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**Initial Testing Report:  
July - October 2004**

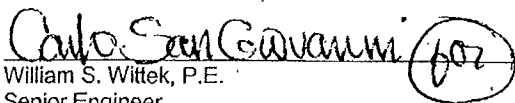
Off-Site Interim Remedial Measure,  
Former Unisys Facility, Great Neck,  
New York

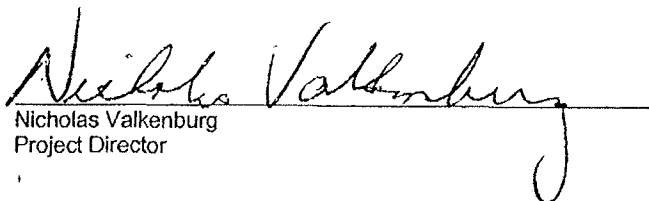
NYSDEC Site ID # 130045



*infrastructure, buildings, environment, communication*

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Initial Testing Report:  
July - October 2004

Off-Site Interim Remedial  
Measure  
Former Unisys Facility,  
Great Neck, New York  
NYSDEC #130045

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## Introduction

This report has been prepared to meet the reporting requirement specified in the Off-site Interim Remedial Measure (IRM) Work Plan for the former Unisys Facility in Great Neck, New York dated December 9, 2002 and the Site Access and Licensing Agreement between Lockheed Martin Corporation and Great Neck Union Free School District (GNUFSD), dated April 14, 2003. A site location map is provided on Figure 1.

This report summarizes testing activities performed between July and October 2004.

## System Description

The Off-site Remediation System consists of the following major components:

- One groundwater recovery well (RW-100) located and designed to efficiently capture and contain off-site, volatile organic compound (VOC) impacted groundwater;
- Air stripper system designed to reduce the concentration of VOCs in the recovered groundwater to non-detect performance standards per the approved Off-site IRM Work Plan prior to re-injection back into the Magothy aquifer via diffusion wells.
- Three diffusion wells (DW-100, DW-101, and DW-102); designed and located to assist with the re-injection of treated water and the prevention of further migration of off-site VOC-impacted groundwater; and
- Air stripper off-gas (i.e., vapor emission) treatment system designed such that the effluent vapor will meet non-detect performance standards for the Project VOCs.

During operation, groundwater, impacted by VOCs, is extracted from the subsurface aquifer, pumped to the Off-site Remediation System for treatment, and is then recharged to the aquifer. Specifically, the extracted groundwater is pumped from one recovery well (RW-100), through two air strippers, which are arranged in a series configuration, to remove the VOCs from the groundwater. The treated groundwater is

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then pumped through a subsurface pipeline to three diffusion wells (DW-100 through DW-102) where it is re-injected back into the aquifer.

During the air stripping process, the VOCs are transferred from the water (which enters the air strippers at the top) to the counter-current air stream (which enters the air strippers at the bottom). The air stripper off-gas vapor (i.e., the VOC-laden air stream) is then treated by four emission control units filled with Vapor Phase Granular Activated Carbon (VPGAC) to remove the VOCs prior to discharge to the atmosphere. A site plan of the Off-site Remediation System is shown on Figure 2 and the Process Schematic, showing sampling locations and designations, is provided on Figure 3. Tables 1 through 5 present results of the performance testing activities completed during this period.

### **Summary of Testing Activities: July through October 2004**

Testing activities conducted between July and October 2004 consisted of the 24-Hour, 5-Day, and the 4-Week tests; a detailed description of activities performed as part of system testing is presented below.

#### **24-Hour Test**

As part of the 24-Hour Test, the system was operated between July 15 and July 16, 2004.

- System operation was monitored continuously.
- Compliance air and water samples were collected at the end of the test on July 16, 2004 immediately prior to system shut down.

#### **5-Day Test**

The 5-Day Test was completed between August 12 and August 17, 2004.

- System operation was monitored daily.

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- Compliance air and water sampled were collected on August 13, August 16, and August 17, 2004, at the end of the first, third, and fifth day of operation, respectively.
- In addition to the compliance sampling, prior to initializing the system, ARCADIS collected one ambient air sample near the air discharge stack on August 10, 2004.

### 4-Week Test

As part of the 4-Week Test, the system was operated between October 1 and November 1, 2004.

- System on-site inspections were performed daily during the first week, and three times per week afterwards. The system operation was monitored remotely on a daily basis.
- Compliance air and water samples were collected on October 7, October 13, October 18, and October 28, 2004, at the end of the seventh, thirteenth, eighteenth, and twenty-eight day of operation, respectively.
- In addition to the compliance sampling, prior to initializing the system, ARCADIS collected three ambient air samples near the air discharge stack (designated Sets 1 and 2 in Table 4) and eight ambient air samples at various points around the Manhasset-Lakeville Water District (MLWD) property boundary on September 21 and September 24, 2004. These locations are designated PAQ1 and SAQ1 through SAQ3 and are shown on Figure 4.

A summary of compliance air and water sample results, arranged by sampling location, as well as a summary of the ambient air quality sample results is provided in Tables 1 through 5. A process schematic including all compliance sampling locations is provided in Figure 3.

## Results

There are several VOC compounds that are present in the groundwater extracted from Recovery Well 100 (RW-100) and arrive in the extracted water at the treatment plant.

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The first group of compounds was anticipated and the treatment plant was designed to reduce their concentrations to meet the Non-Detect Performance Standard (Table 1). These compounds are 1,1-dichloroethene (1,1-DCE); 1,1-dichloroethane (1,1-DCA); cis-1,2-dichloroethene (1,2-DCE); trans-1,2-dichloroethene (1,2-DCE); chloroform; 1,2-dichloroethane (1,2-DCA); 1,2-dichloropropane; trichloroethene (TCE); tetrachloroethene (PCE); and trichlorotrifluoroethane (Freon 113). In addition to the first group of compounds, chlorodifluoromethane (Freon 22) was also detected (Table 1) but this compound was not addressed in the Off-site IRM Workplan or Access Agreement with the School District.

As can be seen from Table 1, the analytical laboratory was not able, in some cases, to achieve the required detection limit, which corresponds to the Non-Detect Performance Standard. Where the detection limits are higher than the Non-Detect Performance Standard but the compound was not detected, the actual detection limit is shown with a "<" symbol and a number, which indicates that the concentration is less than the value shown (<3, for example). Where the laboratory was able to achieve the Non-Detect Performance Standard but the compound was not detected, this result is designated by "ND."

Table 2 shows that all the VOC compounds, including those compounds in both groups, are effectively removed from the water by the air strippers. The water being re-injected into the ground via the diffusion wells contains no detectable concentrations of VOCs, thus it meets the Non-Detect Performance Standard in the Access Agreement with the School District except for the samples for which the detection limit could not be met. As with the influent samples, the laboratory was not able to achieve the required detection limit, in some cases, and the results are reported similarly to those in Table 1. In these samples, no compounds were detected, but it could not be determined if the Non-Detect Performance Standard was met.

Table 3 shows that only five of the 42 compounds being tested are being emitted to the air at very low concentrations. Chloromethane, methylene chloride, Freon 12 and vinyl chloride were intermittently detected; however they were not detected in the influent water to the plant. Freon 22 was detected in the effluent air and the influent water.



