



Mr. Steven M. Scharf, P.E.  
Project Engineer  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Action, Bureau A  
625 Broadway  
Albany, New York 12233-7015

Subject:  
July 2008 Monthly Progress Report,  
Northrop Grumman Systems Corporation,  
Operable Unit 3,  
NYSDEC Site ID # 1-30-003A,  
Bethpage, New York

Dear Steve:

In accordance with Section III of Administrative Order on Consent (AOC) Index # W1-0018-04-01, this letter reports the activities for Operable Unit 3 (OU3) performed by Northrop Grumman Systems Corporation (Northrop Grumman) during the month of July 2008; activities planned for August 2008 are also discussed. This report is the 28<sup>th</sup> OU3 monthly progress report since the AOC between Northrop Grumman and the New York State Department of Environmental Conservation (NYSDEC) was signed on June 24, 2005.

### **OU3 Activities Conducted During July 2008**

Validated data from the RI are provided in Table 1. The site plan showing vertical profile boring (VPB) and well locations is provided on Figure 1. Additional data collected as part of the startup of the Soil Gas IRM will be provided in the Operable Unit 3 – Interim Operation, Maintenance, and Monitoring Report and Startup Summary (February 2008 to June 2008) (i.e., Startup Report), to be submitted to NYSDEC under separate cover. Activities performed this period include:

- Prepared and submitted the June 2008 AOC Monthly Progress Report.
- Conducted planning, implementation, and data review/evaluation for the OU3 RI/FS as follows:
  - Continued preparation of Site Area Focused Feasibility Study Report (FFS Report).

Imagine the result

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ENVIRONMENT

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Our ref:  
NY001464.0908.00006

- Participated in conference call with NYSDEC to discuss the FFS
- Continued review of NYSDEC comments on Site Area RI Report and preparation of letter in response to comments.
- Continued evaluation of VPB data and assessment of potential additional RI data gaps.
- Conducted planning, implementation, and data review/evaluation for on-site IRMs as follows:
  - Continued routine operation and maintenance of Soil Gas IRM.
  - Continued to address punch list items and preparation of Soil Gas IRM as-built drawings.
  - Continued preparation of Soil Gas IRM startup report and OM&M Manual.
  - Completed preparation of Final design/construction document for Groundwater IRM and submitted document to NYSDEC.
  - Collected additional data and continued to evaluate options to address bio-fouling of Groundwater IRM Well RW-2.
- Conducted RI/FS field activities including the following:
  - Completed drilling and hydropunch sampling of revised location off-site VPBs VP-114 and VP-115. Demobilized drill rig from drill sites.
  - Initiated and completed drilling and hydropunch sampling of off-site VPB VP-110R.
  - Procured equipment for installation of permanent pump and packer system for Monitoring Well MW-116-5.

### **OU3 Activities Expected During August 2008**

- Prepare and submit July 2008 Monthly Progress Report.
- Conduct planning, implementation, and data review/evaluation for the OU3 RI/FS as follows:
  - Continue preparation of Site Area FFS Report.
  - Complete letter in response to NYSDEC comments on the Site Area RI Report.

- o Complete demobilization from off-site VPB VP-110R. Perform RI investigation-derived waste characterization, transportation, and disposal. Demobilize VPB well driller from site.
- o Install permanent pump and packer system in Monitoring Well MW-116-5 and collect groundwater sample for analysis of VOCs.
- o Continue evaluation of VPB data and assessment of potential additional RI data gaps.
- Conduct planning, implementation, and data review/evaluation for on-site IRMs as follows:
  - o Continue to address punch list items for Soil Gas IRM.
  - o Continue OM&M of the Soil Gas IRM.
  - o Complete preparation of Soil Gas IRM startup report and OM&M Manual and submit documents to NYSDEC.
  - o Receive NYSDEC comments on Groundwater IRM Final design/construction document.
  - o Receive results/data and continue to evaluate options to address bio-fouling of Groundwater IRM Well RW-2.

Feel free to call us if you have any questions.

Sincerely,

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David E. Stern  
Associate Project Manager/Senior Scientist

Copies:

- C. San Giovanni, ARCADIS
- M. Wolfert, ARCADIS
- File, ARCADIS
- J. Cofman, Northrop Grumman
- K. Smith, Northrop Grumman
- Bethpage Public Library – Public Repository

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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

