



Infrastructure, buildings, environment, communications



1-30-003A-002

ARCADIS G&M, Inc.
88 Duryea Road
Melville
New York 11747
Tel 631 249 7600
Fax 631 249 7610
www.arcadis-us.com

Mr. Steven Scharf, P.E.
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7015

ENVIRONMENTAL

Subject:
First and Second Quarters of 2003 Groundwater Monitoring Data,
Northrop Grumman Corporation, Bethpage, New York.

Dear Mr. Scharf:

Date:
25 November 2003

On behalf of Northrop Grumman Corporation, ARCADIS is providing the NYSDEC with groundwater data for the First and Second Quarters of 2003 as part of outpost monitoring near Bethpage Water District Plants 4, 5, and 6. Table 1 summarizes volatile organic compound (VOC) concentrations detected in groundwater samples. Figures 1 through 3 depict the historical concentrations of total VOCs in groundwater.

Contact:
David E. Stern

Phone:
(631) 391-5284

Also provided are the monitoring results for the First and Second Quarters of 2003 for total cadmium and chromium (Cd/Cr). Table 2 summarizes Cd/Cr concentrations detected in groundwater samples during this period.

Email:
dstern@arcadis-us.com

Please contact us if you have any questions or comments.

Sincerely,

ARCADIS G&M, Inc.

Carlo San Giovanni

Carlo San Giovanni
Project Manager

Michael F. Wolfert

Michael F. Wolfert
Project Director

Copies:
John Cofman, Northrop Grumman

ARCADIS

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter of 2003, Northrop Grumman Corporation, Bethpage, New York.

	WELL: GM-35D2	GM-35D2	GM-35D2	GM-35D2	GM-36D
CONSTITUENT:	SAMPLE ID: GM-35D-2	GM-35D-2	GM 35D2	GM 35 D2	GM-36D
(Units in ug/L)	DATE: 04/17/2003	04/17/2003	08/05/2003	08/05/2003	04/21/2003
	LAB/SAMPLER: STL/G&M	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M
Chloromethane	<20 J	<0.5	<20 J	<0.5	<5 J
Bromomethane	<20	<0.5	<20	<0.5	<5
Vinyl Chloride	<8	<0.5	<8	<0.5	<2
Chloroethane	<20 J	<0.5	<20 J	<0.5	<5 J
Methylene chloride	<20	<0.5	<20	<0.5	<5
Acetone	<40	--	<40 J	--	<10 J
Carbon disulfide	<20	--	<20	--	<5
1,1-Dichloroethene	2 J	2.4	<20	1.8	<5
1,1-Dichloroethane	<20	<0.5	<20	<0.5	<5
cis-1,2-Dichloroethene	4 J	3.6	3 J	3.6	<5
trans-1,2-Dichloroethene	<20	<0.5	<20	<0.5	<5
Chloroform	<20	0.8	<20	0.6	<5
1,2-Dichloroethane	<20	<0.5	<20	<0.5	<5
2-Butanone	<40	--	<40 J	--	<10
1,1,1-Trichloroethane	<20	0.8	<20	<0.5	<5
Carbon tetrachloride	<20	0.5	<20	<0.5	<5
Bromodichloromethane	<20	<0.5	<20	<0.5	<5
1,2-Dichloropropane	<20	<0.5	<20 J	<0.5	<5
cis-1,3-Dichloropropene	<20	<0.5	<20	<0.5	<5
Trichloroethene	330	355 D	330	331	15
Dibromochloromethane	<20	<0.5	<20	<0.5	<5
1,1,2-Trichloroethane	<20	<0.5	<20	<0.5	<5
Benzene	<3	<0.5	<3	<0.5	<0.7
trans-1,3-Dichloropropene	<20	<0.5	<20	<0.5	<5
Bromoform	<20	<0.5	<20	<0.5	<5
4-Methyl-2-pentanone	<40	--	<40 J	--	<10
2-Hexanone	<40	--	<40 J	--	<10
Tetrachloroethene	6 J	5.0	6 J	5.3	1 J
1,1,2,2-Tetrachloroethane	<20	<0.5	<20	<0.5	<5
Toluene	<20	<0.5	<20	<0.5	<5
Chlorobenzene	<20	<0.5	<20	<0.5	<5
Ethylbenzene	<20	<0.5	<20	<0.5	<5
Styrene	<20	<0.5	<20	<0.5	<5
Xylene (total)	<20	<0.5	<20	<0.5	<5
Vinyl Acetate	<20	--	<20 J	--	<5 J
Freon-113	10 J	--	8 J	--	0.6 J
Total VOCs	352	368.1	347	342.3	16.6

See footnotes on last page.