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Tables 4 and 5 provide results of ambient air samples collected while the system was not in operation. Chloromethane, Freon 12, and Freon 22 were intermittently detected in the ambient air samples.

### Discussion

Even though chloromethane is present in the air discharge from the system, it is also present, at similar concentrations, in the ambient/background air. Since the ambient levels are higher than the Non-Detect Performance Standard, it is not necessary to meet the Standard since the discharges would then be cleaner than the ambient air. In any event, the discharges of chloromethane are only very small fractions of the New York State Department of Environmental Conservation (NYSDEC) short-term guideline concentrations (SCG) and the annual guideline concentrations (AGC), see Table 6.

Based on available data, the Freon 22 being discharged to atmosphere appears to originate in the groundwater being pumped to the plant. The ambient/background level of Freon 12 (see ARCADIS 2005a) appears to be approximately  $3 \text{ ug/m}^3$  but the discharge levels from the plant are typically 5 to  $6 \text{ ug/m}^3$  in the latter part of the test, leading to the conclusion that about 50% of the Freon 12 originates in the groundwater and the other 50% is from the ambient air. Regardless of the presence of the Freon 12 and 22, the concentrations of both compounds are small fractions of the NYSDEC AGCs of 12,000 and 50,000  $\text{ug/m}^3$ , respectively (no SGCs have been established for these compounds), see Table 6. In addition, air modeling conducted at the request of the NYSDEC and New York State Department of Health (NYSDOH) (ARCADIS, 2005b) indicates that, taking into account air dispersion effects, the concentration of Freon 22 would be several orders of magnitude below the NYSDEC standards by the time this compound would reach the school district property and nearby residential area and, therefore, would be undetectable by the analytical method used. Similar results would be expected for Freon 12.

ARCADIS extensively investigated treatment technologies for the Freon compounds at the very low levels being detected. The results of the investigation show that viable, proven treatment technologies do not exist at this time.

Although vinyl chloride was not detected in the influent water to the plant, all of the mass being discharged appears to originate in the groundwater even though it was not detected in the groundwater. The likely reason is that concentration in the groundwater

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is too low to be detected. Regardless of the fact that vinyl chloride is present in the discharge, the levels are well below the SGC and are only at 0.79% of the AGC (Table 6). Nevertheless, since this compound is above the Non-Detect Standard, it will be addressed by modifying the treatment system to reduce its concentration. Lockheed Martin and its consultants are in the process of evaluating various treatment options for vinyl chloride in off-gas vapor emissions.

Even though methylene chloride was detected in the discharged air, ARCADIS believes that because it is a common laboratory contaminant, the constituent was not present in the discharged air.

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## References

ARCADIS 2005a – 90-Day Testing Report December 2004 – March 2005 Off-Site Interim Remedial Measure, Former Unisys Facility, Great Neck New York. NYSDEC ID #130045.

ARCADIS 2005b – Freon 22 Emission Modeling, Off-Site Remediation System, Former Unisys Corporation, Great Neck, New York, Letter dated 3 March 2005.

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Table 1. Summary of Influent Water Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/L) (1)	24-Hour Test (2)		5-Day Test (3)		
		7/16/2004 Day 1 (ug/L)	7/16/2004 Day 1 - Dup. (ug/L)	8/13/2004 Day 1 - Dup. (ug/L)	8/16/2004 Day 3 (ug/L)	
<i>Required Constituents (4)</i>						
Chloromethane	1	<30	<30	<3	<3	<3
Bromomethane	1	<16	<16	<2	<2	<2
Vinyl Chloride	1	<12	<12	ND	ND	ND
Chloroethane	1	<34	<34	<3	<3	<3
Methylene chloride	1	<13	<13	ND	ND	ND
Acetone	5	<37	<37	ND	ND	ND
Carbon disulfide	1	<11	<11	ND	ND	ND
1,1-Dichloroethene	1	<8	<8	6	5	6
1,1-Dichloroethane	1	<11	<11	2	3	3
cis-1,2-Dichloroethene	1	1,800	1,900	1,600	1,800	1,900
trans-1,2-Dichloroethene	1	<8	<8	4	4	4
2-Butanone	2	<31	<31	<3	<3	<3
Chloroform	1	<4	<4	2	2	2
1,2-Dichloroethane	1	<7	<7	2	2	2
1,1,1-Trichloroethane	1	<7	<7	ND	ND	ND
Carbon tetrachloride	1	<10	<10	ND	ND	ND
Bromodichloromethane	1	<3	<3	ND	ND	ND
1,2-Dichloropropane	1	<3	<3	1	1	2
cis-1,3-Dichloropropene	1	<6	<6	ND	ND	ND
Trichloroethene	1	210	220	200	220	230
Benzene	1	<8	<8	ND	ND	ND
Dibromochloromethane	1	<9	<9	ND	ND	ND
trans-1,3-Dichloropropene	1	<9	<9	ND	ND	ND
1,1,2-Trichloroethane	1	<9	<9	ND	ND	ND
Bromoform	1	<12	<12	ND	ND	ND
4-Methyl-2-pentanone	1	<14	<14	ND	ND	ND

See footnotes on last page.

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Table 1. Summary of Influent Water Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/L) (1)	24-Hour Test (2)		5-Day Test (3)			
		7/16/2004 Day 1 (ug/L)	7/16/2004 Day 1 - Dup. (ug/L)	8/13/2004 Day 1 (ug/L)	8/13/2004 Day 1 - Dup. (ug/L)	8/16/2004 Day 3 (ug/L)	8/16/2004 Day 3 - Dup. (ug/L)
2-Hexanone	1	<14	<14	ND	ND	ND	ND
Tetrachloroethene	1	330	360	280	320	400	340
1,1,2,2-Tetrachloroethane	1	<8	<8	ND	ND	ND	ND
Toluene	1	<8	<8	ND	ND	ND	ND
Chlorobenzene	1	<7	<7	ND	ND	ND	ND
Ethylbenzene	1	<6	<6	ND	ND	ND	ND
Styrene	1	<5	<5	ND	ND	ND	ND
Xylene (total)	1	<22	<22	<2	<2	<2	<2
Trichlorotrifluoroethane (Freon 113)	1	54	62	69	66	66	73
<i>Additional Constituents</i>							
Trichlorofluoromethane (Freon 11)	1	<6	<6	ND	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	1	<12	<12	ND	ND	ND	ND
1,1-Difluoroethane (Freon 152a)	1	--	--	ND	ND	ND	ND
2,2-Dichloro-1,1-trifluoroethane (Freon 123)	1	--	--	ND	ND	ND	ND
Chlorodifluoromethane (Freon 22)	1	9	<9	11	11	10	12
Chloropentafluoroethane (Freon 115)	1	--	--	ND	ND	ND	ND
<i>Tentatively Identified Compounds</i>							
1-Bromo-2-ethylbenzene	(5)	--	--	--	--	--	--
Bromobenzene	(5)	--	--	--	--	--	--
Chlorotrifluoroethane (HCFC-133)	(5)	--	--	--	--	--	--
Chlorotrifluoroethylene (CTFE)	(5)	--	--	--	--	--	--
Chlorotrifluoromethane (Freon 13)	(5)	--	--	--	--	--	--
Dichlorofluoromethane (CFC 21)	(5)	--	--	--	--	--	--
Dichlorotrifluoroethane (HCFC-123a)	(5)	--	--	7	--	--	--
Trifluoromethane (Freon 23)	(5)	--	--	--	--	--	--
Trimethylsilanol	(5)	--	--	--	--	--	--

See footnotes on last page.