Location ID	VP-109R	VP-109R	VP-109R	VP-109R	VP-109R	VP-109R
Sample ID	VP-109R(302)-20080501	VP-109R(327)-20080501	VP-109R(337)-20080502	VP-109R(361)-20080502	VP-109R(382)-20080505	VP-109R(402)-20080505
Depth (ft bls):	302	327	337	361	382	402
Sample Date	5/1/2008	5/1/2008	5/2/2008	5/2/2008	5/5/2008	5/5/2008
CONSTITUENT (units in ug/L)	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date
1,1,1-TRICHLOROETHANE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
1,1,2,2-TETRACHLOROETHANE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
1,1,2-TRICHLOROETHANE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
1,1-DICHLOROETHANE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
1,1-DICHLOROETHENE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
1,2-DICHLOROETHANE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
1,2-DICHLOROPROPANE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
2-BUTANONE	< 250 U	< 50 U	< 100 U	< 1300 U	< 100 U	< 100 U
2-HEXANONE	< 250 U	< 50 U	< 100 U	< 1300 U	< 100 U	< 100 U
4-METHYL-2-PENTANONE	< 250 U	< 50 U	< 100 U	< 1300 U	< 100 U	< 100 U
ACETONE	< 250 U	< 50 U	< 100 U	< 1300 U	< 100 U	< 100 U
BENZENE	< 3.5 U	< 0.7 U	< 1.4 U	< 18 U	< 1.4 U	< 1.4 U
BROMODICHLOROMETHANE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
BROMOFORM	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
BROMOMETHANE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
CARBON DISULFIDE	< 250 U	< 50 U	< 100 U	< 1300 U	< 100 U	< 100 U
CARBON TETRACHLORIDE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
CHLOROBENZENE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
CHLORODIBROMOMETHANE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
CHLORODIFLUOROMETHANE (FREON 22)	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
CHLOROETHANE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
CHLOROFORM	< 35 U	< 7 U	< 14 U	< 180 U	< 14 U	< 14 U
CHLOROMETHANE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
CIS-1,2-DICHLOROETHENE	<b>360</b>	<b>36</b>	<b>26</b>	<b>220</b>	<b>17</b>	<b>15</b>
CIS-1,3-DICHLOROPROPENE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
ETHYLBENZENE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
FREON 113	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
FREON 12	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
METHYLENE CHLORIDE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
STYRENE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
TETRACHLOROETHENE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
TOLUENE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
TRANS-1,2-DICHLOROETHENE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
TRANS-1,3-DICHLOROPROPENE	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
TRICHLOROETHYLENE	<b>660</b>	<b>190</b>	<b>320</b>	<b>3600</b>	<b>370</b>	<b>680 D</b>
VINYL CHLORIDE	< 10 U	< 2 U	< 4 U	< 50 U	< 4 U	< 4 U
XYLENE-O	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
XYLENES - M,P	< 25 U	< 5 U	< 10 U	< 130 U	< 10 U	< 10 U
<b>Total VOCs</b>	<b>1020</b>	<b>226</b>	<b>346</b>	<b>3820</b>	<b>387</b>	<b>695</b>

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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

Location ID	VP-109R	VP-109R	VP-109R	VP-109R	VP-109R	VP-109R	
Sample ID	VP-109R(421)-20080506	VP-109R(447)-20080507	VP-109R(461)-20080507	VP-109R(481)-20080508	VP-109R(502)-20080508	VP-109R(521)-20080509	
Depth (ft bls):	421	447	461	481	502	521	
CONSTITUENT (units in ug/L)	Sample Date	5/6/2008	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/9/2008
1,1,1-TRICHLOROETHANE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,1,2,2-TETRACHLOROETHANE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,1,2-TRICHLOROETHANE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,1-DICHLOROETHANE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,1-DICHLOROETHENE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,2-DICHLOROETHANE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,2-DICHLOROPROPANE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
2-BUTANONE	< 250 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
2-HEXANONE	< 250 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
4-METHYL-2-PENTANONE	< 250 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
ACETONE	< 250 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
BENZENE	< 3.5 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	
BROMODICHLOROMETHANE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
BROMOFORM	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
BROMOMETHANE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CARBON DISULFIDE	< 250 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
CARBON TETRACHLORIDE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CHLOROBENZENE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CHLORODIBROMOMETHANE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CHLORODIFLUOROMETHANE (FREON 22)	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CHLOROETHANE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CHLOROFORM	< 35 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	
CHLOROMETHANE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CIS-1,2-DICHLOROETHENE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CIS-1,3-DICHLOROPROPENE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
ETHYLBENZENE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
FREON 113	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
FREON 12	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
METHYLENE CHLORIDE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
STYRENE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
TETRACHLOROETHENE	< 25 U	< 5 U	5.5	< 5 U	< 5 U	< 5 U	
TOLUENE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
TRANS-1,2-DICHLOROETHENE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
TRANS-1,3-DICHLOROPROPENE	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
TRICHLOROETHYLENE	690	12	24	6.5	< 5 U	< 5 U	
VINYL CHLORIDE	< 10 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	
XYLENE-O	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
XYLENES - M,P	< 25 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
<b>Total VOCs</b>	<b>690</b>	<b>12</b>	<b>30</b>	<b>7</b>	<b>0</b>	<b>0</b>	

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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

