	ND
delta-BHC	10	ND
Bis(2-chloroethyl)ether	2	ND
Bis(2-chloroethoxy)methane	2	ND
Bis(2-ethylhexyl)phthalate	10	ND
Bis(2-chloroisopropyl)ether	10	ND
4-Bromophenyl phenyl ether	2	ND
Butyl benzyl phthalate	10	ND
4-Chloroaniline	5	ND
Chlordane	30	ND
1-Chloronaphthalene	2	ND
2-Chloronaphthalene	2	ND
4-Chlorophenyl phenyl ether	2	ND
Chrysene	2	ND
4,4'-DDD	20	ND
4,4'-DDE	20	ND
4,4'-DDT	20	ND
Dibenzofuran	2	ND

ENDYNE, INC.

9-45
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued)

REF. #: 68,866

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
Dibenz(a,j)acridine	2	ND
Dibenzo(a,h)anthracene	2	ND
Di-n-butylphthalate	10	ND
1,3-Dichlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
3,3'-Dichlorobenzidine	5	ND
Dieldrin	10	ND
Diethyl phthalate	10	ND
Dimethyl phthalate	10	ND
p-Dimethylaminoazobenzene	5	ND
7,12-Dimethylbenz(a)anthracene	10	ND
2,4-Dinitrotoluene	5	ND
2,6-Dinitrotoluene	5	ND
Diphenylamine & N-Nitrosodiphenylamine	5	ND
1,2-Diphenylhydrazine	2	ND
Di-n-octylphthalate	10	ND
Endosulfan I	20	ND
Endosulfan II	20	ND
Endosulfan sulfate	20	ND
Endrin	20	ND
Endrin aldehyde	20	ND
Ethyl methanesulfonate	5	ND
Fluoranthene	2	ND
Fluorene	2	ND
Heptachlor	10	ND
Heptachlor epoxide	20	ND
Hexachlorobenzene	5	ND
Hexachlorobutadiene	5	ND
Hexachlorocyclopentadiene	20	ND
Hexachloroethane	5	ND
Indeno(1,2,3-cd)pyrene	2	ND
Isophorone	2	ND
Methoxychlor	5	ND
3-Methylcholanthrene	5	ND
Methyl methanesulfonate	10	ND
2-Methylnaphthalene	2	ND
Naphthalene	2	ND
1-Naphthylamine	5	ND
2-Naphthylamine	5	ND
2-Nitroaniline	20	ND
3-Nitroaniline	20	ND
4-Nitroaniline	20	ND
Nitrobenzene	5	ND
N-Nitroso-di-n-butylamine	5	ND

ENDYNE, INC.

9-46
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

EPA METHOD 8270 (continued)

REF. #: 68,866

Parameter	Quantitation Limit (ug/L)	Concentration (ug/L)
N-Nitrosodimethylamine	10	ND
N-Nitrosodipropylamine	10	ND
N-Nitrosopiperidine	10	ND
PCB-1016	30	ND
PCB-1221	30	ND
PCB-1232	30	ND
PCB-1242	30	ND
PCB-1248	30	ND
PCB-1254	30	ND
PCB-1260	30	ND
Phenacetin	5	ND
Phenanthrene	2	ND
2-Picoline	10	ND
Pronamide	5	ND
Pyrene	2	ND
Pyridine	10	ND
Toxaphene	20	ND
1,2,4-Trichlorobenzene	2	ND
1,2,4,5,-Tetrachlorobenzene	2	ND
ACID EXTRACTABLES:		
Benzyl alcohol	10	ND
4-Chloro-3-methylphenol	10	ND
2-Chlorophenol	5	ND
2,4-Dichlorophenol	5	ND
2,6-Dichlorophenol	5	ND
2,4-Dimethylphenol	5	ND
4,6-Dinitro-2-methylphenol	50	ND
2-Methylphenol (o-cresol)	5	ND
3&4-Methylphenol (m&p-cresol)	5	ND
2-Nitrophenol	10	ND
Pentachlorophenol	50	ND
Phenol	5	ND
2,3,4,6,-Tetrachlorophenol	20	ND
2,4,5-Trichlorophenol	10	ND
2,4,6-Trichlorophenol	10	ND

NUMBER OF UNIDENTIFIED PEAKS: >10

SURROGATE RECOVERY:

2-Fluorophenol: 88%	2-Fluorobiphenyl: 129%
Phenol-d5: 81%	2,4,6-Tribromophenol: 148%[2]
Nitrobenzene-d5: 110%	Terphenyl-d14: 115%

NOTES:

1 None detected
2 Analytical Surrogate recovery is not within laboratory QA/QC parameters.

ENDYNE, INC.

9-47
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

CHARACTERIZATION OF UNIDENTIFIED PEAKS

Client: Wagner, Heindel, & Noyes, Inc.
Project: George/Von Roll
Analysis: 8270
Reference #: 68,864
Station I.D.: GT-1
Unidentified Peaks: >10
Project Code: HNGV1722

Unidentified peak characterization is achieved by direct comparison of sample and library spectral data. The unidentified peaks in this sample consist of Aliphatic and Cyclic Hydrocarbons ranging from 2 to 10 ug/L.

ENDYNE, INC.

9-48
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

CHARACTERIZATION OF UNIDENTIFIED PEAKS

Client: Wagner, Heindel, & Noyes, Inc.
Project: George/Von Roll
Analysis: 8270
Reference #: 68,870
Station I.D.: GT-5
Unidentified Peaks: >10
Project Code: HNGV1722

Unidentified peak characterization is achieved by direct comparison of sample and library spectral data. The unidentified peaks in this sample consist of Aliphatic Hydrocarbons and Carboxylic acids ranging from 5 to 100 ug/L.

ENDYNE, INC.

9-49
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

CHARACTERIZATION OF UNIDENTIFIED PEAKS

Client: Wagner, Heindel, & Noyes, Inc.
Project: George/Von Roll
Analysis: 8270
Reference #: 68,869
Station I.D.: GT-7
Unidentified Peaks: >10
Project Code: HNGV1722

Unidentified peak characterization is achieved by direct comparison of sample and library spectral data. The unidentified peaks in this sample consist of Aliphatic Hydrocarbons and Carboxylic Acids ranging in concentration from 5 to 50 ug/L.

ENDYNE, INC.

9-50
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

CHARACTERIZATION OF UNIDENTIFIED PEAKS

Client: Wagner, Heindel, & Noyes, Inc.
Project: George/Von Roll
Analysis: 8270
Reference #: 68,873
Station I.D.: GT-9
Unidentified Peaks: >10
Project Code: HNGV1722

Unidentified peak characterization is achieved by direct comparison of sample and library spectral data. The unidentified peaks in this sample consist of Alkylated Benzenes ranging from 5 to 200 ug/L and carboxylic acids ranging from 5 to 40 ug/L.

ENDYNE, INC.

9-51
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

CHARACTERIZATION OF UNIDENTIFIED PEAKS

Client: Wagner, Heindel, & Noyes, Inc.
Project: George/Von Roll
Analysis: 8270
Reference #: 68,867
Station I.D.: GT-13
Unidentified Peaks: >10
Project Code: HNGV1722

Unidentified peak characterization is achieved by direct comparison of sample and library spectral data. The unidentified peaks in this sample consist of Alkylated Benzenes ranging in concentration from 5 to 200 ug/L and Carboxylic Acids ranging from 5 to 40 ug/L.

