ARCADIS G&M

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Mr. Steven Scharf, P.E.
Environmental Engineer
New York State Department of Environmental Conservation (NYSDEC)
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany, New York 12233-7010

ENVIRONMENTAL

Subject:
Third Quarter 2000 Groundwater Monitoring Data,
Northrop Grumman Corporation, Bethpage, New York.

Dear Mr. Scharf:

On behalf of Northrop Grumman Corporation, ARCADIS G & M is providing the NYSDEC with groundwater data for the past four quarters (i.e., December of 1999 and March, June, and September of 2000) 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 and 2 depict the historical concentrations of total VOCs in groundwater versus time for selected monitoring wells.

Also provided are the results of the past four quarters (i.e., December of 1999 and March, June, and September of 2000) of monitoring for total cadmium and chromium (Cd/Cr). Table 2 summarizes Cd/Cr concentrations detected in groundwater samples during this period.

Please contact us if you have any questions or comments.

Date:
10 August 2001

Contact:
David E. Stern

Extension:
(631) 391-5284

Sincerely,

ARCADIS G & M, Inc.

David E. Stern
Project Scientist

Carlo San Giovanni
Project Manager

Enclosures

Copies:
J. Cofman - Northrop Grumman
J. Molloy - H2M
R. Krumholz - Bethpage Water District

Our ref.:
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Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: DATE: LAB/SAMPLER:	GM-35D2* 1/6/00 STL/G&M		GM-35D2 1/6/00 H2M/H2M		GM-35D2* 3/24/00 STL/G&M		GM-35D2 3/24/00 H2M/H2M	
Chloromethane		< 10		< 0.5		< 10		< 0.5	
Bromomethane		< 10		< 0.5		< 10		< 0.5	
Vinyl Choride		< 0.3		< 0.5		< 1		< 0.5	
Chloroethane		< 10		< 0.5		< 10		< 0.5	
Methylene chloride		< 10		< 0.5		< 10		< 0.5	
Acetone		**2**	**J**	NA		< 10		NA	
Carbon disulfide		< 10		NA		< 10		NA	
1,1-Dichloroethene		**5**	**J**	**6.7**		**4**	**J**	**4**	
1,1-Dichloroethane		< 10		**0.5**		< 10		< 0.5	
1,2-Dichloroethene (total)		< 10		**0.7**		< 10		< 0.5	
Chloroform		< 10		**0.7**		< 10		< 0.5	
1,2-Dichloroethane		< 10		< 0.5		< 10		< 0.5	
2-Butanone		< 10		NA		< 10		NA	
1,1,1-Trichloroethane		< 10		**2.4**		**2**	**J**	**1.4**	
Carbon tetrachloride		**3**	**J**	**3.4**		**3**	**J**	**2**	
Bromodichloromethane		< 10		< 0.5		< 10		< 0.5	
1,2-Dichloropropane		< 10		< 0.5		< 10		< 0.5	
cis-1,3-Dichloropropene		< 10		< 0.5		< 10		< 0.5	
Trichloroethene		**76**		**94**		**88**		**72**	
Dibromochloromethane		< 10		< 0.5		< 10		< 0.5	
1,1,2-Trichloroethane		< 10		< 0.5		< 10		< 0.5	
Benzene		< 10		< 0.5		< 10		< 0.5	
trans-1,3-Dichloropropene		< 10		< 0.5		< 10		< 0.5	
Bromoform		< 10		< 0.5		< 10		< 0.5	
4-Methyl-2-pentanone		< 10		NA		< 10		NA	
2-Hexanone		< 10		NA		< 10		NA	
Tetrachloroethene		< 10		< 0.5		< 10		< 0.5	
1,1,2,2-Tetrachloroethane		< 10		< 0.5		< 10		< 0.5	
Toluene		< 10		< 0.5		< 10		< 0.5	
Chlorobenzene		< 10		< 0.5		< 10		< 0.5	
Ethylbenzene		< 10		< 0.5		< 10		< 0.5	
Styrene		< 10		< 0.5		< 10		< 0.5	
Xylene (total)		< 10		< 0.5		< 10		< 0.5	
Total VOC's		**86**		**108.4**		**97**		**79.4**	

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: DATE: LAB/SAMPLER:	GM-35D2* 7/14/00 STL/G&M		GM-35D2 7/14/00 H2M/H2M		GM-35D2* 9/20/00 STL/G&M		GM-35D2 9/20/00 H2M/H2M	
Chloromethane		< 10		< 0.5		< 10		< 0.5	
Bromomethane		< 10		< 0.5		< 10		< 0.5	
Vinyl Choride		< 0.3		< 0.5		< 0.3		< 0.5	
Chloroethane		< 10		< 0.5		< 10	J	< 0.5	
Methylene chloride		< 10		< 0.5		< 10		< 0.5	
Acetone		< 10		NA		< 10	J	NA	
Carbon disulfide		< 10		NA		< 10		NA	
1,1-Dichloroethene		**4**	**J**	**4.7**		**3**	**J**	**3.7**	
1,1-Dichloroethane		< 10		**0.6**		**0.7**	**J**	< 0.5	
1,2-Dichloroethene (total)		< 10		**1.5**		**2**	**J**	**2.1**	
Chloroform		< 10		**0.7**		**0.6**	**J**	**0.5**	
1,2-Dichloroethane		< 10		< 0.5		< 10		< 0.5	
2-Butanone		< 10		NA		< 10	J	NA	
1,1,1-Trichloroethane		**2**	**J**	**1.9**		**2**	**J**	**1.5**	
Carbon tetrachloride		< 10		**2.4**		2	J	**2**	
Bromodichloromethane		< 10		< 0.5		< 10		< 0.5	
1,2-Dichloropropane		< 10		< 0.5		< 10		< 0.5	
cis-1,3-Dichloropropene		< 10		< 0.5		< 10		< 0.5	
Trichloroethene		**91**	**J**	**130**		**150**		**190**	
Dibromochloromethane		< 10		< 0.5		< 10		< 0.5	
1,1,2-Trichloroethane		< 10		< 0.5		< 10		< 0.5	
Benzene		< 10		< 0.5		< 10		< 0.5	
trans-1,3-Dichloropropene		< 10		< 0.5		< 10		< 0.5	
Bromoform		< 10		< 0.5		< 10		< 0.5	
4-Methyl-2-pentanone		< 10		NA		< 10	J	NA	
2-Hexanone		< 10		NA		< 10	J	NA	
Tetrachloroethene		< 10		**0.7**		1	**J**	1	
1,1,2,2-Tetrachloroethane		R		< 0.5		< 10		< 0.5	
Toluene		< 10		< 0.5		< 10		< 0.5	
Chlorobenzene		< 10		< 0.5		< 10		< 0.5	
Ethylbenzene		< 10		< 0.5		< 10		< 0.5	
Styrene		< 10		< 0.5		< 10		< 0.5	
Xylene (total)		< 10		< 0.5		< 10		< 0.5	
Total VOC's		**97**		**142.5**		**161.3**		**200.8**	

