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ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SL7019-2
Client ID: FB072618DC1
Project: Program #5A: OU3-Phase 2
SDG: SL7019
Lab File ID: G3803.D

Sample Date: 26-JUL-18
Received Date: 27-JUL-18
Extract Date: 30-JUL-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233067

Analysis Date: 31-JUL-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 01-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.25	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		72.9	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7123-1
Client ID: FB073018MM1
Project: Program #5A: OU3-Phase 2
SDG: SL7123
Lab File ID: G3823.D

Sample Date: 30-JUL-18
Received Date: 31-JUL-18
Extract Date: 02-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233340

Analysis Date: 06-AUG-18
Analyst: JCG/BI
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 07-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.25	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		72.7	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7123-2
Client ID: MW-200-1
Project: Program #5A: OU3-Phase 2
SDG: SL7123
Lab File ID: G3824.D

Sample Date: 30-JUL-18
Received Date: 31-JUL-18
Extract Date: 02-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233340

Analysis Date: 06-AUG-18
Analyst: JCG/BI
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 07-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane		0.40	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		68.4	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7123-3
Client ID: MW-204-1
Project: Program #5A: OU3-Phase 2
SDG: SL7123
Lab File ID: G3825.D

Sample Date: 30-JUL-18
Received Date: 31-JUL-18
Extract Date: 02-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233340

Analysis Date: 06-AUG-18
Analyst: JCG/BI
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 07-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	J	0.25	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		63.8	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7180-1
Client ID: FB073118MM1
Project: Program #5A: OU3-Phase 2
SDG: SL7180
Lab File ID: G3826.D

Sample Date: 31-JUL-18
Received Date: 01-AUG-18
Extract Date: 02-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233340

Analysis Date: 06-AUG-18
Analyst: JCG/BI
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 07-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.25	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		73.6	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7180-2
Client ID: MW-202-1
Project: Program #5A: OU3-Phase 2
SDG: SL7180
Lab File ID: G3827.D

Sample Date: 31-JUL-18
Received Date: 01-AUG-18
Extract Date: 02-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233340

Analysis Date: 06-AUG-18
Analyst: JCG/BI
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 07-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane		0.30	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		59.6	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7180-3
Client ID: MW-206-1
Project: Program #5A: OU3-Phase 2
SDG: SL7180
Lab File ID: G3828.D

Sample Date: 31-JUL-18
Received Date: 01-AUG-18
Extract Date: 02-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233340

Analysis Date: 06-AUG-18
Analyst: JCG/BI
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 07-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane		0.34	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		54.8	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7228-1RA
Client ID: FB080118MM1
Project: Program #5A: OU3-Phase 2
SDG: SL7228
Lab File ID: G3842.D

Sample Date: 01-AUG-18
Received Date: 02-AUG-18
Extract Date: 06-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233616

Analysis Date: 08-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 13-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.25	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		50.9	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7228-2
Client ID: MW-201-1
Project: Program #5A: OU3-Phase 2
SDG: SL7228
Lab File ID: G3838.D

Sample Date: 01-AUG-18
Received Date: 02-AUG-18
Extract Date: 06-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233616

Analysis Date: 08-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 13-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane		0.40	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		61.5	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7228-3
Client ID: MW-205-1
Project: Program #5A: OU3-Phase 2
SDG: SL7228
Lab File ID: G3839.D

Sample Date: 01-AUG-18
Received Date: 02-AUG-18
Extract Date: 06-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233616

Analysis Date: 08-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 13-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane		0.40	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		69.9	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7274-1
Client ID: FB080218MM1
Project: Program #5A: OU3-Phase 2
SDG: SL7274
Lab File ID: G3832.D

Sample Date: 02-AUG-18
Received Date: 03-AUG-18
Extract Date: 06-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233616

Analysis Date: 08-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 13-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.25	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		47.0	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7274-2
Client ID: MW-208-1
Project: Program #5A: OU3-Phase 2
SDG: SL7274
Lab File ID: G3833.D

Sample Date: 02-AUG-18
Received Date: 03-AUG-18
Extract Date: 06-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233616

Analysis Date: 08-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 13-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane		0.51	ug/L	1	.25	0.24	0.080
1,4-Dioxane-D8		63.2	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7274-3
Client ID: MW-203-1
Project: Program #5A: OU3-Phase 2
SDG: SL7274
Lab File ID: G3834.D

Sample Date: 02-AUG-18
Received Date: 03-AUG-18
Extract Date: 06-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233616

Analysis Date: 08-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 13-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	J	0.19	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		47.8	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7274-4
Client ID: REP080218DC1
Project: Program #5A: OU3-Phase 2
SDG: SL7274
Lab File ID: G3835.D

Sample Date: 02-AUG-18
Received Date: 03-AUG-18
Extract Date: 06-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233616

