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**VIA FEDERAL EXPRESS**

January 24, 2001

Chief, Central New York Remediation Section  
Emergency and Remedial Response Division  
United States Environmental Protection Agency - Region II  
290 Broadway - 20th Floor  
New York, New York 10007

Attention: Project Coordinator (RPM) (2 copies)  
Malta Rocket Fuel Area Site

546022

Chief, New York/Caribbean Superfund Branch  
Office of Regional Counsel  
United States Environmental Protection Agency - Region II  
290 Broadway - 17th Floor  
New York, New York 10007

Attention: Malta Rocket Fuel Area Site Attorney (1 copy)

Chief, Environmental Enforcement Section  
Environment and Natural Resources Division  
United States Department of Justice  
P.O. Box 7611  
Ben Franklin Station  
Washington, D.C. 20044

Re: DOJ # (90-11-3-1575) (1 copy)

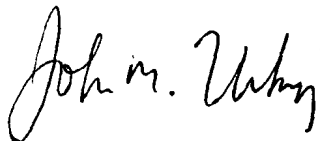
**Subject: Semi-Annual O&M Report Remedial Work Elements I, II and IV  
Malta Rocket Fuel Area Site  
Malta, New York**

Dear Persons:

Enclosed please find the Semi-Annual O&M Report, Remedial Work Elements I, II and IV for the Malta Rocket Fuel Area (MRFA) Site. This report covers the second half of 2000, and is the sixth semi-annual report being submitted pursuant to the Operation and Maintenance Manuals for the site. Please contact me at (518) 862-2717 if you have any questions.

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Sincerely,



John M. Uruskyj, C.P.G.  
Remedial Project Manager

enclosure

cc: Director, Division of Hazardous Waste Remediation  
New York State Department of Environmental Conservation  
Room 242  
50 Wolf Road  
Albany, New York 12233-7010

Attention: Project Manager (4 copies)  
Malta Rocket Fuel Area Site

Chief, Environmental Defense Section  
Environment and Natural Resources Division  
United States Department of Justice  
P.O. Box 23986  
Washington, D.C. 20026-3986

Re: DJ # (90-11-6-57) (1 copy)

Hal Brodie, Esq., NYSERDA  
Raymond Kazyaka, Wright Malta  
James Maher, Esq., Curtiss-Wright  
Lorraine Miller, Olin Corporation  
Steven Balser, Power Technologies  
Cynthia Scheuer, Mechanical Technology  
Lew Streeter, IT Corp. (w/o enclosure)

JMU/jmu  
2001jumrfa001

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A Member of The IT Group



**FINAL**

**SEMI-ANNUAL O&M REPORT**

**REMEDIAL WORK ELEMENTS I, II AND IV**

Reporting period June 24, 2000, through December 21, 2000

**Malta Rocket Fuel Area Site**  
**Malta, New York**

546022

**Prepared for:**

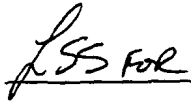
**General Electric Company**  
**Corporate Environmental Programs**  
**320 Great Oaks Boulevard, Suite 323**  
**Albany, New York 12203**

**January 22, 2001**

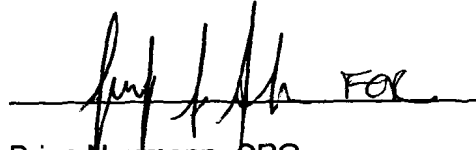
Semi-Annual O&M Report - Remedial Work Elements I, II and IV  
Malta Rocket Fuel Area Site, Malta, New York

ii  
January 22, 2001

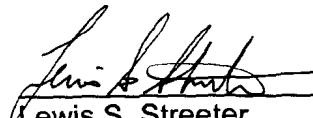
**CERTIFICATION:** This document has been reviewed and is prepared in accordance with the contract documents.



Grant V. Anderson  
Field Service Manager



Brian Neumann, CPG  
Staff Geologist



Lewis S. Streeter  
Project Manager



## **Figures**

1. Site Location Map
2. Well 13S Hexavalent Chromium Concentrations
3. Well M-27D Carbon Tetrachloride Concentrations
4. Simulated Versus Observed Carbon Tetrachloride Concentrations (October 2000) at Well M-27D
5. Simulated Versus Observed Trichloroethylene Concentrations (October 2000) at Well M-33S
6. Simulated Versus Observed Trichloroethylene Concentrations (October 2000) at Well M-33I

## **Appendices**

- |            |                                                                          |
|------------|--------------------------------------------------------------------------|
| Appendix A | Influent/Effluent Water Quality Data - August 30, 2000                   |
| Appendix B | Influent/Effluent and Groundwater, Water Quality Data - October 24, 2000 |
| Appendix C | Data Validation Report                                                   |
| Appendix D | Air Stripper Flow Data                                                   |
| Appendix E | Telephone Interview Logs                                                 |

## 1.0 INTRODUCTION

This operations and maintenance (O&M) report documents on going O&M activities conducted at the Malta Rocket Fuel Area (MRFA) site, in the town of Malta, New York. This report has been prepared in accordance with the following documents:

5. Operation and Maintenance Manual, Remedial Work Element I, Drinking Water, dated March 31, 1998 and prepared by ERM - Northeast, Inc.
- Operations and Maintenance Manual, Remedial Work Element II, Groundwater, dated December 11, 1997 and prepared by ERM - Northeast, Inc.
- Operation and Maintenance Manual, Remedial Work Element IV, Institutional Controls, dated September 9, 1999, revised September 27, 1999, prepared by IT Corporation, Inc.

This report covers all site activities performed at the site as required in each of the previously referenced documents, for the period from June 24, 2000 through December 21, 2000.

## **2.0 O&M OF REMEDIAL WORK ELEMENT I (Drinking Water)**

Six monthly site visits were performed to check system operation, record system operating conditions, and to determine system treatment effectiveness by sampling of the drinking water process stream. These visits took place on July 28, August 30, September 27, October 24, November 29 and December 21, 2000.

System effectiveness sampling was performed during the August 30 and October 24 site visits to document adherence to treatment system discharge objectives. Analytical results from these sample events including validated analytical results and chain of custody forms for the August 30 and October 24, 2000 samples, are provided in **Appendix A** and **Appendix B**, respectively. The validation summary for samples is included in **Appendix C**.

Based on the information gathered during this reporting period, it is evident that the ground water treatment system is operating as intended and is meeting the performance standards for the MRFA site. Both RW-1D and RW-2D have operated at an instantaneous flow rate of approximately 6 to 6.5 gallons per minute (gpm) each. This yields an instantaneous system flow of approximately 12 to 13 gpm. System design capacity is a maximum of 25 gpm.

Only one alarm condition was received from the system Remote Telemetry Unit (RTU) during the period between June and December, 2000. This alarm indicated a power failure at the site on August 3, 2000 at 12:20 hours. The power was subsequently restored to the site approximately two hours later. The alarm was acknowledged via remote telemetry and no personnel were mobilized to the site to restore system operation.

Data from the air stripper blower pressure transmitter as well as effluent water quality indicate that the air stripper packing material is not in need of cleaning or replacement at this time.

### **2.1 Remote Telemetry/Programmable Logic Controller**

As discussed previously, only one alarm was received from the RTU during the current reporting period. No operational problems were experienced with the RTU or programmable logic controller (PLC) between June and December, 2000. Project personnel periodically dial into the system RTU to check on the operational status of the treatment equipment. All other



system equipment is in good repair and should continue to be inspected and repaired in accordance with the schedule provided in **Table 1**.

## **2.2 Visual Inspection**

### **2.2.1 System Inspection**

Visual inspections were made of all accessible system components during monthly site visits in accordance with attached **Table 1, Maintenance Checklist**. Inspections were performed to check for signs of component wear, process piping leaks and general system integrity.

The system was found to be in good working order with the exception of operational problems with the reservoir level probe. The level probe was found to be sticking during the July 28 O&M visit. Subsequent acid washing returned the probe to its full range of motion and appeared to be working properly. During the system inspection the following month on August 30, the level probe again appeared to not be operating properly. Wright Malta personnel subsequently rebuilt the level probe prior to the September 27 site visit. No further problems have been observed with the operation of the reservoir level probe.

Maintenance activities included regular inspection of the air stripper blower intake for obstructions, inspection of all process valves and piping to prevent leakage of untreated groundwater, and inspection of the air stripper sight tube for sediment buildup. In addition, the settling tank sump exterior was cleaned monthly, and operation of the transfer sump pump and associated high level float was checked. The settling tank interior was also visually inspected for signs of sediment buildup or corrosion.

### **2.2.2 Settling Tank Inspection**

The air stripper effluent settling tank was inspected during each monthly O&M visit. No signs of corrosion or pitting in the tanks interior was noted. Operation of the settling tank transfer pump and high level float was checked monthly and found to be in working order. No problems were observed with any component of the settling tank assembly. In addition, there has been little accumulation of sand or silt observed in the settling tank since the previous annual cleaning, performed on March 27, 2000.

## 2.3 Operating Measurements

### 2.3.1 Water Flow Measurements

Water flow measurements for wells RW-1D and RW-2D have been tabulated and are shown in **Table 3, Process Operating Report** for the reporting period. These readings indicate that the average water flow rates for the period from June 24, 2000 to December 21, 2000 are as follows:

|             |           |
|-------------|-----------|
| Well RW-1D: | 0.279 gpm |
| Well RW-2D: | 0.295 gpm |
| System Avg: | 0.574 gpm |

Average daily water flow as recorded by the data logger are provided in **Appendix D**. This information provides more detailed influent water flow data than that reported in **Table 3**. Information obtained from the data logger indicates an average daily water flow rate of 0.587 gpm for the current reporting period. This is a decrease from the average rate of 0.951 gpm for the reporting period ending June 23, 2000.

### 2.3.2 Blower Air Pressure

Measurements of the air stripper blower back pressure were recorded during monthly O&M site visits. Readings from the pressure gauge installed to monitor the air stripper back pressure are provided in **Table 3**. Pressure readings ranged from 3.2 to 4.5 inches of water column during the current period. These readings indicate no significant loss of airflow or efficiency through the air stripper tower. Pressure readings will continue to be monitored for trends indicating tower packing fouling and the associated potential loss of efficiency for the treatment system.

## 2.4 Water Quality Data

Samples of the drinking water system influent and effluent were collected on August 30 and October 24, 2000. All samples were collected by IT Corporation personnel and directed to Columbia Analytical Laboratories, Incorporated in Rochester, New York for analysis. All samples were analyzed for volatile organic compounds (VOCs) using USEPA Method Contract

Laboratory Program (CLP) OLC-02, modified to include hexachlorobutadiene, 1,2,3 trichlorobenzene and trichlorofluoromethane as summarized in **Table 4**. The validated analytical results and chain of custody forms for the August 30 and October 24, 2000 samples are provided in **Appendix A** and **Appendix B**, respectively. All validation was performed by Data Validation Services, Incorporated of North Creek, New York. Validation reports are included in **Appendix C**.

Carbon tetrachloride (carbon tet) and trichloroethene (TCE) concentrations are tracked to document treatment system effectiveness. Values for all analyzed compounds including carbon tet and TCE were reduced to below drinking water standards for all effluent samples.

| Analyte    | Date Sampled     | Influent (ppb) | Effluent (ppb) | Performance Standard (ppb) |
|------------|------------------|----------------|----------------|----------------------------|
| carbon tet | August 30, 2000  | 15.8           | <1.0           | 5                          |
|            | October 24, 2000 | 22.7           | <1.0           | 5                          |
| TCE        | August 30, 2000  | 12.3           | <1.0           | 5                          |
|            | October 24, 2000 | 18.0           | <1.0           | 5                          |

Results of system sampling indicate a removal efficiency for the treatment system of 99% for all detected volatile compounds. Effluent sampling results indicated that carbon tet and TCE were below detection limits for both monitoring events. Historical influent concentrations for carbon tet range from 12 ppb in October 1996 to 149 ppb in December 1990. Effluent concentrations range from below method detection limits to 4.0 ppb in April 1990. Historical influent concentrations for TCE vary from 16 ppb in April 1997 to 83 ppb in June 1992. Effluent concentrations have been observed from below method detection limits to 2.8 ppb in March 1987.

Chloroform was detected at a concentration of 1.6 ppb and 2.7 ppb in the August 30 and October 24 air stripper influent samples respectively. However, neither one of the quarterly influent detections exceeds the remedial action objective of 7 ug/l, and no chloroform was detected in the air stripper effluent samples.

No VOCs were reported in the air stripper effluent, indicating that the treated water meets the performance standards established for the site for use as a potable water supply.

### 3.0 O&M OF REMEDIAL WORK ELEMENT II (Groundwater)

#### 3.1 Sample Collection

In accordance with the Operations and Maintenance Manual for Remedial Work Element II - Ground Water (O&M-GW) approved by the USEPA, groundwater samples were obtained and analyzed from wells DGC-3S, DGC-4S, 13S, M-27S, M-27D, M-33S, and M-33I. Surface water samples were obtained and analyzed from locations SW-A, SW-B, and SW-D (**Figure 1**). One trip blank and one blind duplicate sample (DUPA) from well M-27D were also obtained and analyzed. Neither USEPA nor New York State Department of Environmental Conservation (NYSDEC) personnel were present during sampling.

Unfiltered samples were collected on October 24, 2000 and submitted to Columbia Analytical Services, Inc. in Rochester, New York. Samples from all monitoring wells (with the exception of 13S) and all surface water locations were analyzed for volatile organic compounds (VOCs) by USEPA Method OLC-02. Samples from wells 13S, M-27S, and M-27D, and surface water location SW-B were analyzed for unfiltered total matrix chromium following CLP procedures and unfiltered hexavalent chromium by SW-846 Method 7196 (Test Methods for Evaluating Solid Waste, 3rd Edition, November 1986).

Results of the October 2000 semi-annual sampling are summarized in **Table 5**. The laboratory reporting data sheets and a data validation report for this sampling event are also attached (**Appendix B and Appendix C**). A summary of analytical results from 1987 through the most recent round is provided in **Tables 6, 7, and 8** for sampling points presently included in the EWMS sampling program. The Sampling and Analysis Plan (SAP) as presented in the O&M-GW contains a complete table of historical EWMS analytical results through 1994.

Time-concentration plots for hexavalent chromium at well 13S (**Figure 2**) and carbon tetrachloride at well M-27D (**Figure 3**) are also included. Based on the October 2000 analytical results, the Luther Forest Well Field and the water supply wells north of the Malta Rocket Fuel Area (MRFA) Site (**Figure 1**) have not been affected by the site.

### 3.2 Chromium Analytical Results

Results of the unfiltered total chromium analyses are as follows: well 13S contained an estimated 29.9 µg/l, M-27S contained an estimated 1.2 µg/l, and M-27D had an estimated 1.2 µg/l. The duplicate sample of M-27D also contained an estimated 1.2 µg/l of total chromium. For comparison purposes only, the New York State Ground Water Standard (NYSGWS) for total chromium is 50 µg/l .

The unfiltered hexavalent chromium analytical results were "ND" at the detection limit of 10 µg/l for all groundwater and one surface water samples except well 13S which contained an estimated 41 µg/l. For comparison purposes only, the NYSGWS for hexavalent chromium is 50 µg/l. The hexavalent chromium sample for 13S was scheduled to be analyzed within the 24 hour holding time. Due to laboratory technical difficulties with the analytical run, the samples had to be reanalyzed outside the recommended holding time. The third party validator flagged this holding time exceedance and considers the result estimated.

The attached time-concentration plot for unfiltered hexavalent chromium in well 13S (**Figure 2**) indicates a significant decrease in the concentrations of hexavalent chromium after August 1993. The observed concentration of 41 µg/l is relatively consistent with those concentrations observed since 1994.

Surface water sample SW-B recorded a detection of 0.75 µg/l for unfiltered total chromium. Hexavalent chromium was not detected at the reporting limit of 10 µg/l in sample SW-B.

### 3.3 Volatile Analytical Results

Carbon tetrachloride was detected in well M-27D and the duplicate sample at 19.2 µg/l and 19.8 µg/l, respectively. The federal drinking water standard for carbon tetrachloride is 5 µg/l. The attached time-concentration plot for carbon tetrachloride in well M-27D (**Figure 3**) demonstrates that the October 2000 concentration remains relatively low. Chloroform was detected in well M-27D and the duplicate sample at an estimated 1.7 µg/l and 1.3 µg/l, respectively. The NYSGWS for chloroform is 7 µg/l. Trichloroethylene was detected in well M-27D and the duplicate sample at 26.4 µg/l and 26.5 µg/l, respectively. Trichlorofluoromethane was detected in well M-27D and the duplicate sample at 2.9 µg/l. VOCs were not detected in monitoring wells

DGC-3S, DGC-4S, M-27S, M-33S, or M-33I.

One VOC, carbon tetrachloride, was detected in surface water sample SW-B at an estimated concentration of 0.54 µg/l. This observed concentration is significantly lower than the NYSGWS of 5 µg/l.

### **3.4 Comparison of Observed VOC Concentrations to Simulation Results**

As described in the O&M-GW, the carbon tetrachloride and trichloroethylene concentrations observed during the semi-annual monitoring are to be compared to the results from the contaminant fate and transport modeling reported in Appendix A of the O&M-GW. This comparison was performed for carbon tetrachloride in monitoring well M-27D (**Figure 4**) and for trichloroethylene in monitoring well M-33S (**Figure 5**) during the October 2000 sampling event. The starting point for the simulation reported in the O&M-GW was the carbon tetrachloride spatial distribution as measured in June 1992. As shown in **Figure 4**, the simulated carbon tetrachloride results are much higher than the observed concentrations. As shown in **Figures 5 and 6**, there were no observed concentrations of TCE in monitoring wells M-33S and M-33I as predicted by the simulations.

## **4.0 INSTITUTIONAL CONTROLS**

IT Corporation personnel conducted O&M activities, for Remedial Work Element IV, Institutional Controls, in accordance with the O&M Manual dated September 9, 1999.

### **4.1 Sampling and Survey Results**

On October 24, 2000, concurrent with the O&M for Remedial Work Element I (Drinking Water) and II (Groundwater), IT Corporation personnel conducted a visual inspection of the surrounding areas. The purpose of this inspection was to document any changes or land development activities, specifically looking for the installation of new groundwater wells. This inspection was conducted on the following areas of the site:

- Proximate to the surface water sampling locations, as well as along the access roads and wooded paths leading to these locations.
- Proximate to the monitoring well locations, as well as the access roads leading to these locations. And,
- Proximate to building number 15 at the MRFS site.

The visual inspections did not reveal any signs of development or well installation activities.

### **4.2 Interviews With Property Owners**

IT Corporation personnel conducted telephone interviews with the following representatives:

- Hal Brodie representing NYSERDA was interviewed on October 19, 2000
- Alexander Mackey representing Luther Forest Corporation was interviewed on December 5, 2000. And,
- Ray Kazyaka, Sr. representing Wright-Malta Corporation was mailed the interview log on October 19, 2000. The interview was completed on October 25, 2000 and returned via mail to IT Corporation.

Interview logs documenting the conversations with each of the previously mentioned representatives are included in **Appendix E**. All three representatives indicated that they were not aware of any new ground water usage, proposed changes in land use, or other actions, within the environmental restriction zone, that would impact any condition of the Environmental Restriction Easements and the Declarations of Restrictive Covenants.



## **5.0 SUMMARY**

### **5.1 Drinking Water**

The ground water treatment system is operating as intended and is meeting the performance standards for the MRFA site. All effluent samples collected and analyzed during the current period revealed concentrations below project discharge objectives. Treatment equipment continues to operate satisfactorily, with only ordinary maintenance required typical of components in use at the facility. System equipment will continue to be monitored as necessary to ensure continued operation of all components and maintain a reliable source of potable water for the Test Station.