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: DATE: LAB/SAMPLER:	GM-36D* 12/10/99 STL/G&M		GM-36D 12/10/99 H2M/H2M		GM-36D* 3/27/00 STL/G&M		GM-36D 3/27/00 H2M/H2M	
Chloromethane		< 5		< 0.5		< 10		< 0.5	
Bromomethane		< 5		< 0.5		< 10		< 0.5	
Vinyl Choride		< 2		< 0.5		< 1		< 0.5	
Chloroethane		< 5		< 0.5		< 10		< 0.5	
Methylene chloride		< 5		< 0.5		< 10		< 0.5	
Acetone		< 10		NA		< 10		NA	
Carbon disulfide		< 10		NA		< 10		NA	
1,1-Dichloroethene		< 5		< 0.5		< 10		< 0.5	
1,1-Dichloroethane		< 5		< 0.5		< 10		< 0.5	
1,2-Dichloroethene (total)		**0.6**	**J**	< 0.5		< 10		< 0.5	
Chloroform		< 7		< 0.5		< 10		< 0.5	
1,2-Dichloroethane		< 5		< 0.5		< 10		< 0.5	
2-Butanone		< 10		NA		< 10		NA	
1,1,1-Trichloroethane		< 5		< 0.5		< 10	J	< 0.5	
Carbon tetrachloride		< 5		< 0.5		< 10	J	< 0.5	
Bromodichloromethane		< 10		< 0.5		< 10		< 0.5	
1,2-Dichloropropane		< 5		< 0.5		< 10		< 0.5	
cis-1,3-Dichloropropene		< 5		< 0.5		< 10		< 0.5	
Trichloroethene		**52**		**41**		**54**		**45**	
Dibromochloromethane		< 5		< 0.5		< 10		< 0.5	
1,1,2-Trichloroethane		< 5		< 0.5		< 10		< 0.5	
Benzene		< 0.7		< 0.5		< 10		< 0.5	
trans-1,3-Dichloropropene		< 5		< 0.5		< 10		< 0.5	
Bromoform		< 10		< 0.5		< 10		< 0.5	
4-Methyl-2-pentanone		< 10		NA		< 10		NA	
2-Hexanone		< 10		NA		< 10		NA	
Tetrachloroethene		**3**	**J**	**1.9**		**2**	**J**	**1.5**	
1,1,2,2-Tetrachloroethane		< 5		< 0.5		< 10		< 0.5	
Toluene		< 5		< 0.5		< 10		< 0.5	
Chlorobenzene		< 5		< 0.5		< 10		< 0.5	
Ethylbenzene		< 5		< 0.5		< 10		< 0.5	
Styrene		< 5		< 0.5		< 10		< 0.5	
Xylene (total)		< 5		< 0.5		< 10		< 0.5	
Total VOC's		**55.6**		**42.9**		**56**		**46.5**	

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: DATE: LAB/SAMPLER:	GM-36D* 7/14/00 STL/G&M		GM-36D 7/14/00 H2M/H2M		GM-36D* 9/20/00 STL/G&M		GM-36D 9/20/00 H2M/H2M	
Chloromethane		< 10		< 0.5		< 10		< 0.5	
Bromomethane		< 10	J	< 0.5		< 10		< 0.5	
Vinyl Choride		< 0.3		< 0.5		< 0.3		< 0.5	
Chloroethane		< 10		< 0.5		< 10	J	< 0.5	
Methylene chloride		< 10		< 0.5		< 10		< 0.5	
Acetone		< 10	J	NA		< 10	J	NA	
Carbon disulfide		< 10		NA		< 10		NA	
1,1-Dichloroethene		< 10		< 0.5		< 10		< 0.5	
1,1-Dichloroethane		< 10		< 0.5		< 10		< 0.5	
1,2-Dichloroethene (total)		< 10		< 0.5		**0.5**	**J**	< 0.5	
Chloroform		< 10		< 0.5		< 10		< 0.5	
1,2-Dichloroethane		< 10		< 0.5		< 10		< 0.5	
2-Butanone		< 10		NA		< 10	J	NA	
1,1,1-Trichloroethane		< 10		< 0.5		< 10		< 0.5	
Carbon tetrachloride		< 10	J	< 0.5		< 10		< 0.5	
Bromodichloromethane		< 10		< 0.5		< 10		< 0.5	
1,2-Dichloropropane		< 10		< 0.5		< 10		< 0.5	
cis-1,3-Dichloropropene		< 10		< 0.5		< 10		< 0.5	
Trichloroethene		**24**	**J**	**22**		**24**		**32**	
Dibromochloromethane		< 10		< 0.5		< 10		< 0.5	
1,1,2-Trichloroethane		< 10		< 0.5		< 10		< 0.5	
Benzene		< 10		< 0.5		< 10		< 0.5	
trans-1,3-Dichloropropene		< 10		< 0.5		< 10		< 0.5	
Bromoform		< 10		< 0.5		< 10		< 0.5	
4-Methyl-2-pentanone		< 10		NA		< 10	J	NA	
2-Hexanone		< 10		NA		< 10	J	NA	
Tetrachloroethene		< 10		**0.8**		**1**	**J**	**0.9**	
1,1,2,2-Tetrachloroethane		R		< 0.5		< 10		< 0.5	
Toluene		< 10		< 0.5		< 10		< 0.5	
Chlorobenzene		< 10		< 0.5		< 10		< 0.5	
Ethylbenzene		< 10		< 0.5		< 10		< 0.5	
Styrene		< 10		< 0.5		< 10		< 0.5	
Xylene (total)		< 10		< 0.5		< 10		< 0.5	
Total VOC's		**24**		**22.8**		**25.5**		**32.9**	

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

	SITE:	GM-36D2*		GM-36D2**		GM-36D2		GM-36D2*	
CONSTITUENT:	**DATE:**	12/10/99		12/10/99		12/10/99		3/28/00	
(Units in ug/L)	**LAB/SAMPLER:**	STL/G&M		STL/G&M		H2M/H2M		STL/G&M	
Chloromethane		< 5		< 5		< 0.5		< 10	
Bromomethane		< 5		< 5		< 0.5		< 10	
Vinyl Choride		< 2		< 2		< 0.5		< 1	
Chloroethane		< 5		< 5		< 0.5		< 10	
Methylene chloride		< 5		< 5		< 0.5		< 10	
Acetone		< 10		< 10		NA		< 10	
Carbon disulfide		< 10		< 10		NA		< 10	
1,1-Dichloroethene		< 5		< 5		< 0.5		< 10	
1,1-Dichloroethane		< 5		< 5		< 0.5		< 10	
1,2-Dichloroethene (total)		< 5		< 5		< 0.5		< 10	
Chloroform		< 7		< 7		< 0.5		< 10	
1,2-Dichloroethane		< 5		< 5		< 0.5		< 10	
2-Butanone		< 10		< 10		NA		< 10	
1,1,1-Trichloroethane		< 5		< 5		< 0.5		< 10	J
Carbon tetrachloride		< 5		< 5		< 0.5		< 10	J
Bromodichloromethane		< 10		< 10		< 0.5		< 10	
1,2-Dichloropropane		< 5		< 5		< 0.5		< 10	
cis-1,3-Dichloropropene		< 5		< 5		< 0.5		< 10	
Trichloroethene		3	J	< 5		< 0.5		< 10	
Dibromochloromethane		< 5		< 5		< 0.5		< 10	
1,1,2-Trichloroethane		< 5		< 5		< 0.5		< 10	
Benzene		0.3	J	< 0.7		< 0.5		< 10	
trans-1,3-Dichloropropene		< 5		< 5		< 0.5		< 10	
Bromoform		< 10		< 10		< 0.5		< 10	
4-Methyl-2-pentanone		< 10		< 10		NA		< 10	
2-Hexanone		< 10		< 10		NA		< 10	
Tetrachloroethene		< 5		< 5		< 0.5		< 10	
1,1,2,2-Tetrachloroethane		< 5		< 5		< 0.5		< 10	
Toluene		< 5		< 5		< 0.5		< 10	
Chlorobenzene		< 5		< 5		< 0.5		< 10	
Ethylbenzene		< 5		< 5		< 0.5		< 10	
Styrene		< 5		< 5		< 0.5		< 10	
Xylene (total)		< 5		< 5		< 0.5		< 10	
Total VOC's		3.3		0		0		0	

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
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NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