Analysis Date: 08-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 13-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane		0.35	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		49.9	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7365-1
Client ID: BCPMW-6-1
Project: Program #5A: OU3-Phase 2
SDG: SL7365
Lab File ID: G3853.D

Sample Date: 06-AUG-18
Received Date: 07-AUG-18
Extract Date: 08-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233804

Analysis Date: 09-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 10-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.24	ug/L	1	.25	0.24	0.080
1,4-Dioxane-D8		62.3	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7365-2
Client ID: BCPMW-6-2
Project: Program #5A: OU3-Phase 2
SDG: SL7365
Lab File ID: G3854.D

Sample Date: 06-AUG-18
Received Date: 07-AUG-18
Extract Date: 08-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233804

Analysis Date: 09-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 10-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	J	0.092	ug/L	1	.25	0.24	0.080
1,4-Dioxane-D8		55.6	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7365-3
Client ID: FB080618DC1
Project: Program #5A: OU3-Phase 2
SDG: SL7365
Lab File ID: G3855.D

Sample Date: 06-AUG-18
Received Date: 07-AUG-18
Extract Date: 08-AUG-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233804

Analysis Date: 09-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 10-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.25	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		58.6	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7500-1
Client ID: FB080818DC1
Project: Program #5A: OU3-Phase 2
SDG: SL7500
Lab File ID: G3882.D

Sample Date: 08-AUG-18
Received Date: 09-AUG-18
Extract Date: 10-AUG-18
Extracted By: JMS
Extraction Method: SW846 3520C
Lab Prep Batch: WG233969

Analysis Date: 13-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 14-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.24	ug/L	1	.25	0.24	0.080
1,4-Dioxane-D8		71.9	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7500-2
Client ID: BCPMW-7-1
Project: Program #5A: OU3-Phase 2
SDG: SL7500
Lab File ID: G3883.D

Sample Date: 08-AUG-18
Received Date: 09-AUG-18
Extract Date: 10-AUG-18
Extracted By: JMS
Extraction Method: SW846 3520C
Lab Prep Batch: WG233969

Analysis Date: 13-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 14-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.24	ug/L	1	.25	0.24	0.080
1,4-Dioxane-D8		65.5	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7500-3
Client ID: BCPMW-4-3
Project: Program #5A: OU3-Phase 2
SDG: SL7500
Lab File ID: G3884.D

Sample Date: 08-AUG-18
Received Date: 09-AUG-18
Extract Date: 10-AUG-18
Extracted By: JMS
Extraction Method: SW846 3520C
Lab Prep Batch: WG233969

Analysis Date: 13-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 14-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane		0.43	ug/L	1	.25	0.24	0.080
1,4-Dioxane-D8		67.9	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7561-1
Client ID: B30MW-1
Project: Program #5A: OU3-Phase 2
SDG: SL7561
Lab File ID: G3885.D

Sample Date: 09-AUG-18
Received Date: 10-AUG-18
Extract Date: 10-AUG-18
Extracted By: JMS
Extraction Method: SW846 3520C
Lab Prep Batch: WG233969

Analysis Date: 13-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 17-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.24	ug/L	1	.25	0.24	0.080
1,4-Dioxane-D8		66.1	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7561-2
Client ID: B24MW-2
Project: Program #5A: OU3-Phase 2
SDG: SL7561
Lab File ID: G3886.D

Sample Date: 09-AUG-18
Received Date: 10-AUG-18
Extract Date: 10-AUG-18
Extracted By: JMS
Extraction Method: SW846 3520C
Lab Prep Batch: WG233969

Analysis Date: 13-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 17-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	J	0.16	ug/L	1	.25	0.24	0.080
1,4-Dioxane-D8	*	27.5	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7561-3
Client ID: B24MW-3
Project: Program #5A: OU3-Phase 2
SDG: SL7561
Lab File ID: G3887.D

Sample Date: 09-AUG-18
Received Date: 10-AUG-18
Extract Date: 10-AUG-18
Extracted By: JMS
Extraction Method: SW846 3520C
Lab Prep Batch: WG233969

Analysis Date: 13-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 17-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	J	0.11	ug/L	1	.25	0.24	0.080
1,4-Dioxane-D8		54.6	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL7561-4
Client ID: FB080918DC1
Project: Program #5A: OU3-Phase 2
SDG: SL7561
Lab File ID: G3888.D

Sample Date: 09-AUG-18
Received Date: 10-AUG-18
Extract Date: 10-AUG-18
Extracted By: JMS
Extraction Method: SW846 3520C
Lab Prep Batch: WG233969

Analysis Date: 13-AUG-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 17-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.24	ug/L	1	.25	0.24	0.080
1,4-Dioxane-D8		71.8	%				

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Report of Analytical Results