ARCADIS

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter of 2003, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	WELL: GM-36D	GM-36D	GM-36D	GM-36D2	GM-36D2
	SAMPLE ID: GM-36D	GM 36D	GM 36D	GM-36D2	GM-36D-2
	DATE: 04/21/2003	08/04/2003	08/04/2003	04/21/2003	04/21/2003
	LAB/SAMPLER: H2M/H2M	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M
Chloromethane	<0.5	<5 J	<0.5	<5 J	<0.5
Bromomethane	<0.5	<5	<0.5	<5	<0.5
Vinyl Chloride	<0.5	<2	<0.5	<2	<0.5
Chloroethane	<0.5	<5 J	<0.5	<5 J	<0.5
Methylene chloride	<0.5	<5	<0.5	<5	<0.5
Acetone	--	<10	--	<10 J	--
Carbon disulfide	--	<5	--	<5	--
1,1-Dichloroethene	<0.5	<5	<0.5	<5	<0.5
1,1-Dichloroethane	<0.5	<5	<0.5	<5	<0.5
cis-1,2-Dichloroethene	<0.5	<5	<0.5	<5	<0.5
trans-1,2-Dichloroethene	<0.5	<5	<0.5	<5	<0.5
Chloroform	<0.5	<5	<0.5	<5	<0.5
1,2-Dichloroethane	<0.5	<5	<0.5	<5	<0.5
2-Butanone	--	<10	--	<10	--
1,1,1-Trichloroethane	<0.5	<5	<0.5	<5	<0.5
Carbon tetrachloride	<0.5	<5	<0.5	<5	<0.5
Bromodichloromethane	<0.5	<5	<0.5	<5	<0.5
1,2-Dichloropropane	<0.5	<5	<0.5	<5	<0.5
cis-1,3-Dichloropropene	<0.5	<5	<0.5	<5	<0.5
Trichloroethene	10.8	12	11.3	<5	<0.5
Dibromochloromethane	<0.5	<5	<0.5	<5	<0.5
1,1,2-Trichloroethane	<0.5	<5	<0.5	<5	<0.5
Benzene	<0.5	<0.7	<0.5	<0.7	<0.5
trans-1,3-Dichloropropene	<0.5	<5	<0.5	<5	<0.5
Bromoform	<0.5	<5	<0.5	<5	<0.5
4-Methyl-2-pentanone	--	<10	--	<10	--
2-Hexanone	--	<10	--	<10	--
Tetrachloroethene	<0.5	<5	<0.5	0.8 J	<0.5
1,1,1,2-Tetrachloroethane	<0.5	<5	<0.5	<5	<0.5
Toluene	<0.5	<5	<0.5	<5	<0.5
Chlorobenzene	<0.5	<5	<0.5	<5	<0.5
Ethylbenzene	<0.5	<5	<0.5	<5	<0.5
Styrene	<0.5	<5	<0.5	<5	<0.5
Xylene (total)	<0.5	<5	<0.5	<5	<0.5
Vinyl Acetate	--	<5 J	--	<5 J	--
Freon-113	--	<5	--	<5	--
Total VOCs	10.8	12	11.3	0.8	0

See footnotes on last page.

ARCADIS

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter of 2003, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	WELL:	GM-36D2	GM-36D2	GM-37D	GM-37D	GM-37D
	SAMPLE ID:	GM 36D2	GM 36D2	GM-37D	GM-37D	GM 37D
	DATE:	08/04/2003	08/04/2003	04/22/2003	04/22/2003	08/06/2003
	LAB/SAMPLER:	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M
Chloromethane		<5 J	<0.5	<5 J	<1	<5 J
Bromomethane		<5	<0.5	<5	<1	<5
Vinyl Chloride		<2	<0.5	<2	<1	<2
Chloroethane		<5 J	<0.5	<5 J	<1	<5 J
Methylene chloride		<5	<0.5	<5	<1	<5
Acetone		<10	--	<10 J	--	<10 J
Carbon disulfide		<5	--	<5	--	<5
1,1-Dichloroethene		<5	<0.5	2 J	<1	2 J
1,1-Dichloroethane		<5	<0.5	4 J	3.0	4 J
cis-1,2-Dichloroethene		<5	<0.5	<5	<1	<5
trans-1,2-Dichloroethene		<5	<0.5	<5	<1	<5
Chloroform		<5	<0.5	1 J	<1	0.9 J
1,2-Dichloroethane		<5	<0.5	<5	<1	<5
2-Butanone		<10	--	<10	--	<10 J
1,1,1-Trichloroethane		<5	<0.5	3 J	1.8	<5
Carbon tetrachloride		<5	<0.5	<5	<1	<5
Bromodichloromethane		<5	<0.5	<5	<1	<5
1,2-Dichloropropane		<5	<0.5	<5	<1	<5 J
cis-1,3-Dichloropropene		<5	<0.5	<5	<1	<5
Trichloroethene		<5	<0.5	0.8 J	<1	<5
Dibromochloromethane		<5	<0.5	<5	<1	<5
1,1,2-Trichloroethane		<5	<0.5	<5	<1	<5
Benzene		<0.7	<0.5	<0.7	<1	<0.7
trans-1,3-Dichloropropene		<5	<0.5	<5	<1	<5
Bromoform		<5	<0.5	<5	<1	<5
4-Methyl-2-pentanone		<10	--	<10	--	<10 J
2-Hexanone		<10	--	<10	--	<10 J
Tetrachloroethene		<5	<0.5	1 J	<1	1 J
1,1,2,2-Tetrachloroethane		<5	<0.5	<5	<1	<5
Toluene		<5	<0.5	<5	<1	<5
Chlorobenzene		<5	<0.5	<5	<1	<5
Ethylbenzene		<5	<0.5	<5	<1	<5
Styrene		<5	<0.5	<5	<1	<5
Xylene (total)		<5	<0.5	<5	<1	<5
Vinyl Acetate		<5 J	--	<5 J	--	<5 J
Freon-113		<5	--	<5	--	<5
Total VOCs		0	0	11.8	4.8	7.9

See footnotes on last page.