CONSTITUENT (units in ug/L)	Location ID Sample ID Depth (ft bls): Sample Date	VP-113 VP-113 (50)-20080319 50 3/19/2008	VP-113 VP-113 (70)-20080320 70 3/20/2008	VP-113 VP-113 (90)-20080320 90 3/20/2008	VP-113 VP-113 (110)-20080321 110 3/21/2008	VP-113 VP-113 (130)-20080321 130 3/21/2008	VP-113 VP-113 (150)-20080324 150 3/24/2008
1,1,1-TRICHLOROETHANE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
1,1,2,2-TETRACHLOROETHANE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
1,1,2-TRICHLOROETHANE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
1,1-DICHLOROETHANE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
1,1-DICHLOROETHENE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
1,2-DICHLOROETHANE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
1,2-DICHLOROPROPANE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
2-BUTANONE		< 100 U	< 100 U	< 50 U	< 100 U	< 50 U	< 250 U
2-HEXANONE		< 100 U	< 100 U	< 50 U	< 100 U	< 50 U	< 250 U
4-METHYL-2-PENTANONE		< 100 U	< 100 U	< 50 U	< 100 U	< 50 U	< 250 U
ACETONE		< 100 U	< 100 U	< 50 U	< 100 U	< 50 U	< 250 U
BENZENE		< 1.4 U	< 1.4 U	< 0.7 U	< 1.4 U	< 0.7 U	< 3.5 U
BROMODICHLOROMETHANE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
BROMOFORM		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
BROMOMETHANE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
CARBON DISULFIDE		< 100 U	< 100 U	< 50 U	< 100 U	< 50 U	< 250 U
CARBON TETRACHLORIDE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
CHLOROBENZENE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
CHLORODIBROMOMETHANE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
CHLORODIFLUOROMETHANE (FREON 22)		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
CHLOROETHANE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
CHLOROFORM		< 14 U	< 14 U	< 7 U	< 14 U	< 7 U	< 35 U
CHLOROMETHANE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
CIS-1,2-DICHLOROETHENE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
CIS-1,3-DICHLOROPROPENE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
ETHYLBENZENE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
FREON 113		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
FREON 12		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
METHYLENE CHLORIDE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
STYRENE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
TETRACHLOROETHENE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
TOLUENE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
TRANS-1,2-DICHLOROETHENE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
TRANS-1,3-DICHLOROPROPENE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
TRICHLOROETHYLENE		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
VINYL CHLORIDE		< 4 U	< 4 U	< 2 U	< 4 U	< 2 U	< 10 U
XYLENE-O		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
XYLENES - M,P		< 10 U	< 10 U	< 5 U	< 10 U	< 5 U	< 25 U
<b>Total VOCs</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

CONSTITUENT (units in ug/L)	Location ID Sample ID Depth (ft bls): Sample Date	VP-113 VP-113 (170)-20080324 170 3/24/2008	VP-113 VP-113 (190)-20080324 190 3/24/2008	VP-113 VP-113 (210)-20080325 210 3/25/2008	VP-113 VP-113 (230)-20080325 230 3/25/2008	VP-113 VP-113 (250)-20080325 250 3/25/2008	VP-113 VP-113 (270)-20080326 270 3/26/2008
1,1,1-TRICHLOROETHANE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
1,1,2,2-TETRACHLOROETHANE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
1,1,2-TRICHLOROETHANE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
1,1-DICHLOROETHANE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	5.9
1,1-DICHLOROETHENE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
1,2-DICHLOROETHANE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
1,2-DICHLOROPROPANE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
2-BUTANONE		< 100 U	< 50 U	< 50 U	< 50 U	< 250 U	< 50 U
2-HEXANONE		< 100 U	< 50 U	< 50 U	< 50 U	< 250 U	< 50 U
4-METHYL-2-PENTANONE		< 100 U	< 50 U	< 50 U	< 50 U	< 250 U	< 50 U
ACETONE		< 100 U	< 50 U	< 50 U	< 50 U	< 250 U	< 50 U
BENZENE		< 1.4 U	< 0.7 U	< 0.7 U	< 0.7 U	< 3.5 U	< 0.7 U
BROMODICHLOROMETHANE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
BROMOFORM		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
BROMOMETHANE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
CARBON DISULFIDE		< 100 U	< 50 U	< 50 U	< 50 U	< 250 U	< 50 U
CARBON TETRACHLORIDE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
CHLOROBENZENE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
CHLORODIBROMOMETHANE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
CHLORODIFLUOROMETHANE (FREON 22)		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
CHLOROETHANE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
CHLOROFORM		< 14 U	< 7 U	< 7 U	< 7 U	< 35 U	< 7 U
CHLOROMETHANE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
CIS-1,2-DICHLOROETHENE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
CIS-1,3-DICHLOROPROPENE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
ETHYLBENZENE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
FREON 113		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
FREON 12		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
METHYLENE CHLORIDE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
STYRENE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
TETRACHLOROETHENE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
TOLUENE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
TRANS-1,2-DICHLOROETHENE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
TRANS-1,3-DICHLOROPROPENE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
TRICHLOROETHYLENE		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	8
VINYL CHLORIDE		< 4 U	< 2 U	< 2 U	< 2 U	< 10 U	< 2 U
XYLENE-O		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
XYLENES - M,P		< 10 U	< 5 U	< 5 U	< 5 U	< 25 U	< 5 U
<b>Total VOCs</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>

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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