### **5.2 Groundwater**

In summary, only well M-27D had detectable concentrations of carbon tetrachloride above federal drinking water standards. Chromium was detected at a concentration of 29.9 µg/l, and hexavalent chromium was detected at a concentration of 41 µg/l in well 13S. Chromium was also detected in wells M-27S and M-27D at an estimated concentration of 1.2 µg/l. Chromium was detected in surface water sample SW-B at an estimated concentration of 0.75 µg/l. Carbon tetrachloride was not detected in the monitoring wells adjacent to the Luther Forest Well Field. Based on the current analytical results, the ground water from the MRFA Site does not appear to be impacting the Luther Forest Well Field or the water supply wells north of the site.

Comparison of the observed carbon tetrachloride concentrations to simulated carbon tetrachloride concentrations at selected EWMS monitoring well locations shows that the simulated concentrations are higher than the observed concentrations. The simulated TCE concentrations are also higher than the observed TCE concentrations in M-27S and M-27D. TCE was not detected in M-33S or M-33I. Future comparisons will continue to help assess the natural attenuation and degradation of VOCs in ground water at the MRFA Site.

### 5.3 Institutional Controls

Representatives of NYSERDA, Luther Forest Corporation and Wright-Malta Corporation were interviewed as described in the O&M Manual. All three representatives indicated that they were not aware of any new ground water usage, proposed changes in land use, or other actions, within the environmental restriction zone, that would impact any condition of the Environmental Restriction Easements and the Declarations of Restrictive Covenants.

The visual inspection completed during the October 24 site visit did not reveal any signs of site development or well installation activities. These inspections were conducted on those areas of the environmental restriction zone proximate to the Wright-Malta Test Station, building #15, the surface water sampling locations and the ground water monitoring wells that were sampled.

Additionally, representatives of NYSERDA, Luther Forest Corporation and Wright-Malta Corporation were interviewed (**Appendix E**). All three representatives indicated that they were not aware of any new ground water usage, proposed changes in land use, or other actions, within the environmental restriction zone, that would impact any condition of the Environmental Restriction Easements and the Declarations of Restrictive Covenants.

## TABLES

**TABLE 1**  
**MAINTENANCE CHECKLIST**  
**OPERATION AND MAINTENANCE PLAN**  
**TEST STATION WATER SUPPLY AND TREATMENT SYSTEM**  
**MALTA ROCKET FUEL AREA SITE**

| <b>Equipment Name</b>     | <b>Item</b>      | <b>Action</b>                                   | <b>Frequency</b> | <b>Comments</b>                                    |
|---------------------------|------------------|-------------------------------------------------|------------------|----------------------------------------------------|
| Well Pump 1D              | Pump bowls       | Check for signs of iron fouling & impeller wear | Annually         | More frequently as problems occur                  |
| Well Pump 2D              | Pump bowls       | Check for signs of iron fouling & impeller wear | Annually         | More frequently as problems occur                  |
| Control Valves            | Miscellaneous    | Inspect for leaks                               | Monthly          | Adjust frequency depending on operating experience |
| Air Stripper Sight Tube   |                  | Inspect for siltation and biofouling            | Monthly          | Adjust frequency depending on operating experience |
| Air Stripper Spray Nozzle |                  | Inspect for fouling                             | Annually         | No required routine maintenance                    |
| Air Stripper Blower       | Intake           | Inspect and clean                               | Quarterly        | Adjust frequency depending on operating experience |
| Air Stripper Blower       | Motor & bearings | Check and lubricate                             | Annually         | More frequently as problems occur                  |
| Air Stripper Unit         | Packing          | Clean or replace                                | Every 5 years    | Adjust frequency depending on operating experience |

| Equipment Name            | Item        | Action                                                                                                                                              | Frequency | Comments                                           |
|---------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------|
| Mist Eliminator           | Mesh screen | Clean or replace                                                                                                                                    | Annually  | Adjust frequency depending on operating experience |
| Settling Tank             |             | Inspect for siltation                                                                                                                               | Monthly   | Adjust frequency depending on operating experience |
| 100K Gallon Reservoir     |             | Inspect for siltation, debris, etc.                                                                                                                 | Annually  | Adjust frequency depending on operating experience |
| Level Sensor              | Probe       | Manually check start-up/shutdown. Check probe float for free range of motion. Remove and inspect for buildup of minerals if resistance is detected. | Monthly   | Adjust frequency depending on operating experience |
| Misc. Guys, Hardware etc. |             | Inspect                                                                                                                                             | Annually  | Adjust frequency depending on operating experience |

**TABLE 2**  
**EQUIPMENT LOG**  
**AIR STRIPPER MAINTENANCE**  
**MALTA ROCKET FUEL AREA SITE**

| Date       | Operator                     | Operational Status of System                                                                    | Work Performed                                                                                                                                                                                                                                                                                                                                                       |
|------------|------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7/28/2000  | Grant Anderson               | OK after system was restarted. Reservoir level probe was cleaned and reset.                     | Checked air stripper sight tube, air intake, both are clear of dirt or debris. Checked settling tank sump, no buildup of sediment noted. No leaks or other problems noted with any system components.                                                                                                                                                                |
| 8/30/2000  | Grant Anderson               | OK after reset of reservoir level probe which appears to be sticking after continued operation. | Collected quarterly air stripper performance samples, including MS/MSD and trip blank. Performed regular checks of system controls and piping. Checked operation of settling tank transfer pump and high level float. No problems observed with system operation other than reservoir level probe.                                                                   |
| 9/27/2000  | Grant Anderson               | OK                                                                                              | Air stripper blower running on arrival - reservoir level probe was recently rebuilt by Wright Malta personnel and system is in the process of refilling reservoir. Checked settling tank with no changes observed since last O&M visit. Tested settling tank high level float, reservoir level probe and inspected all system process lines. No problems were noted. |
| 10/24/2000 | Brian Neumann<br>Karl Ladner | OK                                                                                              | Collected quarterly air stripper performance samples (influent & effluent only). No problems were observed with system equipment.                                                                                                                                                                                                                                    |
| 11/29/2000 | Grant Anderson               | OK                                                                                              | Inspected system piping and valves. Checked settling tank and associated high level float. Checked air stripper blower intake. Cycled system and took water flow readings. No problems observed.                                                                                                                                                                     |
| 12/21/2000 | Grant Anderson               | OK                                                                                              | Inspected system piping and valves. Checked air stripper blower intake. System operating properly with no problems observed.                                                                                                                                                                                                                                         |

**TABLE 3 - SHEET 1/2**  
**PROCESS OPERATING REPORT**  
**WATER TREATMENT SYSTEM**  
**MALTA ROCKET FUEL AREA SITE**

| 1          | 2     | 3                                    |                                  |                           |                                          |                                     | 4                                    |                                  |                           |                                          |                                     | 5                                                                                                                                                                                                |
|------------|-------|--------------------------------------|----------------------------------|---------------------------|------------------------------------------|-------------------------------------|--------------------------------------|----------------------------------|---------------------------|------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DATE       | TIME  | WATER FLOW --LINE 1D                 |                                  |                           |                                          |                                     | WATER FLOW --LINE 2D                 |                                  |                           |                                          |                                     | PROBLEMS<br>OR<br>COMMENTS                                                                                                                                                                       |
|            |       | 1D LINE<br>FLOW<br>METER<br>RDG(GPM) | 1D LINE<br>TOTALIZER<br>RDG(GAL) | ELAPSED<br>TIME<br>(DAYS) | TOTAL<br>FLOW<br>THIS<br>PERIOD<br>(GAL) | AVG FLOW<br>THIS<br>PERIOD<br>(GPM) | 2D LINE<br>FLOW<br>METER<br>RDG(GPM) | 2D LINE<br>TOTALIZER<br>RDG(GAL) | ELAPSED<br>TIME<br>(DAYS) | TOTAL<br>FLOW<br>THIS<br>PERIOD<br>(GAL) | AVG FLOW<br>THIS<br>PERIOD<br>(GPM) |                                                                                                                                                                                                  |
| 07/28/2000 | 8:30  | 6.6                                  | 614,762                          | 35                        | 5,617                                    | 0.11                                | 6.7                                  | 600,715                          | 35                        | 5,880                                    | 0.12                                | Reservoir level probe sticking. Probe was acid washed and returned to working order. No other problems noted.                                                                                    |
| 08/30/2000 | 8:45  | 6.2                                  | 632,771                          | 33                        | 18,009                                   | 0.38                                | 6.6                                  | 619,858                          | 33                        | 19,143                                   | 0.40                                | Reservoir level probe continuing to act sticky. Restarted system and all other components operating normally. Collected influent and effluent samples from air stripper for laboratory analysis. |
| 09/27/2000 | 8:45  | 6.1                                  | 646,210                          | 28                        | 13,439                                   | 0.33                                | 6.4                                  | 634,160                          | 28                        | 14,302                                   | 0.35                                | Reservoir level probe recently serviced. No problems noted with system operation.                                                                                                                |
| 10/24/2000 | 10:40 | 6.0                                  | 660,700                          | 27                        | 14,490                                   | 0.37                                | 6.5                                  | 648,900                          | 27                        | 14,740                                   | 0.38                                | No problems noted. Collected influent and effluent samples from air stripper for laboratory analysis.                                                                                            |
| 11/29/2000 | 8:15  | 6.1                                  | 673,240                          | 36                        | 12,540                                   | 0.24                                | 6.5                                  | 662,718                          | 36                        | 13,818                                   | 0.27                                | No problems noted.                                                                                                                                                                               |
| 12/21/2000 | 8:20  | 6.1                                  | 681,732                          | 22                        | 8,492                                    | 0.27                                | 6.5                                  | 671,643                          | 22                        | 8,925                                    | 0.28                                | No problems noted.                                                                                                                                                                               |
| Summary    |       |                                      |                                  | 181                       | 72,587                                   | 0.2785                              |                                      |                                  | 181                       | 76,808                                   | 0.2947                              |                                                                                                                                                                                                  |

NR = Not Recorded

NA = Not Applicable

**TABLE 3 - SHEET 2/2  
PROCESS OPERATING REPORT  
WATER TREATMENT SYSTEM  
MALTA ROCKET FUEL AREA SITE**

| 1          | 2     | 3                            |                        |                    | 4                                | 5                                                                                                                                                                 |
|------------|-------|------------------------------|------------------------|--------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DATE       | TIME  | STANDPIPE<br>LEVEL<br>( FT ) | LEVEL<br>PROBE<br>OK ? | SAMPLES<br>TAKEN ? | AIR<br>BLOWER<br>PRESSURE<br>OK? | PROBLEMS OR COMMENTS                                                                                                                                              |
| 07/28/2000 | 8:30  | 10.75                        | Sticking               | No                 | 3.30                             | Acid washed level probe - no further problems observed.                                                                                                           |
| 08/30/2000 | 8:45  | 11.25                        | Sticking               | Yes                | 3.30                             | Collected system samples including Influent, Effluent, Duplicate, Matrix Spike, Matrix Spike Duplicate and Trip Blank. System working after jiggling level probe. |
| 09/27/2000 | 8:45  | 12.10                        | OK                     | No                 | 3.45                             | Level probe has been recently rebuilt by Wright Malta personnel. No problems noted with system operation.                                                         |
| 10/24/2000 | 10:40 | 12.75                        | OK                     | Yes                | 3.20                             | No problems noted. Collected Influent and Effluent samples.                                                                                                       |
| 11/29/2000 | 8:15  | 12.75                        | OK                     | No                 | 3.40                             | No problems noted.                                                                                                                                                |
| 12/21/2000 | 8:15  | 12.60                        | OK                     | No                 | 3.70                             | No problems noted.                                                                                                                                                |



**TABLE 4**  
**SUMMARY OF DRINKING WATER SAMPLING PROGRAM, PRESERVATIVES, HOLDING TIMES AND CONTAINERS**  
**MALTA ROCKET FUEL AREA SITE**

| Sample   | Sampling Frequency | Sample Matrix | Analytical Parameters | Analytical Method Reference <sup>1</sup> | Sample Preservation | Holding Times <sup>2</sup> | Containers                                                     |
|----------|--------------------|---------------|-----------------------|------------------------------------------|---------------------|----------------------------|----------------------------------------------------------------|
| Influent | 1 per quarter      | Water         | CLP OLC VOCs          | USEPA CLP OLCO2                          | Hcl, Cool, <4°C     | 14 days                    | 3 - 40 ml glass vials with teflon septa and plastic screw caps |
| Effluent | 1 per quarter      | Water         | CLP OLC VOCs          | USEPA CLP OLCO2                          | Hcl, Cool, <4°C     | 14 days                    | 3 - 40 ml glass vials with teflon septa and plastic screw caps |

**Notes:**

1. *USEPA CLP OLCO2 analysis modified to include hexachlorobutadiene, 1,2,3 trichlorobenzene and trichlorofluoromethane to match the EWMS ground water analyses.*
2. *Holding times begin at the time of sample collection.*

**TABLE 5**  
**OCTOBER 2000 WATER QUALITY ANALYTICAL RESULTS**  
**SEMI-ANNUAL SAMPLING**

| Compound               | Remedial<br>Action<br>Objective | DGC-3S | DGC-4S | 13S  | M-27S | DUPA<br>(27D) | M-27D | M-33S | M-33I | Trip<br>Blank |
|------------------------|---------------------------------|--------|--------|------|-------|---------------|-------|-------|-------|---------------|
| Carbon Disulfide       | None*                           | 1 U    | 1 U    | NA   | 1 U   | 1U            | 1U    | 1 U   | 1 U   | 1 U           |
| Carbon Tetrachloride   | 5                               | 1 U    | 1 U    | NA   | 1 U   | 19.8          | 19.2  | 1 U   | 1 U   | 1 U           |
| Chloroform             | 7                               | 1 U    | 1 U    | NA   | 1 U   | 1.3           | 1.7J  | 1 U   | 1 U   | 1 U           |
| Trichloroethylene      | 5                               | 1 U    | 1 U    | NA   | 1 U   | 26.5D         | 26.4  | 1 U   | 1 U   | 1 U           |
| Trichlorofluoromethane | 5*                              | 1 U    | 1 U    | NA   | 1 U   | 2.9           | 2.9   | 1 U   | 1 U   | 1 U           |
| Chromium               | 50*                             | NA     | NA     | 29.9 | 1.2B  | 1.2B          | 1.2B  | NA    | NA    | NA            |
| Hexavalent Chromium    | 50*                             | NA     | NA     | 41   | 10 U  | 10 U          | 10 U  | NA    | NA    | NA            |

**Field Parameters**

|                               |   |        |        |        |        |        |        |        |        |   |
|-------------------------------|---|--------|--------|--------|--------|--------|--------|--------|--------|---|
| pH                            | - | 5.45   | 7.81   | 7.61   | 7.72   | 7.73   | 7.73   | 8.49   | 10.81  | - |
| Temperature (celsius)         | - | 12.91  | 14.31  | 9.62   | 9.82   | 10.52  | 10.52  | 8.39   | 8.51   | - |
| Conductivity (umhos/cm)       | - | 67     | 248    | 349    | 251    | 321    | 321    | 138    | 222    | - |
| Dissolved Oxygen              | - | 6.71   | 7.68   | 12.48  | 11.18  | 10.09  | 10.09  | 8.11   | 9.21   | - |
| Turbidity (NTUs)              | - | NM     | NM     | NM     | NM     | NM     | NM     | NM     | NM     | - |
| Depth To Water (feet)         | - | 10.70  | 5.58   | 33.32  | 40.47  | 39.60  | 39.60  | 16.78  | 31.14  | - |
| Ground Water Elevation (feet) | - | 204.58 | 200.22 | 295.59 | 282.63 | 283.50 | 283.50 | 287.49 | 272.55 | - |

**Notes:**

1. All analytical concentrations are in µg/l (micrograms per liter (ppb)).
2. Only compounds detected at one or more sampling points are listed.
3. NA - not analyzed for.
4. U - analyte was not detected, and value shown is the detection limit.
5. J - estimated value due to data validation requirements or concentration less than CRQL (organics only).
6. B - The reported value is less than the CRDL but greater than the IDL (inorganics only).
- \* Based on NYSDEC Final Combined Regulatory Impact and Environmental Impact Statement (Title 6, Chapter X, Parts 700-706, 1998), identified for comparison purposes only.
7. D - Identifies all compounds analyzed at a secondary dilution factor.
8. NM - Not measured due to equipment malfunction.

**TABLE 5 (Continued)**  
**OCTOBER 2000 WATER QUALITY ANALYTICAL RESULTS**  
**SEMI-ANNUAL SAMPLING**

| Parameter            | Remedial<br>Action<br>Objective | SW-A | SW-B   | SW-D |
|----------------------|---------------------------------|------|--------|------|
| Carbon Disulfide     | None*                           | 1 U  | 1 U    | 1 U  |
| Carbon Tetrachloride | 5                               | 1 U  | 0.54 J | 1 U  |
| Chloroform           | 7                               | 1 U  | 1 U    | 1 U  |
| Trichloroethylene    | 5                               | 1 U  | 1 U    | 1 U  |
| Chromium             | 50*                             | NA   | 0.75 B | NA   |
| Hexavalent Chromium  | 50*                             | NA   | 10 U   | NA   |

**Field Parameters**

|                               |   |       |       |       |
|-------------------------------|---|-------|-------|-------|
| pH                            | - | 7.93  | 7.82  | 7.61  |
| Temperature (celsius)         | - | 15.52 | 10.8  | 10.21 |
| Conductivity (umhos/cm)       | - | 246   | 300   | 376   |
| Dissolved Oxygen              | - | 9.35  | 10.38 | 9.81  |
| Turbidity (NTUs)              | - | NM    | NM    | NM    |
| Depth To Water (feet)         | - | -     | -     | -     |
| Ground Water Elevation (feet) | - | -     | -     | -     |

**Notes:**

1. All analytical concentrations are in µg/l (micrograms per liter (ppb)).
2. Only parameters detected in one or more sampling points are listed.
3. NA - not analyzed for.
4. U - analyte was not detected, and value shown was the detection limit.
5. J - estimated value due to data validation requirements or concentration less than CRQL (organics only).
6. B - The reported value is less than the CRDL but greater than the IDL (inorganics only).
- \* Based on NYSDEC Final Combined Regulatory Impact and Environmental Impact Statement (Title 6, Chapter X, Parts 700-706, 1998), identified for comparison purposes only.
7. NM - Not measured due to equipment malfunction.

**TABLE 6 (MONITORING WELLS DGC-3S, DGC-4S, 13S)  
SUMMARY OF WATER QUALITY ANALYTICAL RESULTS  
JUNE 1987 - OCTOBER 2000  
SEMI-ANNUAL SAMPLING**

| Wells / Compounds      | Remedial Action  | 6/29-07/01/1987 | 7/31/87 | 11/5/87 | 1/19-01/20/1988 | 4/18-04/19/1988 | 7/20-07/21/1988 | 10/11-10/12/88 |
|------------------------|------------------|-----------------|---------|---------|-----------------|-----------------|-----------------|----------------|
| <b>DGC-3S</b>          | <b>Objective</b> |                 |         |         |                 |                 |                 |                |
| Benzene                | 0.7*             | ND              | NA      | ND      | ND              | ND              | ND              | ND             |
| Carbon Disulfide       | None*            | ND              | NA      | ND      | ND              | ND              | ND              | ND             |
| Aluminum               | 100*             | 0.48            | NA      | NA      | NA              | NA              | NA              | NA             |
| Lead                   | 25*              | NA              | NA      | NA      | NA              | <0.005 mg/L     | NA              | NA             |
| Chromium               | 50*              | NA              | NA      | NA      | NA              | NA              | NA              | NA             |
| Hexavalent Chromium    | 50*              | no data         | no data | no data | no data         | no data         | no data         | no data        |
| <b>DGC-4S</b>          |                  |                 |         |         |                 |                 |                 |                |
| Carbon Disulfide       | None*            | --              | --      | --      | --              | --              | --              | --             |
| Chromium               | 50*              | --              | --      | --      | --              | --              | --              | --             |
| <b>13S</b>             |                  |                 |         |         |                 |                 |                 |                |
| Benzene                | 0.7*             | NA              | NA      | NA      | NA              | NA              | NA              | NA             |
| Carbon Disulfide       | None*            | NA              | NA      | NA      | NA              | NA              | NA              | NA             |
| Carbon Tetrachloride   | 5                | NA              | NA      | NA      | NA              | NA              | NA              | NA             |
| Chloroform             | 7                | NA              | NA      | NA      | NA              | NA              | NA              | NA             |
| Trichloroethylene      | 5                | NA              | NA      | NA      | NA              | NA              | NA              | NA             |
| Trichlorofluoromethane | 5*               | NA              | NA      | NA      | NA              | NA              | NA              | NA             |
| Chromium               | 50*              | NA              | NA      | NA      | NA              | NA              | NA              | NA             |
| Hexavalent Chromium    | 50*              | NA              | NA      | NA      | NA              | NA              | NA              | NA             |

**Notes:**

Units are µg/l (ppb) unless otherwise stated.