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Table 1. Summary of Influent Water Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/L) (1)	5-Day Test (3)		4-Week Test (3)			
		8/17/2004 Day 5 (ug/L)	8/17/2004 Day 5 - Dup. (ug/L)	10/07/04 Day 7 (ug/L)	10/07/04 Day 7 - Dup. (ug/L)	10/13/04 Day 13 (ug/L)	10/13/04 Day 13 - Dup. (ug/L)
<i>Required Constituents (4)</i>							
Chloromethane	1	<3	<3	<3	<3	<3	<3
Bromomethane	1	<2	<2	<2	<2	<2	<2
Vinyl Chloride	1	ND	ND	ND	ND	ND	ND
Chloroethane	1	<3	<3	<3	<3	<3	<3
Methylene chloride	1	ND	ND	ND	ND	ND	ND
Acetone	5	ND	ND	ND	ND	ND	ND
Carbon disulfide	1	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	4	5	5	5	5	5
1,1-Dichloroethane	1	2	2	2	2	2	2
cis-1,2-Dichloroethene	1	1,900	2,000	1,600	1,600	1,700	1,800
trans-1,2-Dichloroethene	1	4	4	4	4	4	4
2-Butanone	2	<3	<3	<3	<3	<3	<3
Chloroform	1	ND	ND	2	2	2	2
1,2-Dichloroethane	1	2	2	2	2	2	2
1,1,1-Trichloroethane	1	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1	ND	ND	1	1	ND	ND
Trichloroethene	1	ND	ND	220	220	230	240
Benzene	1	270	270	220	220	230	240
Dibromochloromethane	1	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND
Bromoform	1	ND	3	ND	ND	ND	ND
4-Methyl-2-pentanone	1	ND	ND	ND	ND	ND	ND

See footnotes on last page.

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Table 1. Summary of Influent Water Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/L) (1)	5-Day Test (3)		4-Week Test (3)		10/13/04 Day 13 - Dup. (ug/L)	
		8/17/2004 Day 5 (ug/L)	8/17/2004 Day 5 - Dup. (ug/L)	10/07/04 Day 7 (ug/L)	10/07/04 Day 7 - Dup. (ug/L)		
2-Hexanone	1	ND	ND	ND	ND	ND	
Tetrachloroethene	1	380	400	330	340	360	
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	
Toluene	1	ND	ND	ND	ND	ND	
Chlorobenzene	1	ND	ND	ND	ND	ND	
Ethylbenzene	1	ND	ND	ND	ND	ND	
Styrene	1	ND	ND	ND	ND	ND	
Xylene (total)	1	<2	<2	<2	<2	<2	
Trichlorotrifluoroethane (Freon 113)	1	53	56	66	65	62	
<i>Additional Constituents</i>							
Trichlorofluoromethane (Freon 11)	1	ND	ND	--	--	--	
Dichlorodifluoromethane (Freon 12)	1	ND	ND	--	--	--	
1,1-Difluoroethane (Freon 152a)	1	ND	ND	--	--	--	
2,2-Dichloro-1,1-trifluoroethane (Freon 123)	1	ND	ND	--	--	--	
Chlorodifluoromethane (Freon 22)	1	8	8	11	11	6	
Chloropentafluoroethane (Freon 115)	1	ND	ND	--	--	--	
<i>Tentatively Identified Compounds</i>							
1-Bromo-2-ethylbenzene	(5)	--	--	--	--	--	
Bromobenzene	(5)	--	--	--	--	--	
Chlorotrifluoroethane (HCFC-133)	(5)	--	--	--	--	--	
Chlorotrifluoroethylene (CTFE)	(5)	--	--	--	--	--	
Chlorotrifluoromethane (Freon 13)	(5)	--	--	--	--	--	
Dichlorofluoromethane (CFC 21)	(5)	--	--	--	--	--	
Dichlorotrifluoroethane (HCFC-123a)	(5)	16	--	14	--	--	
Trifluoromethane (Freon 23)	(5)	--	--	--	--	--	
Trimethylsilanol	(5)	--	--	--	--	--	

See footnotes on last page.

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Table 1. Summary of Influent Water Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/L) (1)	4-Week Test (3)		
		10/18/04 Day 18 (ug/L)	10/18/04 Day 18 - Dup. (ug/L)	10/28/04 Day 28 - Dup. (ug/L)
<i>Required Constituents (4)</i>				
Chloromethane	1	<3	<3	<3
Bromomethane	1	<2	<2	<2
Vinyl Chloride	1	ND	ND	ND
Chloroethane	1	<3	<3	<3
Methylene chloride	1	ND	ND	ND
Acetone	5	ND	ND	ND
Carbon disulfide	1	ND	ND	ND
1,1-Dichloroethene	1	5	5	5
1,1-Dichloroethane	1	ND	ND	ND
cis-1,2-Dichloroethene	1	1,800	1,800	1,600
trans-1,2-Dichloroethene	1	4	4	3
2-Butanone	2	<3	<3	<3
Chloroform	1	2	2	2
1,2-Dichloroethane	1	2	2	2
1,1,1-Trichloroethane	1	ND	ND	ND
Carbon tetrachloride	1	ND	ND	ND
Bromodichloromethane	1	ND	ND	ND
1,2-Dichloropropane	1	1	1	1
cis-1,3-Dichloropropene	1	ND	ND	ND
Trichloroethene	1	260	240	230
Benzene	1	ND	ND	ND
Dibromochloromethane	1	ND	ND	ND
trans-1,3-Dichloropropene	1	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND
Bromoform	1	ND	ND	ND
4-Methyl-2-pentanone	1	ND	ND	ND

See footnotes on last page.



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Table 1. Summary of Influent Water Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/L) (1)	4-Week Test (3)			
		10/18/04 Day 18 (ug/L)	10/18/04 Day 18 - Dup. (ug/L)	10/28/04 Day 28 (ug/L)	10/28/04 Day 28 - Dup. (ug/L)
2-Hexanone	1	ND	ND	ND	ND
Tetrachloroethene	1	380	350	310	320
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND
Toluene	1	ND	ND	ND	ND
Chlorobenzene	1	ND	ND	ND	ND
Ethylbenzene	1	ND	ND	ND	ND
Styrene	1	ND	ND	ND	ND
Xylene (total)	1	<2	<2	<2	<2
Trichlorotrifluoroethane (Freon 113)	1	63	68	60	62
<i>Additional Constituents</i>					
Trichlorofluoromethane (Freon 11)	1	--	--	--	--
Dichlorodifluoromethane (Freon 12)	1	--	--	--	--
1,1-Difluoroethane (Freon 152a)	1	--	--	--	--
2,2-Dichloro-1,1,1-trifluoroethane (Freon 123)	1	ND	ND	ND	ND
Chlorodifluoromethane (Freon 22)	1	6	6	6	6
Chloropentafluoroethane (Freon 115)	1	--	--	--	--
<i>Tentatively Identified Compounds</i>					
1-Bromo-2-ethylbenzene	(5)	--	--	--	--
Bromobenzene	(5)	--	--	--	--
Chlorotrifluoroethane (HCFC-133)	(5)	--	--	--	--
Chlorotrifluoroethylene (CTFE)	(5)	--	--	--	--
Chlorotrifluoromethane (Freon 13)	(5)	--	--	--	--
Dichlorofluoromethane (CFC 21)	(5)	--	--	--	--
Dichlorotrifluoroethane (HCFC-123a)	(5)	14	--	17	--
Trifluoromethane (Freon 23)	(5)	--	--	--	--
Trimethylsilanol	(5)	--	--	--	--

See footnotes on last page.