CONSTITUENT (units in ug/L)	Location ID Sample ID Depth (ft bls): Sample Date	VP-113 VP-113 (290)-20080326 290 3/26/2008	VP-113 VP-113 (310)-20080328 310 3/28/2008	VP-113 VP-113 (330)-20080328 330 3/28/2008	VP-113 VP-113 (350)-20080328 350 3/28/2008	VP-113 VP-113 (370)-20080331 370 3/31/2008	VP-113 VP-113 (410)-20080331 410 3/31/2008
1,1,1-TRICHLOROETHANE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
1,1,2,2-TETRACHLOROETHANE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
1,1,2-TRICHLOROETHANE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
1,1-DICHLOROETHANE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
1,1-DICHLOROETHENE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
1,2-DICHLOROETHANE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
1,2-DICHLOROPROPANE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
2-BUTANONE		< 50 U	< 100 U	< 100 U	< 100 U	< 50 U	< 50 U
2-HEXANONE		< 50 U	< 100 U	< 100 U	< 100 U	< 50 U	< 50 U
4-METHYL-2-PENTANONE		< 50 U	< 100 U	< 100 U	< 100 U	< 50 U	< 50 U
ACETONE		< 50 U	< 100 U	< 100 U	< 100 U	< 50 U	< 50 U
BENZENE		< 0.7 U	< 1.4 U	< 1.4 U	< 1.4 U	< 0.7 U	< 0.7 U
BROMODICHLOROMETHANE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
BROMOFORM		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
BROMOMETHANE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
CARBON DISULFIDE		< 50 U	< 100 U	< 100 U	< 100 U	< 50 U	< 50 U
CARBON TETRACHLORIDE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
CHLOROBENZENE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
CHLORODIBROMOMETHANE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
CHLORODIFLUOROMETHANE (FREON 22)		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
CHLOROETHANE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
CHLOROFORM		< 7 U	< 14 U	< 14 U	< 14 U	< 7 U	< 7 U
CHLOROMETHANE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
CIS-1,2-DICHLOROETHENE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
CIS-1,3-DICHLOROPROPENE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
ETHYLBENZENE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
FREON 113		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
FREON 12		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
METHYLENE CHLORIDE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
STYRENE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
TETRACHLOROETHENE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
TOLUENE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
TRANS-1,2-DICHLOROETHENE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
TRANS-1,3-DICHLOROPROPENE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
TRICHLOROETHYLENE		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
VINYL CHLORIDE		< 2 U	< 4 U	< 4 U	< 4 U	< 2 U	< 2 U
XYLENE-O		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
XYLENES - M,P		< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 5 U
<b>Total VOCs</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>



# ARCADIS

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

Location ID	VP-113	VP-113	VP-113	VP-113	VP-113	VP-113	VP-113
Sample ID	VP-113 (417)-20080401	VP-113 (421)-20080401	VP-113 (431)-20080402	VP-113 (436)-20080402	VP-113 (441)-20080402	VP-113 (462)-20080403	
Depth (ft bls):	417	421	431	436	441	462	
Sample Date	4/1/2008	4/1/2008	4/2/2008	4/2/2008	4/2/2008	4/3/2008	
CONSTITUENT (units in ug/L)							
1,1,1-TRICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2,2-TETRACHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2-TRICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROPROPANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-BUTANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
2-HEXANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
4-METHYL-2-PENTANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
ACETONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
BENZENE	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U
BROMODICHLOROMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOFORM	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CARBON DISULFIDE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
CARBON TETRACHLORIDE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROBENZENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIBROMOMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIFLUOROMETHANE (FREON 22)	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROFORM	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U
CHLOROMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,2-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,3-DICHLOROPROPENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
ETHYLBENZENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 113	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 12	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
METHYLENE CHLORIDE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
STYRENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TETRACHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TOLUENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,2-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,3-DICHLOROPROPENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRICHLOROETHYLENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
VINYL CHLORIDE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
XYLENE-O	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
XYLENES - M,P	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
<b>Total VOCs</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# ARCADIS

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

CONSTITUENT (units in ug/L)	Location ID Sample ID Depth (ft bis): Sample Date	VP-113 VP-113 (492)-20080404 492 4/4/2008	VP-114 VP-114(59)-20080516 59 5/16/2008	VP-114 VP-114(74)-20080519 74 5/19/2008	VP-114 VP-114(94)-20080519 94 5/19/2008	VP-114 VP-114(114)-20080519 114 5/19/2008	VP-114 VP-114(134)-20080519 134 5/19/2008
1,1,1-TRICHLOROETHANE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2,2-TETRACHLOROETHANE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2-TRICHLOROETHANE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHANE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHENE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROETHANE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROPROPANE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-BUTANONE		< 110 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
2-HEXANONE		< 110 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
4-METHYL-2-PENTANONE		< 110 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
ACETONE		< 110 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
BENZENE		< 1.6 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U
BROMODICHLOROMETHANE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOFORM		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOMETHANE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CARBON DISULFIDE		< 110 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
CARBON TETRACHLORIDE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROBENZENE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIBROMOMETHANE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIFLUOROMETHANE (FREON 22)		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROETHANE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROFORM		< 16 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U
CHLOROMETHANE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,2-DICHLOROETHENE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,3-DICHLOROPROPENE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
ETHYLBENZENE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 113		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 12		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
METHYLENE CHLORIDE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
STYRENE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TETRACHLOROETHENE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TOLUENE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,2-DICHLOROETHENE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,3-DICHLOROPROPENE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRICHLOROETHYLENE		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
VINYL CHLORIDE		< 4.5 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
XYLENE-O		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
XYLENES - M,P		< 11 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
<b>Total VOCs</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# ARCADIS