ENDYNE, INC.

9-52
Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

CHARACTERIZATION OF UNIDENTIFIED PEAKS

Client: Wagner, Heindel, & Noyes, Inc.
Project: George/Von Roll
Analysis: 8270
Reference #: 68,866
Station I.D.: GT-16
Unidentified Peaks: >10
Project Code: HNGV1722

Unidentified peak characterization is achieved by direct comparison of sample and library spectral data. The unidentified peaks in this sample consist of Aliphatic Hydrocarbons and Alkylated Aromatics ranging from 5 to 50 ug/L.

ENDYNE, INC.
32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

12692

CHAIN-OF-CUSTODY RECORD

9-53

Project Name: GEORGE/VON ROLL Site Location: IMI - Schenectady, NY	Reporting Address: WHN	Billing Address: WHN
Endyne Project Number: HNGV1722	Company: Contact Name/Phone #: WHN	Sampler Name: Frederic Schiele/Linda Goldsmith Phone #: 802-658-0820

Lab #	Sample Location	Matrix	GRAB	COMP	Date/Time	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation
68,864	GT-1	Water	X		12/12/94 4PM	2	40 ml vial	VOC's	8260	NaN_3
	"	"			"	2	1 l amber	semi-VOC's	8270	
68,865	GT-15				" 4:45	2	40 ml	VOCs	8260	NaN_3
	"				" "	2	1 l amber	semi-VOCs	8270	
68,866	GT-16				12/13/94 9:15	2	40 ml vial	VOC's	8260	NaN_3
	"				" 10:15	2	1 l amber	semi-VOC's	8270	
68,867	GT-13				10:45 AM	2	40 ml	VOC's	8260	NaN_3
	"				" "	2	1 l	semi-VOC's	8270	
68,868	GT-14				" 11:30 AM	2	40 ml	VOC's	8260	NaN_3
	"				" "	2	1 l	semi-VOC's	8270	
68,869	GT-7				" 4:05 PM	2	40 ml	VOC's	8260	NaN_3
	"				" "	2	1 l	semi-VOC's	8270	

Relinquished by: Signature Frederick Schiele	Received by: Signature Jm Wetmore	Date/Time 12/14/94 12:00PM
Relinquished by: Signature	Received by: Signature	Date/Time

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or A
2	Chloride	7	Total P	12	TSS	17	Colifonn (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD_5	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										

ENDYNE, INC.

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

CHAIN-OF-CUSTODY RECORD

12693

9-54

Project Name: GEORGE/VON ROLL Site Location: IMI - Schenectady, NY	Reporting Address: WHN	Billing Address: WHN
Endyne Project Number: H1G6V	Company: Contact Name/Phone #: WHN	Sampler Name: Frederic Schuele/Linda Goldsmith Phone #: 654-0820

Lab #	Sample Location	Matrix	GRAB	COMP	Date/Time	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
68,870	GT-5				12/13/94 5:25PM	2	40ml	VOC's	8260	NaN_3	
	"				"	2	1l	semi-VOC's	8270	"	
68,871	GT-4				" 3:40PM	2	40ml	VOC's	8260	NaN_3	
	"				"	2	1l	semi-VOC's	8270		
68,872	GT-10				" 5PM	2	40ml	VOC's	8260	NaN_3	
	"				" "	2	1l	semi-VOC's	8270		
68,873	GT-9				12/14/94 10:15A	2	40ml	VOC's	8260	NaN_3	
	"				"	2	1l	semi-VOCs	8270		
68,874	GT-12				" 10:55AM	2	40ml	VOC's	8260	NaN_3	
	"	↓	↓		"	2	1l	semi-VOC's	8270		
68,875	F-16-1 (RV-16 floordrain)	Soil	X		12/13/94 2PM	1	250ml amber	VOC's, semi-VOC's	8260/8270	NaN_3	

Relinquished by: Signature Frederic Schuele	Received by: Signature Jim Wetmore	Date/Time 12/15/94 12:00PM
Relinquished by: Signature	Received by: Signature	Date/Time

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD_5	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										

APPENDIX H

Ground water analytical data
WCC, October 1989 Report

SUMMARY OF PRIORITY POLLUTANT ORGANIC COMPOUNDS
IN GROUND WATER, G.E. LANDFILLS
VALUES IN UG/L EXCEPT AS NOTED

COMPOUND	WELL NUMBER										
	GE-1A	GE-1A	GE-2A	GE-2A	GE-2A	GE-2A[1]	GE-7	GE-9	GE-9	GE-10	GE-11
Benzene		0.8	21				0.7				
Chlorobenzene	22	1.8					1.6	4.2			
Chloroethane								0.5			
1,1-Dichloroethane			40								
Ethyl Benzene			13	6.4							12
Methylene Chloride		0.5									
Toluene											
1,2-Trans-Dichloroethylene											
Trichlorofluoromethane											
Vinyl Chloride											
2,4-Dimethyl Phenol			15								
Bis(2-Ethylhexyl) Phthalate			294		17	8.6			6.0	2.6	
Di-n-Octyl Phthalate			24								
Naphthalene					10						
Date of Sample	8/6/80	2/19/86	8/9/80	6/30/83	2/20/86	2/20/86	2/19/86	2/19/86	2/20/86	1/28/86	8/6/80
Reference	(a)	(c)	(a)	(b)	(b)	(b)	(c)	(c)	(b)	(b)	(a)

1 Duplicate sample. An additional sample was simultaneously analyzed by ENSECO and all parameters were reported to be below detection.
Blank Space = not detected

References:
(a) ERT 4/81
(b) Environment-1 (laboratory)
(c) ENSECO (laboratory)

EC86-21T2c

TABLE 2-5 (CONTINUED)

SUMMARY OF PRIORITY POLLUTANT ORGANIC COMPOUNDS
IN GROUND WATER, G.E. LANDFILLS
VALUES IN UG/L EXCEPT AS NOTED

COMPOUND	WELL NUMBER										
	GE-11	GE-15	GE-16	GE-16	GE-16	GE-26	GE-26	GE-26	RW-2A	RW-5	RW-5
Benzene			20.4		11	108	18	73		4.6	4.6
Chlorobenzene			1.5			2.4	1.6				
Chloroethane			14.8	5.7	11	410.6	850	354		15	16.4
1,1-Dichloroethane						6.2					
Ethyl Benzene						20	1.3	13			
Methylene Chloride			1.1			15.2					
Toluene						8.6					
1,2-Trans-Dichloroethylene		14.9				1.2					
Trichlorofluoromethane											
Vinyl Chloride		14						61	19		
2,4-Dimethyl Phenol										27	5.1
Bis(2-Ethylhexyl) Phthalate											
Di-n-Octyl Phthalate	133							30			
Naphthalene											
Date of Sample	1/28/86	1/28/86	6/29/83	2/19/86	2/20/86	7/1/83	2/19/86	2/20/86	6/7/80	1/28/86	1/28/86
Reference	(b)	(b)	(b)	(c)	(b)	(b)	(c)	(b)	(a)	(b)	(b)

1 Duplicate sample. An additional sample was simultaneously analyzed by ENSECO and all parameters were reported to be below detection.