Client: ARCADIS
Lab ID: SL6910-1
Client ID: FB072418DC1
Project: OU3-Northrop Grumman, Bethpage NY
SDG: SL6910
Lab File ID: G3799.D

Sample Date: 24-JUL-18
Received Date: 25-JUL-18
Extract Date: 30-JUL-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233067

Analysis Date: 31-JUL-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 01-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane	U	0.25	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		70.3	%				

600 Technology Way
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Tel:(207) 874-2400 Fax:(207) 775-4029

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Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SL6910-3
Client ID: BCPMW-4-2
Project: OU3-Northrop Grumman, Bethpage NY
SDG: SL6910
Lab File ID: G3801.D

Sample Date: 24-JUL-18
Received Date: 25-JUL-18
Extract Date: 30-JUL-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233067

Analysis Date: 31-JUL-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 01-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane		2.4	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		59.7	%				

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Katahdin
ANALYTICAL SERVICES

Report of Analytical Results

Client: ARCADIS
Lab ID: SL6910-2
Client ID: BCPMW-4-1
Project: OU3-Northrop Grumman, Bethpage NY
SDG: SL6910
Lab File ID: G3800.D

Sample Date: 24-JUL-18
Received Date: 25-JUL-18
Extract Date: 30-JUL-18
Extracted By: DP
Extraction Method: SW846 3520C
Lab Prep Batch: WG233067

Analysis Date: 31-JUL-18
Analyst: JCG
Analysis Method: SW846 8270D SIM
Matrix: AQ
% Solids: NA
Report Date: 01-AUG-18

Compound	Qualifier	Result	Units	Dilution	PQL	ADJ PQL	ADJ MDL
1,4-Dioxane		0.68	ug/L	1	.25	0.25	0.085
1,4-Dioxane-D8		50.9	%				

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Report of Analysis

Client Sample ID:	BCPMW-4-1		
Lab Sample ID:	JC70554-1	**Date Sampled:**	07/24/18
Matrix:	AQ - Ground Water	**Date Received:**	07/25/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145304.D	1	08/02/18 09:11	SS	n/a	n/a	V2E6376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide [a]	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	0.87	1.0	0.57	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	30.7	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride [b]	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-4-1		
Lab Sample ID:	JC70554-1	**Date Sampled:**	07/24/18
Matrix:	AQ - Ground Water	**Date Received:**	07/25/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	13.5	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	106%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-4-1		
Lab Sample ID:	JC70554-1	**Date Sampled:**	07/24/18
Matrix:	AQ - Ground Water	**Date Received:**	07/25/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	07/26/18	07/27/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	07/26/18	07/27/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA44936
(2) Prep QC Batch: MP8302

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BCPMW-4-1		
Lab Sample ID:	JC70554-1F	**Date Sampled:**	07/24/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/25/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	07/26/18	07/27/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	07/26/18	07/27/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA44936
(2) Prep QC Batch: MP8302

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BCPMW-4-2		
Lab Sample ID:	JC70554-2	**Date Sampled:**	07/24/18
Matrix:	AQ - Ground Water	**Date Received:**	07/25/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145305.D	1	08/02/18 09:40	SS	n/a	n/a	V2E6376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide [a]	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	1.3	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	0.87	1.0	0.57	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	58.1	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride [b]	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-4-2		
Lab Sample ID:	JC70554-2	**Date Sampled:**	07/24/18
Matrix:	AQ - Ground Water	**Date Received:**	07/25/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	61.5	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	109%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-4-2		
Lab Sample ID:	JC70554-2	**Date Sampled:**	07/24/18
Matrix:	AQ - Ground Water	**Date Received:**	07/25/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	07/26/18	07/27/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	07/26/18	07/27/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA44936
(2) Prep QC Batch: MP8302

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BCPMW-4-2		
Lab Sample ID:	JC70554-2F	**Date Sampled:**	07/24/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/25/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	07/26/18	07/27/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	07/26/18	07/27/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA44936
(2) Prep QC Batch: MP8302

RL = Reporting Limit

Report of Analysis

Client Sample ID:	FB072418DC1		
Lab Sample ID:	JC70554-3	**Date Sampled:**	07/24/18
Matrix:	AQ - Field Blank Water	**Date Received:**	07/25/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145314.D	1	08/02/18 13:58	SS	n/a	n/a	V2E6376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide [a]	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride [b]	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB072418DC1		
Lab Sample ID:	JC70554-3	**Date Sampled:**	07/24/18
Matrix:	AQ - Field Blank Water	**Date Received:**	07/25/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB072418DC1		
Lab Sample ID:	JC70554-3	**Date Sampled:**	07/24/18
Matrix:	AQ - Field Blank Water	**Date Received:**	07/25/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	07/26/18	07/27/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	07/26/18	07/27/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA44936
(2) Prep QC Batch: MP8302