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Table 1. Summary of Influent Water Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

ug/L	micrograms per liter
--	constituent not analyzed
ND	not detected at, or above the Required Method Detection Limits

Notes:

1. The required detection limit is the minimum method detection limit (MDL) for the analyte by the approved method, as listed in the Remediation Access and Licensing Agreement, dated April 14, 2003. In accordance with the Remediation and Licensing Agreement, the minimum detection limit for all constituents, as listed above, equals 1 ug/L, except for acetone and 2-butanone, for which the minimum method detection limits are 5 ug/L and 2 ug/L, respectively.
2. The 24-Hour Test Water Sample Analysis Method Detection Limits (MDLs) derived exceed the required MDLs due to the fact that non-diluted samples were not analyzed.
3. Chloromethane, bromomethane, chloroethane, 2-butanone, tetrachloroethene, and total xylene Method Detection Limits (MDLs) exceeded the Required MDLs during the 5-Day Test and 4-Week Test. The Required MDLs for these constituents were lower than the lower analyzing instrument compound specific calibration limits. The instrument used during water sample analyses was recalibrated in December 2004. In effect, the 90-Day test sample analysis MDLs met the Required MDL for all constituents listed.
4. Constituents required to be analyzed, as listed in the Remediation Access and Licensing Agreement, dated April 14, 2003.
5. Tentatively Identified Compound concentration can only be estimated. Due to non-availability of standards, a laboratory Method Detection Limit can not be calculated.

# ARCADIS

Table 2. Summary of Effluent Water Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/L) (1)	24-Hour Test (2)		5-Day Test (2)		4-Week Test (2)			
		7/16/2004 Day 1 (ug/L)	8/13/2004 Day 1 (ug/L)	8/16/2004 Day 3 (ug/L)	8/17/2004 Day 5 (ug/L)	10/07/04 Day 7 (ug/L)	10/13/04 Day 13 (ug/L)	10/18/04 Day 18 (ug/L)	10/28/04 Day 28 (ug/L)
<i>Required Constituents (3)</i>									
Chloromethane	1	<3	<3	<3	<3	<3	<3	<3	<3
Bromomethane	1	<2	<2	<2	<2	<2	<2	<2	<2
Vinyl Chloride	1	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1	<3	<3	<3	<3	<3	<3	<3	<3
Methylene chloride	1	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	5	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	1	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	2	<3	<3	<3	<3	<3	<3	<3	<3
Chloroform	1	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	1	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	1	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	1	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	1	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	1	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	1	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	1	ND	ND	ND	ND	ND	ND	ND	ND

See footnotes on last page.

# ARCADIS

Table 2. Summary of Effluent Water Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/L) (1)	24-Hour Test (2) 7/16/2004		5-Day Test (2) 8/13/2004			4-Week Test (2) 10/07/04			10/28/04	
		Day 1 (ug/L)	Day 1 (ug/L)	8/13/2004 Day 1 (ug/L)	8/16/2004 Day 3 (ug/L)	8/17/2004 Day 5 (ug/L)	10/07/04 Day 7 (ug/L)	10/13/04 Day 13 (ug/L)	10/18/04 Day 18 (ug/L)	10/28/04 Day 28 (ug/L)	
2-Hexanone	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,1,2,2-Tetrachloroethane	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Trichlorotrifluoroethane (Freon 113)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<i>Additional Constituents</i>											
Trichlorofluoromethane (Freon 11)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Difluoroethane (Freon 152a)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloro-1,1,1-trifluoroethane (Freon 123)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodifluoromethane (Freon 22)	1	ND	ND	1	ND	ND	ND	ND	ND	ND	ND
Chloropentafluoroethane (Freon 115)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<i>Tentatively Identified Compounds</i>											
1-Bromo-2-ethylbenzene	(4)	-	-	-	-	-	-	-	-	-	-
Bromobenzene	(4)	-	-	-	-	-	-	-	-	-	-
Chlorotrifluoroethane (HCFC-133)	(4)	-	-	-	-	-	-	-	-	-	-
Chlorotrifluoroethylene (CTFE)	(4)	-	-	-	-	-	-	-	-	-	-
Chlorotrifluoromethane (Freon 13)	(4)	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane (CFC 21)	(4)	-	-	-	-	-	-	-	-	-	-
Dichlorotrifluoroethane (HCFC-123a)	(4)	-	-	-	-	-	-	-	-	-	-
Trifluoromethane (Freon 23)	(4)	-	-	-	-	-	-	-	-	-	-
Trimethylsilanol	(4)	-	-	-	-	-	-	-	-	-	-

See footnotes on last page.

# ARCADIS

Table 2. Summary of Effluent Water Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

ug/L	micrograms per liter
-	constituent not analyzed
ND	not detected at, or above the Required Method Detection Limits

Notes:

1. The required detection limit is the minimum method detection limit (MDL) for the analyte by the approved method, as listed in the Remediation Access and Licensing Agreement, dated April 14, 2003. In accordance with the Remediation and Licensing Agreement, the minimum detection limit for all constituents, as listed above, equals 1 ug/L, except for acetone and 2-butanone, for which the minimum method detection limits are 5 ug/L and 2 ug/L, respectively.
2. Chloromethane, bromomethane, chloroethane, 2-butanone, tetrachloroethene, and total xylene Method Detection Limits (MDLs) exceeded the Required MDLs during the 24-Hour Test, 5-Day Test, and 4-Week Test. The Required MDLs for these constituents were lower than the lower analyzing instrument compound specific calibration limits. The instrument used during water sample analyses was recalibrated in December 2004.
3. Constituents required to be analyzed, as listed in the Remediation Access and Licensing Agreement, dated April 14, 2003.
4. Tentatively Identified Compound concentration can only be estimated. Due to non-availability of standards, a laboratory Method Detection Limit can not be calculated.