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

B = The reported value is less than the CRQL/CRDL but greater than the IDL.

dp = Duplicate sample.

E = Estimated concentration: due to interference.

D = Concentration determined from a sample dilution.

J = Estimated concentration.

V = Estimated concentration: due to variance to quality control limits.

-- = Not sampled: well installed in December, 1990.

\* Based on NYSDEC Final Combined Regulatory Impact and Environmental Impact Statement (Title 6, Chapter X, Parts 700-706, 1998), identified for comparison purposes only.

\*\* = Filtered Sample.

**TABLE 6 (MONITORING WELLS DGC-3S, DGC-4S, 13S)  
SUMMARY OF WATER QUALITY ANALYTICAL RESULTS  
JUNE 1987 - OCTOBER 2000  
SEMI-ANNUAL SAMPLING**

| Wells / Compounds      | 1/19-<br>1/20/89 | 4/10/89 | 7/12/89 | 08/15/1989 | 11/30/1989 | 5/30/90  | 8/28/90 | 12/6/90 |
|------------------------|------------------|---------|---------|------------|------------|----------|---------|---------|
| <b>DGC-3S</b>          |                  |         |         |            |            |          |         |         |
| Benzene                | ND               | ND      | ND      | ND         | ND         | ND       | ND      | ND      |
| Carbon Disulfide       | NA               | ND      | ND      | ND         | ND         | ND       | ND      | NA      |
| Aluminum               | NA               | NA      | NA      | NA         | NA         | NA       | NA      | NA      |
| Lead                   | NA               | NA      | NA      | NA         | NA         | NA       | NA      | NA      |
| Chromium               | NA               | NA      | NA      | NA         | NA         | NA       | NA      | NA      |
| Hexavalent Chromium    | no data          | no data | no data | no data    | no data    | NA       | NA      | NA      |
| <b>DGC-4S</b>          |                  |         |         |            |            |          |         |         |
| Carbon Disulfide       | --               | --      | --      | --         | --         | --       | --      | --      |
| Chromium               | --               | --      | --      | --         | --         | --       | --      | --      |
| <b>13S</b>             |                  |         |         |            |            |          |         |         |
| Benzene                | NA               | NA      | NA      | NA         | NA         | NA       | NA      | NA      |
| Carbon Disulfide       | NA               | NA      | NA      | NA         | NA         | NA       | NA      | NA      |
| Carbon Tetrachloride   | NA               | NA      | NA      | NA         | NA         | 18/16 dp | 6.4     | 4.4     |
| Chloroform             | NA               | NA      | NA      | NA         | NA         | ND       | ND      | ND      |
| Trichloroethylene      | NA               | NA      | NA      | NA         | NA         | ND       | ND      | ND      |
| Trichlorofluoromethane | NA               | NA      | NA      | NA         | NA         | ND       | ND      | ND      |
| Chromium               | NA               | NA      | NA      | NA         | NA         | NA       | NA      | NA      |
| Hexavalent Chromium    | NA               | NA      | NA      | NA         | NA         | NA       | NA      | NA      |

**Notes:**

Units are µg/l (ppb) unless otherwise stated.

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

B = The reported value is less than the CRQL/CRDL but greater than the IDL.

dp = Duplicate sample.

E = Estimated concentration: due to interference.

D = Concentration determined from a sample dilution.

J = Estimated concentration.

V = Estimated concentration: due to variance to quality control limits.

-- = Not sampled: well installed in December, 1990.

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\*\* = Filtered Sample.

**TABLE 6 (MONITORING WELLS DGC-3S, DGC-4S, 13S)  
SUMMARY OF WATER QUALITY ANALYTICAL RESULTS  
JUNE 1987 - OCTOBER 2000  
SEMI-ANNUAL SAMPLING**

| Wells / Compounds      | 4/8-<br>04/10/1991 | 6/12-<br>06/13/1991 | 9/23-<br>09/24/1991 | 12/26-<br>12/27/91 | 2/10-<br>2/11/92   | 6/1-<br>06/02/1992 | 9/28-<br>09/29/1992 | 11/18-<br>11/19/1992 | 3/17-<br>03/18/1993 |
|------------------------|--------------------|---------------------|---------------------|--------------------|--------------------|--------------------|---------------------|----------------------|---------------------|
| <b>DGC-3S</b>          |                    |                     |                     |                    |                    |                    |                     |                      |                     |
| Benzene                | ND                 | ND                  | 0.2 J               | ND                 | ND/NDdp            | ND                 | ND                  | ND                   | ND                  |
| Carbon Disulfide       | 8 V / 7 Vdp        | 4                   | ND                  | ND                 | ND/NDdp            | ND                 | ND                  | ND                   | ND                  |
| Aluminum               | NA                 | NA                  | NA                  | NA                 | NA                 | NA                 | NA                  | NA                   | NA                  |
| Lead                   | NA                 | NA                  | NA                  | NA                 | NA                 | NA                 | NA                  | NA                   | NA                  |
| Chromium               | NA                 | NA                  | 6.1                 | 62.2E/70.3Edp      | 16.2ND*, 14.6ND*dp | 25.2ND*            | ND                  | 33.6ND*              | 18.5                |
| Hexavalent Chromium    | NA                 | NA                  | NA                  | NA                 | ND/4*ND dp         | NA                 | NA                  | NA                   | NA                  |
| <b>DGC-4S</b>          |                    |                     |                     |                    |                    |                    |                     |                      |                     |
| Carbon Disulfide       | ND/0.5Vdp          | ND                  | ND                  | ND                 | ND                 | ND                 | ND/ND dp            | 4 V                  | ND                  |
| Chromium               | NA                 | NA                  | 15.9                | 11.9 E             | ND/ND*             | ND/ND*             | ND/ND dp            | 8.6 B                | 48.1/ND*            |
| <b>13S</b>             |                    |                     |                     |                    |                    |                    |                     |                      |                     |
| Benzene                | 2                  | 0.7/0.6 Jdp         | 1                   | ND                 | ND                 | ND                 | ND                  | 0.4 JV               | ND                  |
| Carbon Disulfide       | 60 D               | 0.6                 | ND                  | ND                 | ND                 | ND                 | ND                  | ND                   | ND                  |
| Carbon Tetrachloride   | 8                  | 24 J/24 Jdp         | 8                   | 12                 | 9                  | 6 J                | 9                   | 16 V                 | 15                  |
| Chloroform             | ND                 | 0.8/0.9 Jdp         | ND                  | 0.4 J              | 0.3 J              | ND                 | ND                  | 0.6 V                | 0.6                 |
| Trichloroethylene      | ND                 | ND                  | 0.4 J               | 0.9                | 0.6                | ND                 | 0.6                 | 1 V                  | 2                   |
| Trichlorofluoromethane | ND                 | ND                  | ND                  | ND                 | ND                 | ND                 | 0.5                 | 0.9 V                | 2                   |
| Chromium               | 336 V              | NA                  | 269/261**           | 316 E/562 E**      | 282/498**          | 504/512**          | 179/172**           | 585/576**            | 746/614**           |
| Hexavalent Chromium    | NA                 | NA                  | 280                 | 486/302**          | 260/310**          | NA                 | 287                 | 493                  | 663                 |

**Notes:**

Units are µg/l (ppb) unless otherwise stated.

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

B = The reported value is less than the CRQL/CRDL but greater than the IDL.

dp = Duplicate sample.

E = Estimated concentration: due to interference.

D = Concentration determined from a sample dilution.

J = Estimated concentration.

V = Estimated concentration: due to variance to quality control limits.

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\*\* = Filtered Sample.

**TABLE 6 (MONITORING WELLS DGC-3S, DGC-4S, 13S)  
SUMMARY OF WATER QUALITY ANALYTICAL RESULTS  
JUNE 1987 - OCTOBER 2000  
SEMI-ANNUAL SAMPLING**

| Wells / Compounds      | 5/25-<br>05/26/1993 | 8/24-<br>08/25/1993 | 11/8-<br>11/09/1993 | 2/22-<br>02/23/1994    | 5/18-<br>05/19/1994 | 8/24-<br>08/25/1994 | 11/15-<br>11/16/1994 | 05/23/1995 | 10/17/1995 |
|------------------------|---------------------|---------------------|---------------------|------------------------|---------------------|---------------------|----------------------|------------|------------|
| <b>DGC-3S</b>          |                     |                     |                     |                        |                     |                     |                      |            |            |
| Benzene                | ND                  | ND                  | ND                  | ND                     | ND V                | ND                  | ND                   | ND         | ND         |
| Carbon Disulfide       | ND                  | 0.8                 | ND                  | ND                     | ND V                | ND                  | ND                   | ND         | ND         |
| Aluminum               | NA                  | NA                  | NA                  | NA                     | NA                  | NA                  | NA                   | NA         | NA         |
| Lead                   | NA                  | NA                  | NA                  | NA                     | NA                  | NA                  | NA                   | NA         | NA         |
| Chromium               | 4.3 B               | 4.7 B               | 19.4                | 23.9                   | 4.5 B               | 9.9 B               | 11.1                 | NA         | NA         |
| Hexavalent Chromium    | NA                  | NA                  | NA                  | NA                     | NA                  | NA                  | NA                   | NA         | NA         |
| <b>DGC-4S</b>          |                     |                     |                     |                        |                     |                     |                      |            |            |
| Carbon Disulfide       | 0.3 J               | 0.2 J               | ND                  | ND                     | ND V/ND V dp        | ND                  | ND                   | ND         | ND         |
| Chromium               | ND                  | 3.3 B               | ND                  | 31.2 ND*               | ND/ND dp            | 5.6 B               | ND                   | NA         | NA         |
| <b>13S</b>             |                     |                     |                     |                        |                     |                     |                      |            |            |
| Benzene                | ND                  | ND                  | ND                  | ND/ND dp               | ND                  | ND                  | ND                   | NA         | NA         |
| Carbon Disulfide       | ND                  | ND                  | ND                  | ND/ND dp               | ND                  | ND                  | ND                   | NA         | NA         |
| Carbon Tetrachloride   | 10                  | 17                  | 18                  | 20/9 dp                | 9                   | 9                   | 9                    | NA         | NA         |
| Chloroform             | 0.4 J               | 0.6                 | 0.7                 | ND/ND dp               | 0.4 J               | 0.3 J               | ND                   | NA         | NA         |
| Trichloroethylene      | 0.6                 | ND                  | 2                   | 2/1 dp                 | 0.8                 | 1                   | 0.9                  | NA         | NA         |
| Trichlorofluoromethane | 0.5                 | ND                  | 2                   | 2/1 dp                 | 0.9                 | 1                   | ND                   | NA         | NA         |
| Chromium               | 198/609**           | 787/716**           | 572/610**           | 580/357** 567/357** dp | 406/434**           | 133 V/157 V**       | 44.2 V/95.8 V**      | 140 J      | 52.7 J     |
| Hexavalent Chromium    | 460                 | 800                 | 560                 | 530/540 dp             | 340                 | 101                 | 36                   | 150        | 48         |

**Notes:**

Units are µg/l (ppb) unless otherwise stated.

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

B = The reported value is less than the CRQL/CRDL but greater than the IDL.

dp = Duplicate sample.

E = Estimated concentration: due to interference.

D = Concentration determined from a sample dilution.

J = Estimated concentration.

V = Estimated concentration: due to variance to quality control limits.

--- = Not sampled: well installed in December, 1990.

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\*\* = Filtered Sample.

**TABLE 6 (MONITORING WELLS DGC-3S, DGC-4S, 13S)  
SUMMARY OF WATER QUALITY ANALYTICAL RESULTS  
JUNE 1987 - OCTOBER 2000  
SEMI-ANNUAL SAMPLING**

**Wells / Compounds**

| <b>DGC-3S</b>       | <b>05/14/1996</b> | <b>10/23/1996</b> | <b>06/02/1997</b> | <b>10/14/1997</b> | <b>05/28/1998</b> | <b>10/29/1998</b> | <b>05/11/1999</b> | <b>10/26/1999</b> | <b>05/22/2000</b> | <b>10/24/2000</b> |
|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Benzene             | ND                | ND                | ND                | ND                | ND                | ND                | ND                | ND                | ND                | ND                |
| Carbon Disulfide    | ND                | ND                | ND                | ND                | ND                | ND                | ND                | ND                | ND                | ND                |
| Aluminum            | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                |
| Lead                | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                |
| Chromium            | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                |
| Hexavalent Chromium | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                | NA                |

**DGC-4S**

|                  |    |    |    |    |    |    |    |    |    |    |
|------------------|----|----|----|----|----|----|----|----|----|----|
| Carbon Disulfide | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chromium         | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

**13S**

|                        |      |      |             |      |      |        |      |     |     |      |
|------------------------|------|------|-------------|------|------|--------|------|-----|-----|------|
| Benzene                | NA   | NA   | 1U          | 1U   | NA   | NA     | NA   | NA  | NA  | NA   |
| Carbon Disulfide       | NA   | NA   | 1U          | 1U   | NA   | NA     | NA   | NA  | NA  | NA   |
| Carbon Tetrachloride   | NA   | NA   | 1U          | 8    | NA   | NA     | NA   | NA  | NA  | NA   |
| Chloroform             | NA   | NA   | 1U          | 1U   | NA   | NA     | NA   | NA  | NA  | NA   |
| Trichloroethylene      | NA   | NA   | NA          | NA   | NA   | NA     | NA   | NA  | NA  | NA   |
| Trichlorofluoromethane | NA   | NA   | NA          | NA   | NA   | NA     | NA   | NA  | NA  | NA   |
| Chromium               | 44.8 | 46.4 | 90.7/90.9** | 71.4 | 71.2 | 98.6 J | 72.4 | 169 | 249 | 29.9 |
| Hexavalent Chromium    | 47   | 47   | 97          | 67   | 51   | 54.0 J | 71.0 | 178 | 262 | 41   |

**Notes:**

Units are µg/l (ppb) unless otherwise stated.

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

B = The reported value is less than the CRQL/CRDL but greater than the IDL.

dp = Duplicate sample.

E = Estimated concentration: due to interference.

D = Concentration determined from a sample dilution.

J = Estimated concentration.

V = Estimated concentration: due to variance to quality control limits.

-- = Not sampled: well installed in December, 1990.

\* Based on NYSDEC Final Combined Regulatory Impact and Environmental Impact Statement (Title 6, Chapter X, Parts 700-706, 1998), identified for comparison purposes only.

\*\* = Filtered Sample.



**TABLE 7 (MONITORING WELLS M-27, M-27D, M-33S, M-33I)**  
**SUMMARY OF WATER QUALITY ANALYTICAL RESULTS**  
**JUNE 1992 - OCTOBER 2000**  
**SEMI-ANNUAL SAMPLING**

| <b>M-27S</b>        | <b>Remedial<br/>Action<br/>Objective</b> | <b>06/05/1992</b> | <b>11/11/1992</b> | <b>03/14/1994</b> | <b>05/23/1995</b> | <b>10/17/1995</b> | <b>05/14/1996</b> | <b>10/23/1996</b> | <b>06/02/1997</b> | <b>10/14/1997</b> |
|---------------------|------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Carbon Disulfide    | None*                                    | ND                | ND                | not sampled       | ND                | ND                | ND                | ND                | ND                | ND                |
| Chloromethane       | 5                                        | 40                | ND                | not sampled       | ND                | ND                | ND                | ND                | ND                | ND                |
| Chromium            | 50*                                      | 8.4 B/ND**        | 57.4/ND**         | not sampled       | ND                | ND                | ND                | ND                | ND                | ND                |
| Hexavalent Chromium | 50*                                      | NA                | NA                | not sampled       | ND                | ND                | ND                | ND                | ND                | ND                |

| <b>M-27D</b>           |     |                             |           |             |          |         |         |         |         |         |
|------------------------|-----|-----------------------------|-----------|-------------|----------|---------|---------|---------|---------|---------|
| Carbon Tetrachloride   | 5   | 75/62 dp                    | 23        | not sampled | 33/42 dp | 56      | 31      | 28      | 26      | 22      |
| Chloroform             | 7   | ND                          | 3         | not sampled | 4/4 dp   | 5       | 3       | 3       | 3       | 2       |
| Chloromethane          | 5   | 4 J/28 dp                   | ND        | not sampled | ND/ND dp | ND      | ND      | ND      | ND      | ND      |
| Trichloroethylene      | 5   |                             |           |             |          |         |         |         |         |         |
| Trichlorofluoromethane | 5*  | no data                     | no data   | not sampled | no data  | no data | no data | no data | no data | no data |
| Chromium               | 50* | 2.0 B/ND**<br>2.0 B/ND** dp | 19.8/ND** | not sampled | ND/ND dp | ND      | ND      | ND      | ND      | 1.2B    |
| Hexavalent Chromium    | 50* | NA                          | NA        | not sampled | ND/ND dp | ND      | ND      | ND      | ND      | ND      |

| <b>M-33S</b> |   |             |             |    |    |    |    |    |    |    |
|--------------|---|-------------|-------------|----|----|----|----|----|----|----|
| VOCs         | - | not sampled | not sampled | ND | ND | ND | ND | ND | ND | ND |

| <b>M-33I</b> |   |             |             |    |    |    |    |    |    |    |
|--------------|---|-------------|-------------|----|----|----|----|----|----|----|
| VOCs         | - | not sampled | not sampled | ND | ND | ND | ND | ND | ND | ND |

**Notes:**

Units are ug/l (ppb) unless otherwise stated.

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

J = Estimated concentration.

dp = Duplicate sample.

B = The reported value is less than the CRQL/CRDL but greater than the IDL.

\* Based on NYSDEC Final Combined Regulatory Impact and Environmental Impact Statement (Title 6, Chapter X, Parts 700-706, 1998), identified for comparison purposes only.

\*\* = Filtered Sample.

**TABLE 7 (MONITORING WELLS M-27, M-27D, M-33S, M-33I)  
SUMMARY OF WATER QUALITY ANALYTICAL RESULTS  
JUNE 1992 - OCTOBER 2000  
SEMI-ANNUAL SAMPLING**

| Remedial Action        |                  | 05/28/1998 | 10/29/1998         | 05/11/1999       | 10/26/1999     | 05/22/2000     | 10/24/2000      |
|------------------------|------------------|------------|--------------------|------------------|----------------|----------------|-----------------|
| <b>M-27S</b>           | <b>Objective</b> |            |                    |                  |                |                |                 |
| Carbon Disulfide       | None*            | ND         | ND                 | 0.85 J           | ND / ND dp     | ND             | ND              |
| Chloromethane          | 5                | ND         | ND                 | ND               | ND / ND dp     | ND             | ND              |
| Chromium               | 50*              | ND         | 3.2 BJ             | 0.98B            | 0.85B/0.90b dp | 1.1B           | 1.2B            |
| Hexavalent Chromium    | 50*              | ND         | ND                 | ND               | ND / ND dp     | ND             | ND              |
| <b>M-27D</b>           |                  |            |                    |                  |                |                |                 |
| Carbon Tetrachloride   | 5                | 27         | 26 / 27 dp         | 20.3 / 20.1 dp   | 22.3           | 26.7D/28.9D dp | 19.2/19.8 dp    |
| Chloroform             | 7                | 3          | 2 / 2 dp           | 1.8 / 1.8 dp     | 1.8            | ND / ND dp     | 1.7J / 1.3 dp   |
| Chloromethane          | 5                | ND         | ND / ND            | ND / ND dp       | ND             | ND / ND dp     | ND / ND dp      |
| Trichloroethylene      | 5                |            | ND/ND dp           | 4.1/4.1 dp       | 10.7           | 12.8 / 12.1 dp | 26.4 / 26.5D dp |
| Trichlorofluoromethane | 5*               | no data    | 0.3 J / 0.3 J dp   | 0.92J / 0.99J dp | 1.4            | 1.9 / 1.8 dp   | 2.9 / 2.9 dp    |
| Chromium               | 50*              | ND         | 4.6 BJ / 4.8 BJ dp | 1.4 B / 1.3 B dp | 0.81B          | 2B/1.8B dp     | 1.2B/1.2B dp    |
| Hexavalent Chromium    | 50*              | ND         | ND / ND dp         | ND / ND dp       | ND             | ND/ND dp       | ND/ND dp        |
| <b>M-33S</b>           |                  |            |                    |                  |                |                |                 |
| VOCs                   | -                | ND         | ND                 | ND               | ND             | ND             | ND              |
| <b>M-33I</b>           |                  |            |                    |                  |                |                |                 |
| VOCs                   | -                | ND         | ND                 | ND               | ND             | ND             | ND              |

**Notes:**

Units are ug/l (ppb) unless otherwise stated.