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB072418DC1		
Lab Sample ID:	JC70554-4	**Date Sampled:**	07/24/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/25/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145315.D	1	08/02/18 14:27	SS	n/a	n/a	V2E6376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide [a]	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride [b]	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB072418DC1		
Lab Sample ID:	JC70554-4	**Date Sampled:**	07/24/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/25/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	108%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB073018MM1		
Lab Sample ID:	JC71002-1	**Date Sampled:**	07/30/18
Matrix:	AQ - Field Blank Water	**Date Received:**	07/31/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145316.D	1	08/02/18 14:56	SS	n/a	n/a	V2E6376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide [a]	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride [b]	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB073018MM1		
Lab Sample ID:	JC71002-1	**Date Sampled:**	07/30/18
Matrix:	AQ - Field Blank Water	**Date Received:**	07/31/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	106%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB073018MM1		
Lab Sample ID:	JC71002-1	**Date Sampled:**	07/30/18
Matrix:	AQ - Field Blank Water	**Date Received:**	07/31/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/02/18	08/03/18	ND	SW846 6010D [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/02/18	08/04/18	GT	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA45008
(2) Instrument QC Batch: MA45018
(3) Prep QC Batch: MP8424

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB073018MM1		
Lab Sample ID:	JC71002-2	**Date Sampled:**	07/30/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/31/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145317.D	1	08/02/18 15:24	SS	n/a	n/a	V2E6376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide [a]	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride [b]	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB073018MM1		
Lab Sample ID:	JC71002-2	**Date Sampled:**	07/30/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/31/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-200-1		
Lab Sample ID:	JC71002-3	**Date Sampled:**	07/30/18
Matrix:	AQ - Ground Water	**Date Received:**	07/31/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145306.D	1	08/02/18 10:09	SS	n/a	n/a	V2E6376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide [a]	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride [b]	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-200-1		
Lab Sample ID:	JC71002-3	**Date Sampled:**	07/30/18
Matrix:	AQ - Ground Water	**Date Received:**	07/31/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-200-1		
Lab Sample ID:	JC71002-3	**Date Sampled:**	07/30/18
Matrix:	AQ - Ground Water	**Date Received:**	07/31/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/02/18	08/03/18	ND	SW846 6010D [1]	SW846 3010A [3]
Chromium	12.4	10	ug/l	1	08/02/18	08/04/18	GT	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA45008
(2) Instrument QC Batch: MA45018
(3) Prep QC Batch: MP8424

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-200-1		
Lab Sample ID:	JC71002-3F	**Date Sampled:**	07/30/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/31/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/02/18	08/03/18	ND	SW846 6010D [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/02/18	08/04/18	GT	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA45008
(2) Instrument QC Batch: MA45018
(3) Prep QC Batch: MP8424

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-204-1		
Lab Sample ID:	JC71002-4	**Date Sampled:**	07/30/18
Matrix:	AQ - Ground Water	**Date Received:**	07/31/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145307.D	1	08/02/18 10:38	SS	n/a	n/a	V2E6376
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide [a]	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride [b]	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-204-1		
Lab Sample ID:	JC71002-4	**Date Sampled:**	07/30/18
Matrix:	AQ - Ground Water	**Date Received:**	07/31/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	0.63	1.0	0.53	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-204-1		
Lab Sample ID:	JC71002-4	**Date Sampled:**	07/30/18
Matrix:	AQ - Ground Water	**Date Received:**	07/31/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/02/18	08/03/18	ND	SW846 6010D [1]	SW846 3010A [3]
Chromium	239	10	ug/l	1	08/02/18	08/04/18	GT	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA45008
(2) Instrument QC Batch: MA45018
(3) Prep QC Batch: MP8424

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-204-1		
Lab Sample ID:	JC71002-4F	**Date Sampled:**	07/30/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	07/31/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/02/18	08/03/18	ND	SW846 6010D [1]	SW846 3010A [3]
Chromium	89.1	10	ug/l	1	08/02/18	08/04/18	GT	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA45008
(2) Instrument QC Batch: MA45018
(3) Prep QC Batch: MP8424

RL = Reporting Limit

Report of Analysis

Client Sample ID:	FB073118MM1		
Lab Sample ID:	JC71100-1	**Date Sampled:**	07/31/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/01/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145329.D	1	08/03/18 10:33	SS	n/a	n/a	V2E6377
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride [b]	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB073118MM1		
Lab Sample ID:	JC71100-1	**Date Sampled:**	07/31/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/01/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	108%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB073118MM1		
Lab Sample ID:	JC71100-1	**Date Sampled:**	07/31/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/01/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/02/18	08/02/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/02/18	08/02/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45010
(2) Prep QC Batch: MP8431