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

Location ID	VP-114	VP-114	VP-114	VP-114	VP-114	VP-114
Sample ID	VP-114(154)-20080520	VP-114(174)-20080520	VP-114(194)-20080520	VP-114(214)-20080522	VP-114(234)-20080522	VP-114(259)-20080527
Depth (ft bls):	154	174	194	214	234	259
Sample Date	5/20/2008	5/20/2008	5/20/2008	5/22/2008	5/22/2008	5/27/2008
CONSTITUENT (units in ug/L)						
1,1,1-TRICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2,2-TETRACHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2-TRICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROPROPANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-BUTANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
2-HEXANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
4-METHYL-2-PENTANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
ACETONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
BENZENE	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U
BROMODICHLOROMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOFORM	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CARBON DISULFIDE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
CARBON TETRACHLORIDE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROBENZENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIBROMOMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIFLUOROMETHANE (FREON 22)	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROFORM	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U
CHLOROMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,2-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,3-DICHLOROPROPENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
ETHYLBENZENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 113	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 12	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
METHYLENE CHLORIDE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
STYRENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TETRACHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TOLUENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,2-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,3-DICHLOROPROPENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRICHLOROETHYLENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
VINYL CHLORIDE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
XYLENE-O	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
XYLENES - M,P	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
<b>Total VOCs</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# ARCADIS

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

CONSTITUENT (units in ug/L)	Location ID Sample ID Depth (ft bls): Sample Date	VP-114 VP-114(274)-20080527 274 5/27/2008	VP-114 VP-114(294)-20080528 294 5/28/2008	VP-114 VP-114(314)-20080528 314 5/28/2008	VP-114 VP-114(339)-20080528 339 5/28/2008	VP-114 VP-114(354)-20080529 354 5/29/2008	VP-114 VP-114(379)-20080602 379 6/2/2008
1,1,1-TRICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2,2-TETRACHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2-TRICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROPROPANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-BUTANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
2-HEXANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
4-METHYL-2-PENTANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
ACETONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
BENZENE		< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U
BROMODICHLOROMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOFORM		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CARBON DISULFIDE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
CARBON TETRACHLORIDE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROBENZENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIBROMOMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIFLUOROMETHANE (FREON 22)		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROFORM		< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U
CHLOROMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,2-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,3-DICHLOROPROPENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
ETHYLBENZENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 113		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 12		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
METHYLENE CHLORIDE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
STYRENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TETRACHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TOLUENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,2-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,3-DICHLOROPROPENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRICHLOROETHYLENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
VINYL CHLORIDE		< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
XYLENE-O		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
XYLENES - M,P		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
<b>Total VOCs</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# ARCADIS

Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

CONSTITUENT (units in ug/L)	Location ID Sample ID Depth (ft bls): Sample Date	VP-114 VP-114(394)-20080602 394 6/2/2008	VP-114 VP-114(419)-20080603 419 6/3/2008	VP-114 VP-114(449)-20080604 449 6/4/2008	VP-114 VP-114 (474)-20080605 474 6/5/2008	VP-114 VP-114 (494)-20080605 494 6/5/2008	VP-115 VP-115 (82)-20080605 82 6/5/2008
1,1,1-TRICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2,2-TETRACHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2-TRICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROPROPANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-BUTANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
2-HEXANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
4-METHYL-2-PENTANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
ACETONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
BENZENE		< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U
BROMODICHLOROMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOFORM		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CARBON DISULFIDE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
CARBON TETRACHLORIDE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROBENZENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIBROMOMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIFLUOROMETHANE (FREON 22)		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROFORM		< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U
CHLOROMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,2-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,3-DICHLOROPROPENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
ETHYLBENZENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 113		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 12		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
METHYLENE CHLORIDE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
STYRENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TETRACHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TOLUENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,2-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,3-DICHLOROPROPENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRICHLOROETHYLENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
VINYL CHLORIDE		< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
XYLENE-O		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
XYLENES - M,P		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
<b>Total VOCs</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

CONSTITUENT (units in ug/L)	Location ID Sample ID Depth (ft bls): Sample Date	VP-115 VP-115(102')-20080606 102 6/6/2008	VP-115 VP-115(122')-20080606 122 6/6/2008	VP-115 VP-115(142')-20080606 142 6/6/2008	VP-115 VP-115(162')-20080609 162 6/9/2008	VP-115 VP-115(182')-20080609 182 6/9/2008	VP-115 VP-115(202')-20080609 202 6/9/2008
1,1,1-TRICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2,2-TETRACHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2-TRICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROPROPANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-BUTANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
2-HEXANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
4-METHYL-2-PENTANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
ACETONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
BENZENE		< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U
BROMODICHLOROMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOFORM		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CARBON DISULFIDE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
CARBON TETRACHLORIDE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROBENZENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIBROMOMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIFLUOROMETHANE (FREON 22)		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROFORM		< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U
CHLOROMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,2-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,3-DICHLOROPROPENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
ETHYLBENZENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 113		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 12		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
METHYLENE CHLORIDE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
STYRENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TETRACHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TOLUENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,2-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,3-DICHLOROPROPENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRICHLOROETHYLENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
VINYL CHLORIDE		< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
XYLENE-O		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
XYLENES - M,P		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
<b>Total VOCs</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