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

J = Estimated concentration.

dp = Duplicate sample.

B = The reported value is less than the CRQL/CRDL but greater than the IDL.

D = Identifies compound analyzed at a secondary dilution factor.

\* Based on NYSEDEC Final Combined Regulatory Impact and Environmental Impact Statement (Title 6, Chapter X, Parts 700-706, 1998), identified for comparison purposes only.

\*\* = Filtered Sample.

**TABLE 8**  
**(SURFACE WATER)**  
**SUMMARY OF WATER QUALITY ANALYTICAL RESULTS**  
**JUNE 1987 - OCTOBER 2000**  
**SEMI-ANNUAL SAMPLING**

**Surface Water Points /**

**Compounds**

| <b>SW-A</b>      | <b>Cleanup Standard</b> | <b>8/29-07/01/1987</b> | <b>7/31/87</b> | <b>11/5/87</b> | <b>1/19-01/20/1988</b> | <b>4/18-04/19/1988</b> | <b>7/20-07/21/1988</b> | <b>10/11-10/12/88</b> | <b>1/19-1/20/89</b> | <b>4/10/89</b> | <b>7/12/89</b> |
|------------------|-------------------------|------------------------|----------------|----------------|------------------------|------------------------|------------------------|-----------------------|---------------------|----------------|----------------|
| Carbon Disulfide | None*                   | ND                     | NA             | ND             | ND                     | ND                     | ND                     | ND                    | NA                  | NA             | NA             |
| Aluminum         | 100*                    | 0.12 mg/L              | NA             | NA             | NA                     | NA                     | NA                     | NA                    | NA                  | NA             | NA             |
| Lead             | 25*                     | NA                     | NA             | NA             | NA                     | 0.02 mg/L              | NA                     | NA                    | NA                  | NA             | NA             |
| Chromium         | 50*                     | NA                     | NA             | NA             | NA                     | NA                     | NA                     | NA                    | NA                  | NA             | NA             |

**SW-B**

|                        |       |           |         |         |         |            |         |         |           |         |         |
|------------------------|-------|-----------|---------|---------|---------|------------|---------|---------|-----------|---------|---------|
| Carbon Disulfide       | None* | ND        | NA      | ND      | ND      | ND         | ND      | ND      | NA        | NA      | NA      |
| Carbon Tetrachloride   | 5     | ND        | NA      | ND      | ND      | ND         | ND      | ND      | 1.1/1.1dp | ND      | ND      |
| Chloroform             | 7     | ND        | NA      | ND      | ND      | ND         | ND      | ND      | ND        | ND      | ND      |
| Trichloroethylene      | 5     | ND        | NA      | ND      | ND      | ND         | ND      | ND      | ND        | ND      | ND      |
| Trichlorofluoromethane | 5*    | no data   | no data | no data | no data | no data    | no data | no data | no data   | no data | no data |
| Aluminum               | 100*  | 0.21 mg/L | NA      | NA      | NA      | NA         | NA      | NA      | NA        | NA      | NA      |
| Lead                   | 25*   | NA        | NA      | NA      | NA      | <0.01 mg/L | NA      | NA      | NA        | NA      | NA      |
| Chromium               | 50*   | NA        | NA      | NA      | NA      | NA         | NA      | NA      | NA        | NA      | NA      |

**SW-D**

|                        |       |           |         |         |         |             |         |         |         |         |         |
|------------------------|-------|-----------|---------|---------|---------|-------------|---------|---------|---------|---------|---------|
| Acetone                | 5*    | no data   | no data | no data | no data | no data     | no data | no data | no data | no data | no data |
| Bromochloromethane     | 5*    | ND        | ND      | ND      | ND      | ND          | ND      | ND      | ND      | ND      | ND      |
| Carbon Disulfide       | None* | ND        | NA      | ND      | ND      | ND          | ND      | ND      | NA      | NA      | NA      |
| Carbon Tetrachloride   | 5     | ND        | ND      | ND      | ND      | ND          | ND      | ND      | ND      | ND      | ND      |
| 1,2-Dichloroethane     | 0.6*  | no data   | no data | no data | no data | no data     | no data | no data | no data | no data | no data |
| Methylene Chloride     | 5*    | ND        | ND      | 0.5     | ND      | ND          | ND      | ND      | ND      | ND      | ND      |
| 1,2,3-Trichlorobenzene | 5*    | no data   | no data | no data | no data | no data     | no data | no data | no data | no data | no data |
| Aluminum               | 100*  | 0.50 mg/L | NA      | NA      | NA      | NA          | NA      | NA      | NA      | NA      | NA      |
| Lead                   | 25*   | NA        | NA      | NA      | NA      | <0.005 mg/L | NA      | NA      | NA      | NA      | NA      |
| Chromium               | 50*   | NA        | NA      | NA      | NA      | NA          | NA      | NA      | NA      | NA      | NA      |

**Notes:**

Units are µg/l (ppb) unless otherwise stated.

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

dp = Duplicate sample.

B = The reported value is less than the CRQL/CRDL but greater than the IDL.

D = Concentration determined from a sample dilution.

E = Estimated concentration : due to interference.

J = Estimated concentration.

V = Estimated concentration: due to variance to quality control limits.

R = Rejected during data validation.

\* Based on NYSDEC Final Combined Regulatory Impact and Environmental Impact Statement (Title 6, Chapter X, Parts 700-706, 1998), identified for comparison purposes only.

\*\* = Filtered Sample.

**TABLE 8**  
**(SURFACE WATER)**  
**SUMMARY OF WATER QUALITY ANALYTICAL RESULTS**  
**JUNE 1987 - OCTOBER 2000**  
**SEMI-ANNUAL SAMPLING**

**Surface Water Points /**

| <b>Compounds</b> | <b>Cleanup Standard</b> | <b>08/15/1989</b> | <b>11/30/1989</b> | <b>12/27/1989</b> | <b>02/22/1990</b> | <b>5/30/90</b> | <b>8/28/90</b> | <b>12/6/90</b> | <b>4/8-04/10/1991</b> | <b>6/12-06/13/1991</b> | <b>9/23-09/24/1991</b> |
|------------------|-------------------------|-------------------|-------------------|-------------------|-------------------|----------------|----------------|----------------|-----------------------|------------------------|------------------------|
| <b>SW-A</b>      |                         |                   |                   |                   |                   |                |                |                |                       |                        |                        |
| Carbon Disulfide | None*                   | NA                | NA                | NA                | NA                | NA             | NA             | NA             | 0.5 V                 | ND                     | ND                     |
| Aluminum         | 100*                    | NA                | NA                | no data           | no data           | no data        | no data        | no data        | no data               | no data                | no data                |
| Lead             | 25*                     | NA                | NA                | no data           | no data           | no data        | no data        | no data        | no data               | no data                | no data                |
| Chromium         | 50*                     | NA                | NA                | NA                | NA                | NA             | NA             | NA             | NA                    | NA                     | 6.6                    |

**SW-B**

|                        |       |         |         |         |         |         |         |         |         |         |         |
|------------------------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Carbon Disulfide       | None* | NA      | NA      | NA      | NA      | NA      | NA      | NA      | ND      | 0.2 J   | ND      |
| Carbon Tetrachloride   | 5     | ND      | 0.9     | NA      | 0.88    | ND      | ND      | 1       | 0.4 J   | 0.6 J   | 0.4 J   |
| Chloroform             | 7     | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | 0.2 J   | ND      |
| Trichloroethylene      | 5     | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | 0.3 J   | ND      |
| Trichlorofluoromethane | 5*    | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data |
| Aluminum               | 100*  | NA      | NA      | no data | no data | no data | no data | no data | no data | no data | no data |
| Lead                   | 25*   | NA      | NA      | no data | no data | no data | no data | no data | no data | no data | no data |
| Chromium               | 50*   | NA      | NA      | NA      | NA      | NA      | NA      | NA      | NA      | NA      | ND      |

**SW-D**

|                        |       |         |            |         |         |         |         |         |         |         |         |
|------------------------|-------|---------|------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Acetone                | 5*    | no data | no data    | no data | no data | no data | no data | no data | no data | no data | no data |
| Bromochloromethane     | 5*    | ND      | 1.7, ND dp | no data | no data | no data | no data | no data | no data | no data | no data |
| Carbon Disulfide       | None* | NA      | NA         | NA      | ND      | ND      | ND      | ND      | ND      | ND      | ND      |
| Carbon Tetrachloride   | 5     | ND      | ND         | NA      | NA      | NA      | NA      | NA      | NA      | NA      | ND      |
| 1,2-Dichloroethane     | 0.6*  | no data | no data    | no data | no data | no data | no data | no data | no data | no data | no data |
| Methylene Chloride     | 5*    | ND      | ND         | NA      | NA      | NA      | NA      | NA      | NA      | NA      | ND      |
| 1,2,3-Trichlorobenzene | 5*    | no data | no data    | no data | no data | no data | no data | no data | no data | no data | no data |
| Aluminum               | 100*  | NA      | NA         | no data | no data | no data | no data | no data | no data | no data | no data |
| Lead                   | 25*   | NA      | NA         | no data | no data | no data | no data | no data | no data | no data | no data |
| Chromium               | 50*   | NA      | NA         | NA      | NA      | NA      | NA      | NA      | ND      | 2       | ND      |

**Notes:**

Units are µg/l (ppb) unless otherwise stated

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

dp = Duplicate sample.

B = The reported value is less than the CRC greater than the IDL.

D = Concentration determined from a sample

E = Estimated concentration : due to interference.

J = Estimated concentration.

V = Estimated concentration: due to variance to quality control limits.

R = Rejected during data validation.

\* Based on NYSDEC Final Combined Regulatory Impact and Environmental Impact Statement (Title 6, Chapter X, Parts 700-706, 1998), identified for comparison purposes only.

\*\* = Filtered Sample.

**TABLE 8**  
**(SURFACE WATER)**  
**SUMMARY OF WATER QUALITY ANALYTICAL RESULTS**  
**JUNE 1987 - OCTOBER 2000**  
**SEMI-ANNUAL SAMPLING**

**Surface Water Points /**

| <b>Compounds</b> | <b>Cleanup</b>  | <b>12/26-</b>   | <b>2/10-</b>   | <b>6/1-</b>       | <b>9/28-</b>      | <b>11/18-</b>     | <b>3/17-</b>      | <b>5/25-</b>      | <b>8/24-</b>      | <b>11/8-</b>      | <b>2/22-</b>      |
|------------------|-----------------|-----------------|----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>SW-A</b>      | <b>Standard</b> | <b>12/27/91</b> | <b>2/11/92</b> | <b>06/02/1992</b> | <b>09/29/1992</b> | <b>11/19/1992</b> | <b>03/18/1993</b> | <b>05/26/1993</b> | <b>08/25/1993</b> | <b>11/09/1993</b> | <b>02/23/1994</b> |
| Carbon Disulfide | None*           | ND              | ND             | ND                | ND                | ND                | ND                | ND                | ND                | ND                | ND                |
| Aluminum         | 100*            | no data         | no data        | no data           | no data           | no data           | no data           | no data           | no data           | no data           | no data           |
| Lead             | 25*             | no data         | no data        | no data           | no data           | no data           | no data           | no data           | no data           | no data           | no data           |
| Chromium         | 50*             | ND              | ND             | ND                | ND                | ND                | 6.1 B             | ND                | 3.2B              | ND                | ND                |

**SW-B**

|                        |       |         |         |         |         |         |         |         |         |         |                |
|------------------------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------|
| Carbon Disulfide       | None* | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND/ND dp       |
| Carbon Tetrachloride   | 5     | 0.8     | 0.8     | 0.7     | 0.3 J   | 0.6 V   | ND      | ND      | 0.3 J   | 0.7     | 0.4 J/0.4 J dp |
| Chloroform             | 7     | ND      | ND      | 0.2 J   | ND      | ND      | ND      | ND      | ND      | 0.3 J   | ND/ND dp       |
| Trichloroethylene      | 5     | 0.2 J   | ND      | 0.3 J   | ND      | ND      | ND      | ND      | ND      | 0.2 J   | ND/ND dp       |
| Trichlorofluoromethane | 5*    | no data | no data | no data | ND      | ND      | 2       | ND      | ND      | ND      | ND/ND dp       |
| Aluminum               | 100*  | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data        |
| Lead                   | 25*   | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data        |
| Chromium               | 50*   | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND/ND dp       |

**SW-D**

|                        |       |         |         |         |         |         |         |         |         |         |         |
|------------------------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Acetone                | 5*    | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data |
| Bromochloromethane     | 5*    | no data | no data | no data | ND      | ND      | ND      | ND      | ND      | ND      | ND      |
| Carbon Disulfide       | None* | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      |
| Carbon Tetrachloride   | 5     | ND      | ND      | ND      | no data | no data | no data | no data | no data | no data | no data |
| 1,2-Dichloroethane     | 0.6*  | no data | no data | no data | ND      | ND      | ND      | ND      | ND      | ND      | ND      |
| Methylene Chloride     | 5*    | 6.3 BE  | ND      | ND      | no data | no data | no data | no data | no data | no data | no data |
| 1,2,3-Trichlorobenzene | 5*    | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data |
| Aluminum               | 100*  | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data |
| Lead                   | 25*   | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data |
| Chromium               | 50*   | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      |

**Notes:**

Units are µg/l (ppb) unless otherwise stated

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

dp = Duplicate sample.

B = The reported value is less than the CRC  
greater than the IDL.

D = Concentration determined from a sample

E = Estimated concentration : due to interference.

J = Estimated concentration.

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control limits.

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\* Based on NYSDEC Final Combined Regulatory Impact and Environmental  
Impact Statement (Title 6, Chapter X, Parts 700-706, 1998), identified  
for comparison purposes only.

\*\* = Filtered Sample.

**TABLE 8**  
**(SURFACE WATER)**  
**SUMMARY OF WATER QUALITY ANALYTICAL RESULTS**  
**JUNE 1987 - OCTOBER 2000**  
**SEMI-ANNUAL SAMPLING**

**Surface Water Points /  
Compounds**

| <b>SW-A</b>      | <b>Cleanup<br/>Standard</b> | <b>5/18-<br/>05/19/1994</b> | <b>8/24-<br/>08/25/1994</b> | <b>11/15-<br/>11/16/1994</b> | <b>05/23/1995</b> | <b>10/17/1995</b> | <b>05/14/1996</b> | <b>10/23/1996</b> | <b>06/02/1997</b> | <b>10/14/1997</b> | <b>05/28/1998</b> |
|------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Carbon Disulfide | None*                       | ND                          | ND                          | ND                           | ND                | ND                | ND                | ND                | ND                | ND                | ND                |
| Aluminum         | 100*                        | no data                     | no data                     | no data                      | no data           | no data           | no data           | no data           | no data           | no data           | no data           |
| Lead             | 25*                         | no data                     | no data                     | no data                      | no data           | no data           | no data           | no data           | no data           | no data           | no data           |
| Chromium         | 50*                         | ND                          | ND                          | ND                           | NA                | NA                | NA                | NA                | NA                | NA                | NA                |

**SW-B**

|                        |       |         |         |         |         |                |         |         |         |         |         |
|------------------------|-------|---------|---------|---------|---------|----------------|---------|---------|---------|---------|---------|
| Carbon Disulfide       | None* | ND      | ND      | ND      | ND      | ND/ND dp       | ND      | ND      | ND      | ND      | ND      |
| Carbon Tetrachloride   | 5     | 0.4 J   | 0.2 JV  | ND      | ND      | 0.7 J/0.6 J dp | ND      | 0.6J    | ND      | ND      | 0.3J    |
| Chloroform             | 7     | ND      | ND      | ND      | ND      | ND/ND dp       | ND      | ND      | ND      | ND      | 0.1J    |
| Trichloroethylene      | 5     | ND      | ND      | ND      | ND      | ND/ND dp       | ND      | ND      | ND      | ND      | 0.2J    |
| Trichlorofluoromethane | 5*    | ND      | ND V    | ND      | ND      | ND/ND dp       | ND      | ND      | ND      | ND      | ND      |
| Aluminum               | 100*  | no data | no data | no data | no data | no data        | no data | no data | no data | no data | no data |
| Lead                   | 25*   | no data | no data | no data | no data | no data        | no data | no data | no data | no data | no data |
| Chromium               | 50*   | ND      | ND      | ND      | ND      | ND/ND dp       | ND      | ND      | NA      | ND      | ND      |

**SW-D**

|                        |       |         |         |         |         |         |         |         |         |         |         |
|------------------------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Acetone                | 5*    | no data | no data | no data | no data | no data | no data | no data | no data | no data | 43 J    |
| Bromochloromethane     | 5*    | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      |
| Carbon Disulfide       | None* | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      | ND      |
| Carbon Tetrachloride   | 5     | no data | no data | no data | no data | no data | ND      | ND      | no data | no data | ND      |
| 1,2-Dichloroethane     | 0.6*  | ND      | ND      | ND      | 1       | ND      | ND      | ND      | ND      | ND      | ND      |
| Methylene Chloride     | 5*    | no data | no data | no data | no data | no data | ND      | ND      | no data | no data | ND      |
| 1,2,3-Trichlorobenzene | 5*    | no data | no data | no data | no data | no data | no data | no data | no data | no data | 0.1 J   |
| Aluminum               | 100*  | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data |
| Lead                   | 25*   | no data | no data | no data | no data | no data | no data | no data | no data | no data | no data |
| Chromium               | 50*   | ND      | ND      | ND      | NA      | NA      | NA      | NA      | NA      | NA      | NA      |

**Notes:**

Units are µg/l (ppb) unless otherwise stated

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

dp = Duplicate sample.

B = The reported value is less than the CRC  
greater than the IDL.

D = Concentration determined from a sample

E = Estimated concentration : due to interference.

J = Estimated concentration.

V = Estimated concentration: due to variance to quality  
control limits.

R = Rejected during data validation.

\* Based on NYSDEC Final Combined Regulatory Impact and Environmental  
Impact Statement (Title 6, Chapter X, Parts 700-706, 1998), identified  
for comparison purposes only.

\*\* = Filtered Sample.