	SITE:	GM-36D2	GM-36D2*	GM-36D2	GM-36D2*	
CONSTITUENT:	DATE:	3/28/00	7/14/00	7/14/00	9/20/00	
(Units in ug/L)	LAB/SAMPLER:	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M	
Chloromethane		< 1	< 10	< 0.5	< 10	
Bromomethane		< 1	< 10	< 0.5	< 10	
Vinyl Choride		< 1	< 0.3	< 0.5	< 0.3	
Chloroethane		< 1	< 10	< 0.5	< 10	J
Methylene chloride		< 1	< 10	< 0.5	< 10	
Acetone		NA	< 10	NA	< 10	J
Carbon disulfide		NA	< 10	NA	< 10	
1,1-Dichloroethene		< 1	< 10	< 0.5	< 10	
1,1-Dichloroethane		< 1	< 10	< 0.5	< 10	
1,2-Dichloroethene (total)		< 1	< 10	< 0.5	< 10	
Chloroform		< 1	< 10	< 0.5	< 10	
1,2-Dichloroethane		< 1	< 10	< 0.5	< 10	
2-Butanone		NA	< 10	NA	< 10	J
1,1,1-Trichloroethane		< 1	< 10	< 0.5	< 10	
Carbon tetrachloride		< 1	< 10	< 0.5	< 10	
Bromodichloromethane		< 1	< 10	< 0.5	< 10	
1,2-Dichloropropane		< 1	< 10	< 0.5	< 10	
cis-1,3-Dichloropropene		< 1	< 10	< 0.5	< 10	
Trichloroethene		< 1	< 10	< 0.5	< 10	
Dibromochloromethane		< 1	< 10	< 0.5	< 10	
1,1,2-Trichloroethane		< 1	< 10	< 0.5	< 10	
Benzene		< 1	< 10	< 0.5	< 10	
trans-1,3-Dichloropropene		< 1	< 10	< 0.5	< 10	
Bromoform		< 1	< 10	< 0.5	< 10	
4-Methyl-2-pentanone		NA	< 10	NA	< 10	J
2-Hexanone		NA	< 10	NA	< 10	J
Tetrachloroethene		< 1	< 10	< 0.5	< 10	
1,1,2,2-Tetrachloroethane		< 1	R	< 0.5	< 10	
Toluene		< 1	< 10	< 0.5	< 10	
Chlorobenzene		< 1	< 10	< 0.5	< 10	
Ethylbenzene		< 1	< 10	< 0.5	< 10	
Styrene		< 1	< 10	< 0.5	< 10	
Xylene (total)		< 1	< 10	< 0.5	< 10	
Total VOC's		**0**	**0**	**0**	**0**	

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
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**	Replicate sample.
ug/L	Micrograms per liter.
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NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: DATE: LAB/SAMPLER:	GM-36D2 9/20/00 H2M/H2M		GM-37D* 1/6/00 STL/G&M		GM-37D 1/6/00 H2M/H2M		GM-37D* 3/27/00 STL/G&M	
Chloromethane		< 0.5		< 10		< 0.5		< 10	
Bromomethane		< 0.5		< 10		< 0.5		< 10	
Vinyl Choride		< 0.5		< 0.3		< 0.5		< 1	
Chloroethane		< 0.5		< 10		< 0.5		< 10	
Methylene chloride		< 0.5		< 10		< 0.5		< 10	
Acetone		NA		< 10	J	NA		< 10	
Carbon disulfide		NA		< 10		NA		< 10	
1,1-Dichloroethene		< 0.5		**4**	**J**	**2.4**		**3**	**J**
1,1-Dichloroethane		< 0.5		**8**	**J**	**7.9**		**9**	**J**
1,2-Dichloroethene (total)		< 0.5		< 10		< 0.5		< 10	
Chloroform		< 0.5		< 10		**0.7**		< 10	
1,2-Dichloroethane		< 0.5		< 10		< 0.5		< 10	
2-Butanone		NA		< 10		NA		< 10	
1,1,1-Trichloroethane		< 0.5		**4**	**J**	**4.3**		**4**	**J**
Carbon tetrachloride		< 0.5		< 10		< 0.5		< 10	J
Bromodichloromethane		< 0.5		< 10		< 0.5		< 10	
1,2-Dichloropropane		< 0.5		< 10		< 0.5		< 10	
cis-1,3-Dichloropropene		< 0.5		< 10		< 0.5		< 10	
Trichloroethene		< 0.5		**0.5**	**J**	< 0.5		< 10	
Dibromochloromethane		< 0.5		< 10		< 0.5		< 10	
1,1,2-Trichloroethane		< 0.5		< 10		< 0.5		< 10	
Benzene		< 0.5		< 10		< 0.5		< 10	
trans-1,3-Dichloropropene		< 0.5		< 10		< 0.5		< 10	
Bromoform		< 0.5		< 10		< 0.5		< 10	
4-Methyl-2-pentanone		NA		< 10		NA		< 10	
2-Hexanone		NA		< 10		NA		< 10	
Tetrachloroethene		< 0.5		**1**	**J**	**1.1**		**1**	**J**
1,1,2,2-Tetrachloroethane		< 0.5		< 10		< 0.5		< 10	
Toluene		< 0.5		< 10		< 0.5		< 10	
Chlorobenzene		< 0.5		< 10		< 0.5		< 10	
Ethylbenzene		< 0.5		< 10		< 0.5		< 10	
Styrene		< 0.5		< 10		< 0.5		< 10	
Xylene (total)		< 0.5		< 10		< 0.5		< 10	
Total VOC's		**0**		**17.5**		**16.4**		**17**	

VOCs Volatile organic compounds.
H2M Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M ARCADIS Geraghty & Miller, Inc.
STL Severn Trent Labortories, Inc., Shelton, Connecticut .
* Groundwater sample split with H2M.
** Replicate sample.
ug/L Micrograms per liter.
J Estimated value.
NA Not analyzed.
D Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: DATE: LAB/SAMPLER:	GM-37D 3/27/00 H2M/H2M	GM-37D* 7/13/00 STL/G&M	GM-37D 7/13/00 H2M/H2M	GM-37D* 9/21/00 STL/G&M
Chloromethane		< 0.5	< 10	< 0.5	< 10
Bromomethane		< 0.5	< 10 J	< 0.5	< 10
Vinyl Choride		< 0.5	< 0.3	< 0.5	< 0.3
Chloroethane		< 0.5	< 10	< 0.5	< 10 J
Methylene chloride		< 0.5	< 10	< 0.5	< 10
Acetone		NA	< 10 J	NA	< 10 J
Carbon disulfide		NA	< 10	NA	< 10
1,1-Dichloroethene		**1.7**	**4 J**	**2.5**	**3 J**
1,1-Dichloroethane		**7.8**	**9 J**	**7.4**	**7 J**
1,2-Dichloroethene (total)		< 0.5	< 10	< 0.5	< 10
Chloroform		0.6	< 10	**0.8**	**0.9 J**
1,2-Dichloroethane		< 0.5	< 10	< 0.5	< 10
2-Butanone		NA	< 10	NA	< 10 J
1,1,1-Trichloroethane		**4**	**6 J**	**4.1**	**4 J**
Carbon tetrachloride		< 0.5	< 10 J	< 0.5	< 10
Bromodichloromethane		< 0.5	< 10	< 0.5	< 10
1,2-Dichloropropane		< 0.5	< 10	< 0.5	< 10
cis-1,3-Dichloropropene		< 0.5	< 10	< 0.5	< 10
Trichloroethene		< 0.5	< 10	**0.5**	**0.5 J**
Dibromochloromethane		< 0.5	< 10	< 0.5	< 10
1,1,2-Trichloroethane		< 0.5	< 10	< 0.5	< 10
Benzene		< 0.5	< 10	< 0.5	< 10
trans-1,3-Dichloropropene		< 0.5	< 10	< 0.5	< 10
Bromoform		< 0.5	< 10	< 0.5	< 10
4-Methyl-2-pentanone		NA	< 10	NA	< 10 J
2-Hexanone		NA	< 10	NA	< 10 J
Tetrachloroethene		**0.9**	**2 J**	**1.1**	**1 J**
1,1,2,2-Tetrachloroethane		< 0.5	R	< 0.5	< 10
Toluene		< 0.5	< 10	< 0.5	< 10
Chlorobenzene		< 0.5	< 10	< 0.5	< 10
Ethylbenzene		< 0.5	< 10	< 0.5	< 10
Styrene		< 0.5	< 10	< 0.5	< 10
Xylene (total)		< 0.5	< 10	< 0.5	< 10
Total VOC's		**15**	**21**	**16.4**	**16.4**