Location ID	VP-115	VP-115	VP-115	VP-115	VP-115	VP-115	
Sample ID	VP-115(222')-20080610	VP-115(242')-20080610	VP-115(262')-20080610	VP-115(282')-20080611	VP-115(302')-20080611	VP-115(322')-20080611	
Depth (ft bls):	222	242	262	282	302	322	
CONSTITUENT (units in ug/L)	Sample Date	6/10/2008	6/10/2008	6/10/2008	6/11/2008	6/11/2008	6/11/2008
1,1,1-TRICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,1,2,2-TETRACHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,1,2-TRICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,1-DICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,1-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,2-DICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
1,2-DICHLOROPROPANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
2-BUTANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
2-HEXANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
4-METHYL-2-PENTANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
ACETONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
BENZENE	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	
BROMODICHLOROMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
BROMOFORM	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
BROMOMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CARBON DISULFIDE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	
CARBON TETRACHLORIDE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CHLOROBENZENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CHLORODIBROMOMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CHLORODIFLUOROMETHANE (FREON 22)	< 5 U	6.6	< 5 U	< 5 U	< 5 U	< 5 U	
CHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CHLOROFORM	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	
CHLOROMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CIS-1,2-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
CIS-1,3-DICHLOROPROPENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
ETHYLBENZENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
FREON 113	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
FREON 12	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
METHYLENE CHLORIDE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
STYRENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
TETRACHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
TOLUENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
TRANS-1,2-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
TRANS-1,3-DICHLOROPROPENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
TRICHLOROETHYLENE	6.9	9.8	8.3	< 5 U	< 5 U	6.9	
VINYL CHLORIDE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	
XYLENE-O	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
XYLENES - M,P	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	
<b>Total VOCs</b>	<b>6.9</b>	<b>16</b>	<b>8.3</b>	<b>0</b>	<b>0</b>	<b>6.9</b>	

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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

CONSTITUENT (units in ug/L)	Location ID Sample ID Depth (ft bls): Sample Date	VP-115 VP-115(342)-20080612 342 6/12/2008	VP-115 VP-115(362)-20080612 362 6/12/2008	VP-115 VP-115(382)-20080613 382 6/13/2008	VP-115 VP-115(402)-20080613 402 6/13/2008	VP-115 VP-115(422)-20080616 422 6/16/2008	VP-115 VP-115(442)-20080616 442 6/16/2008
1,1,1-TRICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2,2-TETRACHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2-TRICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROPROPANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-BUTANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
2-HEXANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
4-METHYL-2-PENTANONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
ACETONE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
BENZENE		< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U
BROMODICHLOROMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOFORM		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CARBON DISULFIDE		< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
CARBON TETRACHLORIDE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROBENZENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIBROMOMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIFLUOROMETHANE (FREON 22)		< 5 U	< 5 U	< 5 U	9.6	< 5 U	8.5
CHLOROETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROFORM		< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U
CHLOROMETHANE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,2-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,3-DICHLOROPROPENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
ETHYLBENZENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 113		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 12		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
METHYLENE CHLORIDE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
STYRENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TETRACHLOROETHENE		< 5 U	< 5 U	6.6	< 5 U	< 5 U	< 5 U
TOLUENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,2-DICHLOROETHENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,3-DICHLOROPROPENE		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRICHLOROETHYLENE		6.2	< 5 U	7.2	9.4	6.5	7.6
VINYL CHLORIDE		< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
XYLENE-O		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
XYLENES - M,P		< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
<b>Total VOCs</b>		<b>6.2</b>	<b>0</b>	<b>14</b>	<b>19</b>		<b>16</b>



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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

Location ID	VP-115	VP-115	VP-115	VP-115	VP-115	VP-115
Sample ID	VP-115(462)-20080617	VP-115(482)-20080617	VP-115(502)-20080618	VP-115(522)-20080618	VP-115(527)-20080619	VP-115(542)-20080619
Depth (ft bls):	462	482	502	522	527	542
Sample Date	6/17/2008	6/17/2008	6/18/2008	6/18/2008	6/19/2008	6/19/2008
CONSTITUENT (units in ug/L)						
1,1,1-TRICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2,2-TETRACHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1,2-TRICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
1,2-DICHLOROPROPANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
2-BUTANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
2-HEXANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
4-METHYL-2-PENTANONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
ACETONE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
BENZENE	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U	< 0.7 U
BROMODICHLOROMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOFORM	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
BROMOMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CARBON DISULFIDE	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
CARBON TETRACHLORIDE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROBENZENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIBROMOMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLORODIFLUOROMETHANE (FREON 22)	< 5 U	9.1	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CHLOROFORM	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U	< 7 U
CHLOROMETHANE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,2-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
CIS-1,3-DICHLOROPROPENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
ETHYLBENZENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 113	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
FREON 12	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
METHYLENE CHLORIDE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
STYRENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TETRACHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TOLUENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,2-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRANS-1,3-DICHLOROPROPENE	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
TRICHLOROETHYLENE	7	6.3	6.5	< 5 U	6.6	< 5 U
VINYL CHLORIDE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
XYLENE-O	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
XYLENES - M,P	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
<b>Total VOCs</b>	<b>7</b>	<b>15</b>	<b>6.5</b>	<b>0</b>	<b>6.6</b>	<b>0</b>

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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