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB073118MM1		
Lab Sample ID:	JC71100-2	**Date Sampled:**	07/31/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/01/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145330.D	1	08/03/18 11:02	SS	n/a	n/a	V2E6377
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride [b]	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB073118MM1		
Lab Sample ID:	JC71100-2	**Date Sampled:**	07/31/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/01/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	109%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-202-1		
Lab Sample ID:	JC71100-3	**Date Sampled:**	07/31/18
Matrix:	AQ - Ground Water	**Date Received:**	08/01/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145327.D	1	08/03/18 09:35	SS	n/a	n/a	V2E6377
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride [b]	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-202-1		
Lab Sample ID:	JC71100-3	**Date Sampled:**	07/31/18
Matrix:	AQ - Ground Water	**Date Received:**	08/01/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	1.1	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	0.70	1.0	0.53	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	108%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-202-1		
Lab Sample ID:	JC71100-3	**Date Sampled:**	07/31/18
Matrix:	AQ - Ground Water	**Date Received:**	08/01/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/02/18	08/02/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	21.4	10	ug/l	1	08/02/18	08/02/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45010
(2) Prep QC Batch: MP8431

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-202-1		
Lab Sample ID:	JC71100-3F	**Date Sampled:**	07/31/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/01/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/02/18	08/02/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/02/18	08/02/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45010
(2) Prep QC Batch: MP8431

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-206-1		
Lab Sample ID:	JC71100-4	**Date Sampled:**	07/31/18
Matrix:	AQ - Ground Water	**Date Received:**	08/01/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145328.D	1	08/03/18 10:04	SS	n/a	n/a	V2E6377
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride [b]	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	0.96	1.0	0.57	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.56	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-206-1		
Lab Sample ID:	JC71100-4	**Date Sampled:**	07/31/18
Matrix:	AQ - Ground Water	**Date Received:**	08/01/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	1.4	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	0.79	1.0	0.53	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	109%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-206-1		
Lab Sample ID:	JC71100-4	**Date Sampled:**	07/31/18
Matrix:	AQ - Ground Water	**Date Received:**	08/01/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/02/18	08/02/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	13.6	10	ug/l	1	08/02/18	08/02/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45010
(2) Prep QC Batch: MP8431

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-206-1		
Lab Sample ID:	JC71100-4F	**Date Sampled:**	07/31/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/01/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/02/18	08/02/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/02/18	08/02/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45010
(2) Prep QC Batch: MP8431

RL = Reporting Limit

Report of Analysis

Client Sample ID:	FB080118MM1		
Lab Sample ID:	JC71185-1	**Date Sampled:**	08/01/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/02/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145398.D	1	08/07/18 12:36	SS	n/a	n/a	V2E6381
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080118MM1		
Lab Sample ID:	JC71185-1	**Date Sampled:**	08/01/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/02/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080118MM1		
Lab Sample ID:	JC71185-1	**Date Sampled:**	08/01/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/02/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/07/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/07/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8476

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB080118MM1		
Lab Sample ID:	JC71185-2	**Date Sampled:**	08/01/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/02/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145399.D	1	08/07/18 13:04	SS	n/a	n/a	V2E6381
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB080118MM1		
Lab Sample ID:	JC71185-2	**Date Sampled:**	08/01/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/02/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	111%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-201-1		
Lab Sample ID:	JC71185-3	**Date Sampled:**	08/01/18
Matrix:	AQ - Ground Water	**Date Received:**	08/02/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145404.D	1	08/07/18 15:29	SS	n/a	n/a	V2E6381
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.87	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-201-1		
Lab Sample ID:	JC71185-3	**Date Sampled:**	08/01/18
Matrix:	AQ - Ground Water	**Date Received:**	08/02/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	0.90	1.0	0.53	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-201-1		
Lab Sample ID:	JC71185-3	**Date Sampled:**	08/01/18
Matrix:	AQ - Ground Water	**Date Received:**	08/02/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/07/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/07/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8476

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-201-1		
Lab Sample ID:	JC71185-3F	**Date Sampled:**	08/01/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/02/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/07/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/07/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8476

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-205-1		
Lab Sample ID:	JC71185-4	**Date Sampled:**	08/01/18
Matrix:	AQ - Ground Water	**Date Received:**	08/02/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145405.D	1	08/07/18 15:58	SS	n/a	n/a	V2E6381
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.76	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-205-1		
Lab Sample ID:	JC71185-4	**Date Sampled:**	08/01/18
Matrix:	AQ - Ground Water	**Date Received:**	08/02/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	103%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-205-1		
Lab Sample ID:	JC71185-4	**Date Sampled:**	08/01/18
Matrix:	AQ - Ground Water	**Date Received:**	08/02/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/07/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	88.7	10	ug/l	1	08/06/18	08/07/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8476

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-205-1		
Lab Sample ID:	JC71185-4F	**Date Sampled:**	08/01/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/02/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/07/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	23.7	10	ug/l	1	08/06/18	08/07/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8476