ARCADIS

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter of 2003, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	WELL: SAMPLE ID: DATE: LAB/SAMPLER:	GM-37D GM 37 D 08/06/2003 H2M/H2M	GM-37D2 GM-37D2 04/23/2003 STL/G&M	GM-37D2 GM-37D 2 04/23/2003 H2M/H2M	GM-37D2 GM 37D2 08/06/2003 STL/G&M	GM-37D2 GM 37 D2 08/06/2003 H2M/H2M
Chloromethane		<0.5	<5 J	<0.5	<5 J	<0.5
Bromomethane		<0.5	<5	<0.5	<5	<0.5
Vinyl Chloride		<0.5	<2	<0.5	<2	<0.5
Chloroethane		<0.5	<5 J	<0.5	<5 J	<0.5
Methylene chloride		<0.5	<5	<0.5	<5	<0.5
Acetone		--	<10 J	--	<10 J	--
Carbon disulfide		--	<5	--	<5	--
1,1-Dichloroethene		0.6	3 J	1.5	2 J	0.6
1,1-Dichloroethane		2.7	9	8.3	7	5.0
cis-1,2-Dichloroethene		<0.5	<5	<0.5	<5	<0.5
trans-1,2-Dichloroethene		<0.5	<5	<0.5	<5	<0.5
Chloroform		<0.5	1 J	0.7	0.8 J	<0.5
1,2-Dichloroethane		<0.5	<5	<0.5	<5	<0.5
2-Butanone		--	<10	--	<10 J	--
1,1,1-Trichloroethane		1.8	3 J	2.4	<5	1.6
Carbon tetrachloride		<0.5	<5	<0.5	<5	<0.5
Bromodichloromethane		<0.5	<5	<0.5	<5	<0.5
1,2-Dichloropropane		<0.5	<5	<0.5	<5 J	<0.5
cis-1,3-Dichloropropene		<0.5	<5	<0.5	<5	<0.5
Trichloroethene		<0.5	4 J	3.1	3 J	2.2
Dibromochloromethane		<0.5	<5	<0.5	<5	<0.5
1,1,2-Trichloroethane		<0.5	<5	<0.5	<5	<0.5
Benzene		<0.5	<0.7	<0.5	<0.7	<0.5
trans-1,3-Dichloropropene		<0.5	<5	<0.5	<5	<0.5
Bromoform		<0.5	<5	<0.5	<5	<0.5
4-Methyl-2-pentanone		--	<10	--	<10 J	--
2-Hexanone		--	<10	--	<10 J	--
Tetrachloroethene		<0.5	0.5 J	<0.5	<5	<0.5
1,1,2,2-Tetrachloroethane		<0.5	<5	<0.5	<5	<0.5
Toluene		<0.5	<5	<0.5	<5	<0.5
Chlorobenzene		<0.5	<5	<0.5	<5	<0.5
Ethylbenzene		<0.5	<5	<0.5	<5	<0.5
Styrene		<0.5	<5	<0.5	<5	<0.5
Xylene (total)		<0.5	<5	<0.5	<5	<0.5
Vinyl Acetate		--	<5 J	--	<5 J	--
Freon-113		--	<5	--	<5	--
Total VOCs		5.1	20.5	16	12.8	9.4

See footnotes on last page.