Blank Space = not detected

References:

(a) ERT 4/81
(b) Environment-1 (laboratory)
(c) ENSECO (laboratory)

APPENDIX I

Ground water analytical data
D&M, March 1998 Report

APPENDIX B

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS (a)
GE-30

Parameter	GE-30 8/91	GE-30 11/91	GE-30 3/92	GE-30 6/92	GE-30 8/92	GE-30 6/93	GE-30 4/94	GE-30 5/95	GE-30 12/10/97
Acetone	-	-	-	-	-	-	-	R	ND
Acrylonitrile	-	-	-	-	-	-	-	-	-
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	-	-
Bromochloromethane	R	ND	ND	ND	ND	ND	ND	-	-
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	-	-	-	-	-	-	-	R	ND
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
Carbon Disulfide	-	-	-	-	-	-	-	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	R	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	-	-
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	-	-
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	ND	ND	ND	ND	ND	ND	ND	-	-
1,2-Dibromomethane	ND	ND	ND	ND	ND	ND	ND	-	-
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	-	-
1,2-Dichlorobenzene (b)	ND	ND	ND	ND	ND	ND	ND	-	-
1,3-Dichlorobenzene (b)	ND	ND	ND	ND	ND	ND	ND	-	-
1,4-Dichlorobenzene (b)	ND	ND	ND	ND	ND	ND	ND	-	-
Dichlorodifluoromethane	R	ND	ND	ND	ND	ND	ND	-	-
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	1.0	ND	ND	ND	ND	ND	-	-
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	-	-
1,2-Dichloroethene (total)	-	-	-	-	-	-	-	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	-	-
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	-	-
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	-	-
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene (b)	ND	ND	ND	ND	ND	ND	ND	-	-
2-Hexanone	-	-	-	-	-	-	-	ND	ND
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	-	-

APPENDIX B

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS (a)
GE-30

Parameter	GE-30 8/91	GE-30 11/91	GE-30 3/92	GE-30 6/92	GE-30 8/92	GE-30 6/93	GE-30 4/94	GE-30 5/95	GE-30 12/10/97
Methylene Chloride	R	ND	ND	ND	ND	ND	ND	ND	0.9 J
4-Methyl-2-Pentanone	-	-	-	-	-	-	-	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND	ND	-	-
n-Propylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	-	-
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	-	-
1,2,4-Trichlorobenzene (b)	ND	ND	ND	ND	ND	ND	ND	-	-
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	R	ND	ND	ND	ND	ND	ND	-	-
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	-	-
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
1,3,5-Trimethylbenzene	ND	ND	ND	ND	0.5	ND	ND	-	-
Vinyl Acetate	-	-	-	-	-	-	-	-	ND
inyl Chloride	R	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND	ND	ND	-	-
m&p-Xylene	ND	ND	ND	ND	ND	ND	ND	-	-
Xylenes (total)	-	-	-	-	-	-	-	ND	ND
Total VOCs	**ND**	**1.0**	**ND**	**ND**	**0.5**	**ND**	**ND**	**ND**	**0.9**

Notes:

(a) All results reported in µg/L

(b) Analyte included in SVOC analyses for 5/95 and 12/10/97 sampling events

ND indicates analyte not detected; -- indicates analyte not included in analyses

Laboratory qualifiers defined as follows: J indicates an estimated value, the analyte was detected at a value above the method detection limit (MDL), but below the practical quantitation limit (PQL); R indicates the data is unusable

APPENDIX C

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (a)
GE-30

Parameter	GE-30 9/28/83	GE-30 4/88	GE-30 7/89	GE-30 8/91	GE-30 11/91	GE-30 3/92	GE-30 6/92	GE-30 5/95	GE-30 12/10/97
Acenaphthene	-	-	-	-	-	-	-	ND	ND
Acenaphthylene	-	-	-	-	-	-	-	ND	ND
Anthracene	-	-	-	-	-	-	-	ND	ND
Benzo(a)anthracene	-	-	-	-	-	-	-	ND	ND
Benzo(a)pyrene	-	-	-	-	-	-	-	ND	ND
Benzo(b)fluoranthene	-	-	-	-	-	-	-	ND	ND
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	ND	ND
Benzo(k)fluoranthene	-	-	-	-	-	-	-	ND	ND
Benzoic Acid	-	-	-	-	-	-	-	ND	ND
Benzyl alcohol	-	-	-	-	-	-	-	ND	ND
4-Bromophenyl-phenylether	-	-	-	-	-	-	-	ND	ND
Butylbenzylphthalate	-	-	-	-	-	-	-	ND	ND
Carbazole	-	-	-	-	-	-	-	ND	ND
4-Chloroaniline	-	-	-	-	-	-	-	ND	ND
bis(2-Chloroethoxy)methane	-	-	-	-	-	-	-	ND	ND
bis(2-Chloroethyl)ether	-	-	-	-	-	-	-	ND	ND
4-Chloro-3-methylphenol	-	-	-	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	-	-	-	-	-	-	-	ND	ND
2-Chlorophenol	-	-	-	ND	ND	ND	ND	ND	ND
4-Chlorophenyl-phenylether	-	-	-	-	-	-	-	ND	ND
Chrysene	-	-	-	-	-	-	-	ND	ND
Dibenzo(a,h)anthracene	-	-	-	-	-	-	-	ND	ND
Dibenzofuran	-	-	-	-	-	-	-	ND	ND
1,2-Dichlorobenzene (b)	-	-	-	-	-	-	-	ND	ND
1,3-Dichlorobenzene (b)	-	-	-	-	-	-	-	ND	ND
1,4-Dichlorobenzene (b)	-	-	-	-	-	-	-	ND	ND
3,3'-Dichlorobenzidine	-	-	-	-	-	-	-	ND	ND
2,4-Dichlorophenol	-	-	-	ND	ND	ND	ND	ND	ND
Diethylphthalate	-	-	-	-	-	-	-	ND	ND
2,4-Dimethylphenol	-	-	-	ND	ND	ND	ND	ND	ND
Dimethylphthalate	-	-	-	-	-	-	-	ND	ND
4,6-Dinitro-2-methylphenol	-	-	-	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	-	-	-	-	-	-	-	ND	ND
2,4-Dinitrophenol	-	-	-	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	-	-	-	-	-	-	-	ND	ND
2,6-Dinitrotoluene	-	-	-	-	-	-	-	ND	ND
Di-n-octylphthalate	-	-	-	-	-	-	-	ND	ND
bis(2-Ethylhexyl)phthalate	-	-	-	-	-	-	-	ND	ND
Fluoranthene	-	-	-	-	-	-	-	ND	ND
Fluorene	-	-	-	-	-	-	-	ND	ND