**TABLE 8**  
**(SURFACE WATER)**  
**SUMMARY OF WATER QUALITY ANALYTICAL RESULTS**  
**JUNE 1987 - OCTOBER 2000**  
**SEMI-ANNUAL SAMPLING**

**Surface Water Points /**

**Compounds**

**SW-A**

|                  | Cleanup<br>Standard | 10/29/1998 | 05/11/1999 | 10/26/1999 | 05/22/2000 | 10/24/2000 |
|------------------|---------------------|------------|------------|------------|------------|------------|
| Carbon Disulfide | None*               | ND         | ND         | ND         | ND         | ND         |
| Aluminum         | 100*                | NA         | NA         | NA         | NA         | NA         |
| Lead             | 25*                 | NA         | NA         | NA         | NA         | NA         |
| Chromium         | 50*                 | NA         | NA         | NA         | NA         | NA         |

**SW-B**

|                        |       |        |        |    |      |       |
|------------------------|-------|--------|--------|----|------|-------|
| Carbon Disulfide       | None* | ND     | ND     | ND | ND   | ND    |
| Carbon Tetrachloride   | 5     | ND     | ND     | ND | ND   | 0.54J |
| Chloroform             | 7     | ND     | ND     | ND | ND   | ND    |
| Trichloroethylene      | 5     | ND     | ND     | ND | ND   | ND    |
| Trichlorofluoromethane | 5*    | ND     | ND     | ND | ND   | ND    |
| Aluminum               | 100*  | NA     | NA     | NA | NA   | NA    |
| Lead                   | 25*   | NA     | NA     | NA | NA   | NA    |
| Chromium               | 50*   | 3.1 BJ | 0.44 B | ND | 0.9B | 0.75B |

**SW-D**

|                        |       |       |    |    |    |    |
|------------------------|-------|-------|----|----|----|----|
| Acetone                | 5*    | R     | ND | ND | ND | ND |
| Bromochloromethane     | 5*    | ND    | ND | ND | ND | ND |
| Carbon Disulfide       | None* | ND    | ND | ND | ND | ND |
| Carbon Tetrachloride   | 5     | 0.2 J | ND | ND | ND | ND |
| 1,2-Dichloroethane     | 0.6*  | ND    | ND | ND | ND | ND |
| Methylene Chloride     | 5*    | ND    | ND | ND | ND | ND |
| 1,2,3-Trichlorobenzene | 5*    | ND    | ND | ND | ND | ND |
| Aluminum               | 100*  | NA    | NA | NA | NA | NA |
| Lead                   | 25*   | NA    | NA | NA | NA | NA |
| Chromium               | 50*   | NA    | NA | NA | NA | NA |

**Notes:**

Units are µg/l (ppb) unless otherwise stated

Only detected compounds are listed.

NA = Not analyzed.

ND = Not detected.

dp = Duplicate sample.

B = The reported value is less than the CRC  
greater than the IDL.

D = Concentration determined from a sample

E = Estimated concentration : due to interference.

J = Estimated concentration.

V = Estimated concentration: due to variance to quality  
control limits.

R = Rejected during data validation.

\* Based on NYSDEC Final Combined Regulatory Impact and Environmental  
Impact Statement (Title 6, Chapter X, Parts 700-706, 1998), identified  
for comparison purposes only.

\*\* = Filtered Sample.

## FIGURES



DRAWING NUMBER 1707-STE

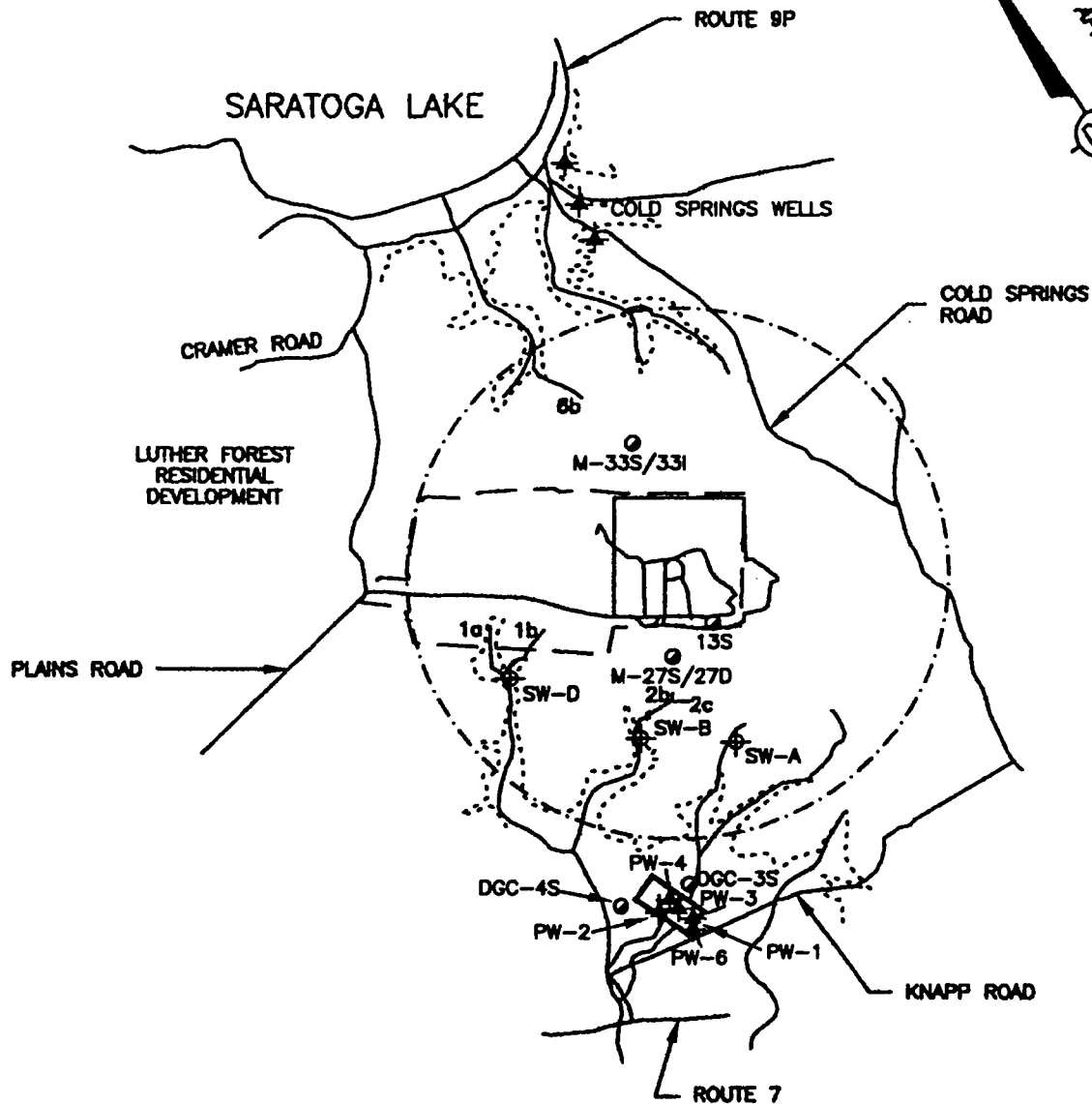
APPROVED BY

CHECKED BY

DRAWN BY 6-21-99

OFFICE ALB

IMAGE X-REF



# LEGEND

- DGC-4S WELL PAIR LOCATION & ID#
- ✦ PW-2 PUMPING WELL LOCATION & ID#
- LUTHER FOREST WELL FIELD
- ⊕ SW-D SURFACE WATER SAMPLE LOCATION & ID#
- 6b RAVINE LOCATION & ID#
- - - APPROXIMATE MRFA SITE BOUNDARY
- ..... APPROXIMATE ONE MILE EASEMENT BOUNDARY
- ..... 250' GROUND SURFACE CONTOUR LINE

APPROXIMATE  
SCALE

0 3600 7200 FEET

REFERENCE:  
REFERENCE DRAWING:  
ERM - SEPTEMBER, 1998.



MRFA - MALTA

FIGURE 1

SITE LOCATION MAP  
MALTA ROCKET FUEL AREA SITE  
MALTA, NEW YORK

WELL 13S HEXAVALENT CHROMIUM CONCENTRATIONS

FIGURE 2

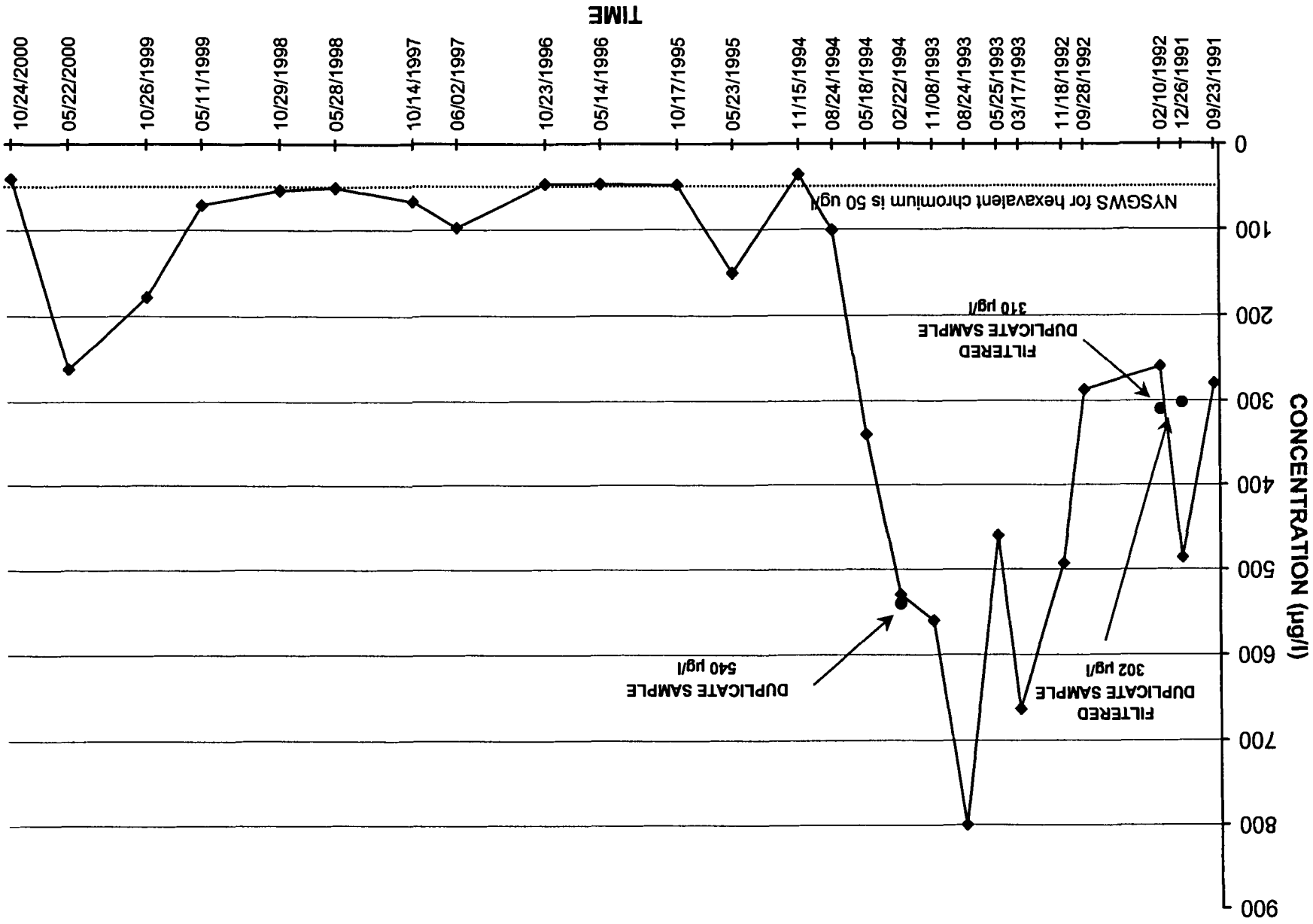
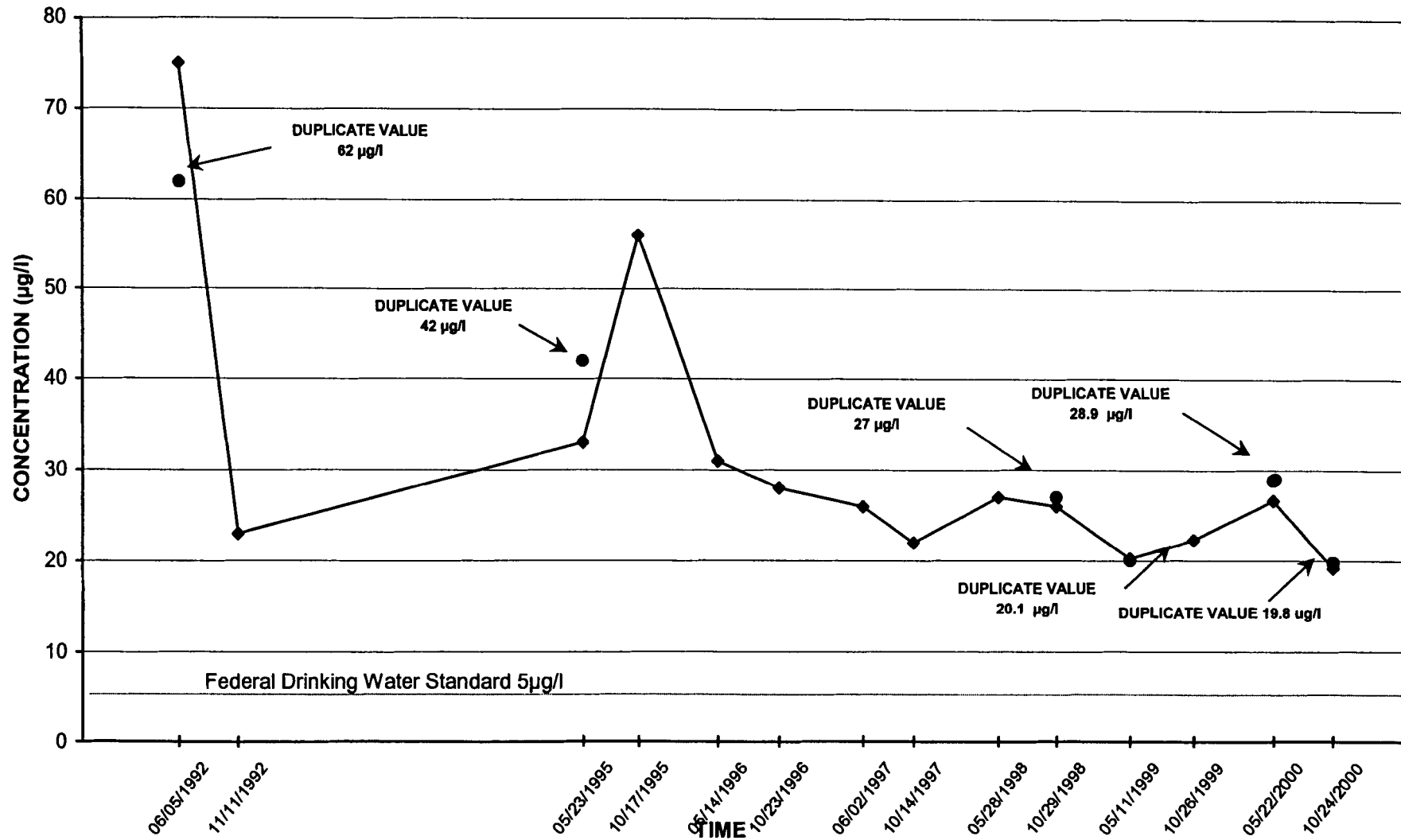


FIGURE 3  
WELL M-27D CARBON TETRACHLORIDE CONCENTRATIONS



**FIGURE 4**  
**SIMULATED VERSUS OBSERVED (OCTOBER 2000)**  
**CARBON TETRACHLORIDE CONCENTRATIONS**  
**AT WELL M-27D**