CONSTITUENT (units in ug/L)	Location ID Sample ID Depth (ft bls): Sample Date	VP-115 VP-115(562)-20080620 562 6/20/2008	VP-115 VP-115(582)-20080620 582 6/20/2008	VP-115 VP-115(602)-20080623 602 6/23/2008
1,1,1-TRICHLOROETHANE		< 5 U	< 5 U	< 5 U
1,1,2,2-TETRACHLOROETHANE		< 5 U	< 5 U	< 5 U
1,1,2-TRICHLOROETHANE		< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHANE		< 5 U	< 5 U	< 5 U
1,1-DICHLOROETHENE		< 5 U	< 5 U	< 5 U
1,2-DICHLOROETHANE		< 5 U	< 5 U	< 5 U
1,2-DICHLOROPROPANE		< 5 U	< 5 U	< 5 U
2-BUTANONE		< 50 U	< 50 U	< 50 U
2-HEXANONE		< 50 U	< 50 U	< 50 U
4-METHYL-2-PENTANONE		< 50 U	< 50 U	< 50 U
ACETONE		< 50 U	< 50 U	< 50 U
BENZENE		< 0.7 U	< 0.7 U	< 0.7 U
BROMODICHLOROMETHANE		< 5 U	< 5 U	< 5 U
BROMOFORM		< 5 U	< 5 U	< 5 U
BROMOMETHANE		< 5 U	< 5 U	< 5 U
CARBON DISULFIDE		< 50 U	< 50 U	< 50 U
CARBON TETRACHLORIDE		< 5 U	< 5 U	< 5 U
CHLOROBENZENE		< 5 U	< 5 U	< 5 U
CHLORODIBROMOMETHANE		< 5 U	< 5 U	< 5 U
CHLORODIFLUOROMETHANE (FREON 22)		< 5 U	< 5 U	< 5 U
CHLOROETHANE		< 5 U	< 5 U	< 5 U
CHLOROFORM		< 7 U	< 7 U	< 7 U
CHLOROMETHANE		< 5 U	< 5 U	< 5 U
CIS-1,2-DICHLOROETHENE		< 5 U	< 5 U	< 5 U
CIS-1,3-DICHLOROPROPENE		< 5 U	< 5 U	< 5 U
ETHYLBENZENE		< 5 U	< 5 U	< 5 U
FREON 113		< 5 U	< 5 U	< 5 U
FREON 12		< 5 U	< 5 U	< 5 U
METHYLENE CHLORIDE		< 5 U	< 5 U	< 5 U
STYRENE		< 5 U	< 5 U	< 5 U
TETRACHLOROETHENE		< 5 U	< 5 U	< 5 U
TOLUENE		< 5 U	< 5 U	< 5 U
TRANS-1,2-DICHLOROETHENE		< 5 U	< 5 U	< 5 U
TRANS-1,3-DICHLOROPROPENE		< 5 U	< 5 U	< 5 U
TRICHLOROETHYLENE		6	7.8	8.6
VINYL CHLORIDE		< 2 U	< 2 U	< 2 U
XYLENE-O		< 5 U	< 5 U	< 5 U
XYLENES - M,P		< 5 U	< 5 U	< 5 U
<b>Total VOCs</b>		<b>6</b>	<b>7.8</b>	<b>8.6</b>

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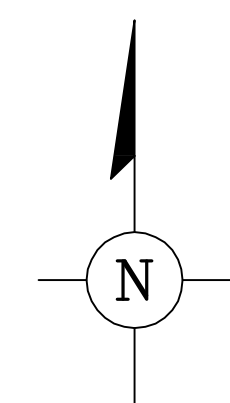
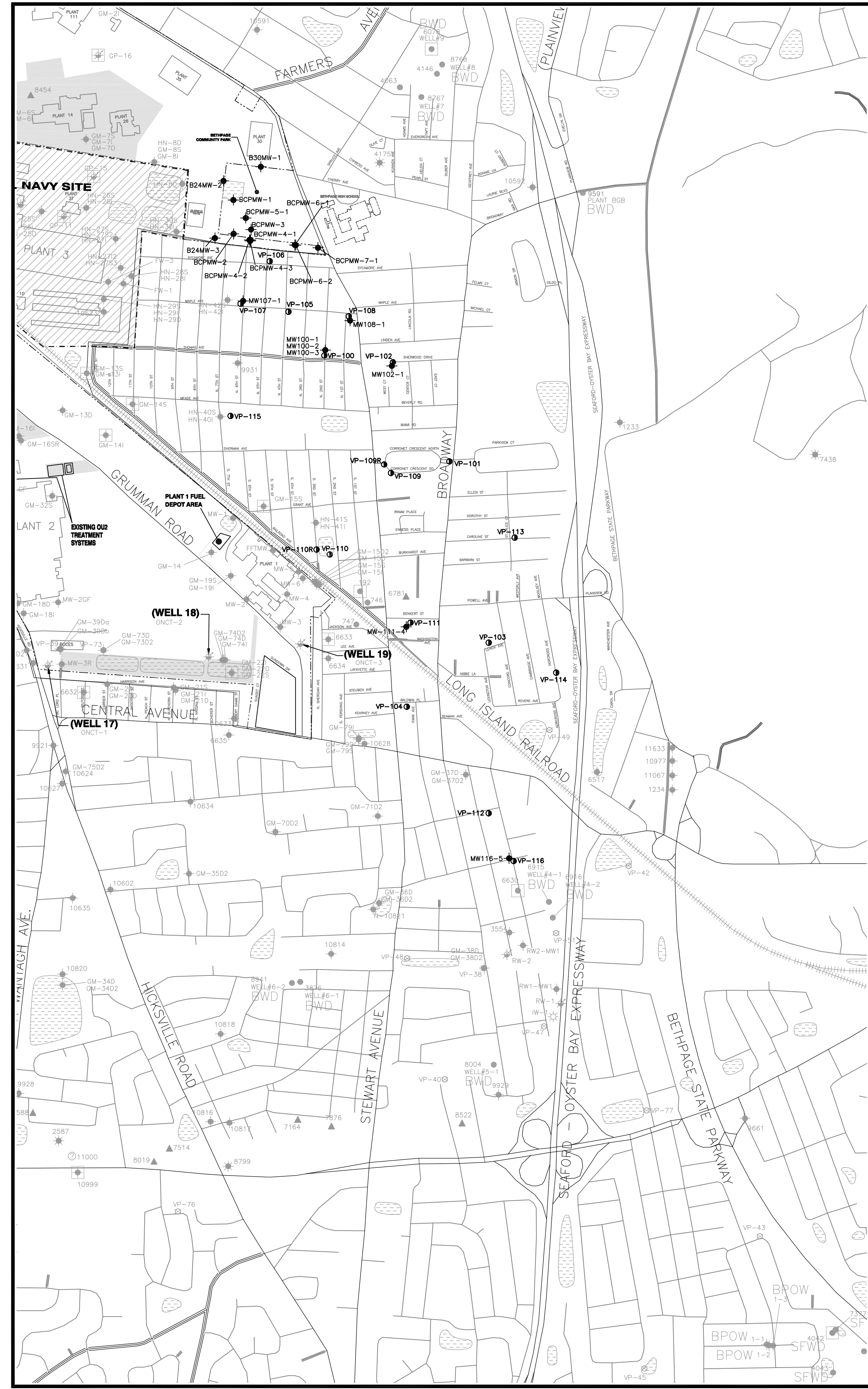
Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples Obtained from Vertical Profile Borings, Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York.