ARCADIS

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter of 2003, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	WELL:	GM-38D	GM-38D	GM-38D	GM-38D	GM-38D2
	SAMPLE ID:	GM-38D	GM-38D	GM 38D	GM 38 D	GM-38D-2
	DATE:	04/15/2003	04/15/2003	08/08/2003	08/08/2003	04/15/2003
	LAB/SAMPLER:	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M
Chloromethane	<25	<1	<50 J	<2.5	<50	
Bromomethane	<25	<1	<50	<2.5	<50	
Vinyl Chloride	<10	<1	<20 J	<2.5	<20	
Chloroethane	<25	<1	<50 J	<2.5	<50	
Methylene chloride	<25	<1	<50	<2.5	<50	
Acetone	<50	--	<100 J	--	<100	
Carbon disulfide	<25	--	<50	--	<50	
1,1-Dichloroethene	7 J	<1	<50	<2.5	<50	
1,1-Dichloroethane	<25	1.7	<50	<2.5	<50	
cis-1,2-Dichloroethene	3 J	1.7	<50	<2.5	9 J	
trans-1,2-Dichloroethene	<25	<1	<50	<2.5	<50	
Chloroform	<25	1.4	<50	<2.5	<50	
1,2-Dichloroethane	<25	<1	<50	<2.5	<50	
2-Butanone	<50	--	<100 J	--	<100	
1,1,1-Trichloroethane	5 J	3.6	<50	<2.5	<50	
Carbon tetrachloride	<25	1.2	<50	<2.5	<50	
Bromodichloromethane	<25	<1	<50	<2.5	<50	
1,2-Dichloropropane	<25	<1	<50 J	<2.5	<50	
cis-1,3-Dichloropropene	<25	<1	<50	<2.5	<50	
Trichloroethene	950	462 D	960	885	1300	
Dibromochloromethane	<25	<1	<50	<2.5	<50	
1,1,2-Trichloroethane	<25	<1	<50	<2.5	<50	
Benzene	<4	<1	<7	<2.5	<7	
trans-1,3-Dichloropropene	<25	<1	<50	<2.5	<50	
Bromoform	<25	<1	<50	<2.5	<50	
4-Methyl-2-pentanone	<50	--	<100 J	--	<100	
2-Hexanone	<50	--	<100 J	--	<100	
Tetrachloroethene	<25	<1	<50	<2.5	<50	
1,1,2,2-Tetrachloroethane	<25	<1	<50	<2.5	<50	
Toluene	<25	<1	<50	<2.5	<50	
Chlorobenzene	<25	<1	<50	<2.5	<50	
Ethylbenzene	<25	<1	<50	<2.5	<50	
Styrene	<25	<1	<50	<2.5	<50	
Xylene (total)	<25	<1	<50	<2.5	<50	
Vinyl Acetate	<25	--	<50 J	--	<50 J	
Freon-113	<25	--	<50	--	<50	
Total VOCs	965	471.4	960	885	1,309	

See footnotes on last page.

ARCADIS

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter of 2003, Northrop Grumman Corporation, Bethpage, New York.

	WELL: GM-38D2	GM-38D2	GM-38D2	GM-70D2	GM-70D2
	SAMPLE ID: GM-38D2	GM 38D2	GM 38 D2	GM-70D2	GM-70D 2
CONSTITUENT:	DATE: 04/15/2003	08/08/2003	08/08/2003	04/22/2003	04/22/2003
(Units in ug/L)	LAB/SAMPLER: H2M/H2M	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M
Chloromethane	<1	<50 J	<2.5	<5 J	<1
Bromomethane	<1	<50	<2.5	<5	<1
Vinyl Chloride	<1	<20 J	<2.5	<2	<1
Chloroethane	<1	<50 J	<2.5	<5 J	<1
Methylene chloride	<1	<50	<2.5	<5	<1
Acetone	--	<100 J	--	<10 J	--
Carbon disulfide	--	<50	--	<5	--
1,1-Dichloroethene	<1	<50	<2.5	<5	<1
1,1-Dichloroethane	<1	<50	<2.5	<5	<1
cis-1,2-Dichloroethene	5.4	7 J	2.5	1 J	<1
trans-1,2-Dichloroethene	<1	<50	<2.5	<5	<1
Chloroform	1.6	<50	<2.5	<5	<1
1,2-Dichloroethane	<1	<50	<2.5	<5	<1
2-Butanone	--	<100 J	--	<10	--
1,1,1-Trichloroethane	1.2	<50	<2.5	<5	<1
Carbon tetrachloride	<1	<50	<2.5	<5	<1
Bromodichloromethane	<1	<50	<2.5	<5	<1
1,2-Dichloropropane	<1	<50 J	<2.5	<5	<1
cis-1,3-Dichloropropene	<1	<50	<2.5	<5	<1
Trichloroethene	580 D	1300	1100	43	34.9
Dibromochloromethane	<1	<50	<2.5	<5	<1
1,1,2-Trichloroethane	1.1	<50	<2.5	<5	<1
Benzene	<1	<7	<2.5	<0.7	<1
trans-1,3-Dichloropropene	<1	<50	<2.5	<5	<1
Bromoform	<1	<50	<2.5	<5	<1
4-Methyl-2-pentanone	--	<100 J	--	<10	--
2-Hexanone	--	<100 J	--	<10	--
Tetrachloroethene	<1	<50	<2.5	3 J	<1
1,1,2,2-Tetrachloroethane	<1	<50	<2.5	<5	<1
Toluene	<1	<50	<2.5	<5	<1
Chlorobenzene	<1	<50	<2.5	<5	<1
Ethylbenzene	<1	<50	<2.5	<5	<1
Styrene	<1	<50	<2.5	<5	<1
Xylene (total)	<1	<50	<2.5	<5	<1
Vinyl Acetate	--	<50 J	--	<5 J	--
Freon-113	--	<50	--	<5	--
Total VOCs	589.3	1,307	1,102.5	47	34.9

See footnotes on last page.