# ARCADIS

Table 3. Summary of Effluent Vapor Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/m <sup>3</sup> ) (1)	24-Hour Test		5-Day Test		4-Week Test			
		7/16/2004 Day 1 (ug/m <sup>3</sup> )	8/13/2004 Day 1 (ug/m <sup>3</sup> )	8/16/2004 Day 3 (ug/m <sup>3</sup> )	8/17/2004 Day 5 (ug/m <sup>3</sup> )	10/07/04 Day 7 (ug/m <sup>3</sup> )	10/13/04 Day 13 (ug/m <sup>3</sup> )	10/18/04 Day 18 (ug/m <sup>3</sup> )	10/28/04 Day 28 (ug/m <sup>3</sup> )
<i>Required Constituents (2)</i>									
Chloromethane	1.0	1.2	1.5	1.1	ND	ND	ND	ND	1.3
Bromomethane	1.9	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1.3	ND	ND	ND	ND	ND	ND	ND	1.5
Chloroethane	1.3	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	1.7	ND	3.3	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	2.0	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	2.0	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethane	2.0	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethane	2.0	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	2.4	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	2.0	ND	5.7	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2.7	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	3.2	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	2.3	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2.3	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	2.7	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1.6	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	2.3	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2.7	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	3.4	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3.4	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.9	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	2.3	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	2.2	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	2.1	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	2.2	ND	ND	ND	ND	ND	ND	ND	ND

See footnotes on last page.

# ARCADIS

Table 3. Summary of Effluent Vapor Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/m <sup>3</sup> ) (1)	24-Hour Test		5-Day Test		4-Week Test				
		7/16/2004 Day 1 (ug/m <sup>3</sup> )	8/13/2004 Day 1 (ug/m <sup>3</sup> )	8/16/2004 Day 3 (ug/m <sup>3</sup> )	8/17/2004 Day 5 (ug/m <sup>3</sup> )	10/07/04 Day 7 (ug/m <sup>3</sup> )	10/13/04 Day 13 (ug/m <sup>3</sup> )	10/18/04 Day 18 (ug/m <sup>3</sup> )	10/28/04 Day 28 (ug/m <sup>3</sup> )	
m&p-Xylene	4.3	ND	ND	ND	ND	ND	ND	ND	ND	
Trichlorotrifluoroethane (Freon 113)	3.8	ND	ND	ND	ND	ND	ND	ND	ND	
<i>Additional Constituents</i>										
Trichlorofluoromethane (Freon 11)	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	2.5	-	ND	ND	ND	1.8	ND	5.2	6.6	
Chlorodifluoromethane (Freon 22)	1.8	18	110	130	150	110	120	110	100	
<i>Tentatively Identified Compounds</i>										
Trifluoromethane (Freon 23)	(3)	-	ND	ND	ND	ND	ND	ND	ND	-
Chloropentafluoroethane (Freon 115)	(3)	-	-	-	-	ND	ND	ND	ND	-
2,2-Dichloro-1,1,1-trifluoroethane (Freon 123)	(3)	-	ND	ND	ND	ND	ND	ND	ND	-
Dichlorotrifluoroethane (HCFC-123a)	(3)	-	ND	ND	ND	ND	ND	ND	ND	ND
Chlorotrifluoroethane (HCFC-133)	(3)	-	ND	ND	ND	ND	ND	ND	ND	-
1,1-Difluoroethane (Freon 152a)	(3)	-	ND	ND	ND	ND	ND	ND	ND	-
Chlorotrifluoroethylene (CTFE)	(3)	-	ND	ND	ND	ND	ND	ND	ND	-
1-Bromo-2-ethylbenzene	(3)	-	-	-	-	-	-	-	-	-
Bromobenzene	(3)	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane (CFC 21)	(3)	-	-	-	-	-	-	-	-	-
Trimethylsilanol	(3)	-	-	-	-	-	-	-	-	-

See footnotes on last page.

# ARCADIS

Table 3. Summary of Effluent Vapor Sample Analysis Results, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

ug/m <sup>3</sup>	micrograms per cubic meter
--	constituent not analyzed
ND	not detected at, or above the Required Method Detection Limits

Notes:

1. The required detection limit is the minimum method detection limit (MDL) for the analyte by the approved method, as listed in the Remediation Access and Licensing Agreement, dated April 14, 2003. The listed Required MDL is equivalent to 0.5 ppbV for all constituents.
2. Constituents required to be analyzed, as listed in the Remediation Access and Licensing Agreement, dated April 14, 2003.
3. Tentatively Identified Compound concentration can only be estimated. Due to non-availability of standards, a laboratory Method Detection Limit can not be calculated.



# ARCADIS

Table 4. Summary of Ambient Air Quality Monitoring At Discharge Stack, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/m <sup>3</sup> ) (7)	5-Day Test (2)		4-Week Test (2)		
		8/10/2004 Set 1 (ug/m <sup>3</sup> )	09/21/04 Set 1 (ug/m <sup>3</sup> )	09/24/04 Set 2 (ug/m <sup>3</sup> )	09/24/04 Set 2 (ug/m <sup>3</sup> )	
<i>Required Constituents (3)</i>						
Chloromethane	1.0	1.5	1.5	1.7	1.7	
Bromomethane	1.9	ND	ND	ND	ND	
Vinyl Chloride	1.3	ND	ND	ND	ND	
Chloroethane	1.3	ND	ND	ND	ND	
Methylene chloride	1.7	ND	ND	ND	ND	
1,1-Dichloroethene	2.0	ND	ND	ND	ND	
1,1-Dichloroethane	2.0	ND	ND	ND	ND	
trans-1,2-Dichloroethene	2.0	ND	ND	ND	ND	
cis-1,2-Dichloroethene	2.0	ND	ND	ND	ND	
Chloroform	2.4	ND	ND	ND	ND	
1,2-Dichloroethane	2.0	ND	ND	ND	ND	
1,1,1-Trichloroethane	2.7	ND	ND	ND	ND	
Carbon tetrachloride	3.2	ND	ND	ND	ND	
1,2-Dichloropropane	2.3	ND	ND	ND	ND	
cis-1,3-Dichloropropene	2.3	ND	ND	ND	ND	
Trichloroethene	2.7	ND	ND	ND	ND	
Benzene	1.6	2.1	ND	ND	ND	
trans-1,3-Dichloropropene	2.3	ND	ND	ND	ND	
1,1,2-Trichloroethane	2.7	ND	ND	ND	ND	
Tetrachloroethene	3.4	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	3.4	ND	ND	ND	ND	
Toluene	1.9	5.7	3.5	2.8	2.8	
Chlorobenzene	2.3	ND	ND	ND	ND	
Ethylbenzene	2.2	ND	ND	ND	ND	
Styrene	2.1	ND	ND	ND	ND	
o-Xylene	2.2	ND	ND	ND	ND	
m&p-Xylene	4.3	2.8	ND	ND	ND	
Trichlorotrifluoroethane (Freon 113)	3.8	ND	ND	ND	ND	

See footnotes on last page.