RL = Reporting Limit

Report of Analysis

Client Sample ID:	FB080218MM1		
Lab Sample ID:	JC71317-1	**Date Sampled:**	08/02/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145394.D	1	08/07/18 10:41	SS	n/a	n/a	V2E6381
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080218MM1		
Lab Sample ID:	JC71317-1	**Date Sampled:**	08/02/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	108%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080218MM1		
Lab Sample ID:	JC71317-1	**Date Sampled:**	08/02/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/03/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8497

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB080218MM1		
Lab Sample ID:	JC71317-2	**Date Sampled:**	08/02/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145395.D	1	08/07/18 11:09	SS	n/a	n/a	V2E6381
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB080218MM1		
Lab Sample ID:	JC71317-2	**Date Sampled:**	08/02/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	108%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-208-1		
Lab Sample ID:	JC71317-3	**Date Sampled:**	08/02/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145390.D	1	08/07/18 08:45	SS	n/a	n/a	V2E6381
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.75	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	0.61	1.0	0.57	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	129	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-208-1		
Lab Sample ID:	JC71317-3	**Date Sampled:**	08/02/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	11.7	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	1.1	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-208-1		
Lab Sample ID:	JC71317-3	**Date Sampled:**	08/02/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8497

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-208-1		
Lab Sample ID:	JC71317-3F	**Date Sampled:**	08/02/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/03/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8497

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-203-1		
Lab Sample ID:	JC71317-4	**Date Sampled:**	08/02/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145400.D	1	08/07/18 13:33	SS	n/a	n/a	V2E6381
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-203-1		
Lab Sample ID:	JC71317-4	**Date Sampled:**	08/02/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	2.6	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-203-1		
Lab Sample ID:	JC71317-4	**Date Sampled:**	08/02/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	22.7	10	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8497

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-203-1		
Lab Sample ID:	JC71317-4F	**Date Sampled:**	08/02/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/03/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8497

RL = Reporting Limit

Report of Analysis

Client Sample ID:	REP080218DC1		
Lab Sample ID:	JC71317-5	**Date Sampled:**	08/02/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145431.D	1	08/08/18 16:39	SS	n/a	n/a	V2E6383
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.71	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	135	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	REP080218DC1		
Lab Sample ID:	JC71317-5	**Date Sampled:**	08/02/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	11.4	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	0.98	1.0	0.79	ug/l	J
75-68-3	1-chloro-1,1-difluoroethane [a]	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-120%
17060-07-0	1,2-Dichloroethane-D4	96%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	REP080218DC1		
Lab Sample ID:	JC71317-5	**Date Sampled:**	08/02/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8497

RL = Reporting Limit

Report of Analysis

Client Sample ID:	REP080218DC1		
Lab Sample ID:	JC71317-5F	**Date Sampled:**	08/02/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/03/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8497

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB080318MM1		
Lab Sample ID:	JC71318-1	**Date Sampled:**	08/03/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145396.D	1	08/07/18 11:38	SS	n/a	n/a	V2E6381
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB080318MM1		
Lab Sample ID:	JC71318-1	**Date Sampled:**	08/03/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080318MM1		
Lab Sample ID:	JC71318-2	**Date Sampled:**	08/03/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145397.D	1	08/07/18 12:07	SS	n/a	n/a	V2E6381
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080318MM1		
Lab Sample ID:	JC71318-2	**Date Sampled:**	08/03/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	108%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080318MM1		
Lab Sample ID:	JC71318-2	**Date Sampled:**	08/03/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/03/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8497

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BCPMW-7-1		
Lab Sample ID:	JC71318-3	**Date Sampled:**	08/03/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145401.D	1	08/07/18 14:01	SS	n/a	n/a	V2E6381
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-7-1		
Lab Sample ID:	JC71318-3	**Date Sampled:**	08/03/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	111%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-7-1		
Lab Sample ID:	JC71318-3	**Date Sampled:**	08/03/18
Matrix:	AQ - Ground Water	**Date Received:**	08/03/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8497

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BCPMW-7-1		
Lab Sample ID:	JC71318-3F	**Date Sampled:**	08/03/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/03/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/06/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45032
(2) Prep QC Batch: MP8497

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BCPMW-6-1		
Lab Sample ID:	JC71460-1	**Date Sampled:**	08/06/18
Matrix:	AQ - Ground Water	**Date Received:**	08/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145557.D	1	08/13/18 09:32	JTP	n/a	n/a	V2E6391
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane	3.7	5.0	2.9	ug/l	J
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-6-1		
Lab Sample ID:	JC71460-1	**Date Sampled:**	08/06/18
Matrix:	AQ - Ground Water	**Date Received:**	08/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-6-1		
Lab Sample ID:	JC71460-1	**Date Sampled:**	08/06/18
Matrix:	AQ - Ground Water	**Date Received:**	08/07/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/08/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/08/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45044
(2) Prep QC Batch: MP8520