VOCs Volatile organic compounds.
H2M Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M ARCADIS Geraghty & Miller, Inc.
STL Severn Trent Labortories, Inc., Shelton, Connecticut .
* Groundwater sample split with H2M.
** Replicate sample.
ug/L Micrograms per liter.
J Estimated value.
NA Not analyzed.
D Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: DATE: LAB/SAMPLER:	GM-37D 9/21/00 H2M/H2M	GM-37D2* 1/7/00 STL/G&M	GM-37D2 1/7/00 H2M/H2M	GM-37D2* 3/27/00 STL/G&M
Chloromethane		< 0.5	< 10	< 0.5	< 10
Bromomethane		< 0.5	< 10	< 0.5	< 10
Vinyl Choride		< 0.5	< 0.3	**0.8**	< 1
Chloroethane		< 0.5	< 10	< 0.5	< 10
Methylene chloride		< 0.5	< 10	< 0.5	< 10
Acetone		NA	< 10 J	NA	< 10
Carbon disulfide		NA	< 10	NA	< 10
1,1-Dichloroethene		**2**	**2 J**	**1.3**	**2 J**
1,1-Dichloroethane		**6.8**	**9 J**	**8.9**	**11**
1,2-Dichloroethene (total)		< 0.5	< 10	< 0.5	< 10
Chloroform		**0.7**	< 10	**1.0**	**1 J**
1,2-Dichloroethane		< 0.5	< 10	< 0.5	< 10
2-Butanone		NA	< 10	NA	< 10
1,1,1-Trichloroethane		**4**	**3 J**	**2.5**	**3 J**
Carbon tetrachloride		< 0.5	< 10	< 0.5	< 10 J
Bromodichloromethane		< 0.5	< 10	< 0.5	< 10
1,2-Dichloropropane		< 0.5	< 10	< 0.5	< 10
cis-1,3-Dichloropropene		< 0.5	< 10	< 0.5	< 10
Trichloroethene		< 0.5	**2 J**	**2.3**	**2 J**
Dibromochloromethane		< 0.5	< 10	< 0.5	< 10
1,1,2-Trichloroethane		< 0.5	< 10	< 0.5	< 10
Benzene		< 0.5	< 10	< 0.5	< 10
trans-1,3-Dichloropropene		< 0.5	< 10	< 0.5	< 10
Bromoform		< 0.5	< 10	< 0.5	< 10
4-Methyl-2-pentanone		NA	< 10	NA	< 10
2-Hexanone		NA	< 10	NA	< 10
Tetrachloroethene		**0.9**	< 10	< 0.5	< 10
1,1,2,2-Tetrachloroethane		< 0.5	< 10	< 0.5	< 10
Toluene		< 0.5	< 10	< 0.5	< 10
Chlorobenzene		< 0.5	< 10	< 0.5	< 10
Ethylbenzene		< 0.5	< 10	< 0.5	< 10
Styrene		< 0.5	< 10	< 0.5	< 10
Xylene (total)		< 0.5	< 10	< 0.5	< 10
Total VOC's		**14.4**	**16**	**16.8**	**19**

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

SITE:	GM-37D2	GM-37D2*	GM-37D2	GM-37D2*
CONSTITUENT: **DATE:**	3/27/00	7/13/00	7/13/00	9/21/00
(Units in ug/L) **LAB/SAMPLER:**	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M
Chloromethane	< 0.5	< 10	< 0.5	< 10
Bromomethane	< 0.5	< 10 J	< 0.5	< 10
Vinyl Choride	< 0.5	< 0.3	< 0.5	< 0.3
Chloroethane	< 0.5	< 10	< 0.5	< 10 J
Methylene chloride	< 0.5	< 10	< 0.5	< 10
Acetone	NA	< 10 J	NA	< 10 J
Carbon disulfide	NA	< 10	NA	< 10
1,1-Dichloroethene	**1.3**	**4 J**	**2.9**	**3 J**
1,1-Dichloroethane	**11**	**17**	**15**	**12**
1,2-Dichloroethene (total)	< 0.5	< 10	< 0.5	< 10
Chloroform	**1**	< 10	**0.8**	0.7 J
1,2-Dichloroethane	< 0.5	< 10	< 0.5	< 10
2-Butanone	NA	< 10	NA	< 10 J
1,1,1-Trichloroethane	**3**	**6 J**	**4.4**	**4 J**
Carbon tetrachloride	< 0.5	< 10 J	< 0.5	< 10
Bromodichloromethane	< 0.5	< 10	< 0.5	< 10
1,2-Dichloropropane	< 0.5	< 10	< 0.5	< 10
cis-1,3-Dichloropropene	< 0.5	< 10	< 0.5	< 10
Trichloroethene	**2.1**	**2 J**	**2.3**	**2 J**
Dibromochloromethane	< 0.5	< 10	< 0.5	< 10
1,1,2-Trichloroethane	< 0.5	< 10	< 0.5	< 10
Benzene	< 0.5	< 10	< 0.5	< 10
trans-1,3-Dichloropropene	< 0.5	< 10	< 0.5	< 10
Bromoform	< 0.5	< 10	< 0.5	< 10
4-Methyl-2-pentanone	NA	< 10	NA	< 10 J
2-Hexanone	NA	< 10	NA	< 10 J
Tetrachloroethene	< 0.5	< 10	< 0.5	**0.5 J**
1,1,2,2-Tetrachloroethane	< 0.5	R	< 0.5	< 10
Toluene	< 0.5	< 10	< 0.5	< 10
Chlorobenzene	< 0.5	< 10	< 0.5	< 10
Ethylbenzene	< 0.5	< 10	< 0.5	< 10
Styrene	< 0.5	< 10	< 0.5	< 10
Xylene (total)	< 0.5	< 10	< 0.5	< 10
Total VOC's	**18.4**	**29**	**25.4**	**22.2**

VOCs Volatile organic compounds.
H2M Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M ARCADIS Geraghty & Miller, Inc.
STL Severn Trent Labortories, Inc., Shelton, Connecticut .
* Groundwater sample split with H2M.
** Replicate sample.
ug/L Micrograms per liter.
J Estimated value.
NA Not analyzed.
D Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: DATE: LAB/SAMPLER:	GM-37D2 9/21/00 H2M/H2M		GM-38D* 12/8/99 STL/G&M		GM-38D 12/8/99 H2M/H2M		GM-38D* 3/28/00 STL/G&M	
Chloromethane		< 0.5		< 50		< 1		< 10	
Bromomethane		< 0.5		< 50		< 1		< 10	
Vinyl Choride		< 0.5		< 20		< 1		< 1	
Chloroethane		< 0.5		< 50		< 1		< 10	
Methylene chloride		< 0.5		< 50		< 1		< 10	
Acetone		NA		< 100		NA		< 10	
Carbon disulfide		NA		< 100		NA		< 10	
1,1-Dichloroethene		1.9		< 50		2		6	J
1,1-Dichloroethane		12		3	J	1		3	J
1,2-Dichloroethene (total)		< 0.5		< 50		1		2	J
Chloroform		0.6		< 70		< 1		< 10	
1,2-Dichloroethane		< 0.5		< 50		< 1		< 10	
2-Butanone		NA		< 100		NA		< 10	
1,1,1-Trichloroethane		3.5		4	J	3		5	J
Carbon tetrachloride		< 0.5		< 50		< 1		< 10	J
Bromodichloromethane		< 0.5		< 100		< 1		< 10	
1,2-Dichloropropane		< 0.5		< 50		< 1		< 10	
cis-1,3-Dichloropropene		< 0.5		< 50		< 1		< 10	
Trichloroethene		1.4		930		700		1200	D
Dibromochloromethane		< 0.5		< 50		< 1		< 10	
1,1,2-Trichloroethane		< 0.5		< 50		< 1		< 10	
Benzene		< 0.5		< 7		< 1		< 10	
trans-1,3-Dichloropropene		< 0.5		< 50		< 1		< 10	
Bromoform		< 0.5		< 100		< 1		< 10	
4-Methyl-2-pentanone		NA		< 100		NA		< 10	
2-Hexanone		NA		< 100		NA		< 10	
Tetrachloroethene		< 0.5		< 50		1		1	J
1,1,2,2-Tetrachloroethane		< 0.5		< 50		< 1		< 10	
Toluene		< 0.5		3	J	< 1		< 10	
Chlorobenzene		< 0.5		< 50		< 1		< 10	
Ethylbenzene		< 0.5		< 50		< 1		< 10	
Styrene		< 0.5		< 50		< 1		< 10	
Xylene (total)		< 0.5		< 50		< 1		< 10	
Total VOC's		19.4		940		708		1217	

VOCs Volatile organic compounds.
H2M Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M ARCADIS Geraghty & Miller, Inc.
STL Severn Trent Labortories, Inc., Shelton, Connecticut .
* Groundwater sample split with H2M.
** Replicate sample.
ug/L Micrograms per liter.
J Estimated value.
NA Not analyzed.
D Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