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Notes

**Bold value indicates a detection**

D            Constituent identified at a secondary dilution  
ug/L        micrograms per liter  
ft bls      feet below land surface



**EXPLANATION**

---	PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE SITE
---	PROPERTY BOUNDARY OF U.S. NAVY SITE
	LONG ISLAND RAILROAD
▨	DENOTES NORTHROP GRUMMAN OWNED PROPERTY (AS OF 2003)
▩	DENOTES U.S. NAVY OWNED PROPERTY (AS OF 2003)
▭	RECHARGE BASIN
---	LIMITS OF BETHPAGE HIGH SCHOOL MAIN BUILDING
10592 ●	OBSERVATION, MONITORING WELL
6781 ▲	INDUSTRIAL WELL
9591 ●	PUBLIC SUPPLY WELL
4175 ●	IRRIGATION WELL
WELL-17 ●	NORTHROP GRUMMAN OR NAVY PRODUCTION WELL
□	ABANDONED WELL
VP-49 ⊗	COMPLETED OU2 VERTICAL PROFILE BORING
VP-100 ●	COMPLETED OU3 VERTICAL PROFILE BORING
BCP-MW-2 ◆	COMPLETED OU3 MONITORING WELL OR WELL CLUSTER
BWD	BETHPAGE WATER DISTRICT
VPB	VERTICAL PROFILE BORING
RI	REMEDIAL INVESTIGATION
OU2	OPERABLE UNIT 2
OU3	OPERABLE UNIT 3

**GENERAL NOTES:**

1. THIS FIGURE INCLUDES LOCATIONS OF PUBLIC SUPPLY WELLS BASED ON INFORMATION RECEIVED BY ARCADIS IN RESPONSE TO A SEPTEMBER 2001 LETTER TO WATER DISTRICTS.
2. BASIN LOCATIONS OBTAINED FROM USGS TOPOGRAPHIC MAPS (HUNTINGTON, HICKSVILLE, FREEPORT AND AMITVILLE QUADRANGLES) AND INFORMATION PROVIDED BY NORTHROP GRUMMAN.
3. NORTHROP GRUMMAN PROPERTY HOLDINGS BASED ON DATA PROVIDED IN JUNE 2003.
4. LOCATIONS OF MONITORING WELLS INSTALLED BY DVIRKA & BARTILUCCI (D&B) AT PLANT 1 (I.E., MW-1 TO MW-6) ARE APPROXIMATE BASED ON D&B SITE PLAN, PROVIDED ON DECEMBER 19, 2002.

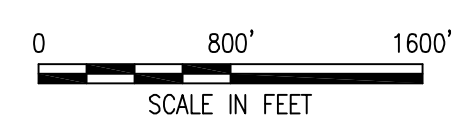
NORTHROP GRUMMAN SYSTEMS CORPORATION  
 BETHPAGE, NEW YORK  
**OPERABLE UNIT 3**  
**(FORMER GRUMMAN SETTLING PONDS)**

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**SITE PLAN SHOWING  
 COMPLETED VPB AND MONITORING WELL  
 LOCATIONS**

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**ARCADIS**



**DRAFT**

ALL COORDINATES REFERENCED TO NORTH AMERICAN DATUM 1983