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BCPMW-6-1		
Lab Sample ID:	JC71460-1F	**Date Sampled:**	08/06/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/07/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/08/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/08/18	08/09/18	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA45044
(2) Instrument QC Batch: MA45046
(3) Prep QC Batch: MP8520

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BCPMW-6-2		
Lab Sample ID:	JC71460-2	**Date Sampled:**	08/06/18
Matrix:	AQ - Ground Water	**Date Received:**	08/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145442.D	1	08/09/18 10:53	SS	n/a	n/a	V2E6384
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.97	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-6-2		
Lab Sample ID:	JC71460-2	**Date Sampled:**	08/06/18
Matrix:	AQ - Ground Water	**Date Received:**	08/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane [b]	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	93%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-6-2		
Lab Sample ID:	JC71460-2	**Date Sampled:**	08/06/18
Matrix:	AQ - Ground Water	**Date Received:**	08/07/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/08/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/08/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45044
(2) Prep QC Batch: MP8520

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BCPMW-6-2		
Lab Sample ID:	JC71460-2F	**Date Sampled:**	08/06/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/07/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/08/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/08/18	08/09/18	ND	SW846 6010D [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA45044
(2) Instrument QC Batch: MA45046
(3) Prep QC Batch: MP8520

RL = Reporting Limit

Report of Analysis

Client Sample ID:	FB080618DC1		
Lab Sample ID:	JC71460-3	**Date Sampled:**	08/06/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145446.D	1	08/09/18 13:07	SS	n/a	n/a	V2E6384
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080618DC1		
Lab Sample ID:	JC71460-3	**Date Sampled:**	08/06/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane [b]	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	94%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080618DC1		
Lab Sample ID:	JC71460-3	**Date Sampled:**	08/06/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/07/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/08/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/08/18	08/08/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45044
(2) Prep QC Batch: MP8520

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB080618DC1		
Lab Sample ID:	JC71460-4	**Date Sampled:**	08/06/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145447.D	1	08/09/18 13:36	SS	n/a	n/a	V2E6384
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB080618DC1		
Lab Sample ID:	JC71460-4	**Date Sampled:**	08/06/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/07/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane [b]	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		80-120%
17060-07-0	1,2-Dichloroethane-D4	93%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-7-1		
Lab Sample ID:	JC71634-1	**Date Sampled:**	08/08/18
Matrix:	AQ - Ground Water	**Date Received:**	08/09/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145606.D	1	08/14/18 09:48	SS	n/a	n/a	V2E6393
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-7-1		
Lab Sample ID:	JC71634-1	**Date Sampled:**	08/08/18
Matrix:	AQ - Ground Water	**Date Received:**	08/09/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-7-1		
Lab Sample ID:	JC71634-1	**Date Sampled:**	08/08/18
Matrix:	AQ - Ground Water	**Date Received:**	08/09/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/13/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/13/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45089
(2) Prep QC Batch: MP8604

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BCPMW-7-1		
Lab Sample ID:	JC71634-1F	**Date Sampled:**	08/08/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/09/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/13/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/13/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45089
(2) Prep QC Batch: MP8604

RL = Reporting Limit

Report of Analysis

Client Sample ID:	FB080818DC1		
Lab Sample ID:	JC71634-2	**Date Sampled:**	08/08/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/09/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145615.D	1	08/14/18 14:06	SS	n/a	n/a	V2E6393
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080818DC1		
Lab Sample ID:	JC71634-2	**Date Sampled:**	08/08/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/09/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080818DC1		
Lab Sample ID:	JC71634-2	**Date Sampled:**	08/08/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/09/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/13/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/13/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45089
(2) Prep QC Batch: MP8604

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB080818DC1		
Lab Sample ID:	JC71634-3	**Date Sampled:**	08/08/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/09/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145616.D	1	08/14/18 14:34	SS	n/a	n/a	V2E6393
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB080818DC1		
Lab Sample ID:	JC71634-3	**Date Sampled:**	08/08/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/09/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-4-3		
Lab Sample ID:	JC71634-4	**Date Sampled:**	08/08/18
Matrix:	AQ - Ground Water	**Date Received:**	08/09/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145607.D	1	08/14/18 10:17	SS	n/a	n/a	V2E6393
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-4-3		
Lab Sample ID:	JC71634-4	**Date Sampled:**	08/08/18
Matrix:	AQ - Ground Water	**Date Received:**	08/09/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BCPMW-4-3		
Lab Sample ID:	JC71634-4	**Date Sampled:**	08/08/18
Matrix:	AQ - Ground Water	**Date Received:**	08/09/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/13/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/13/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45089
(2) Prep QC Batch: MP8604