	SITE:	GM-38D	GM-38D*	GM-38D	GM-38D*
CONSTITUENT:	DATE:	3/28/00	7/12/00	7/12/00	9/22/00
(Units in ug/L)	LAB/SAMPLER:	H2M/H2M	STL/G&M	H2M/H2M	STL/G&M
Chloromethane		< 1	< 50	< 1	< 50 J
Bromomethane		< 1	< 50 J	< 1	< 50
Vinyl Choride		< 1	< 2	< 1	< 1 J
Chloroethane		< 1	< 50	< 1	< 50 J
Methylene chloride		< 1	< 50	< 1	< 50
Acetone		NA	< 50	NA	< 50 J
Carbon disulfide		NA	< 50	NA	R
1,1-Dichloroethene		3	< 50	1.7	4 J
1,1-Dichloroethane		1	< 50	1	< 50
1,2-Dichloroethene (total)		1	< 50	1	2 J
Chloroform		< 1	< 50	1	< 50
1,2-Dichloroethane		< 1	< 50	< 1	< 50
2-Butanone		NA	< 50	NA	< 50
1,1,1-Trichloroethane		4	< 50	2.6	4 J
Carbon tetrachloride		< 1	< 50	< 1	< 50
Bromodichloromethane		< 1	< 50	< 1	< 50
1,2-Dichloropropane		< 1	< 50	< 1	< 50
cis-1,3-Dichloropropene		< 1	< 50	< 1	< 50
Trichloroethene		890	660 J	650	720
Dibromochloromethane		< 1	< 50	< 1	< 50
1,1,2-Trichloroethane		< 1	< 50	< 1	< 50
Benzene		< 1	< 50	< 1	< 50
trans-1,3-Dichloropropene		< 1	< 50	< 1	< 50
Bromoform		< 1	< 50	< 1	< 50
4-Methyl-2-pentanone		NA	< 50	NA	< 50
2-Hexanone		NA	< 50	NA	< 50
Tetrachloroethene		1	< 50	1	2 J
1,1,2,2-Tetrachloroethane		< 1	R	< 1	< 50
Toluene		< 1	< 50	< 1	R
Chlorobenzene		< 1	< 50	< 1	< 50
Ethylbenzene		< 1	< 50	< 1	R
Styrene		< 1	< 50	< 1	< 50
Xylene (total)		< 1	< 50	< 1	< 50
Total VOC's		900	660	658.3	732

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: DATE: LAB/SAMPLER:	GM-38D 9/22/00 H2M/H2M	GM-38D2* 12/8/99 STL/G&M	GM-38D2 12/8/99 H2M/H2M	GM-38D2* 3/28/00 STL/G&M
Chloromethane		< 0.5	< 25	< 1	< 50
Bromomethane		< 0.5	< 25	< 1	< 50
Vinyl Choride		< 0.5	< 10	< 1	< 6
Chloroethane		< 0.5	< 25	< 1	< 50
Methylene chloride		< 0.5	< 25	< 1	< 50
Acetone		NA	< 100	NA	**14** J
Carbon disulfide		NA	< 50	NA	< 50
1,1-Dichloroethene		**3.6**	< 25	< 1	< 50
1,1-Dichloroethane		**1.9**	< 25	< 1	< 50
1,2-Dichloroethene (total)		**1.4**	**6** J	**3**	< 50
Chloroform		**0.7**	< 35	**1**	< 50
1,2-Dichloroethane		**0.7**	< 25	< 1	< 50
2-Butanone		NA	< 100	NA	< 50
1,1,1-Trichloroethane		**4.1**	< 25	< 1	< 50 J
Carbon tetrachloride		**0.7**	< 25	< 1	< 50 J
Bromodichloromethane		< 0.5	< 50	< 1	< 50
1,2-Dichloropropane		< 0.5	< 25	< 1	< 50
cis-1,3-Dichloropropene		< 0.5	< 25	< 1	< 50
Trichloroethene		**670**	**710**	**540**	**880**
Dibromochloromethane		< 0.5	< 25	< 1	< 50
1,1,2-Trichloroethane		< 0.5	< 25	< 1	< 50
Benzene		< 0.5	< **4**	< 1	< 50
trans-1,3-Dichloropropene		< 0.5	< 25	< 1	< 50
Bromoform		< 0.5	< 50	< 1	< 50
4-Methyl-2-pentanone		NA	< 50	NA	< 50
2-Hexanone		NA	< 50	NA	< 50
Tetrachloroethene		**0.9**	< 25	< 1	< 50
1,1,2,2-Tetrachloroethane		< 0.5	< 25	< 1	< 50
Toluene		< 0.5	**1** J	< 1	< 50
Chlorobenzene		< 0.5	< 25	< 1	< 50
Ethylbenzene		< 0.5	< 25	< 1	< 50
Styrene		< 0.5	< 25	< 1	< 50
Xylene (total)		< 0.5	< 25	< 1	< 50
Total VOC's		**684**	**717**	**544**	**894**

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: / DATE: / LAB/SAMPLER:	GM-38D2** 3/28/00 STL/G&M	GM-38D2 3/28/00 H2M/H2M	GM-38D2* 7/12/00 STL/G&M	GM-38D2** 7/12/00 STL/G&M
Chloromethane		< 80	< 1	< 50	< 100
Bromomethane		< 80	< 1	< 50 J	< 100 J
Vinyl Choride		< 9	< 1	< 2	< 3
Chloroethane		< 80	< 1	< 50	< 100
Methylene chloride		< 80	< 1	< 50	< 100
Acetone		< 80	NA	< 50	< 100 J
Carbon disulfide		< 80	NA	< 50	< 100
1,1-Dichloroethene		< 80	< 1	< 50	< 100
1,1-Dichloroethane		< 80	< 1	< 50	< 100
1,2-Dichloroethene (total)		< 80	**3.5**	**6 J**	< 100
Chloroform		< 80	1	< 50	< 100
1,2-Dichloroethane		< 80	< 1	< 50	< 100
2-Butanone		< 80	NA	< 50	< 100
1,1,1-Trichloroethane		< 80 J	< 1	< 50	< 100
Carbon tetrachloride		< 80 J	< 1	< 50	< 100 J
Bromodichloromethane		< 80	< 1	< 50	< 100
1,2-Dichloropropane		< 80	< 1	< 50	< 100
cis-1,3-Dichloropropene		< 80	< 1	< 50	< 100
Trichloroethene		**880**	**690**	**790 J**	**1000 J**
Dibromochloromethane		< 80	< 1	< 50	< 100
1,1,2-Trichloroethane		< 80	**1**	< 50	< 100
Benzene		< 80	< 1	< 50	< 100
trans-1,3-Dichloropropene		< 80	< 1	< 50	< 100
Bromoform		< 80	< 1	< 50	< 100
4-Methyl-2-pentanone		< 80	NA	< 50	< 100
2-Hexanone		< 80	NA	< 50	< 100
Tetrachloroethene		< 80	< 1	< 50	< 100
1,1,2,2-Tetrachloroethane		< 80	< 1	R	R
Toluene		< 80	< 1	< 50	< 100
Chlorobenzene		< 80	< 1	< 50	< 100
Ethylbenzene		< 80	< 1	< 50	< 100
Styrene		< 80	< 1	< 50	< 100
Xylene (total)		< 80	< 1	< 50	< 100
Total VOC's		**880**	**695.5**	**796**	**1000**