APPENDIX C

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (a)
GE-30

Parameter	GE-30 9/28/83	GE-30 4/88	GE-30 7/89	GE-30 8/91	GE-30 11/91	GE-30 3/92	GE-30 6/92	GE-30 5/95	GE-30 12/10/97
Hexachlorobenzene	-	-	-	-	-	-	-	ND	ND
Hexachlorobutadiene (b)	-	-	-	-	-	-	-	ND	ND
Hexachlorocyclopentadiene	-	-	-	-	-	-	-	ND	ND
Hexachloroethane	-	-	-	-	-	-	-	ND	ND
Indeno(1,2,3-cd)pyrene	-	-	-	-	-	-	-	ND	ND
Isophorone	-	-	-	-	-	-	-	ND	ND
2-Methylnaphthalene	-	-	-	-	-	-	-	ND	ND
2-Methylphenol	-	-	-	ND	ND	ND	ND	ND	ND
4-Methylphenol	-	-	-	ND	ND	ND	ND	ND	ND
Naphthalene	-	-	-	-	-	-	-	ND	ND
2-Nitroaniline	-	-	-	-	-	-	-	ND	ND
3-Nitroaniline	-	-	-	-	-	-	-	ND	ND
4-Nitroaniline	-	-	-	-	-	-	-	ND	ND
Nitrobenzene	-	-	-	-	-	-	-	ND	ND
2-Nitrophenol	-	-	-	ND	ND	ND	ND	ND	ND
4-Nitrophenol	-	-	-	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	-	-	-	-	-	-	-	ND	ND
N-Nitrosodiphenylamine (1)	-	-	-	-	-	-	-	ND	ND
2,2'-oxybis (1-Chloropropane)	-	-	-	-	-	-	-	ND	ND
Pentachlorophenol	-	-	-	ND	ND	ND	ND	ND	ND
Phenanthrene	-	-	-	-	-	-	-	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	-	-	-	-	-	-	-	ND	ND
1,2,4-Trichlorobenzene (b)	-	-	-	-	-	-	-	ND	ND
2,4,5-Trichlorophenol	-	-	-	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	-	-	-	ND	ND	ND	ND	ND	ND
Total SVOCs	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Notes:
(a) All results reported in µg/L
(b) Analyte included in VOC analyses for 8/91, 11/91, 3/92, and 6/92 sampling events
ND indicates analyte not detected; -- indicates analyte not included in analyses

APPENDIX D

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS POLYCHLORINATED BIPHENYLS AND PESTICIDES (a) GE-30

Parameter	GE-30 8/91	GE-30 11/91	GE-30 3/92	GE-30 6/92	GE-30 5/95	GE-30 12/10/97
	Pesticides					
Aldrin	-	-	-	-	ND	-
alpha-BHC	-	-	-	-	ND	-
beta-BHC	-	-	-	-	ND	-
delta-BHC	-	-	-	-	ND	-
gamma-BHC (Lindane)	-	-	-	-	ND	-
alpha-Chlordane	-	-	-	-	ND	-
gamma-Chlordane	-	-	-	-	ND	-
4,4'-DDD	-	-	-	-	ND	-
4,4'-DDE	-	-	-	-	ND	-
4,4'-DDT	-	-	-	-	ND	-
Dieldrin	-	-	-	-	ND	-
Endosulfan I	-	-	-	-	ND	-
Endosulfan II	-	-	-	-	ND	-
Endosulfan sulfate	-	-	-	-	ND	-
Endrin	-	-	-	-	ND	-
Endrin aldehyde	-	-	-	-	ND	-
Endrin ketone	-	-	-	-	ND	-
Heptachlor	-	-	-	-	ND	-
Heptachlor epoxide	-	-	-	-	ND	-
Methoxychlor	-	-	-	-	ND	-
Toxaphene	-	-	-	-	ND	-
	PCBs					
Aroclor 1016	ND	ND	ND	ND	ND	ND
Aroclor 1221	ND	ND	ND	ND	ND	ND
Aroclor 1232	ND	ND	ND	ND	ND	ND
Aroclor 1242	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	ND	ND	ND	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND
Total PCBs	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Notes:

(a) All results reported in µg/L

ND indicates analyte not detected; -- indicates analyte not included in analyses

APPENDIX E

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS
METALS (a)
GE-30

Parameter	GE-30 3/17/83	GE-30 6/20/83	GE-30 9/28/83	GE-30 4/88	GE-30 7/89	GE-30 8/91	GE-30 11/91	GE-30 3/92	GE-30 6/92	GE-30 5/95	GE-30 12/10/97
Aluminum	-	-	-	-	-	-	-	-	-	1,930	565
Antimony	-	-	-	ND	-	-	-	-	-	ND	ND
Arsenic	-	-	-	ND	61	2.0 B	ND	ND	ND	3.0 B	ND
Barium	-	-	-	-	390	139 B	76.4 B	148 B	112 B	163 B	118 B
Beryllium	-	-	-	ND	-	-	-	-	-	ND	ND
Cadmium	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	-	-	-	-	-	-	-	-	-	107,000	87,300
Chromium	-	-	ND	7.2	42.2	ND	ND	ND	ND	ND	1.4 B
Cobalt	-	-	-	-	-	-	-	-	-	1.7 B	ND
Copper	-	-	-	23	80	-	-	-	-	22.4 B	4.5 B
Cyanide	-	-	-	ND	-	-	-	-	-	-	-
Iron	9,000	7,000	6,800	-	-	-	-	-	-	16,800	14,200
Lead	-	-	ND	5.8	32.4	1.3 B	ND	ND	ND	6.4	5.6
Magnesium	-	-	-	-	-	-	-	-	-	21,200	16,300
Manganese	2,000	2,300	2,300	-	-	-	-	-	-	2,880	2,140
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11 B	ND
Nickel	-	-	-	ND	-	-	-	-	-	ND	3.3 B
Potassium	-	-	-	-	-	-	-	-	-	1,670 B	941 B
Selenium	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Silver	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	-	-	-	-	-	-	-	-	-	38,900	43,700
Thallium	-	-	-	ND	-	-	-	-	-	ND	ND
Vanadium	-	-	-	-	-	-	-	-	-	4.6 B	1.7 B
Zinc	-	-	-	23.6	178 d	-	-	-	-	41.4	25.3
Aluminum-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Antimony-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Arsenic-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Barium-Filtered	-	-	-	-	-	-	-	-	-	-	93.4 B
Beryllium-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Cadmium-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Calcium-Filtered	-	-	-	-	-	-	-	-	-	-	90,900
Chromium-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Cobalt-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Copper-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Iron-Filtered	-	-	-	-	-	-	-	-	-	-	5,940
Lead-Filtered	-	-	-	-	-	-	-	-	-	-	2.1 B
Magnesium-Filtered	-	-	-	-	-	-	-	-	-	-	16,800
Manganese-Filtered	-	-	-	-	-	-	-	-	-	-	1,700
Mercury-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Nickel-Filtered	-	-	-	-	-	-	-	-	-	-	2.0 B
Potassium-Filtered	-	-	-	-	-	-	-	-	-	-	702 B
Selenium-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Silver-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Sodium-Filtered	-	-	-	-	-	-	-	-	-	-	46,800
Thallium-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Vanadium-Filtered	-	-	-	-	-	-	-	-	-	-	ND
Zinc-Filtered	-	-	-	-	-	-	-	-	-	-	3.9 B

Notes:

(a) All results reported in µg/L

ND indicates analyte not detected; – indicates analyte not included in analyses

Laboratory qualifiers defined as follows: B indicates analyte detected in the laboratory method blank;

Zinc detected in associated field blank samples in the following concentrations: b-24 ppb, c-33 ppb, d-36 ppb