ARCADIS

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter of 2003, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	WELL:	GM-70D2	GM-70D2	GM-71D2	GM-71D2	GM-71D2
	SAMPLE ID:	GM 70D2	GM 70D2	GM-71D-2	GM-71D-2	GM 71D2
	DATE:	08/04/2003	08/04/2003	04/17/2003	04/17/2003	08/05/2003
	LAB/SAMPLER:	STL/G&M	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M
Chloromethane		<5 J	<0.5	<5 J	<0.5	<5 J
Bromomethane		<5	<0.5	<5	<0.5	<5
Vinyl Chloride		<2	<0.5	<2	<0.5	<2
Chloroethane		<5 J	<0.5	<5 J	<0.5	<5 J
Methylene chloride		<5	<0.5	<5	<0.5	<5
Acetone		<10	--	<10	--	<10
Carbon disulfide		<5	--	<5	--	<5
1,1-Dichloroethene		<5	<0.5	0.9 J	<0.5	0.5 J
1,1-Dichloroethane		<5	<0.5	3 J	2.5	3 J
cis-1,2-Dichloroethene		1 J	0.7	0.4 J	<0.5	<5
trans-1,2-Dichloroethene		<5	<0.5	<5	<0.5	<5
Chloroform		<5	<0.5	1 J	1.0	0.9 J
1,2-Dichloroethane		<5	<0.5	<5	<0.5	<5
2-Butanone		<10	--	<10	--	<10
1,1,1-Trichloroethane		<5	<0.5	1 J	0.8	0.7 J
Carbon tetrachloride		<5	<0.5	<5	1.5	<5
Bromodichloromethane		<5	<0.5	<5	<0.5	<5
1,2-Dichloropropane		<5	<0.5	<5	<0.5	<5
cis-1,3-Dichloropropene		<5	<0.5	<5	<0.5	<5
Trichloroethene		95	100	4 J	4.4	3 J
Dibromochloromethane		<5	<0.5	<5	<0.5	<5
1,1,2-Trichloroethane		<5	<0.5	<5	<0.5	<5
Benzene		<0.7	<0.5	<0.7	<0.5	<0.7
trans-1,3-Dichloropropene		<5	<0.5	<5	<0.5	<5
Bromoform		<5	<0.5	<5	<0.5	<5
4-Methyl-2-pentanone		<10	--	<10	--	<10
2-Hexanone		<10	--	<10	--	<10
Tetrachloroethene		5 J	3.6	<5	<0.5	<5
1,1,2,2-Tetrachloroethane		<5	<0.5	<5	<0.5	<5
Toluene		<5	<0.5	<5	<0.5	<5
Chlorobenzene		<5	<0.5	<5	<0.5	<5
Ethylbenzene		<5	<0.5	<5	<0.5	<5
Styrene		<5	<0.5	<5	<0.5	<5
Xylene (total)		<5	<0.5	<5	<0.5	<5
Vinyl Acetate		<5 J	--	<5	--	<5 J
Freon-113		0.6 J	--	<5	--	<5
Total VOCs		101.6	104.3	10.3	10.2	8.1

See footnotes on last page.

ARCADIS

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First and Second Quarter of 2003, Northrop Grumman Corporation, Bethpage, New York.