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

	SITE:	GM-38D2	GM-38D2*	GM-38D2**	GM-38D2
CONSTITUENT:	DATE:	7/12/00	9/22/00	9/22/00	9/22/00
(Units in ug/L)	LAB/SAMPLER:	H2M/H2M	STL/G&M	STL/G&M	H2M/H2M
Chloromethane		< 1	< 100 J	< 100 J	< 0.5
Bromomethane		< 1	< 100	< 100	< 0.5
Vinyl Choride		< 1	< 2 J	< 2 J	< 0.5
Chloroethane		< 1	< 100 J	< 100 J	< 0.5
Methylene chloride		< 1	< 100	< 100	< 0.5
Acetone		NA	< 100 J	R	NA
Carbon disulfide		NA	R	R	NA
1,1-Dichloroethene		< 1	R	< 100	< 0.5
1,1-Dichloroethane		< 1	< 100	< 100	< 0.5
1,2-Dichloroethene (total)		**4.6**	**10 J**	**12 J**	< 0.5
Chloroform		**1.3**	< 100	< 100	< 0.5
1,2-Dichloroethane		< 1	< 100	< 100	< 0.5
2-Butanone		NA	6 J	< 100	NA
1,1,1-Trichloroethane		< 1	< 100	< 100	< 0.5
Carbon tetrachloride		< 1	< 100	< 100	**1.3**
Bromodichloromethane		< 1	< 100	< 100	< 0.5
1,2-Dichloropropane		< 1	< 100	< 100	< 0.5
cis-1,3-Dichloropropene		< 1	< 100	< 100	< 0.5
Trichloroethene		**730**	**1100**	**1300**	**4.2**
Dibromochloromethane		< 1	< 100	< 100	< 0.5
1,1,2-Trichloroethane		**1.4**	< 100	< 100	< 0.5
Benzene		< 1	< 100	< 100	< 0.5
trans-1,3-Dichloropropene		< 1	< 100	< 100	< 0.5
Bromoform		< 1	< 100	< 100	< 0.5
4-Methyl-2-pentanone		NA	< 100	< 100	NA
2-Hexanone		NA	< 100	< 100	NA
Tetrachloroethene		< 1	< 100	< 100	< 0.5
1,1,2,2-Tetrachloroethane		< 1	< 100	< 100	< 0.5
Toluene		< 1	R	R	< 0.5
Chlorobenzene		< 1	< 100	< 100	< 0.5
Ethylbenzene		< 1	R	R	< 0.5
Styrene		< 1	< 100	< 100	< 0.5
Xylene (total)		< 1	< 100	< 100	< 0.5
Total VOC's		737.3	**1116**	**1312**	**5.5**

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

SITE:	GM-70D2*		GM-70D2		GM-70D2*		GM-70D2	
CONSTITUENT: **DATE:**	12/8/99		12/8/99		3/24/00		3/24/00	
(Units in ug/L) **LAB/SAMPLER:**	STL/G&M		H2M/H2M		STL/G&M		H2M/H2M	
Chloromethane	< 5		< 0.5		< 10		< 0.5	
Bromomethane	< 5		< 0.5		< 10		< 0.5	
Vinyl Choride	< 2		< 0.5		< 1		< 0.5	
Chloroethane	< 5		< 0.5		< 10		< 0.5	
Methylene chloride	< 5		< 0.5		< 10		< 0.5	
Acetone	< 10		NA		< 10		NA	
Carbon disulfide	< 10		NA		< 10		NA	
1,1-Dichloroethene	< 5		< 0.5		< 10		< 0.5	
1,1-Dichloroethane	< 5		< 0.5		< 10		< 0.5	
1,2-Dichloroethene (total)	**1**	**J**	< 0.5		**1**	**J**	**0.7**	
Chloroform	< 7		< 0.5		< 10		< 0.5	
1,2-Dichloroethane	< 5		< 0.5		< 10		< 0.5	
2-Butanone	< 10		NA		< 10		NA	
1,1,1-Trichloroethane	< 5		< 0.5		< 10	J	< 0.5	
Carbon tetrachloride	< 5		< 0.5		< 10	J	< 0.5	
Bromodichloromethane	< 10		< 0.5		< 10		< 0.5	
1,2-Dichloropropane	< 5		< 0.5		< 10		< 0.5	
cis-1,3-Dichloropropene	< 5		< 0.5		< 10		< 0.5	
Trichloroethene	**48**		**34**		**89**		**99**	
Dibromochloromethane	< 5		< 0.5		< 10		< 0.5	
1,1,2-Trichloroethane	< 5		< 0.5		< 10		< 0.5	
Benzene	< 0.7		< 0.5		< 10		< 0.5	
trans-1,3-Dichloropropene	< 5		< 0.5		< 10		< 0.5	
Bromoform	< 10		< 0.5		< 10		< 0.5	
4-Methyl-2-pentanone	< 10		NA		< 10		NA	
2-Hexanone	< 10		NA		< 10		NA	
Tetrachloroethene	**3**	**J**	**1.4**		**5**	**J**	**4.5**	
1,1,2,2-Tetrachloroethane	< 5		< 0.5		< 10		< 0.5	
Toluene	**0.3**	**J**	< 0.5		< 10		< 0.5	
Chlorobenzene	< 5		< 0.5		< 10		< 0.5	
Ethylbenzene	< 5		< 0.5		< 10		< 0.5	
Styrene	< 5		< 0.5		< 10		< 0.5	
Xylene (total)	< 5		< 0.5		< 10		< 0.5	
Total VOC's	**52.3**		**35.4**		**95**		**104.2**	

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: / DATE: / LAB/SAMPLER:	GM-70D2* 7/13/00 STL/G&M		GM-70D2 7/13/00 H2M/H2M		GM-70D2* 10/11/00 STL/G&M		GM-70D2 10/11/00 H2M/H2M	
Chloromethane		< 10		< 0.5		< 10		< 0.5	
Bromomethane		< 10	J	< 0.5		< 10		< 0.5	
Vinyl Choride		< 0.3		< 0.5		< 0.2		< 0.5	
Chloroethane		< 10		< 0.5		< 10		< 0.5	
Methylene chloride		< 10		< 0.5		< 10		< 0.5	
Acetone		< 10	J	NA		< 10		NA	
Carbon disulfide		< 10		NA		< 10		NA	
1,1-Dichloroethene		< 10		< 0.5		< 10		**0.6**	
1,1-Dichloroethane		< 10		< 0.5		< 10		< 0.5	
1,2-Dichloroethene (total)		**1**	**J**	< 0.5		**2**	**J**	**1.2**	
Chloroform		< 10		< 0.5		< 10		< 0.5	
1,2-Dichloroethane		< 10		< 0.5		< 10		< 0.5	
2-Butanone		< 10		NA		< 10	J	NA	
1,1,1-Trichloroethane		< 10		< 0.5		**0.4**	**J**	< 0.5	
Carbon tetrachloride		< 10	J	< 0.5		< 10		< 0.5	
Bromodichloromethane		< 10		< 0.5		< 10		< 0.5	
1,2-Dichloropropane		< 10		< 0.5		< 10		< 0.5	
cis-1,3-Dichloropropene		< 10		< 0.5		< 10		< 0.5	
Trichloroethene		**54**	**J**	**52**		**140**		**130**	
Dibromochloromethane		< 10		< 0.5		< 10		< 0.5	
1,1,2-Trichloroethane		< 10		< 0.5		< 10		< 0.5	
Benzene		< 10		< 0.5		< 10		< 0.5	
trans-1,3-Dichloropropene		< 10		< 0.5		< 10		< 0.5	
Bromoform		< 10		< 0.5		< 10		< 0.5	
4-Methyl-2-pentanone		< 10		NA		< 10		NA	
2-Hexanone		< 10		NA		< 10		NA	
Tetrachloroethene		**3**	**J**	**2.1**		**9**	**J**	**8.9**	
1,1,2,2-Tetrachloroethane		R		< 0.5		< 10		< 0.5	
Toluene		< 10		< 0.5		< 10		< 0.5	
Chlorobenzene		< 10		< 0.5		< 10		< 0.5	
Ethylbenzene		< 10		< 0.5		< 10		< 0.5	
Styrene		< 10		< 0.5		< 10		< 0.5	
Xylene (total)		< 10		< 0.5		< 10		< 0.5	
Total VOC's		**58**		**54.1**		**155.4**		**140.7**	