APPENDIX B

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS (a)
GE-31

Parameter	GE-31 8/91	GE-31 11/91	GE-31 3/92	GE-31 6/92	GE-31 8/92	GE-31 6/93	GE-31 4/94	GE-31 5/95	GE-31 12/10/97
Acetone	-	-	-	-	-	-	-	R	ND
Acrylonitrile	-	-	-	-	-	-	-	-	-
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	-	-
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	-	-
Bromodichloromethane	R	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	-	-	-	-	-	-	-	R	ND
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
Carbon Disulfide	-	-	-	-	-	-	-	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	R	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	-	-
Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	-	-
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	ND	ND	ND	ND	ND	ND	ND	-	-
1,2-Dibromomethane	ND	ND	ND	ND	ND	ND	ND	-	-
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	-	-
1,2-Dichlorobenzene (b)	ND	ND	ND	ND	ND	ND	ND	-	-
1,3-Dichlorobenzene (b)	ND	ND	ND	ND	ND	ND	ND	-	-
1,4-Dichlorobenzene (b)	ND	ND	ND	ND	ND	ND	ND	-	-
Dichlorodifluoromethane	R	ND	ND	ND	ND	ND	ND	-	-
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	-	-
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	-	-
1,2-Dichloroethene (total)	-	-	-	-	-	-	-	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	-	-
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	-	-
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	-	-
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene (b)	ND	ND	ND	ND	ND	ND	ND	-	-
2-Hexanone	-	-	-	-	-	-	-	ND	ND
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
sopropyltoluene	ND	ND	ND	ND	ND	ND	ND	-	-

APPENDIX B

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS (a)
GE-31

ter	GE-31 8/91	GE-31 11/91	GE-31 3/92	GE-31 6/92	GE-31 8/92	GE-31 6/93	GE-31 4/94	GE-31 5/95	GE-31 12/10/97
ene Chloride	R	ND	ND	ND	ND	ND	ND	ND	ND
yl-2-Pentanone	-	-	-	-	-	-	-	ND	ND
alene	ND	ND	ND	ND	ND	ND	ND	-	-
ylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
e	ND	ND	ND	ND	ND	ND	ND	ND	ND
-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	-	-
-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
hloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
ne	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	-	-
Trichlorobenzene (b)	ND	ND	ND	ND	ND	ND	ND	-	-
Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND
loroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND
lorofluoromethane	R	ND	ND	ND	ND	ND	ND	-	-
-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	-	-
-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	-	-
l Acetate	-	-	-	-	-	-	-	-	ND
l Chloride	R	ND	ND	ND	ND	ND	ND	ND	ND
lene	ND	ND	ND	ND	ND	ND	ND	-	-
-Xylene	ND	ND	ND	ND	ND	ND	ND	-	-
nes (total)	-	-	-	-	-	-	-	ND	ND
l VOCs	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

es:
All results reported in µg/L
Analyte included in SVOC analyses for 5/95 and 12/10/97 sampling events
ND indicates analyte not detected; -- indicates analyte not included in analyses
Laboratory qualifier defined as follows: R indicates the data is unusable

APPENDIX C

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS (a)
GE-31

Parameter	GE-31 9/28/83	GE-31 4/88	GE-31 7/89	GE-31 8/91	GE-31 11/91	GE-31 3/92	GE-31 6/92	GE-31 5/95	GE-31 12/10/97
Hexachlorobenzene	-	-	-	-	-	-	-	ND	ND
Hexachlorobutadiene (b)	-	-	-	-	-	-	-	ND	ND
Hexachlorocyclopentadiene	-	-	-	-	-	-	-	ND	ND
Hexachloroethane	-	-	-	-	-	-	-	ND	ND
Indeno(1.2.3-cd)pyrene	-	-	-	-	-	-	-	ND	ND
Isophorone	-	-	-	-	-	-	-	ND	ND
2-Methylnaphthalene	-	-	-	-	-	-	-	ND	ND
2-Methylphenol	-	-	-	ND	ND	ND	ND	ND	ND
4-Methylphenol	-	-	-	ND	ND	ND	ND	ND	ND
Naphthalene	-	2.0 J	-	-	-	-	-	ND	0.6 J
2-Nitroaniline	-	-	-	-	-	-	-	ND	ND
3-Nitroaniline	-	-	-	-	-	-	-	ND	ND
4-Nitroaniline	-	-	-	-	-	-	-	ND	ND
Nitrobenzene	-	-	-	-	-	-	-	ND	ND
2-Nitrophenol	-	-	-	ND	ND	ND	ND	ND	ND
4-Nitrophenol	-	-	-	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	-	-	-	-	-	-	-	ND	ND
N-Nitrosodiphenylamine (1)	-	-	-	-	-	-	-	ND	ND
2.2'-oxybis (1-Chloropropane)	-	-	-	-	-	-	-	ND	ND
Pentachlorophenol	-	-	-	R	3.0	ND	ND	ND	ND
Phenanthrene	-	ND	-	-	-	-	-	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	-	ND	-	-	-	-	-	ND	ND
1.2.4-Trichlorobenzene (b)	-	-	-	-	-	-	-	ND	ND
2.4.5-Trichlorophenol	-	-	-	ND	ND	ND	ND	ND	ND
2.4.6-Trichlorophenol	-	-	-	ND	ND	ND	ND	ND	ND
Total SVOCs	**ND**	**2.0**	**ND**	**ND**	**3.0**	**ND**	**ND**	**ND**	**0.6**

Notes:

(a) All results reported in µg/L

(b) Analyte included in VOC analyses for 8/91, 11/91, 3/92, and 6/92 sampling events

ND indicates analyte not detected; -- indicates analyte not included in analyses

Laboratory qualifiers defined as follows: J indicates an estimated value, the analyte was detected at a value above the method detection limit (MDL), but below the practical quantitation limit (PQL); R indicates the data is unusable

APPENDIX D

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYLS AND PESTICIDES (a)
GE-31

Parameter	GE-31 8/91	GE-31 11/91	GE-31 3/92	GE-31 6/92	GE-31 5/95	GE-31 12/10/97
	Pesticides					
Aldrin	-	-	-	-	ND	-
alpha-BHC	-	-	-	-	ND	-
beta-BHC	-	-	-	-	ND	-
delta-BHC	-	-	-	-	ND	-
gamma-BHC (Lindane)	-	-	-	-	ND	-
alpha-Chlordane	-	-	-	-	ND	-
gamma-Chlordane	-	-	-	-	ND	-
4,4'-DDD	-	-	-	-	ND	-
4,4'-DDE	-	-	-	-	ND	-
4,4'-DDT	-	-	-	-	ND	-
Dieldrin	-	-	-	-	ND	-
Endosulfan I	-	-	-	-	ND	-
Endosulfan II	-	-	-	-	ND	-
Endosulfan sulfate	-	-	-	-	ND	-
Endrin	-	-	-	-	ND	-
Endrin aldehyde	-	-	-	-	ND	-
Endrin ketone	-	-	-	-	ND	-
Heptachlor	-	-	-	-	ND	-
Heptachlor epoxide	-	-	-	-	ND	-
Methoxychlor	-	-	-	-	ND	-
Toxaphene	-	-	-	-	ND	-
	PCBs					
Aroclor 1016	ND	ND	ND	ND	ND	ND
Aroclor 1221	ND	ND	ND	ND	ND	ND
Aroclor 1232	ND	ND	ND	ND	ND	ND
Aroclor 1242	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	ND	ND	ND	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND
Total PCBs	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Notes:

(a) All results reported in µg/L

ND indicates analyte not detected; -- indicates analyte not included in analyses

APPENDIX E

COMPARISON OF GROUNDWATER ANALYTICAL RESULTS
METALS (a)
GE-31

Parameter	GE-31 3/17/83	GE-31 6/20/83	GE-31 9/28/83	GE-31 4/88	GE-31 7/89	GE-31 8/91	GE-31 11/91	GE-31 3/92	GE-31 6/92	GE-31 5/95	GE-31 12/10/97
Aluminum	-	-	-	-	-	-	-	-	-	30,800	640
Antimony	-	-	-	ND	-	-	-	-	-	3.6 B	ND
Arsenic	-	-	-	ND	6.3	1.9 B	1.4 B	ND	ND	19.3	ND
Barium	-	-	-	-	230	80.3 B	69.5 B	64.9 B	138 B	277	94.4 B
Beryllium	-	-	-	ND	-	-	-	-	-	1.4 B	ND
Cadmium	-	-	ND	ND	ND	ND	ND	ND	ND	3.2 B	1.1 B
Calcium	-	-	-	-	-	-	-	-	-	124,000	94,600
Chromium	-	-	ND	7.4	ND	ND	ND	ND	ND	20.9	2.6 B
Cobalt	-	-	-	-	-	-	-	-	-	19.6 B	9.3 B
Copper	-	-	-	22	ND	-	-	-	-	138	3.8 B
Cyanide	-	-	-	ND	-	-	-	-	-	-	-
Iron	7,000	6,000	7,500	-	-	-	-	-	-	38,300	2,400
Lead	-	-	ND	6.9	ND	6.6 B	ND	ND	ND	22.1	4.6
Magnesium	-	-	-	-	-	-	-	-	-	30,900	14,900
Manganese	8,000	6,800	7,300	-	-	-	-	-	-	5,590	9,970
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12 B	ND
Nickel	-	-	-	8.5	-	-	-	-	-	34.5 B	4.9 B
Potassium	-	-	-	-	-	-	-	-	-	9,140	466 B
Selenium	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Silver	-	-	-	ND	ND	ND	ND	ND	ND	ND	1.4 B
Sodium	-	-	-	-	-	-	-	-	-	67,100	55,200
Thallium	-	-	-	ND	-	-	-	-	-	ND	ND
Vanadium	-	-	-	-	-	-	-	-	-	55.7	1.4 B
Zinc	-	-	-	25.5	41 d	-	-	-	-	183	5.1 B
Aluminum-Filtered	-	-	-	-	-	-	-	-	-	-	-
Antimony-Filtered	-	-	-	-	-	-	-	-	-	-	-
Arsenic-Filtered	-	-	-	-	-	-	-	-	-	-	-
Barium-Filtered	-	-	-	-	-	-	-	-	-	-	-
Beryllium-Filtered	-	-	-	-	-	-	-	-	-	-	-
Cadmium-Filtered	-	-	-	-	-	-	-	-	-	-	-
Calcium-Filtered	-	-	-	-	-	-	-	-	-	-	-
Chromium-Filtered	-	-	-	-	-	-	-	-	-	-	-
Cobalt-Filtered	-	-	-	-	-	-	-	-	-	-	-
Copper-Filtered	-	-	-	-	-	-	-	-	-	-	-
Iron-Filtered	-	-	-	-	-	-	-	-	-	-	-
Lead-Filtered	-	-	-	-	-	-	-	-	-	-	-
Magnesium-Filtered	-	-	-	-	-	-	-	-	-	-	-
Manganese-Filtered	-	-	-	-	-	-	-	-	-	-	-
Mercury-Filtered	-	-	-	-	-	-	-	-	-	-	-
Nickel-Filtered	-	-	-	-	-	-	-	-	-	-	-
Potassium-Filtered	-	-	-	-	-	-	-	-	-	-	-
Selenium-Filtered	-	-	-	-	-	-	-	-	-	-	-
Silver-Filtered	-	-	-	-	-	-	-	-	-	-	-
Sodium-Filtered	-	-	-	-	-	-	-	-	-	-	-
Thallium-Filtered	-	-	-	-	-	-	-	-	-	-	-
Vanadium-Filtered	-	-	-	-	-	-	-	-	-	-	-
Zinc-Filtered	-	-	-	-	-	-	-	-	-	-	-

Notes:

(a) All results reported in µg/L

ND indicates analyte not detected; -- indicates analyte not included in analyses

Laboratory qualifiers defined as follows: B indicates analyte detected in the laboratory method blank;

Zinc detected in associated field blank samples in the following concentrations: b-24 ppb, c-33 ppb, d-36 ppb