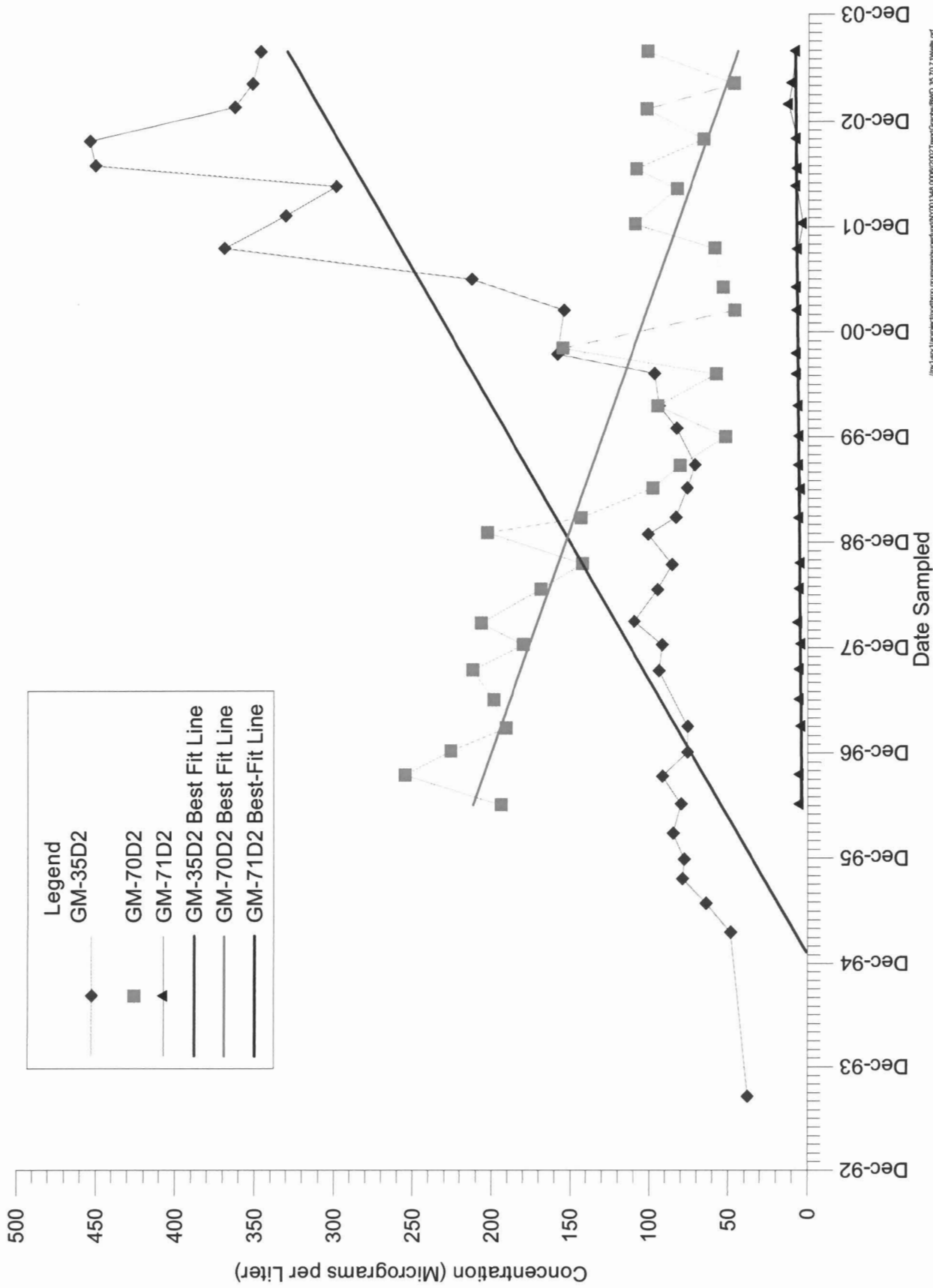
CONSTITUENT: (Units in ug/L)	WELL: GM-71D2 SAMPLE ID: GM 71 D2 DATE: 08/05/2003 LAB/SAMPLER: H2M/H2M
Chloromethane	<0.5
Bromomethane	<0.5
Vinyl Chloride	<0.5
Chloroethane	<0.5
Methylene chloride	<0.5
Acetone	--
Carbon disulfide	--
1,1-Dichloroethene	<0.5
1,1-Dichloroethane	1.8
cis-1,2-Dichloroethene	<0.5
trans-1,2-Dichloroethene	<0.5
Chloroform	0.7
1,2-Dichloroethane	<0.5
2-Butanone	--
1,1,1-Trichloroethane	0.6
Carbon tetrachloride	<0.5
Bromodichloromethane	<0.5
1,2-Dichloropropane	<0.5
cis-1,3-Dichloropropene	<0.5
Trichloroethene	2.2
Dibromochloromethane	<0.5
1,1,2-Trichloroethane	<0.5
Benzene	<0.5
trans-1,3-Dichloropropene	<0.5
Bromoform	<0.5
4-Methyl-2-pentanone	--
2-Hexanone	--
Tetrachloroethene	<0.5
1,1,2,2-Tetrachloroethane	<0.5
Toluene	<0.5
Chlorobenzene	<0.5
Ethylbenzene	<0.5
Styrene	<0.5
Xylene (total)	<0.5
Vinyl Acetate	--
Freon-113	--
Total VOCs	5.3

See footnotes on last page.

ARCADIS

Table 1. Concentrations of Volatile Organic Compounds Detected in Outpost Monitoring Wells, First Quarter 2002 and Second Quarter 2002, Northrop Grumman Corporation, Bethpage, New York.

H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS G&M, Inc.
STL	Severn Trent Laboratories, Inc., Shelton, Connecticut.
ug/L	Micrograms per liter
J	Estimated value
D	Constituent identified at a secondary dilution.
--	Not analyzed
REP	Replicate sample
Bold	Constituent detected above Method Detection Limit.