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Table 4. Summary of Ambient Air Quality Monitoring At Discharge Stack, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/m <sup>3</sup> ) (1)	5-Day Test (2)		4-Week Test (2)	
		8/10/2004 Set 1 (ug/m <sup>3</sup> )	09/21/04 Set 1 (ug/m <sup>3</sup> )	09/24/04 Set 2 (ug/m <sup>3</sup> )	
<i>Additional Constituents</i>					
Trichlorofluoromethane (Freon 11)	2.8	ND	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	2.5	2.8	3.2	3.4	3.4
Chlorodifluoromethane (Freon 22)	1.8	2.6	ND	ND	ND
<i>Tentatively Identified Compounds</i>					
Trifluoromethane (Freon 23)	(4)	ND	ND	ND	ND
Chloropentafluoroethane (Freon 115)	(4)	ND	ND	ND	ND
2,2-Dichloro-1,1-trifluoroethane (Freon 123)	(4)	ND	ND	ND	ND
Dichlorotrifluoroethane (HCFC-123a)	(4)	ND	ND	ND	ND
Chlorotrifluoroethane (HCFC-133)	(4)	ND	ND	ND	ND
1,1-Difluoroethane (Freon 152a)	(4)	ND	ND	ND	ND
Chlorotrifluoroethylene (CTFE)	(4)	ND	ND	ND	ND
1-Bromo-2-ethylbenzene	(4)	--	--	--	--
Bromobenzene	(4)	--	--	--	--
Dichlorofluoromethane (CFC 21)	(4)	--	--	--	--
Trimethylsilanol	(4)	--	--	--	--

ug/m<sup>3</sup> micrograms per cubic meter  
 -- constituent not analyzed  
 ND not detected at, or above the Required Method Detection Limits

**Notes:**

- The required detection limit is the minimum method detection limit (MDL) for the analyte by the approved method, as listed in the Remediation Access and Licensing Agreement, dated April 14, 2003. The listed Required MDL is equivalent to 0.5 ppbV for all constituents.
- Refers to vapor sample sets collected while the Off-site IRM system was off-line prior to system testing.
- Constituents required to be analyzed, as listed in the Remediation Access and Licensing Agreement, dated April 14, 2003.
- Tentatively Identified Compound concentration can only be estimated. Due to non-availability of standards, a laboratory Method Detection Limit can not be calculated.

# ARCADIS

Table 5. Summary of Ambient Air Quality Monitoring At Property Boundary, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York. Page 1 of 2

Constituent	Required Method Detection Limit (MDL) (ug/m <sup>3</sup> ) (1)	4-Week Test - Background Set 1 (2)			4-Week Test - Background Set 2 (2)		
		09/21/04 PAQ1 (3) (ug/m <sup>3</sup> )	09/21/04 SAQ2 (3) (ug/m <sup>3</sup> )	09/21/04 SAQ3 (3) (ug/m <sup>3</sup> )	09/24/04 PAQ1 (3) (ug/m <sup>3</sup> )	09/24/04 SAQ2 (3) (ug/m <sup>3</sup> )	09/24/04 SAQ3 (3) (ug/m <sup>3</sup> )
<i>Required Constituents (4)</i>							
Chloromethane	1.0	1.7	1.2	ND	ND	ND	1.9
Bromomethane	1.9	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1.3	ND	ND	ND	ND	ND	ND
Chloroethane	1.3	ND	ND	ND	ND	ND	ND
Methylene chloride	1.7	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	2.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	2.0	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	2.0	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2.0	ND	ND	ND	ND	ND	ND
Chloroform	2.4	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	2.0	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	2.7	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	3.2	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	2.3	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	2.3	ND	ND	ND	ND	ND	ND
Trichloroethene	2.7	ND	ND	ND	ND	ND	ND
Benzene	1.6	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	2.3	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	2.7	ND	ND	ND	ND	ND	ND
Tetrachloroethene	3.4	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	3.4	ND	ND	ND	ND	ND	ND
Toluene	1.9	3.0	3.0	3.0	3.2	3.1	2.4
Chlorobenzene	2.3	ND	ND	ND	ND	ND	ND
Ethylbenzene	2.2	ND	ND	ND	ND	ND	ND
Styrene	2.1	ND	ND	ND	ND	ND	ND
o-Xylene	2.2	ND	ND	ND	ND	ND	ND
m&p-Xylene	4.3	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane (Freon 113)	3.8	ND	ND	ND	ND	ND	ND

See footnotes on last page.

# ARCADIS

Table 5. Summary of Ambient Air Quality Monitoring At Property Boundary, Initial Testing, Off-site Interim Remedial Measure (IRM), Former Unisys Facility, Great Neck, New York.

Constituent	Required Method Detection Limit (MDL) (ug/m <sup>3</sup> ) (1)	4-Week Test - Background Set 1 (2)			4-Week Test - Background Set 2 (2)		
		09/21/04 PAQ1 (3) (ug/m <sup>3</sup> )	09/21/04 SAQ1 (3) (ug/m <sup>3</sup> )	09/21/04 SAQ2 (3) (ug/m <sup>3</sup> )	09/24/04 PAQ1 (3) (ug/m <sup>3</sup> )	09/24/04 SAQ1 (3) (ug/m <sup>3</sup> )	09/24/04 SAQ2 (3) (ug/m <sup>3</sup> )
<i>Additional Constituents</i>							
Trichlorofluoromethane (Freon 11)	2.8	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	2.5	2.9	2.8	3.0	2.7	3.0	3.3
Chlorodifluoromethane (Freon 22)	1.8	ND	ND	ND	ND	ND	ND
<i>Tentatively Identified Compounds</i>							
Trifluoromethane (Freon 23)	(5)	ND	ND	ND	ND	ND	ND
Chloropentafluoroethane (Freon 115)	(5)	ND	ND	ND	ND	ND	ND
2,2-Dichloro-1,1,1-trifluoroethane (Freon 123)	(5)	ND	ND	ND	ND	ND	ND
Dichlorotrifluoroethane (HCFC-123a)	(5)	ND	ND	ND	ND	ND	ND
Chlorotrifluoroethane (HCFC-133)	(5)	ND	ND	ND	ND	ND	ND
1,1-Difluoroethane (Freon 152a)	(5)	ND	ND	ND	ND	ND	ND
Chlorotrifluoroethylene (CTFE)	(5)	ND	ND	ND	ND	ND	ND
1-Bromo-2-ethylbenzene	(5)	--	--	--	--	--	--
Bromobenzene	(5)	--	--	--	--	--	--
Dichlorofluoromethane (CFC 21)	(5)	--	--	--	--	--	--
Trimethylsilanol	(5)	--	--	--	--	--	--

ug/m<sup>3</sup> micrograms per cubic meter  
 -- constituent not analyzed  
 ND not detected at, or above the Required Method Detection Limits  
 PAQ portable air quality monitor  
 SAQ stationary air quality monitor

**Notes:**

- The required detection limit is the minimum method detection limit (MDL) for the analyte by the approved method, as listed in the Remediation Access and Licensing Agreement, dated April 14, 2003. The listed Required MDL is equivalent to 0.5 ppbv for all constituents.
- Refers to vapor sample sets collected while the Off-site IRM system was off-line prior to startup testing.
- As part of the Air Quality Monitoring Plan conducted prior to the 4-Week testing period, ARCADIS collected four vapor samples at an inhalation level during an eight hour period at the following locations: PAQ1 - 38 feet downwind of the stack, SAQ1 - 58 feet west of the northeastern corner of MLWD property, SAQ2 - 27 feet east of the northwestern corner of MLWD property, SAQ3 - 91 feet north of the southwestern corner of MLWD property.
- Constituents required to be analyzed, as listed in the Remediation Access and Licensing Agreement, dated April 14, 2003.
- Tentatively Identified Compound concentration can only be estimated. Due to non-availability of standards, a laboratory Method Detection Limit can not be calculated.

# ARCADIS

Table 6. Regulatory Status of Air Emissions for the Off-site Interim Remedial Measure, Former Unisys Facility, Great Neck, New York.