i:\albany\projects\21371\dwgs\vri-base.dwg

6-17-98

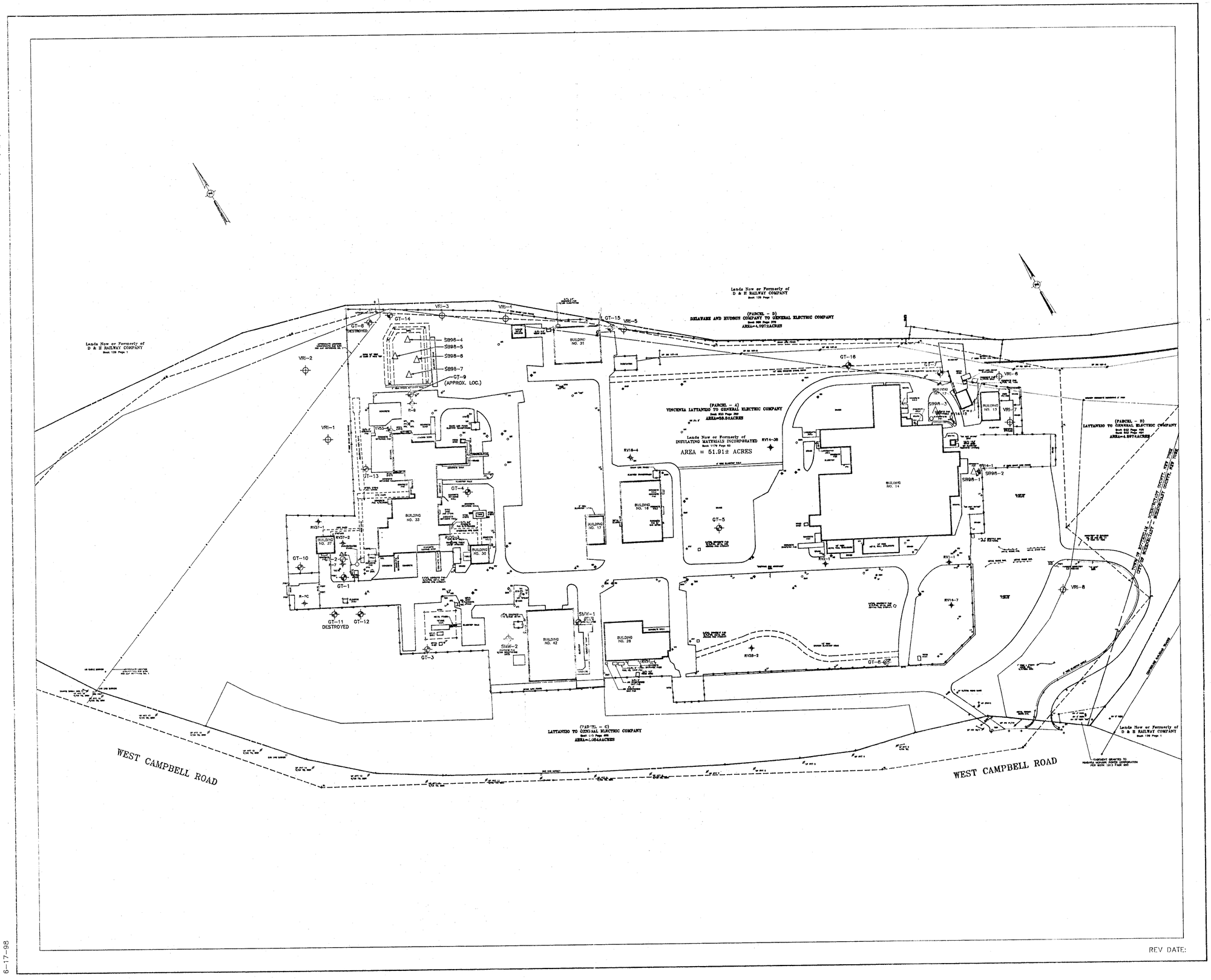


PLATE 1

LEGEND

GT-14 ⌖	EXISTING GROUND WATER MONITORING WELL
RV14-1 ✦	EXISTING SOIL VAPOR EXTRACTION WELL
SMH ○	MANHOLE
CB ⊕	CATCH BASIN
---BL---	PROPERTY BOUNDARY LINE
•—•—•	CHAIN LINK FENCE
VRI-3 ⊕	PROPOSED GROUND WATER MONITORING WELL
SB98-1 △	PROPOSED SOIL BORING

GE PLASTICS AND
VON ROLL ISOLA USA, INC
VRI–RIVERVIEW FACILITY
SCHENECTADY, NEW YORK

SITE MAP

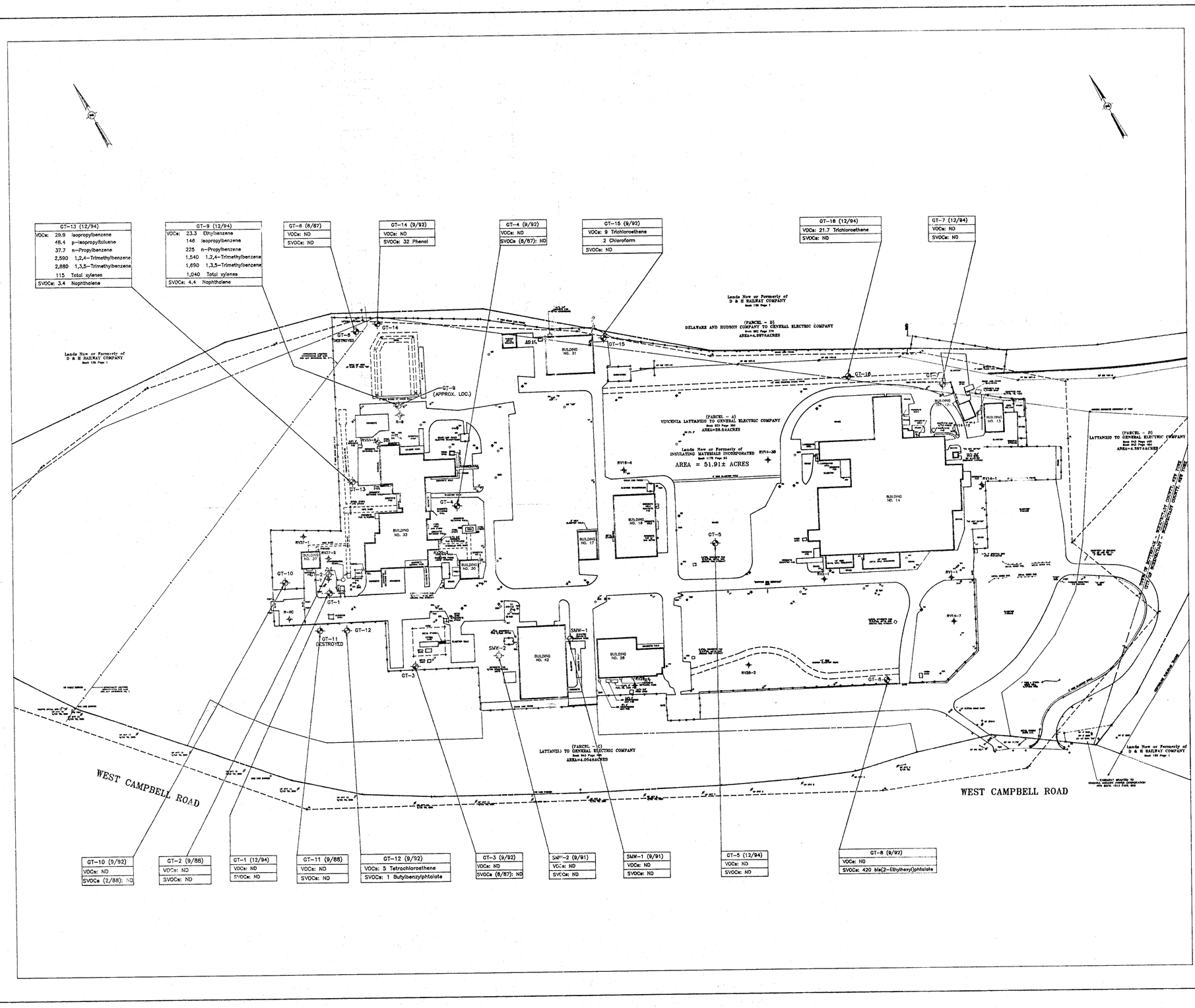
1"=30' 30 0 30 60

6-17-98
21371.001

O'BRIEN & GERE
ENGINEERS INC.

REV DATE:

PLATE 2



LEGEND

- GT-14 — EXISTING GROUND WATER MONITORING WELL
- RV14-1 — EXISTING SOIL VAPOR EXTRACTION WELL
- SMH — MANHOLE
- CB — CATCH BASIN
- PROPERTY BOUNDARY LINE
- CHAIN LINK FENCE

GT-4 (9/92)
VOCs: ND
SVOCs: (6/87) ND

WELL ID (DATE SAMPLED)
VOC RESULTS
SVOC RESULTS
(2/88) INDICATES SEPERATE SVOC SAMPLING DATE
ND -- INDICATES ANALYTE NOT DETECTED
ALL CONCENTRATIONS IN PARTS PER BILLION (PPB)

GE PLASTICS AND
VON ROLL ISOLA USA, INC.
VRI-RIVERVIEW FACILITY
SCHENECTADY, NEW YORK

ORGANIC ANALYTICAL RESULTS IN GROUND WATER (MOST RECENT DATA)