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

	SITE:	GM-71D2*		GM-71D2		GM-71D2*		GM-71D2	
CONSTITUENT:	**DATE:**	12/10/99		12/10/99		3/24/00		3/24/00	
(Units in ug/L)	**LAB/SAMPLER:**	STL/G&M		H2M/H2M		STL/G&M		H2M/H2M	
Chloromethane		< 5		< 0.5		< 10		< 0.5	
Bromomethane		< 5		< 0.5		< 10		< 0.5	
Vinyl Choride		< 2		< 0.5		< 1		< 0.5	
Chloroethane		< 5		< 0.5		< 10		< 0.5	
Methylene chloride		< 5		< 0.5		< 10		< 0.5	
Acetone		< 10		NA		< 10		NA	
Carbon disulfide		< 10		NA		< 10		NA	
1,1-Dichloroethene		< 5		< 0.5		< 10		< 0.5	
1,1-Dichloroethane		< 5		< 0.5		< 10		< 0.5	
1,2-Dichloroethene (total)		< 5		< 0.5		< 10		< 0.5	
Chloroform		**0.6**	**J**	< 0.5		< 10		< 0.5	
1,2-Dichloroethane		< 5		< 0.5		< 10		< 0.5	
2-Butanone		< 10		NA		< 10		NA	
1,1,1-Trichloroethane		< 5		< 0.5		< 10	J	< 0.5	
Carbon tetrachloride		**1**	**J**	**0.9**		**1**	**J**	**1.1**	
Bromodichloromethane		< 10		< 0.5		< 10		< 0.5	
1,2-Dichloropropane		< 5		< 0.5		< 10		< 0.5	
cis-1,3-Dichloropropene		< 5		< 0.5		< 10		< 0.5	
Trichloroethene		**4**	**J**	**2.5**		**5**	**J**	**3**	
Dibromochloromethane		< 5		< 0.5		< 10		< 0.5	
1,1,2-Trichloroethane		< 5		< 0.5		< 10		< 0.5	
Benzene		< 0.7		< 0.5		< 10		< 0.5	
trans-1,3-Dichloropropene		< 5		< 0.5		< 10		< 0.5	
Bromoform		< 10		< 0.5		< 10		< 0.5	
4-Methyl-2-pentanone		< 10		NA		< 10		NA	
2-Hexanone		< 10		NA		< 10		NA	
Tetrachloroethene		< 5		< 0.5		< 10		< 0.5	
1,1,2,2-Tetrachloroethane		< 5		< 0.5		< 10		< 0.5	
Toluene		< 5		< 0.5		< 10		< 0.5	
Chlorobenzene		< 5		< 0.5		< 10		< 0.5	
Ethylbenzene		< 5		< 0.5		< 10		< 0.5	
Styrene		< 5		< 0.5		< 10		< 0.5	
Xylene (total)		< 5		< 0.5		< 10		< 0.5	
Total VOC's		**5.6**		**3.4**		**6**		**4.1**	

VOCs	Volatile organic compounds.
H2M	Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M	ARCADIS Geraghty & Miller, Inc.
STL	Severn Trent Labortories, Inc., Shelton, Connecticut .
*	Groundwater sample split with H2M.
**	Replicate sample.
ug/L	Micrograms per liter.
J	Estimated value.
NA	Not analyzed.
D	Constituent identified at a secondary dilution.

Table 1. Volatile Organic Compounds Detected in Groundwater Samples Collected During the Last Quarter of 1999 and First Three Quarters of 2000 Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	SITE: DATE: LAB/SAMPLER:	GM-71D2 7/12/00 STL/G&M	GM-71D2 7/12/00 H2M/H2M	GM-71D2* 9/22/00 STL/G&M	GM-71D2 9/22/00 H2M/H2M
Chloromethane		< 10	< 0.5	< 10 J	< 0.5
Bromomethane		< 10 J	< 0.5	< 10	< 0.5
Vinyl Choride		< 0.3	< 0.5	< 0.2 J	< 0.5
Chloroethane		< 10	< 0.5	< 10 J	< 0.5
Methylene chloride		< 10	< 0.5	< 10	< 0.5
Acetone		< 10	NA	< 10 J	NA
Carbon disulfide		< 10	NA	R	NA
1,1-Dichloroethene		< 10	< 0.5	R	< 0.5
1,1-Dichloroethane		< 10	< 0.5	< 10	< 0.5
1,2-Dichloroethene (total)		< 10	< 0.5	< 10	< 0.5
Chloroform		< 10	**0.6**	**0.8 J**	< 0.5
1,2-Dichloroethane		< 10	**0.5**	< 10	< 0.5
2-Butanone		< 10	NA	< 10	NA
1,1,1-Trichloroethane		< 10	< 0.5	**0.3 J**	< 0.5
Carbon tetrachloride		**2 J**	**1.7**	2 J	**1.3**
Bromodichloromethane		< 10	< 0.5	< 10	< 0.5
1,2-Dichloropropane		< 10	< 0.5	< 10	< 0.5
cis-1,3-Dichloropropene		< 10	< 0.5	< 10	< 0.5
Trichloroethene		**5 J**	**4.8**	**4 J**	**3.2**
Dibromochloromethane		< 10	< 0.5	< 10	< 0.5
1,1,2-Trichloroethane		< 10	< 0.5	< 10	< 0.5
Benzene		< 10	< 0.5	< 10	< 0.5
trans-1,3-Dichloropropene		< 10	< 0.5	< 10	< 0.5
Bromoform		< 10	< 0.5	< 10	< 0.5
4-Methyl-2-pentanone		< 10	NA	< 10	NA
2-Hexanone		< 10	NA	< 10	NA
Tetrachloroethene		< 10	< 0.5	< 10	< 0.5
1,1,2,2-Tetrachloroethane		< 10	< 0.5	< 10	< 0.5
Toluene		R	< 0.5	R	< 0.5
Chlorobenzene		< 10	< 0.5	< 10	< 0.5
Ethylbenzene		< 10	< 0.5	R	< 0.5
Styrene		< 10	< 0.5	< 10	< 0.5
Xylene (total)		< 10	< 0.5	< 10	< 0.5
Total VOC's		**7**	**7.6**	**7.1**	**4.5**

VOCs Volatile organic compounds.
H2M Holzmacher, McClendon & Murrell, P.C., Melville, NY.
G&M ARCADIS Geraghty & Miller, Inc.
STL Severn Trent Labortories, Inc., Shelton, Connecticut .
* Groundwater sample split with H2M.
** Replicate sample.
ug/L Micrograms per liter.
J Estimated value.
NA Not analyzed.
D Constituent identified at a secondary dilution.

Table 2. Total Cadmium and Chromium Detected in Groundwater Samples Collected During Last Quarter 1999 and First Three Quarters 2000 Groundwater Monitoring Rounds, Northrop Grumman Corporation, Bethpage, New York.

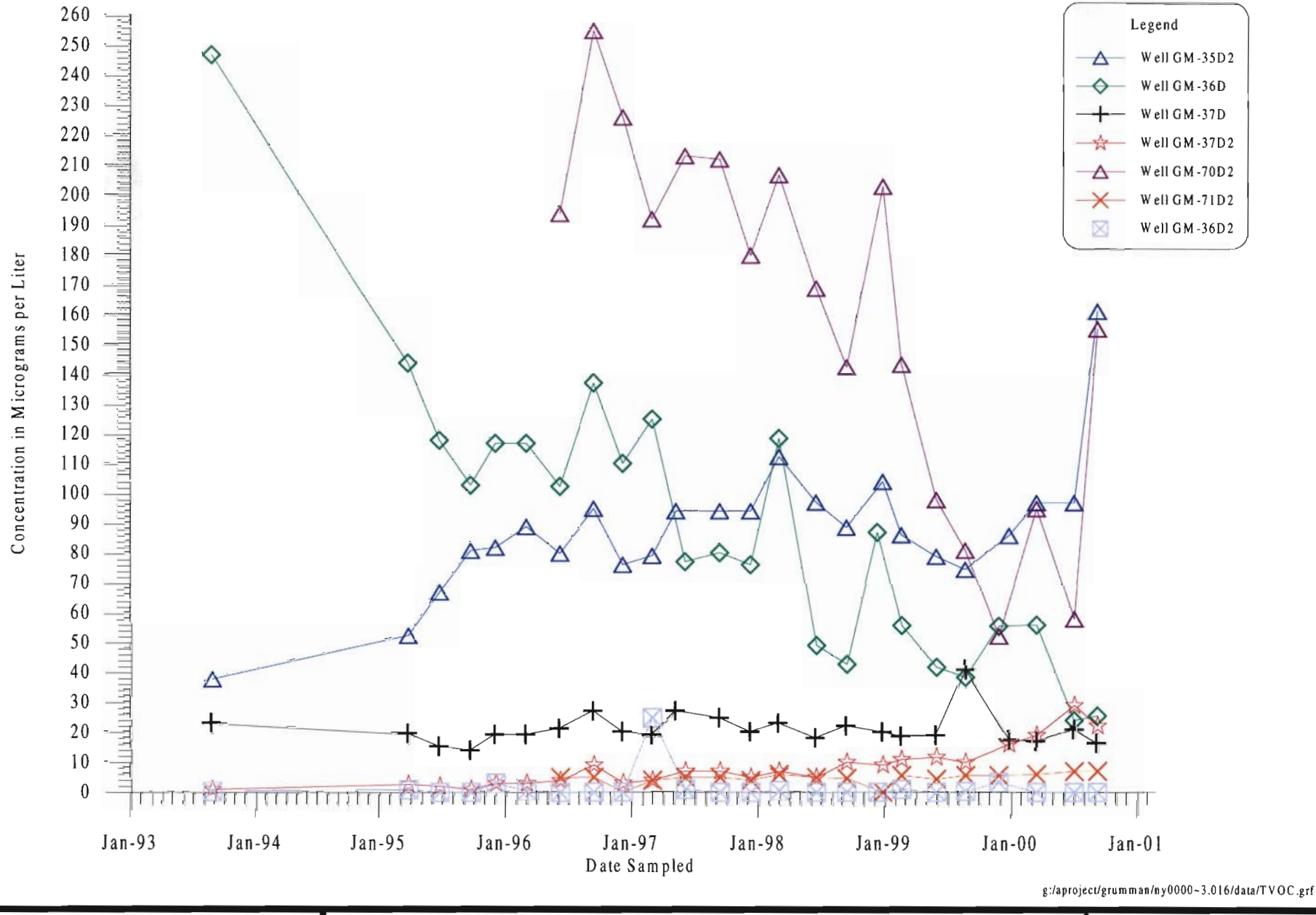
CONSTITUENT: (Units in ug/L)	NYSDEC SCGs (1)	SITE: / SAMPLE ID: / DATE:	10631 MW-10631 12/1/99	10631 N-10631 3/13/00	10631 N-10631 6/27/00	10631 N10631 9/26/00	GM-16S GM-16S 3/15/00	GM-16SR MW-16SR 6/27/00	GM-16S GM-16SR 9/26/00
Cadmium	5		**2.2 B**	**2.6**	**1.5 B**	<0.5	**0.7**	<0.2	<0.5
Chromium	50		**50.1**	**38**	**27.1**	<1	**4.6**	<0.83	<2.1