Constituent (1)	Short-Term Concentrations		Allowable Guideline Concentrations	
	Allowable Short-Term Guideline Concentration SGC (2) (ug/m <sup>3</sup> )	Average Actual Stack Concentration Off-site IRM (3) (ug/m <sup>3</sup> )	Allowable Annual Guideline Concentration AGC (5) (ug/m <sup>3</sup> )	Percent AGC (%) (4) Off-site IRM (% AGC)
Chloromethane	22,000	1.2	90	8.2E-04
Vinyl Chloride	180,000	1.4	0.11	7.9E-01
Dichlorodifluoromethane (Freon 12)	--	5.9	12,000	3.1E-05
Chlorodifluoromethane (Freon 22)	--	84.3	50,000	1.1E-04

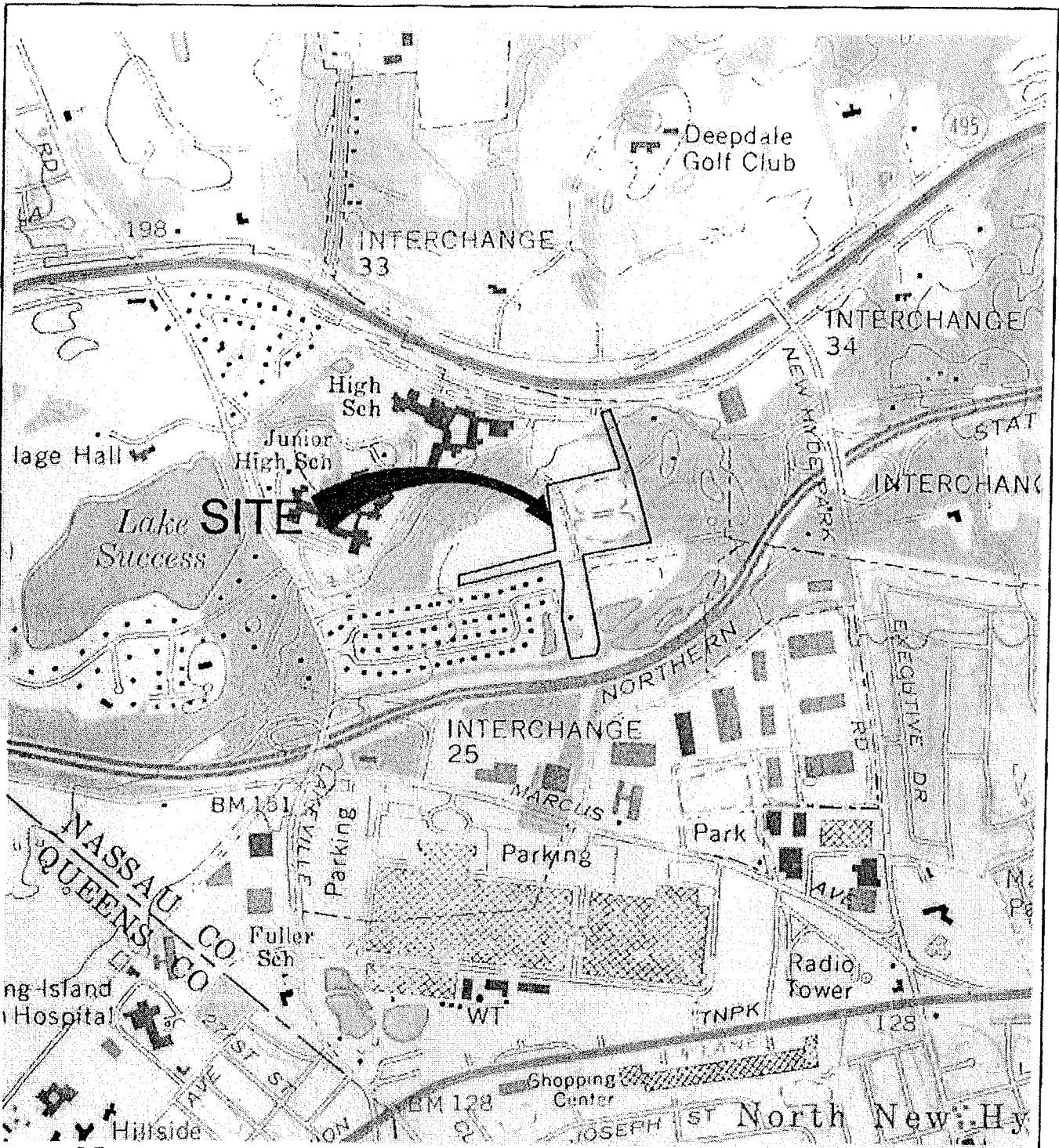
-- Not applicable.

ug/m<sup>3</sup> - Micrograms per cubic meter

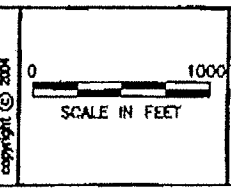
% AGC - Percent of the Allowable Annual Guideline Concentration

### Notes

- Only VOCs, which were found to be present in the discharged air during the System Testing are presented on this table.
- SGC refers to the compound specific short-term guideline concentration per the NYSDEC DAR-1 AGC/SGC Tables revised December 22, 2003.
- To assess the compliance status of the air discharge, the instantaneous concentration of each compound at stack effluent, calculated by multiplying the laboratory concentration by the ratio between the air flow in standard cubic feet per minute and actual cubic feet per minute, is compared to the SGC.
- % AGC for a given compound is calculated by dividing the total mass emitted during the respective operational period by the total allowable mass that could be emitted to achieve 100 percent of AGC (per NYSDEC DAR-1 SCREEN model). Values shown were calculated assuming that the system would operate continuously for a twelve-month period at an average startup test constituent concentration, an average air flow rate of 4,000 standard cubic feet per minute, and an average annual temperature of 80 degrees Fahrenheit.
- AGC refers to the compound specific annual guideline concentration per the NYSDEC DAR-1 AGC/SGC Tables.



QUADRANGLE LOCATION  
 SOURCE: BASED ON U.S.G.S. 7.5 MINUTE QUADRANGLE, LYNBROOK, N.Y. AND SEA CLIFF, N.Y., REVISED 1979.