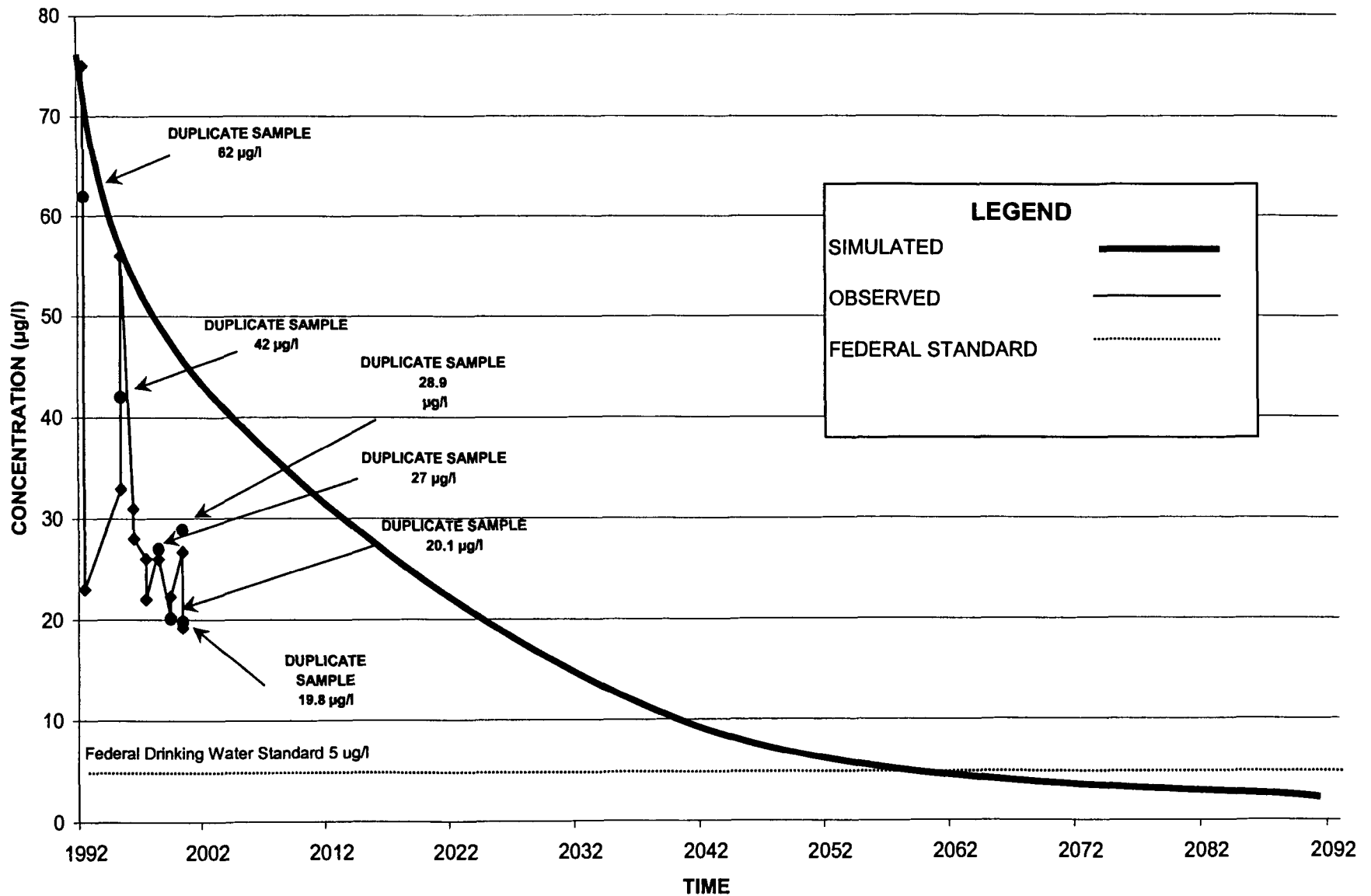
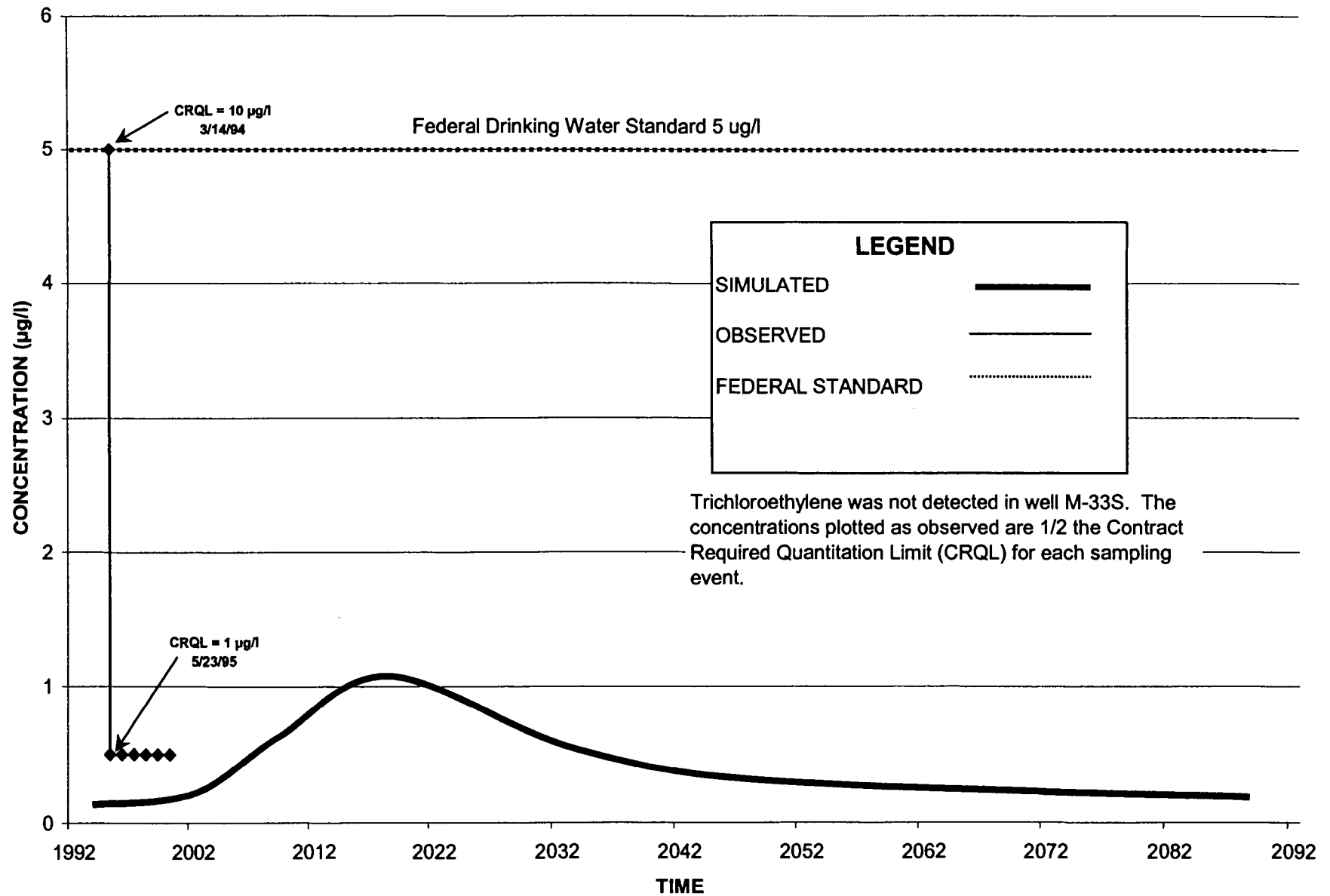
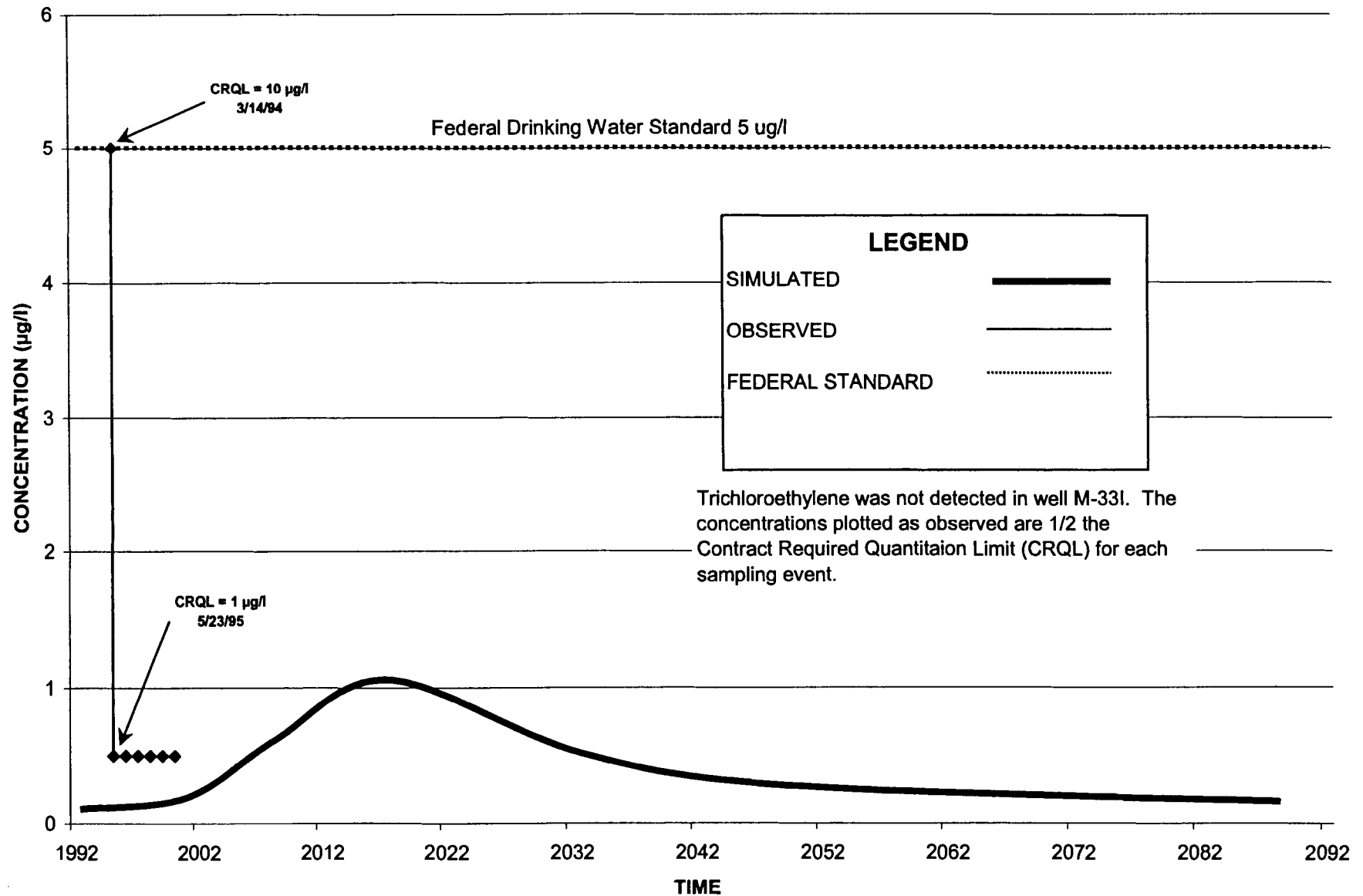


FIGURE 15  
SIMULATED VERSUS OBSERVED (OCTOBER 2000)  
TRICHLOROETHYLENE CONCENTRATIONS  
AT WELL M-33S



**FIGURE 6**  
**SIMULATED VERSUS OBSERVED (OCTOBER 2000)**  
**TRICHLOROETHYLENE CONCENTRATIONS**  
**AT WELL M-33I**



## APPENDIX A

# Data Validation Services

120 Cobble Creek Road P. O. Box 208

North Creek, NY 12853

Phone (518) 251-4429

Fax (518) 251-4428

RECEIVED

Route To: Brian Newman

JAN 11-01

Proj: \_\_\_\_\_

File Code: \_\_\_\_\_

## LETTER OF TRANSMITTAL

TO: Brian Newman

COMPANY: IT Corp

FROM: Judy Harry 

DATE: 01-10-01

ENCLOSED: RE: MRFA  
Red-ink edited report forms, reflecting qualifiers

COMMENTS:



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406210

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9810

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

|         |          |                                              |   |
|---------|----------|----------------------------------------------|---|
| CAS NO. | COMPOUND | CONCENTRATION UNITS:<br>(ug/L or ug/Kg) UG/L | Q |
|---------|----------|----------------------------------------------|---|

|                 |                           |     |     |
|-----------------|---------------------------|-----|-----|
| 74-87-3-----    | chloromethane             | 1.0 | U   |
| 75-01-4-----    | vinyl chloride            | 1.0 | U   |
| 74-83-9-----    | bromomethane              | 1.0 | U   |
| 75-00-3-----    | chloroethane              | 1.0 | U   |
| 75-69-4-----    | Trichlorofluoromethane    | 1.0 | U   |
| 75-35-4-----    | 1,1-dichloroethene        | 1.0 | U   |
| 67-64-1-----    | acetone                   | 5.0 | U J |
| 75-15-0-----    | carbon disulfide          | 1.0 | U   |
| 75-34-3-----    | 1,1-dichloroethane        | 1.0 | U   |
| 75-09-2-----    | methylene chloride        | 1.0 | U   |
| 156-59-2-----   | cis-1,2-Dichloroethene    | 1.0 | U   |
| 156-60-5-----   | trans-1,2-dichloroethene  | 1.0 | U   |
| 67-66-3-----    | chloroform                | 1.0 | U   |
| 78-93-3-----    | 2-butanone                | 5.0 | U J |
| 74-97-5-----    | bromochloromethane        | 1.0 | U   |
| 71-55-6-----    | 1,1,1-trichloroethane     | 1.0 | U   |
| 56-23-5-----    | carbontetrachloride       | 1.0 | U   |
| 71-43-2-----    | benzene                   | 1.0 | U   |
| 107-06-2-----   | 1,2-dichloroethane        | 1.0 | U   |
| 79-01-6-----    | trichloroethene           | 1.0 | U   |
| 78-87-5-----    | 1,2-dichloropropane       | 1.0 | U   |
| 75-27-4-----    | bromodichloromethane      | 1.0 | U   |
| 10061-01-5----- | cis-1,3-dichloropropene   | 1.0 | U   |
| 108-10-1-----   | 4-methyl-2-pentanone      | 5.0 | U   |
| 108-88-3-----   | toluene                   | 1.0 | U   |
| 10061-02-6----- | trans-1,3-dichloropropene | 1.0 | U   |
| 79-00-5-----    | 1,1,2-trichloroethane     | 1.0 | U   |
| 127-18-4-----   | tetrachloroethene         | 1.0 | U   |
| 591-78-6-----   | 2-hexanone                | 5.0 | U   |
| 124-48-1-----   | dibromochloromethane      | 1.0 | U   |
| 106-93-4-----   | 1,2-Dibromoethane         | 1.0 | U   |
| 108-90-7-----   | chlorobenzene             | 1.0 | U   |
| 100-41-4-----   | ethylbenzene              | 1.0 | U   |

FORM I VOA

0029

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406210

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9810

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

|                                         |     |     |
|-----------------------------------------|-----|-----|
| 1330-20-7-----m,p-xylenes               | 1.0 | U   |
| 1330-20-7-----o-xylene                  | 1.0 | U   |
| 100-42-5-----styrene                    | 1.0 | U   |
| 75-25-2-----bromoform                   | 1.0 | U   |
| 79-34-5-----1,1,2,2-tetrachloroethane   | 1.0 | U   |
| 541-73-1-----1,3-Dichlorobenzene        | 1.0 | U   |
| 106-46-7-----1,4-Dichlorobenzene        | 1.0 | U   |
| 95-50-1-----1,2-Dichlorobenzene         | 1.0 | U   |
| 96-12-8-----1,2-dibromo-3-chloropropane | 1.0 | U J |
| 120-82-1-----1,2,4-Trichlorobenzene     | 1.0 | U   |
| 87-68-3-----Hexachlorobutadiene         | 1.0 | U   |
| 87-61-6-----1,2,3-Trichlorobenzene      | 1.0 | U   |

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFFLUENT

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406210

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9810

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/l

| CAS NUMBER | COMPOUND NAME | RT    | EST. CONC. | Q     |
|------------|---------------|-------|------------|-------|
| =====      | =====         | ===== | =====      | ===== |
| 1.         |               |       |            |       |
| 2.         |               |       |            |       |
| 3.         |               |       |            |       |
| 4.         |               |       |            |       |
| 5.         |               |       |            |       |
| 6.         |               |       |            |       |
| 7.         |               |       |            |       |
| 8.         |               |       |            |       |
| 9.         |               |       |            |       |
| 10.        |               |       |            |       |
| 11.        |               |       |            |       |
| 12.        |               |       |            |       |
| 13.        |               |       |            |       |
| 14.        |               |       |            |       |
| 15.        |               |       |            |       |
| 16.        |               |       |            |       |
| 17.        |               |       |            |       |
| 18.        |               |       |            |       |
| 19.        |               |       |            |       |
| 20.        |               |       |            |       |
| 21.        |               |       |            |       |
| 22.        |               |       |            |       |
| 23.        |               |       |            |       |
| 24.        |               |       |            |       |
| 25.        |               |       |            |       |
| 26.        |               |       |            |       |
| 27.        |               |       |            |       |
| 28.        |               |       |            |       |
| 29.        |               |       |            |       |
| 30.        |               |       |            |       |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUPLICATE A

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406211

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9808

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO. COMPOUND Q

|            |                           |     |     |
|------------|---------------------------|-----|-----|
| 74-87-3    | chloromethane             | 1.0 | U   |
| 75-01-4    | vinyl chloride            | 1.0 | U   |
| 74-83-9    | bromomethane              | 1.0 | U   |
| 75-00-3    | chloroethane              | 1.0 | U   |
| 75-69-4    | Trichlorofluoromethane    | 1.0 | U   |
| 75-35-4    | 1,1-dichloroethene        | 1.0 | U   |
| 67-64-1    | acetone                   | 5.0 | U J |
| 75-15-0    | carbon disulfide          | 1.0 | U   |
| 75-34-3    | 1,1-dichloroethane        | 1.0 | U   |
| 75-09-2    | methylene chloride        | 1.0 | U   |
| 156-59-2   | cis-1,2-Dichloroethene    | 1.0 | U   |
| 156-60-5   | trans-1,2-dichloroethene  | 1.0 | U   |
| 67-66-3    | chloroform                | 1.0 | U   |
| 78-93-3    | 2-butanone                | 5.0 | U J |
| 74-97-5    | bromochloromethane        | 1.0 | U   |
| 71-55-6    | 1,1,1-trichloroethane     | 1.0 | U   |
| 56-23-5    | carbontetrachloride       | 1.0 | U   |
| 71-43-2    | benzene                   | 1.0 | U   |
| 107-06-2   | 1,2-dichloroethane        | 1.0 | U   |
| 79-01-6    | trichloroethene           | 1.0 | U   |
| 78-87-5    | 1,2-dichloropropane       | 1.0 | U   |
| 75-27-4    | bromodichloromethane      | 1.0 | U   |
| 10061-01-5 | cis-1,3-dichloropropene   | 1.0 | U   |
| 108-10-1   | 4-methyl-2-pentanone      | 5.0 | U   |
| 108-88-3   | toluene                   | 1.0 | U   |
| 10061-02-6 | trans-1,3-dichloropropene | 1.0 | U   |
| 79-00-5    | 1,1,2-trichloroethane     | 1.0 | U   |
| 127-18-4   | tetrachloroethene         | 1.0 | U   |
| 591-78-6   | 2-hexanone                | 5.0 | U   |
| 124-48-1   | dibromochloromethane      | 1.0 | U   |
| 106-93-4   | 1,2-Dibromoethane         | 1.0 | U   |
| 108-90-7   | chlorobenzene             | 1.0 | U   |
| 100-41-4   | ethylbenzene              | 1.0 | U   |

FORM I VOA

0035

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUPLICATE A

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406211

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9808

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS:<br>(ug/L or ug/Kg) UG/L | Q |
|---------|----------|----------------------------------------------|---|
|---------|----------|----------------------------------------------|---|

|                                         |     |     |
|-----------------------------------------|-----|-----|
| 1330-20-7-----m,p-xylenes               | 1.0 | U   |
| 1330-20-7-----o-xylene                  | 1.0 | U   |
| 100-42-5-----styrene                    | 1.0 | U   |
| 75-25-2-----bromoform                   | 1.0 | U   |
| 79-34-5-----1,1,2,2-tetrachloroethane   | 1.0 | U   |
| 541-73-1-----1,3-Dichlorobenzene        | 1.0 | U   |
| 106-46-7-----1,4-Dichlorobenzene        | 1.0 | U   |
| 95-50-1-----1,2-Dichlorobenzene         | 1.0 | U   |
| 96-12-8-----1,2-dibromo-3-chloropropane | 1.0 | U ✓ |
| 120-82-1-----1,2,4-Trichlorobenzene     | 1.0 | U   |
| 87-68-3-----Hexachlorobutadiene         | 1.0 | U   |
| 87-61-6-----1,2,3-Trichlorobenzene      | 1.0 | U   |

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DUPLICATE A

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406211

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9808

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 1

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/l

| CAS NUMBER  | COMPOUND NAME                           | RT   | EST. CONC. | Q |
|-------------|-----------------------------------------|------|------------|---|
| 1. 124-38-9 | <del>CARBON DIOXIDE</del> <i>delete</i> | 1.94 | 0.00       | N |
| 2.          |                                         |      |            |   |
| 3.          |                                         |      |            |   |
| 4.          |                                         |      |            |   |
| 5.          |                                         |      |            |   |
| 6.          |                                         |      |            |   |
| 7.          |                                         |      |            |   |
| 8.          |                                         |      |            |   |
| 9.          |                                         |      |            |   |
| 10.         |                                         |      |            |   |
| 11.         |                                         |      |            |   |
| 12.         |                                         |      |            |   |
| 13.         |                                         |      |            |   |
| 14.         |                                         |      |            |   |
| 15.         |                                         |      |            |   |
| 16.         |                                         |      |            |   |
| 17.         |                                         |      |            |   |
| 18.         |                                         |      |            |   |
| 19.         |                                         |      |            |   |
| 20.         |                                         |      |            |   |
| 21.         |                                         |      |            |   |
| 22.         |                                         |      |            |   |
| 23.         |                                         |      |            |   |
| 24.         |                                         |      |            |   |
| 25.         |                                         |      |            |   |
| 26.         |                                         |      |            |   |
| 27.         |                                         |      |            |   |
| 28.         |                                         |      |            |   |
| 29.         |                                         |      |            |   |
| 30.         |                                         |      |            |   |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INFLUENT

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406212

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9807

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

|                 |                           |      |     |
|-----------------|---------------------------|------|-----|
| 74-87-3-----    | chloromethane             | 1.0  | U   |
| 75-01-4-----    | vinyl chloride            | 1.0  | U   |
| 74-83-9-----    | bromomethane              | 1.0  | U   |
| 75-00-3-----    | chloroethane              | 1.0  | U   |
| 75-69-4-----    | Trichlorofluoromethane    | 1.0  | U   |
| 75-35-4-----    | 1,1-dichloroethene        | 1.0  | U   |
| 67-64-1-----    | acetone                   | 5.0  | U J |
| 75-15-0-----    | carbon disulfide          | 1.0  | U   |
| 75-34-3-----    | 1,1-dichloroethane        | 1.0  | U   |
| 75-09-2-----    | methylene chloride        | 1.0  | U   |
| 156-59-2-----   | cis-1,2-Dichloroethene    | 1.0  | U   |
| 156-60-5-----   | trans-1,2-dichloroethene  | 1.0  | U   |
| 67-66-3-----    | chloroform                | 1.6  |     |
| 78-93-3-----    | 2-butanone                | 5.0  | U J |
| 74-97-5-----    | bromochloromethane        | 1.0  | U   |
| 71-55-6-----    | 1,1,1-trichloroethane     | 1.0  | U   |
| 56-23-5-----    | carbontetrachloride       | 15.8 |     |
| 71-43-2-----    | benzene                   | 1.0  | U   |
| 107-06-2-----   | 1,2-dichloroethane        | 1.0  | U   |
| 79-01-6-----    | trichloroethene           | 12.3 |     |
| 78-87-5-----    | 1,2-dichloropropane       | 1.0  | U   |
| 75-27-4-----    | bromodichloromethane      | 1.0  | U   |
| 10061-01-5----- | cis-1,3-dichloropropene   | 1.0  | U   |
| 108-10-1-----   | 4-methyl-2-pentanone      | 5.0  | U   |
| 108-88-3-----   | toluene                   | 1.0  | U   |
| 10061-02-6----- | trans-1,3-dichloropropene | 1.0  | U   |
| 79-00-5-----    | 1,1,2-trichloroethane     | 1.0  | U   |
| 127-18-4-----   | tetrachloroethene         | 1.0  | U   |
| 591-78-6-----   | 2-hexanone                | 5.0  | U   |
| 124-48-1-----   | dibromochloromethane      | 1.0  | U   |
| 106-93-4-----   | 1,2-Dibromoethane         | 1.0  | U   |
| 108-90-7-----   | chlorobenzene             | 1.0  | U   |
| 100-41-4-----   | ethylbenzene              | 1.0  | U   |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INFLUENT