(1)	Standards, Criteria, and Guidance Values.
ug/L	Micrograms per liter.
B	Detected between the IDL and CRDL.
IDL	Instrument detection limit.
CRDL	Contract required detection limit.
J	Estimated value.
NYSDEC	New York State Department of Environmental Conservation.
EQ	Equipment Blanks.
	Value exceeds associated SCG value.
*	Replicate sample.

Table 2. Total Cadmium and Chromium Detected in Groundwater Samples Collected During Last Quarter 1999 and First Three Quarters 2000 Groundwater Monitoring Rounds, Northrop Grumman Corporation, Bethpage, New York.

CONSTITUENT: (Units in ug/L)	NYSDEC SCGs [1]	SITE: / SAMPLE ID: / DATE:	GM-16S GM-16SR 9/26/00	MW-03R MW-3R 12/1/99	MW-03R MW-3R 3/13/00	MW-03R MW-3R 6/27/00	MW-03R MW-3R 9/26/00	MW-03R* REP-1 9/26/00	EQ. BLANK FB092600 9/26/00
Cadmium	5		<0.5	**26.9**	**28**	**28.9**	**22.9J**	**2.2BJ**	<0.5
Chromium	50		<2.1	**67.9**	**81**	**75.8**	**76.5J**	**38.6J**	<1

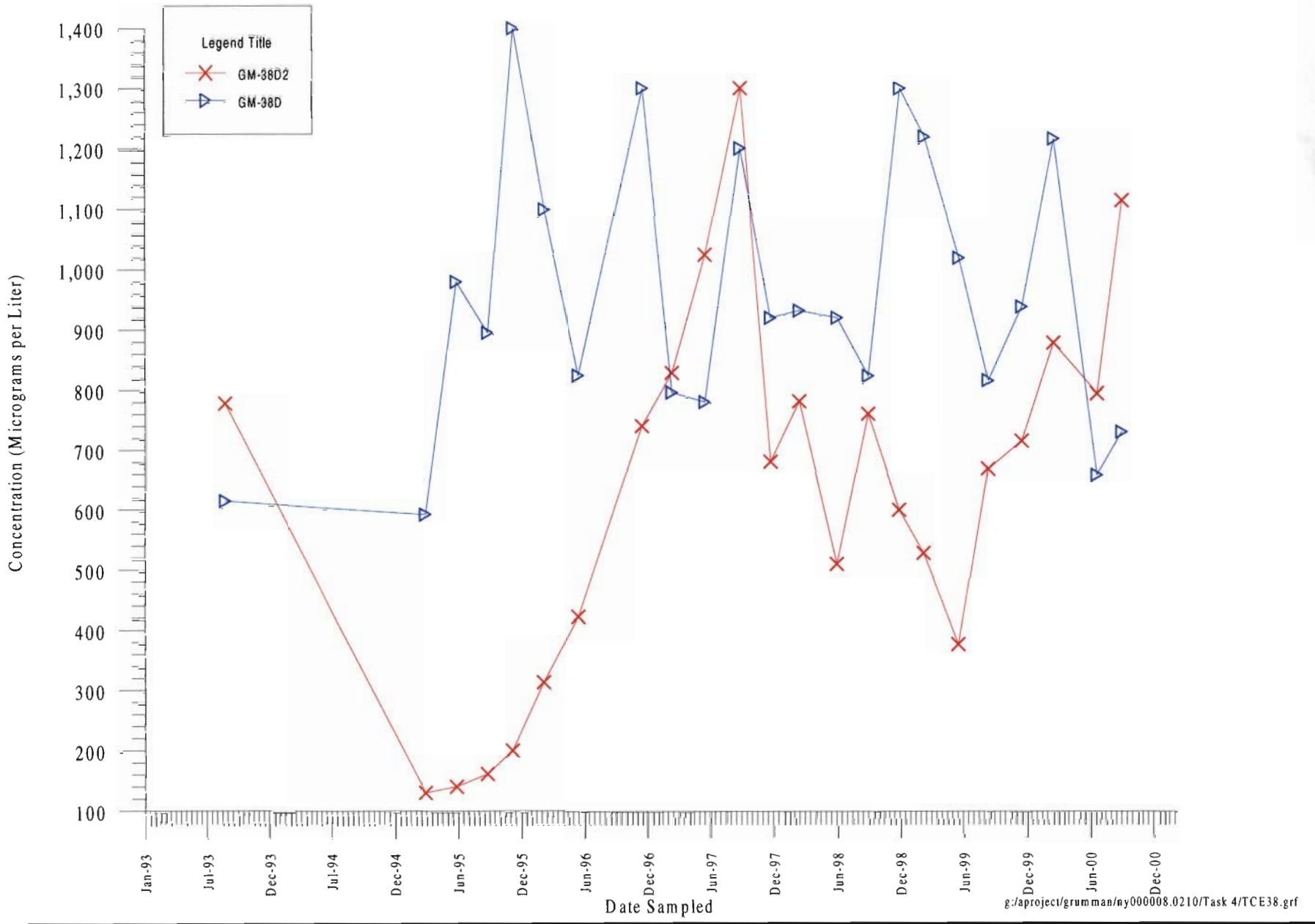
(1)	Standards, Criteria, and Guidance Values.
ug/L	Micrograms per liter.
B	Detected between the IDL and CRDL.
IDL	Instrument detection limit.
CRDL	Contract required detection limit.
J	Estimated value.
NYSDEC	New York State Department of Environmental Conservation.
EQ	Equipment Blank.
	Value exceeds associated SCG value.
*	Replicate sample.



ARCADIS GERAGHTY & MILLER

Total Volatile Organic Compound Concentrations in
Selected Deep and D2 Monitoring Wells
Off-Site Groundwater Monitoring Program
Northrop Grumman Corporation, Bethpage, New York

FIGURE
1



ARCADIS GERAGHTY & MILLER

Total Volatile Organic Compound Concentrations in Selected Deep and D2 Monitoring Wells
IRM Groundwater Monitoring Program
Northrop Grumman Corporation, Bethpage, New York

FIGURE
2