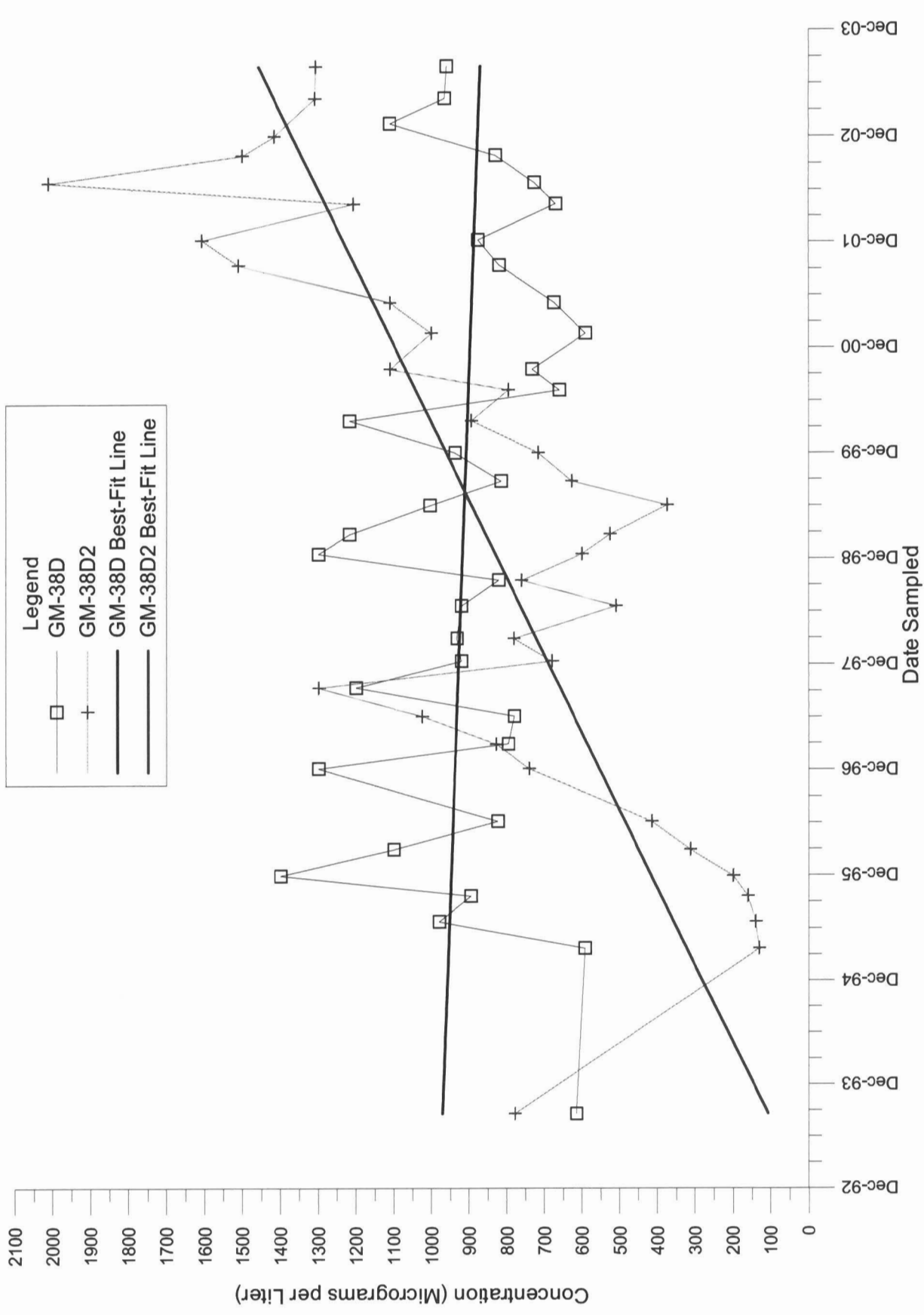


\\ny1-sv1\arcadis\hottop\grumman\superfund\N001348.0006\2002\TrendGraphs\BWD_35_70_71Wells.grf



Total Volatile Organic Compound Concentrations in Selected Deep2 Monitoring Wells
 Northrop Grumman Corporation, Bethpage, New York