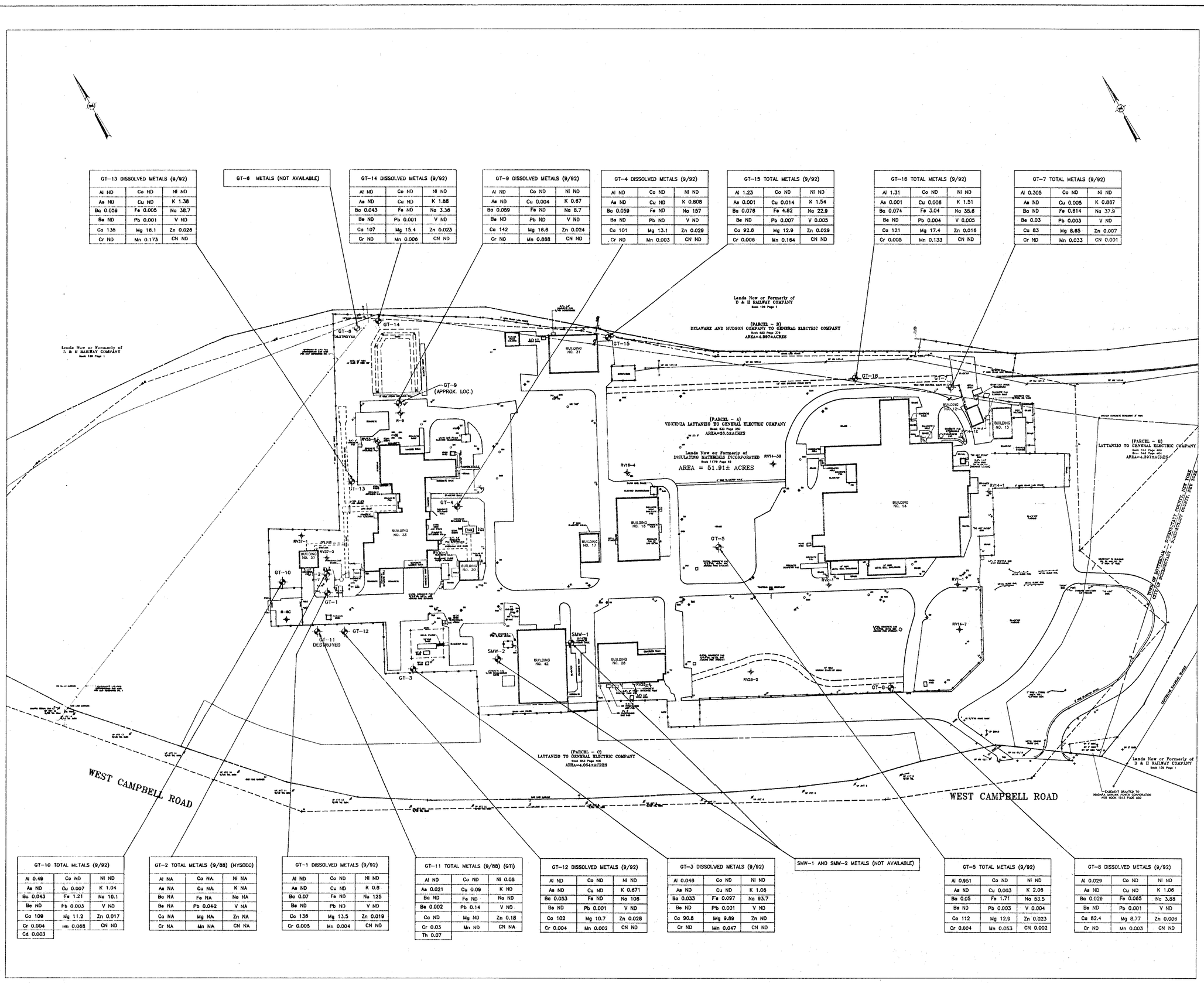
1"=30' 30 0 30 60

7-13-98
21371.002

O'BRIEN & GERE ENGINEERS INC.

7-13-98

PLATE 3



GT-10 TOTAL METALS (9/92)
Al 0.49 | Co ND | Ni ND
As ND | Cu 0.007 | K 1.04
Ba 0.043 | Fe 1.21 | Na 10.1
Be ND | Pb 0.003 | V ND
Ca 109 | Mg 11.2 | Zn 0.017
Cr 0.004 | Mn 0.068 | CN ND
Cd 0.003

GT-2 TOTAL METALS (9/88) (NYSDEC)
Al NA | Co NA | Ni NA
As NA | Cu NA | K NA
Ba NA | Fe NA | Na NA
Be NA | Pb 0.042 | V NA
Ca NA | Mg NA | Zn NA
Cr NA | Mn NA | CN NA

GT-1 DISSOLVED METALS (9/92)
Al ND | Co ND | Ni ND
As ND | Cu ND | K 0.8
Ba 0.07 | Fe ND | Na 125
Be ND | Pb ND | V ND
Ca 136 | Mg 13.5 | Zn 0.019
Cr 0.005 | Mn 0.004 | CN ND

GT-11 TOTAL METALS (9/88) (GTI)
Al ND | Co ND | Ni 0.08
As 0.021 | Cu 0.09 | K ND
Ba ND | Fe ND | Na ND
Be 0.002 | Pb 0.14 | V ND
Ca ND | Mg ND | Zn 0.18
Cr 0.03 | Mn ND | CN NA
Th 0.07

GT-12 DISSOLVED METALS (9/92)
Al ND | Co ND | Ni ND
As ND | Cu ND | K 0.871
Ba 0.053 | Fe ND | Na 106
Be ND | Pb 0.001 | V ND
Ca 102 | Mg 10.7 | Zn 0.028
Cr 0.004 | Mn 0.002 | CN ND

GT-3 DISSOLVED METALS (9/92)
Al 0.048 | Co ND | Ni ND
As ND | Cu ND | K 1.08
Ba 0.033 | Fe 0.097 | Na 93.7
Be ND | Pb 0.001 | V ND
Ca 90.8 | Mg 9.89 | Zn ND
Cr ND | Mn 0.047 | CN ND

SMW-1 AND SMW-2 METALS (NOT AVAILABLE)

GT-5 TOTAL METALS (9/92)
Al 0.951 | Co ND | Ni ND
As ND | Cu 0.003 | K 2.08
Ba 0.05 | Fe 1.71 | Na 53.5
Be ND | Pb 0.003 | V 0.004
Ca 112 | Mg 12.9 | Zn 0.023
Cr 0.004 | Mn 0.053 | CN 0.002

GT-8 DISSOLVED METALS (9/92)
Al 0.029 | Co ND | Ni ND
As ND | Cu ND | K 1.06
Ba 0.029 | Fe 0.065 | Na 3.88
Be ND | Pb 0.001 | V ND
Ca 82.4 | Mg 8.77 | Zn 0.006
Cr ND | Mn 0.003 | CN ND

LEGEND

- GT-14 — EXISTING GROUND WATER MONITORING WELL
- RV14-1 — EXISTING SOIL VAPOR EXTRACTION WELL
- SMH — MANHOLE
- CB — CATCH BASIN
- PROPERTY BOUNDARY LINE
- CHAIN LINK FENCE

GT-14 DISSOLVED METALS (9/92)
Al 20 | Co 0.019 | Ni 0.041
As 0.005 | Cu 0.053 | K 5.16
Ba 0.198 | Fe 45.4 | Na 4.57
Be 0.001 | Pb 0.026 | V 44
Ca 230 | Mg 37.2 | Zn 0.184
Cr 0.036 | Mn 1.51 | CN 0.001

WELL ID (DATE SAMPLED)
DISSOLVED METALS RESULTS PROVIDED WHERE AVAILABLE
METALS CONCENTRATION IN PARTS PER MILLION (PPM)
ND – INDICATES ANALYTE NOT DETECTED
NA – INDICATES DATA NOT AVAILABLE

GE PLASTICS AND
VON ROLL ISOLA USA, INC.
VRI–RIVERVIEW FACILITY
SCHENECTADY, NEW YORK

INORGANIC ANALYTICAL
RESULTS IN GROUND WA
(MOST RECENT DATA)

1"=30' 30 0 30 60

7-13-98
21371.003

O'BRIEN & GERE
ENGINEERS INC.

i:\albany\projects\21371\dwgs\21371003.dwg

7-13-98