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406212

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9807

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS:<br>(ug/L or ug/Kg) UG/L | Q |
|---------|----------|----------------------------------------------|---|
|---------|----------|----------------------------------------------|---|

|                                         |     |   |
|-----------------------------------------|-----|---|
| 1330-20-7-----m,p-xylenes               | 1.0 | U |
| 1330-20-7-----o-xylene                  | 1.0 | U |
| 100-42-5-----styrene                    | 1.0 | U |
| 75-25-2-----bromoform                   | 1.0 | U |
| 79-34-5-----1,1,2,2-tetrachloroethane   | 1.0 | U |
| 541-73-1-----1,3-Dichlorobenzene        | 1.0 | U |
| 106-46-7-----1,4-Dichlorobenzene        | 1.0 | U |
| 95-50-1-----1,2-Dichlorobenzene         | 1.0 | U |
| 96-12-8-----1,2-dibromo-3-chloropropane | 1.0 | U |
| 120-82-1-----1,2,4-Trichlorobenzene     | 1.0 | U |
| 87-68-3-----Hexachlorobutadiene         | 1.0 | U |
| 87-61-6-----1,2,3-Trichlorobenzene      | 1.0 | U |



1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

INFLUENT

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406212

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9807

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/l

| CAS NUMBER | COMPOUND NAME | RT    | EST. CONC. | Q     |
|------------|---------------|-------|------------|-------|
| =====      | =====         | ===== | =====      | ===== |
| 1.         |               |       |            |       |
| 2.         |               |       |            |       |
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| 30.        |               |       |            |       |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406213

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9809

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

|         |          |                                              |   |
|---------|----------|----------------------------------------------|---|
| CAS NO. | COMPOUND | CONCENTRATION UNITS:<br>(ug/L or ug/Kg) UG/L | Q |
|---------|----------|----------------------------------------------|---|

|                 |                           |     |     |
|-----------------|---------------------------|-----|-----|
| 74-87-3-----    | chloromethane             | 1.0 | U   |
| 75-01-4-----    | vinyl chloride            | 1.0 | U   |
| 74-83-9-----    | bromomethane              | 1.0 | U   |
| 75-00-3-----    | chloroethane              | 1.0 | U   |
| 75-69-4-----    | Trichlorofluoromethane    | 1.0 | U   |
| 75-35-4-----    | 1,1-dichloroethene        | 1.0 | U   |
| 67-64-1-----    | acetone                   | 5.0 | U J |
| 75-15-0-----    | carbon disulfide          | 1.0 | U   |
| 75-34-3-----    | 1,1-dichloroethane        | 1.0 | U   |
| 75-09-2-----    | methylene chloride        | 1.0 | U   |
| 156-59-2-----   | cis-1,2-Dichloroethene    | 1.0 | U   |
| 156-60-5-----   | trans-1,2-dichloroethene  | 1.0 | U   |
| 67-66-3-----    | chloroform                | 1.0 | U   |
| 78-93-3-----    | 2-butanone                | 5.0 | U J |
| 74-97-5-----    | bromochloromethane        | 1.0 | U   |
| 71-55-6-----    | 1,1,1-trichloroethane     | 1.0 | U   |
| 56-23-5-----    | carbontetrachloride       | 1.0 | U   |
| 71-43-2-----    | benzene                   | 1.0 | U   |
| 107-06-2-----   | 1,2-dichloroethane        | 1.0 | U   |
| 79-01-6-----    | trichloroethene           | 1.0 | U   |
| 78-87-5-----    | 1,2-dichloropropane       | 1.0 | U   |
| 75-27-4-----    | bromodichloromethane      | 1.0 | U   |
| 10061-01-5----- | cis-1,3-dichloropropene   | 1.0 | U   |
| 108-10-1-----   | 4-methyl-2-pentanone      | 5.0 | U   |
| 108-88-3-----   | toluene                   | 1.0 | U   |
| 10061-02-6----- | trans-1,3-dichloropropene | 1.0 | U   |
| 79-00-5-----    | 1,1,2-trichloroethane     | 1.0 | U   |
| 127-18-4-----   | tetrachloroethene         | 1.0 | U   |
| 591-78-6-----   | 2-hexanone                | 5.0 | U   |
| 124-48-1-----   | dibromochloromethane      | 1.0 | U   |
| 106-93-4-----   | 1,2-Dibromoethane         | 1.0 | U   |
| 108-90-7-----   | chlorobenzene             | 1.0 | U   |
| 100-41-4-----   | ethylbenzene              | 1.0 | U   |

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406213

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9809

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

|                                         |     |     |
|-----------------------------------------|-----|-----|
| 1330-20-7-----m,p-xylenes               | 1.0 | U   |
| 1330-20-7-----o-xylene                  | 1.0 | U   |
| 100-42-5-----styrene                    | 1.0 | U   |
| 75-25-2-----bromoform                   | 1.0 | U   |
| 79-34-5-----1,1,2,2-tetrachloroethane   | 1.0 | U   |
| 541-73-1-----1,3-Dichlorobenzene        | 1.0 | U   |
| 106-46-7-----1,4-Dichlorobenzene        | 1.0 | U   |
| 95-50-1-----1,2-Dichlorobenzene         | 1.0 | U   |
| 96-12-8-----1,2-dibromo-3-chloropropane | 1.0 | U J |
| 120-82-1-----1,2,4-Trichlorobenzene     | 1.0 | U   |
| 87-68-3-----Hexachlorobutadiene         | 1.0 | U   |
| 87-61-6-----1,2,3-Trichlorobenzene      | 1.0 | U   |

1E  
VOLATILE ORGANICS ANALYSIS DATA SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name: CAS-ROC

Contract: IT MRFA

Lab Code: 10145

Case No.: R20-3659 SAS No.:

SDG No.: EFFLUENT

Matrix: (soil/water) WATER

Lab Sample ID: 406213

Sample wt/vol: 25.00 (g/ml) ML

Lab File ID: Q9809

Level: (low/med) LOW

Date Received: 09/01/00

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 09/07/00

GC Column: HP624 ID: 0.20 (mm)

Dilution Factor: 1.0

Soil Extract Volume: \_\_\_\_\_ (uL)

Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/l

| CAS NUMBER | COMPOUND NAME | RT    | EST. CONC. | Q     |
|------------|---------------|-------|------------|-------|
| =====      | =====         | ===== | =====      | ===== |
| 1.         |               |       |            |       |
| 2.         |               |       |            |       |
| 3.         |               |       |            |       |
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| 29.        |               |       |            |       |
| 30.        |               |       |            |       |

**APPENDIX B**

December 8, 2000

Mr. Lew Streeter  
IT Corporation  
13 British American Blvd.  
Latham, NY 12110



Re: MRFA  
Submission # R2004395  
SDG # DGC3S

Dear Mr. Streeter:

Enclosed is the analytical data report for the above referenced facility. A total of fourteen samples were received by our laboratory on October 25, 2000.

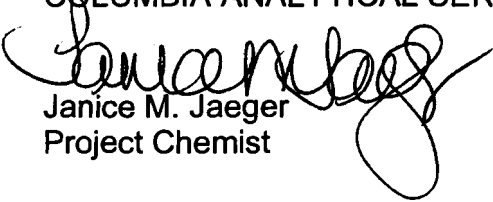
Any problems encountered with this project are addressed in a case narrative section which is presented later in this report.

This report consists of two (2) packages: the sample data package and the sample data summary package. Both packages have been mailed to Judy Harry at your request, with only a copy of the summary package being mailed to IT. All data presented in this package has been reviewed prior to report submission. If you should have any questions or concerns, please contact me at (716) 288-5380.

Thank you for your continued use of our services.

Sincerely,

COLUMBIA ANALYTICAL SERVICES

  
Janice M. Jaeger  
Project Chemist

enc.

cc: Ms. Judy Harry  
Data Validation Services  
120 Cobblecreek Road  
North Creek, NY 12853



1 Mustard ST.  
Suite 250  
Rochester, NY 14609

THIS IS AN ANALYTICAL TEST REPORT FOR:

Client : IT Corporation  
Project Reference: MRFA  
Lab Submission # : R2004395  
Reported : 12/07/00

Report Contains a total of 92 pages

The results reported herein relate only to the samples received by the laboratory. This report may not be reproduced except in full, without the approval of Columbia Analytical Services.

This package has been reviewed by Columbia Analytical Services' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal. Michael K. P.

## CASE NARRATIVE

COMPANY: IT Corporation  
MRFA  
SUBMISSION #: R2004395

IT water samples were collected on 10/24/00 and received at CAS on 10/25/00 in good condition at a cooler temperature of 2 C.

### INORGAINCS

Five water samples were analyzed for Total Chromium by CLP methodology and Hexavalent Chromium by method 7196A.

Matrix Spike/Duplicate was performed on M-27D as requested. All MS recoveries were within limits. All RPD's were within limits.

Hexavalent Chromium was originally set up to be analyzed within the 24 hour holding time. Due to technical difficulties with the analytical run, the samples had to be reanalyzed outside the recommended holding time.

No other analytical or QC problems were encountered

### VOLATILE ORGANICS

Twelve water samples and one trip blank were analyzed for a Site Specific List of Volatiles by Low Level CLP.

All Tuning criteria for BFB were within limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within limits except M33I, DGC-4S, SWDRE, M27DMS, M27DMSD and Cooler Blank. All internal standards were within limits on the original analysis of SWD. Due to a Laboratory error, M33I, DGC-4S and Cooler Blank were not repeated. All outlying internal standards have been flagged with an "\*\*\*".

All surrogate standard recoveries were within limits except SWD. The sample was repeated and again the surrogates were outside limits and have been flagged with an "\*\*\*".

All samples were analyzed within required holding times.

Site specific QC was performed on M-27D. All MSD recoveries were within limits except Bromoform and 1,2-Dichloroethane. All MS recoveries were within limits except Bromoform. All Blank Spike recoveries were within limits. All RPD's were within limits except Carbontetrachloride. All outlying recoveries and RPD's have been flagged with an "\*\*\*".

Trichloroethene for DUPA has been flagged with an "E" as being an estimated value. The compound was outside the calibration range of the instrument and the sample was repeated at a dilution and both sets of data have been reported out.

The Laboratory Blanks associated with these samples was free of contamination.

No other analytical or QC problems were encountered.



I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in the hard copy package has been authorized by the Laboratory Manager or his designee, as verified by the following signature; Michael E. Pa



## APPENDIX C

# Data Validation Services

120 Cobble Creek Road P. O. Box 208

North Creek, NY 12853

Phone (518) 251-4429

Fax (518) 251-4428

RECEIVED

Route To: \_\_\_\_\_

JAN 01

Proj: \_\_\_\_\_

File Code: \_\_\_\_\_

## LETTER OF TRANSMITTAL

TO:

cc: <sup>2</sup>  
Brian Newman/Grant Anderson

COMPANY:

IT Corp

FROM:

Judy Harry



DATE:

01-04-01

ENCLOSED:

Validation report for MRFA Malta

Copy of associated invoice--original sent to accounting

COMMENTS:

# Data Validation Services

120 Cobble Creek Road P. O. Box 208

North Creek, N. Y. 12853

Phone 518-251-4429

Facsimile 518-251-4428

January 4, 2001

Grant Anderson  
IT Corporation  
13 British American Blvd.  
Latham, NY 12110

RE: Validation of MRFA Malta Site Data Packages  
CAS Sub Nos. 2003659 and 2004395

Dear Mr. Anderson:

Review has been completed for the data packages generated by Columbia Analytical Services (CAS), pertaining to samples collected at the MRFA Malta Site in August and October of 2000. Fourteen aqueous samples, and cooler and trip blanks were processed by CAS for low level volatiles; Four of these and an additional sample, were also analysed for total and hexavalent chromium. Methodologies utilized are those of the USEPA OLC02/SW846.

Data validation was performed with guidance from the most current editions of the USEPA CLP National Functional Guidelines for Organic and Inorganic Data Review and the USEPA SOPs HW-2 and HW-6. The following items were reviewed:

- \* Data Completeness
- \* Custody Documentation
- \* Holding Times
- \* Surrogate and Internal Standard Recoveries
- \* Matrix Spike Recoveries/Duplicate Correlations
- \* Field Duplicate Correlations
- \* Preparation/Calibration Blanks
- \* Control Spike/Laboratory Control Samples
- \* Instrumental Tunes
- \* Calibration Standards
- \* Instrument IDLs
- \* Method Compliance
- \* Sample Result Verification

Those items showing deficiencies are discussed in the following sections of this report. All others were found to be acceptable as outlined in the above-mentioned validation procedures, and as applicable for the methodology. Unless noted specifically in the following text, reported results are substantiated by the raw data, and generated in compliance with protocol requirements.

**In summary**, sample processing was conducted with compliance to protocol requirements and with adherence to quality criteria, and results are usable as reported, or with minor qualification as estimated. These are discussed in the following analytical sections.

Copies of laboratory case narratives are attached to this narrative, and should be reviewed in conjunction with this narrative.

### **Data Completeness**

Data packages were complete as received, and no resubmissions were required.

### **Low Level Volatile Analyses**

Results for analytes whose values which are initially reported with the "E" qualifier should be derived from the dilution ("DL") analyses. All other analyte values can be used from the initial analyses.

Three samples and the cooler blank showed very slightly low recoveries of the first internal standard (48% and 49%, below the 50% limit). This is normally attributed to matrix effect, but that fact that the cooler blank showed the same effect indicates a procedural cause. The affected samples, which were not reanalysed due to holding time expiration, showed no detections. Evaluation of the reporting limits and the MDLs indicate that this minor variance does not require qualification of the sample results.

The reanalysis ("RE") results for SWD should be used, as the initial analysis showed a low surrogate recovery, and the reanalysis did not.

Due to the low relative response factors (RRFs) in the calibration standards, the reporting limits for acetone, 2-butanone, and 1,2-dibromo-3-chloropropane in the project samples should be considered estimated ("UJ" qualifier), possibly biased low.

Matrix spikes of Effluent and MW27D showed acceptable accuracy and precision, with the exception of a few elevated values in MW27D for analytes not detected in the samples. Spiked blanks also showed acceptable recoveries.

Field duplicate correlations for Effluent/DUPLICATE A and MW27D/DUPA were acceptable.

Blanks showed no contamination. Sample reported results are substantiated by the raw data.

### **Total Chromium Analyses**

Accuracy and precision of MW27D were good. The ICP serial dilution correlation for M27D was acceptable. Field duplicate correlation for MW27D and DUPA was acceptable.

Reported results are substantiated by the raw data, and generated in compliance with required protocols.

It is noted that the hexavalent chromium result for 13S (41 ug/L) exceeded that of the total chromium of the sample (30 ug/L). Both values should be considered estimated.

### **Hexavalent Chromium Analyses**

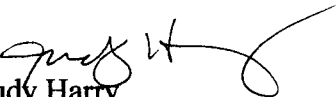
Accuracy and precision of MW27D, and the field duplicate correlation of MW27D and DUPA were acceptable.

The hexachrome analyses were performed five to ten hours after the twenty four hour holding time. Therefore all hexavalent chromium results for the samples are to be qualified as estimated ("UJ" and "J"), with a possible low bias. Other processing was compliant.

It is noted that the hexavalent chromium result for 13S (41 ug/L) exceeded that of the total chromium of the sample (30 ug/L). Both values should be considered estimated.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

  
Judy Harry

[illegible]



[illegible]



## **CASE NARRATIVE**

COMPANY: IT Corporation  
MRFA  
SUBMISSION #: R2003659

Water samples were collected on 08/30/00 and received at CAS on 09/01/00 in good condition.

### **VOLATILE ORGANICS**

Water samples were analyzed for the CLP list of Volatile Organics plus Hexachlorobutadiene, 1,2,3-Trichlorobenzene and Trichlorofluoromethane by CLP OLC0.2.

Sample EFFLUENT was analyzed for matrix spike recovery. All recoveries and RPD were within QC limits.

All initial and continuing calibrations were compliant.

All blank spike recoveries were within QC limits.

All surrogate standard recoveries were within QC limits.

All Internal standard areas were within QC limits.

0003

## CASE NARRATIVE

COMPANY: IT Corporation  
MRFA  
SUBMISSION #: R2004395

IT water samples were collected on 10/24/00 and received at CAS on 10/25/00 in good condition at a cooler temperature of 2 C.

### INORGANICS

Five water samples were analyzed for Total Chromium by CLP methodology and Hexavalent Chromium by method 7196A.

Matrix Spike/Duplicate was performed on M-27D as requested. All MS recoveries were within limits. All RPD's were within limits.

Hexavalent Chromium was originally set up to be analyzed within the 24 hour holding time. Due to technical difficulties with the analytical run, the samples had to be reanalyzed outside the recommended holding time.

No other analytical or QC problems were encountered

### VOLATILE ORGANICS

Twelve water samples and one trip blank were analyzed for a Site Specific List of Volatiles by Low Level CLP.

All Tuning criteria for BFB were within limits.

The initial and continuing calibration criteria were met for all analytes.

All internal standard areas were within limits except M33I, DGC-4S, SWDRE, M27DMS, M27DMSD and Cooler Blank. All internal standards were within limits on the original analysis of SWD. Due to a Laboratory error, M33I, DGC-4S and Cooler Blank were not repeated. All outlying internal standards have been flagged with an "\*\*".

All surrogate standard recoveries were within limits except SWD. The sample was repeated and again the surrogates were outside limits and have been flagged with an "\*\*".

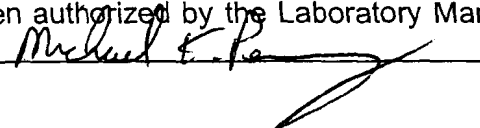
All samples were analyzed within required holding times.

Site specific QC was performed on M-27D. All MSD recoveries were within limits except Bromoform and 1,2-Dichloroethane. All MS recoveries were within limits except Bromoform. All Blank Spike recoveries were within limits. All RPD's were within limits except Carbontetrachloride. All outlying recoveries and RPD's have been flagged with an "\*\*".

Trichloroethene for DUPA has been flagged with an "E" as being an estimated value. The compound was outside the calibration range of the instrument and the sample was repeated at a dilution and both sets of data have been reported out.

The Laboratory Blanks associated with these samples was free of contamination.