FIGURE 1

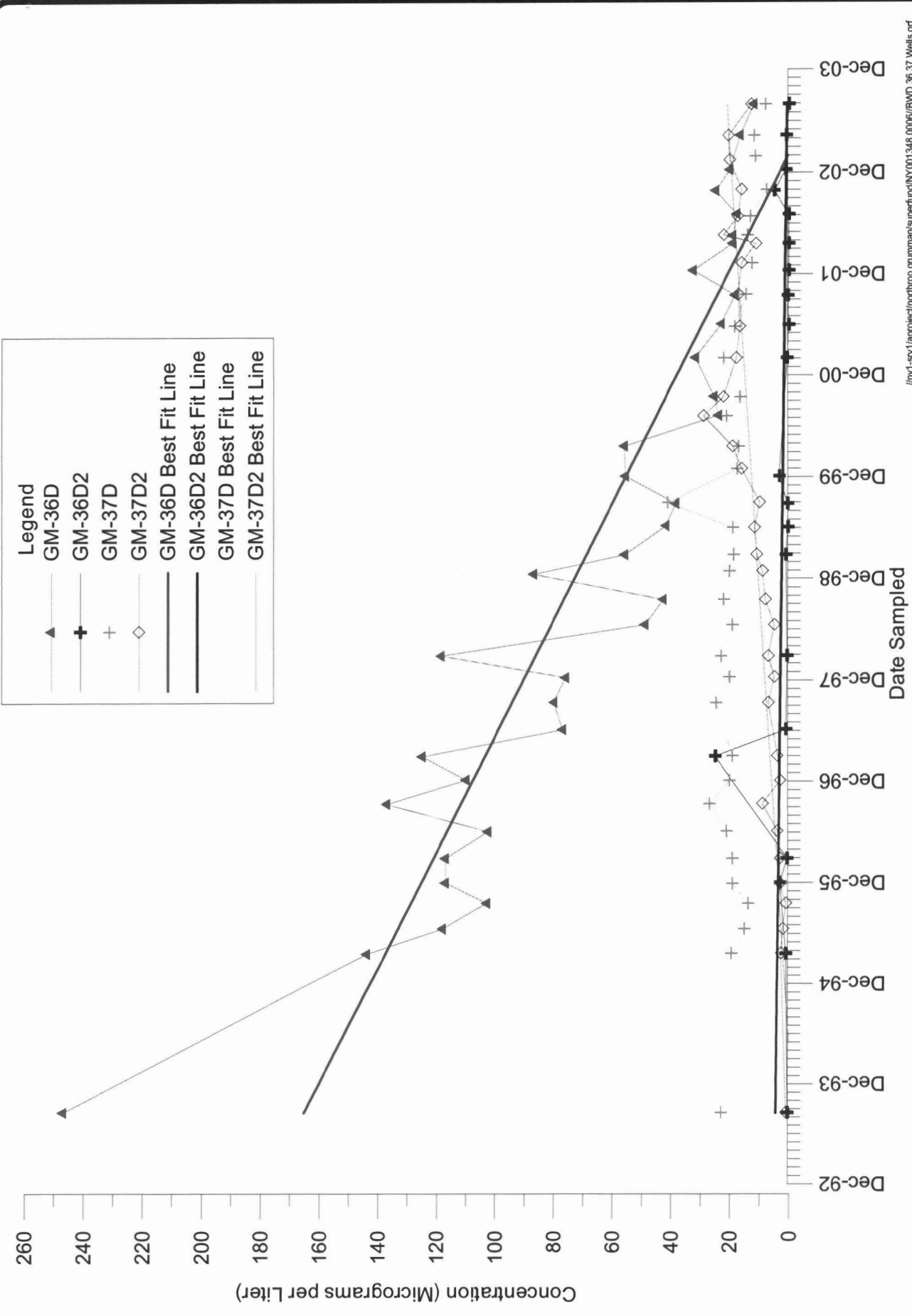


//ny1-srv1/aproject/northrop_grumman/superfund/NY001348.0006/38d.38d2.GRF



Total Volatile Organic Compound Concentrations in GM-38 Area Deep and Deep2 Monitoring Wells Northrop Grumman Corporation, Bethpage, New York

FIGURE 2



\\ny1-sv1\project\northrop_grumman\superfund\NY001348.0006\BWD_36_37 Wells.grf



Total Volatile Organic Compound Concentrations in Selected Deep and Deep2 Monitoring Wells Northrop Grumman Corporation, Bethpage, New York

FIGURE 3

ARCADIS

Table 2. Concentrations of Total and Dissolved Cadmium and Chromium Detected in Groundwater Samples, First and Second Quarter of 2003
Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	WELL:		10631		GM-16SR		GM-17SR		GM-18S		GM-32S		GM-78S	
	SAMPLE ID:	DATE:	N-10631	07/15/2003	GM-16SR	GM-16SR	GM-17SR	GM-17SR	GM-18S	GM-18S	GM-32S	GM-32S	GM-78S	GM-78S
Cadmium, Total			4 B	3 B	<1.3	<1.3	<1.3	<1.3	<0.94	<0.94	<1.3	<0.94	<1.3	<0.94
Cadmium, Dissolved			3.6 B	2.4 B	<1.3	<0.94	<1.3	<0.94	<0.94	<0.94	<1.3	<0.94	--	<0.94
Chromium, Total			36	29.6	<1.5	<1.4	<1.5	<1.4	<1.5	<1.4	84.4	52.7	<1.5	<1.4
Chromium, Dissolved			26.3	20.8	<1.5	<1.4	<1.5	<1.4	<1.5	<1.4	80.7	52.8	--	--

ug/L Micrograms per liter

B Detected between the IDL and CRDL

IDL Instrument detection limit

CRDL Contract-required detection limit

NYSDEC New York State Department of Environmental Conservation

EQ Equipment

Bold Constituent detected above IDL.

-- Not analyzed.

Table 2. Concentrations of Total and Dissolved Cadmium and Chromium Detected in Groundwater Samples, First and Second Quarter of 2003
Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	WELL:		GM-78I		MW-01GF		MW-02GF		MW-03R	
	SAMPLE ID:	DATE:	GM-78I	GM-78I	MW-01GF	MW-01GF	MW-02GF	MW-02GF	MW-03R	MW-03R
Cadmium, Total			<1.3	<0.94	<1.3	<0.94	<1.3	<0.94	52.1	29.5
Cadmium, Dissolved			--	--	<1.3	<0.94	<1.3	<0.94	51.9	29
Chromium, Total			<1.5	<1.4	1.8 B	2 B	47.8	35	82.2	71.5
Chromium, Dissolved			--	--	<1.5	<1.4	45.8	29.1	79.9	69.7

ug/L Micrograms per liter

B Detected between the IDL and CRDL

IDL Instrument detection limit

CRDL Contract-required detection limit

NYSDEC New York State Department of Environmental Conservation

EQ Equipment

Bold Constituent detected above IDL.

-- Not analyzed.