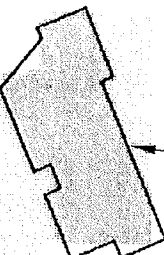


PROJECT MANAGER C. SAN GIOVANNI	DEPARTMENT MANAGER N. VALKENBURG	LEAD DESIGN PROF. W. WITTER	K. KUC
SHEET TITLE <b>SITE LOCATION MAP</b> OFF-SITE IRM FORMER UNISYS FACILITY GREAT NECK, NEW YORK		TASK/PHASE NUMBER	DRAWN BY LMC
		PROJECT NUMBER <b>NY001227.1905</b>	DRAWING NUMBER <b>1</b>

LAKE VILLE ROAD

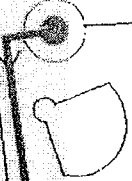
OLIVE STREET

TANNERS ROAD



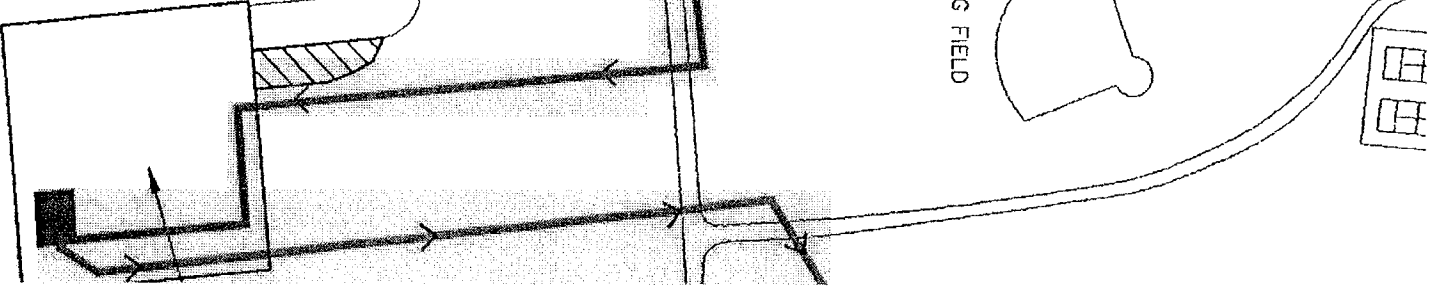
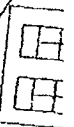
MAINTENANCE BUILDING

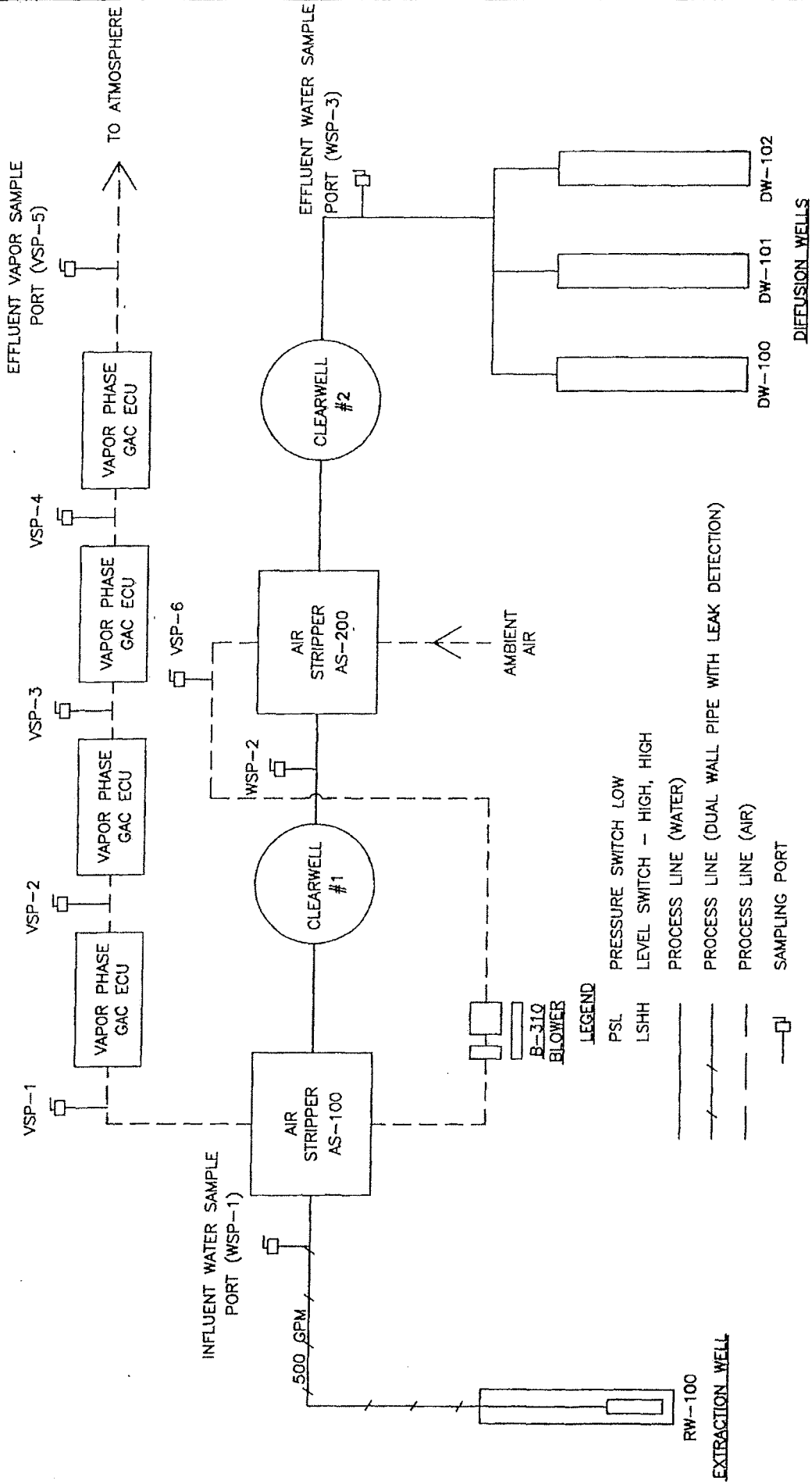
RW-100




PLAYING FIELD

PLAYING FIELD





	DRAWN LMC	DATE 1/23/04	PROJECT MANAGER C. SAN GIOVANNI	DEPARTMENT MANAGER M. VALKENBURG
	SYSTEM SCHEMATIC OFF-SITE IRM FORMER UNISYS FACILITY GREAT NECK, NEW YORK		LEAD DESIGN PROF. W. WITTEK	CHECKED K. KUC
NOT TO SCALE	PROJECT NUMBER NY001227.1905		FIGURE 3	



NORTHERN STATE PARKWAY

PROPERTY BOUNDARY

VPGAC UNITS (TYP. OF 4)

SET 1,2,3

STACK

ML SUPPL

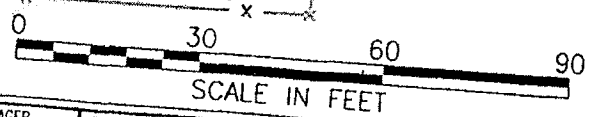
SAQ-1

SAQ-2

THEORETICAL LOCATION OF HIGHEST VOC CONCENTRATION (38 FEET AROUND STACK)

LEGEND

SAQ-STATIONARY AIR QUALITY MONITOR  
 PAQ-PORTABLE AIR QUALITY MONITOR



Date/Time : Wed, 30 Mar 2005 - 9:25am  
 Path/Name : G:\PROJECT\Lockheed Martin\Great Neck\O&M OFF-SITE\O&M Reports\from 22\_STARTUP RPT.DWG - Layout Tab : 17X11H  
 Acad Version : R16.1s (LMS Tech)  
 User Name : ehughes  
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PROJECT MANAGER SAN GIOVANNI	DEPARTMENT MANAGER N. VALKENBURG	LEAD DESIGN PROF. W. WITTEK	CHECKED K. KUC
ET TITLE		TASK/PHASE NUMBER 00001	DRAWN BY K. KUC
		PROJECT NUMBER	DRAWING NUMBER

AIR QUALITY MONITORING PLAN

REV. ISSUED DATE DESCRIPTION