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in the hard copy package has been authorized by the Laboratory Manager or his designee, as verified by the following signature; 

## APPENDIX D

# **APPENDIX D** **MALTA ROCKET FUEL AREA SITE** **AIR STRIPPER FLOW DATA**

| Date             | Well #2 Flow<br>(gal) | Well #1 Flow<br>(gal) | Well #2 Average<br>Flow (gpm) | Well #1 Average<br>Flow (gpm) | Total Daily<br>Average Flow<br>(gpm) |
|------------------|-----------------------|-----------------------|-------------------------------|-------------------------------|--------------------------------------|
| 12/21/2000 Total | 270                   | 260                   | 0.19                          | 0.18                          | 0.37                                 |
| 12/20/2000 Total | 510                   | 490                   | 0.35                          | 0.34                          | 0.69                                 |
| 12/19/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 12/18/2000 Total | 430                   | 400                   | 0.30                          | 0.28                          | 0.58                                 |
| 12/17/2000 Total | 310                   | 300                   | 0.22                          | 0.21                          | 0.42                                 |
| 12/16/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 12/15/2000 Total | 420                   | 400                   | 0.29                          | 0.28                          | 0.57                                 |
| 12/14/2000 Total | 480                   | 460                   | 0.33                          | 0.32                          | 0.65                                 |
| 12/13/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 12/12/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 12/11/2000 Total | 420                   | 410                   | 0.29                          | 0.28                          | 0.58                                 |
| 12/10/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 12/09/2000 Total | 380                   | 350                   | 0.26                          | 0.24                          | 0.51                                 |
| 12/08/2000 Total | 800                   | 770                   | 0.56                          | 0.53                          | 1.09                                 |
| 12/07/2000 Total | 480                   | 450                   | 0.33                          | 0.31                          | 0.65                                 |
| 12/06/2000 Total | 330                   | 310                   | 0.23                          | 0.22                          | 0.44                                 |
| 12/05/2000 Total | 420                   | 400                   | 0.29                          | 0.28                          | 0.57                                 |
| 12/04/2000 Total | 320                   | 310                   | 0.22                          | 0.22                          | 0.44                                 |
| 12/03/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 12/02/2000 Total | 330                   | 310                   | 0.23                          | 0.22                          | 0.44                                 |
| 12/01/2000 Total | 340                   | 320                   | 0.24                          | 0.22                          | 0.46                                 |
| 11/30/2000 Total | 400                   | 380                   | 0.28                          | 0.26                          | 0.54                                 |
| 11/29/2000 Total | 420                   | 400                   | 0.29                          | 0.28                          | 0.57                                 |
| 11/28/2000 Total | 850                   | 810                   | 0.59                          | 0.56                          | 1.15                                 |
| 11/27/2000 Total | 380                   | 360                   | 0.26                          | 0.25                          | 0.51                                 |
| 11/26/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 11/25/2000 Total | 280                   | 280                   | 0.19                          | 0.19                          | 0.39                                 |
| 11/24/2000 Total | 360                   | 340                   | 0.25                          | 0.24                          | 0.49                                 |
| 11/23/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 11/22/2000 Total | 580                   | 560                   | 0.40                          | 0.39                          | 0.79                                 |
| 11/21/2000 Total | 430                   | 400                   | 0.30                          | 0.28                          | 0.58                                 |
| 11/20/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 11/19/2000 Total | 370                   | 360                   | 0.26                          | 0.25                          | 0.51                                 |
| 11/18/2000 Total | 220                   | 200                   | 0.15                          | 0.14                          | 0.29                                 |
| 11/17/2000 Total | 470                   | 450                   | 0.33                          | 0.31                          | 0.64                                 |
| 11/16/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 11/15/2000 Total | 430                   | 400                   | 0.30                          | 0.28                          | 0.58                                 |
| 11/14/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 11/13/2000 Total | 470                   | 460                   | 0.33                          | 0.32                          | 0.65                                 |
| 11/12/2000 Total | 270                   | 250                   | 0.19                          | 0.17                          | 0.36                                 |
| 11/11/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 11/10/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 11/09/2000 Total | 420                   | 400                   | 0.29                          | 0.28                          | 0.57                                 |
| 11/08/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |

# **APPENDIX D** **MALTA ROCKET FUEL AREA SITE** **AIR STRIPPER FLOW DATA**

| Date             | Well #2 Flow<br>(gal) | Well #1 Flow<br>(gal) | Well #2 Average<br>Flow (gpm) | Well #1 Average<br>Flow (gpm) | Total Daily<br>Average Flow<br>(gpm) |
|------------------|-----------------------|-----------------------|-------------------------------|-------------------------------|--------------------------------------|
| 11/07/2000 Total | 420                   | 390                   | 0.29                          | 0.27                          | 0.56                                 |
| 11/06/2000 Total | 370                   | 360                   | 0.26                          | 0.25                          | 0.51                                 |
| 11/05/2000 Total | 260                   | 250                   | 0.18                          | 0.17                          | 0.35                                 |
| 11/04/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 11/03/2000 Total | 480                   | 450                   | 0.33                          | 0.31                          | 0.65                                 |
| 11/02/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 11/01/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 10/31/2000 Total | 420                   | 400                   | 0.29                          | 0.28                          | 0.57                                 |
| 10/30/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 10/29/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 10/28/2000 Total | 360                   | 350                   | 0.25                          | 0.24                          | 0.49                                 |
| 10/27/2000 Total | 420                   | 400                   | 0.29                          | 0.28                          | 0.57                                 |
| 10/26/2000 Total | 370                   | 340                   | 0.26                          | 0.24                          | 0.49                                 |
| 10/25/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 10/24/2000 Total | 360                   | 340                   | 0.25                          | 0.24                          | 0.49                                 |
| 10/23/2000 Total | 420                   | 400                   | 0.29                          | 0.28                          | 0.57                                 |
| 10/22/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 10/21/2000 Total | 370                   | 340                   | 0.26                          | 0.24                          | 0.49                                 |
| 10/20/2000 Total | 350                   | 340                   | 0.24                          | 0.24                          | 0.48                                 |
| 10/19/2000 Total | 430                   | 410                   | 0.30                          | 0.28                          | 0.58                                 |
| 10/18/2000 Total | 320                   | 290                   | 0.22                          | 0.20                          | 0.42                                 |
| 10/17/2000 Total | 470                   | 450                   | 0.33                          | 0.31                          | 0.64                                 |
| 10/16/2000 Total | 420                   | 400                   | 0.29                          | 0.28                          | 0.57                                 |
| 10/15/2000 Total | 270                   | 260                   | 0.19                          | 0.18                          | 0.37                                 |
| 10/14/2000 Total | 410                   | 380                   | 0.28                          | 0.26                          | 0.55                                 |
| 10/13/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 10/12/2000 Total | 420                   | 400                   | 0.29                          | 0.28                          | 0.57                                 |
| 10/11/2000 Total | 470                   | 450                   | 0.33                          | 0.31                          | 0.64                                 |
| 10/10/2000 Total | 470                   | 440                   | 0.33                          | 0.31                          | 0.63                                 |
| 10/09/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 10/08/2000 Total | 410                   | 400                   | 0.28                          | 0.28                          | 0.56                                 |
| 10/07/2000 Total | 270                   | 250                   | 0.19                          | 0.17                          | 0.36                                 |
| 10/06/2000 Total | 470                   | 440                   | 0.33                          | 0.31                          | 0.63                                 |
| 10/05/2000 Total | 400                   | 380                   | 0.28                          | 0.26                          | 0.54                                 |
| 10/04/2000 Total | 960                   | 910                   | 0.67                          | 0.63                          | 1.30                                 |
| 10/03/2000 Total | 620                   | 590                   | 0.43                          | 0.41                          | 0.84                                 |
| 10/02/2000 Total | 420                   | 400                   | 0.29                          | 0.28                          | 0.57                                 |
| 10/01/2000 Total | 420                   | 390                   | 0.29                          | 0.27                          | 0.56                                 |
| 09/30/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 09/29/2000 Total | 570                   | 540                   | 0.40                          | 0.38                          | 0.77                                 |
| 09/28/2000 Total | 630                   | 590                   | 0.44                          | 0.41                          | 0.85                                 |
| 09/27/2000 Total | 6500                  | 6140                  | 4.51                          | 4.26                          | 8.78                                 |
| 09/26/2000 Total | 4810                  | 4570                  | 3.34                          | 3.17                          | 6.51                                 |
| 09/25/2000 Total | 10                    | 10                    | 0.01                          | 0.01                          | 0.01                                 |

# **APPENDIX D** **MALTA ROCKET FUEL AREA SITE** **AIR STRIPPER FLOW DATA**

| Date             | Well #2 Flow<br>(gal) | Well #1 Flow<br>(gal) | Well #2 Average<br>Flow (gpm) | Well #1 Average<br>Flow (gpm) | Total Daily<br>Average Flow<br>(gpm) |
|------------------|-----------------------|-----------------------|-------------------------------|-------------------------------|--------------------------------------|
| 09/24/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/23/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/22/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/21/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/20/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/19/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/18/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/17/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/16/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/15/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/14/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/13/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/12/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/11/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/10/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/09/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/08/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/07/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/06/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/05/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/04/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/03/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/02/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 09/01/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/31/2000 Total | 470                   | 440                   | 0.33                          | 0.31                          | 0.63                                 |
| 08/30/2000 Total | 5890                  | 5560                  | 4.09                          | 3.86                          | 7.95                                 |
| 08/29/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/28/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/27/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/26/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/25/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/24/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/23/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/22/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/21/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/20/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/19/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/18/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/17/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 08/16/2000 Total | 350                   | 340                   | 0.24                          | 0.24                          | 0.48                                 |
| 08/15/2000 Total | 640                   | 590                   | 0.44                          | 0.41                          | 0.85                                 |
| 08/14/2000 Total | 360                   | 340                   | 0.25                          | 0.24                          | 0.49                                 |
| 08/13/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 08/12/2000 Total | 420                   | 390                   | 0.29                          | 0.27                          | 0.56                                 |



# **APPENDIX D** **MALTA ROCKET FUEL AREA SITE** **AIR STRIPPER FLOW DATA**

| Date             | Well #2 Flow<br>(gal) | Well #1 Flow<br>(gal) | Well #2 Average<br>Flow (gpm) | Well #1 Average<br>Flow (gpm) | Total Daily<br>Average Flow<br>(gpm) |
|------------------|-----------------------|-----------------------|-------------------------------|-------------------------------|--------------------------------------|
| 08/11/2000 Total | 470                   | 450                   | 0.33                          | 0.31                          | 0.64                                 |
| 08/10/2000 Total | 570                   | 530                   | 0.40                          | 0.37                          | 0.76                                 |
| 08/09/2000 Total | 470                   | 440                   | 0.33                          | 0.31                          | 0.63                                 |
| 08/08/2000 Total | 470                   | 440                   | 0.33                          | 0.31                          | 0.63                                 |
| 08/07/2000 Total | 540                   | 500                   | 0.38                          | 0.35                          | 0.72                                 |
| 08/06/2000 Total | 440                   | 420                   | 0.31                          | 0.29                          | 0.60                                 |
| 08/05/2000 Total | 320                   | 290                   | 0.22                          | 0.20                          | 0.42                                 |
| 08/04/2000 Total | 470                   | 440                   | 0.33                          | 0.31                          | 0.63                                 |
| 08/03/2000 Total | 570                   | 530                   | 0.40                          | 0.37                          | 0.76                                 |
| 08/02/2000 Total | 520                   | 490                   | 0.36                          | 0.34                          | 0.70                                 |
| 08/01/2000 Total | 620                   | 570                   | 0.43                          | 0.40                          | 0.83                                 |
| 07/31/2000 Total | 460                   | 440                   | 0.32                          | 0.31                          | 0.63                                 |
| 07/30/2000 Total | 520                   | 490                   | 0.36                          | 0.34                          | 0.70                                 |
| 07/29/2000 Total | 4880                  | 4600                  | 3.39                          | 3.19                          | 6.58                                 |
| 07/28/2000 Total | 5660                  | 5370                  | 3.93                          | 3.73                          | 7.66                                 |
| 07/27/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/26/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/25/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/24/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/23/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/22/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/21/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/20/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/19/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/18/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/17/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/16/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/15/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/14/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/13/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/12/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/11/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/10/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/09/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/08/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/07/2000 Total | 0                     | 0                     | 0.00                          | 0.00                          | 0.00                                 |
| 07/06/2000 Total | 100                   | 100                   | 0.07                          | 0.07                          | 0.14                                 |
| 07/05/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 07/04/2000 Total | 480                   | 440                   | 0.33                          | 0.31                          | 0.64                                 |
| 07/03/2000 Total | 320                   | 300                   | 0.22                          | 0.21                          | 0.43                                 |
| 07/02/2000 Total | 370                   | 350                   | 0.26                          | 0.24                          | 0.50                                 |
| 07/01/2000 Total | 380                   | 350                   | 0.26                          | 0.24                          | 0.51                                 |
| 06/30/2000 Total | 530                   | 500                   | 0.37                          | 0.35                          | 0.72                                 |
| 06/29/2000 Total | 480                   | 450                   | 0.33                          | 0.31                          | 0.65                                 |

**APPENDIX D**  
**MALTA ROCKET FUEL AREA SITE**  
**AIR STRIPPER FLOW DATA**

| Date             | Well #2 Flow<br>(gal) | Well #1 Flow<br>(gal) | Well #2 Average<br>Flow (gpm) | Well #1 Average<br>Flow (gpm) | Total Daily<br>Average Flow<br>(gpm) |
|------------------|-----------------------|-----------------------|-------------------------------|-------------------------------|--------------------------------------|
| 06/28/2000 Total | 470                   | 450                   | 0.33                          | 0.31                          | 0.64                                 |
| 06/27/2000 Total | 430                   | 390                   | 0.30                          | 0.27                          | 0.57                                 |
| 06/26/2000 Total | 580                   | 550                   | 0.40                          | 0.38                          | 0.78                                 |
| 06/25/2000 Total | 470                   | 450                   | 0.33                          | 0.31                          | 0.64                                 |
| 06/24/2000 Total | 430                   | 390                   | 0.30                          | 0.27                          | 0.57                                 |
| Grand Total      | 76530                 | 72320                 | 0.30                          | 0.29                          | 0.587                                |

## APPENDIX E

**Annual Telephone Interview Log  
Remedial Work Element IV - Institutional Controls  
Malta Rocket Fuel Area Site  
Malta and Stillwater, New York**

|                                                                                                                                                                                                                                                                                                                                                                               |                                                                     |                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------|
| Indicate Property Owner Interviewed:<br><br><i>MR. ALEX MACKAY</i>                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/>                                            | New York State Energy Research and Developmental Authority |
|                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/>                                            | Wright-Malta Corporation                                   |
|                                                                                                                                                                                                                                                                                                                                                                               | <input checked="" type="checkbox"/>                                 | Luther Forest Corporation                                  |
| Date of Interview: <i>12/5/00</i>                                                                                                                                                                                                                                                                                                                                             | Property Owner Representative: <i>ALEX MACKAY</i>                   |                                                            |
| Interview Questions:                                                                                                                                                                                                                                                                                                                                                          | Representative Response:                                            |                                                            |
| Do you have any knowledge of current or proposed future use of groundwater within the area of the Environmental Restriction Zone? Do not include activities associated with Remedial Work Element II, Malta Test Station Drinking Water System.                                                                                                                               | <i>NO</i>                                                           |                                                            |
| Are you aware of any current or proposed changes in land use within the area of the Environmental Restriction Zone?                                                                                                                                                                                                                                                           | <i>NO PROPOSED CHANGES IN LAND USE (1)</i>                          |                                                            |
| Are you aware of the notice requirements associated with the Environmental Restriction Easement and Declaration of Restrictive Covenants?                                                                                                                                                                                                                                     | <i>YES</i>                                                          |                                                            |
| Have you provided any interested parties with a notice of Environmental Restriction Easement and Declaration of Restrictive Covenants in any instrument (document) conveying an interest in any part of the affected property? If so, please provide a date of execution and recording reference number, as provided by the Office of the Clerk of Saratoga County, New York. | <i>NO</i>                                                           |                                                            |
| Are you aware of any other conditions or actions within the Environmental Restriction Zone that would impact any condition of the Environmental Restriction Easement and Declaration of Restrictive Covenants?                                                                                                                                                                | <i>NO</i>                                                           |                                                            |
| Interview completed by: <i>BRIAN NEUMANN</i>                                                                                                                                                                                                                                                                                                                                  | Interviewer signature: <i>Brian Neumann</i><br>Date: <i>12/5/00</i> |                                                            |

*(1) - MR. MACKAY NOTIFIED ITCORP. THAT TOWNS OF STILLWATER AND MALTA ARE REVISING THEIR RESPECTIVE MASTER PLANS.*

Annual Telephone Interview Log  
Remedial Work Element IV - Institutional Controls  
Malta Rocket Fuel Area Site  
Malta and Stillwater, New York

|                                                                                                                                                                                                                                                                                                                                                                               |                                                                            |                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------|
| Indicate Property Owner Interviewed:<br><br><i>MIR. RAYMOND KAZYAKA</i>                                                                                                                                                                                                                                                                                                       | <input type="checkbox"/>                                                   | New York State Energy Research and Developmental Authority |
|                                                                                                                                                                                                                                                                                                                                                                               | <input checked="" type="checkbox"/>                                        | Wright-Malta Corporation                                   |
|                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/>                                                   | Luther Forest Corporation                                  |
| Date of Interview: <i>10/19/00</i>                                                                                                                                                                                                                                                                                                                                            | Property Owner Representative:                                             |                                                            |
| Interview Questions:                                                                                                                                                                                                                                                                                                                                                          | Representative Response:                                                   |                                                            |
| Do you have any knowledge of current or proposed future use of groundwater within the area of the Environmental Restriction Zone? Do not include activities associated with Remedial Work Element II, Malta Test Station Drinking Water System.                                                                                                                               | <i>No</i>                                                                  |                                                            |
| Are you aware of any current or proposed changes in land use within the area of the Environmental Restriction Zone?                                                                                                                                                                                                                                                           | <i>No</i>                                                                  |                                                            |
| Are you aware of the notice requirements associated with the Environmental Restriction Easement and Declaration of Restrictive Covenants?                                                                                                                                                                                                                                     | <i>YES</i>                                                                 |                                                            |
| Have you provided any interested parties with a notice of Environmental Restriction Easement and Declaration of Restrictive Covenants in any instrument (document) conveying an interest in any part of the affected property? If so, please provide a date of execution and recording reference number, as provided by the Office of the Clerk of Saratoga County, New York. | <i>No</i>                                                                  |                                                            |
| Are you aware of any other conditions or actions within the Environmental Restriction Zone that would impact any condition of the Environmental Restriction Easement and Declaration of Restrictive Covenants?                                                                                                                                                                | <i>No</i>                                                                  |                                                            |
| Interview completed by: <i>BRIAN NEUMANN MAILED TO WRIGHT-MALTA CORP FOR COMPLETION</i>                                                                                                                                                                                                                                                                                       | Interviewer signature: <i>Raymond Kazyaka</i><br>Date: <i>Oct 25, 2000</i> |                                                            |

Annual Telephone Interview Log  
Remedial Work Element IV - Institutional Controls  
Malta Rocket Fuel Area Site  
Malta and Stillwater, New York

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------|
| Indicate Property Owner Interviewed:<br><br><i>MR. HAL BRODIE</i>                                                                                                                                                                                                                                                                                                             | <input checked="" type="checkbox"/>                                         | New York State Energy Research and Developmental Authority |
|                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/>                                                    | Wright-Malta Corporation                                   |
|                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/>                                                    | Luther Forest Corporation                                  |
| Date of Interview: <i>10/19/00</i>                                                                                                                                                                                                                                                                                                                                            | Property Owner Representative: <i>YES</i>                                   |                                                            |
| Interview Questions:                                                                                                                                                                                                                                                                                                                                                          | Representative Response: <i>AS BELDN</i>                                    |                                                            |
| Do you have any knowledge of current or proposed future use of groundwater within the area of the Environmental Restriction Zone? Do not include activities associated with Remedial Work Element II, Malta Test Station Drinking Water System.                                                                                                                               | <i>NO</i>                                                                   |                                                            |
| Are you aware of any current or proposed changes in land use within the area of the Environmental Restriction Zone?                                                                                                                                                                                                                                                           | <i>NOT CURRENTLY. POSSIBLY ATTEMPTING TO SELL PROPERTY OR OTHER NEW USE</i> |                                                            |
| Are you aware of the notice requirements associated with the Environmental Restriction Easement and Declaration of Restrictive Covenants?                                                                                                                                                                                                                                     | <i>YES</i>                                                                  |                                                            |
| Have you provided any interested parties with a notice of Environmental Restriction Easement and Declaration of Restrictive Covenants in any instrument (document) conveying an interest in any part of the affected property? If so, please provide a date of execution and recording reference number, as provided by the Office of the Clerk of Saratoga County, New York. | <i>NO</i>                                                                   |                                                            |
| Are you aware of any other conditions or actions within the Environmental Restriction Zone that would impact any condition of the Environmental Restriction Easement and Declaration of Restrictive Covenants?                                                                                                                                                                | <i>NO</i>                                                                   |                                                            |
| Interview completed by: <i>BRIAN NEUMANN</i>                                                                                                                                                                                                                                                                                                                                  | Interviewer signature: <i>[Signature]</i><br>Date: <i>10/19/00</i>          |                                                            |