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BCPMW-4-3		
Lab Sample ID:	JC71634-4F	**Date Sampled:**	08/08/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/09/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/13/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/13/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45089
(2) Prep QC Batch: MP8604

RL = Reporting Limit

Report of Analysis

Client Sample ID:	OU3 DISCHARGE		
Lab Sample ID:	JC71732-1	**Date Sampled:**	08/10/18
Matrix:	AQ - Water	**Date Received:**	08/10/18
Method:	EPA 624.1	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T233088.D	1	08/13/18 14:12	CSF	n/a	n/a	VT9606
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 Discharge List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	1.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.32	ug/l	
74-83-9	Bromomethane	ND	1.0	0.59	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.38	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	1.0	0.54	ug/l	
67-66-3	Chloroform	ND	1.0	0.35	ug/l	
74-87-3	Chloromethane	ND	1.0	0.78	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.34	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.80	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.45	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.39	1.0	0.32	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.46	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
76-13-1	Freon 113	ND	2.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.46	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.89	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.33	ug/l	
100-42-5	Styrene	ND	2.0	0.21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.41	ug/l	
108-88-3	Toluene	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OU3 DISCHARGE		
Lab Sample ID:	JC71732-1	**Date Sampled:**	08/10/18
Matrix:	AQ - Water	**Date Received:**	08/10/18
Method:	EPA 624.1	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 Discharge List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.41	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.29	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.66	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.53	ug/l	
	m,p-Xylene	ND	1.0	0.41	ug/l	
95-47-6	o-Xylene	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	101%		76-122%
2037-26-5	Toluene-D8 (SUR)	98%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	103%		80-120%
1868-53-7	Dibromofluoromethane (S)	107%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB081018DC1		
Lab Sample ID:	JC71732-2	**Date Sampled:**	08/10/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/10/18
Method:	EPA 624.1	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T233093.D	1	08/13/18 16:58	CSF	n/a	n/a	VT9606
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 Discharge List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	5.0	3.0	ug/l	
71-43-2	Benzene	ND	1.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.28	ug/l	
75-25-2	Bromoform	ND	1.0	0.32	ug/l	
74-83-9	Bromomethane	ND	1.0	0.59	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.7	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.38	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.30	ug/l	
75-00-3	Chloroethane	ND	1.0	0.54	ug/l	
67-66-3	Chloroform	ND	1.0	0.35	ug/l	
74-87-3	Chloromethane	ND	1.0	0.78	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.34	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.80	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.36	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.45	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.32	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.46	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.27	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.75	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
76-13-1	Freon 113	ND	2.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.46	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.89	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.33	ug/l	
100-42-5	Styrene	ND	2.0	0.21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.27	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.41	ug/l	
108-88-3	Toluene	ND	1.0	0.28	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB081018DC1		
Lab Sample ID:	JC71732-2	**Date Sampled:**	08/10/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/10/18
Method:	EPA 624.1	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 Discharge List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.29	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.41	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.29	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.66	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.53	ug/l	
	m,p-Xylene	ND	1.0	0.41	ug/l	
95-47-6	o-Xylene	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	103%		76-122%
2037-26-5	Toluene-D8 (SUR)	98%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	103%		80-120%
1868-53-7	Dibromofluoromethane (S)	108%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.This compound in BS is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	B30MW-1		
Lab Sample ID:	JC71736-1	**Date Sampled:**	08/09/18
Matrix:	AQ - Ground Water	**Date Received:**	08/10/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145608.D	1	08/14/18 10:46	SS	n/a	n/a	V2E6393
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	B30MW-1		
Lab Sample ID:	JC71736-1	**Date Sampled:**	08/09/18
Matrix:	AQ - Ground Water	**Date Received:**	08/10/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	B30MW-1		
Lab Sample ID:	JC71736-1	**Date Sampled:**	08/09/18
Matrix:	AQ - Ground Water	**Date Received:**	08/10/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45094
(2) Prep QC Batch: MP8623

RL = Reporting Limit

Report of Analysis

Client Sample ID:	B30MW-1		
Lab Sample ID:	JC71736-1F	**Date Sampled:**	08/09/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/10/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45094
(2) Prep QC Batch: MP8623

RL = Reporting Limit

Report of Analysis

Client Sample ID:	B24MW-2		
Lab Sample ID:	JC71736-2	**Date Sampled:**	08/09/18
Matrix:	AQ - Ground Water	**Date Received:**	08/10/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145609.D	1	08/14/18 11:14	SS	n/a	n/a	V2E6393
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	B24MW-2		
Lab Sample ID:	JC71736-2	**Date Sampled:**	08/09/18
Matrix:	AQ - Ground Water	**Date Received:**	08/10/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	2.5	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	B24MW-2		
Lab Sample ID:	JC71736-2	**Date Sampled:**	08/09/18
Matrix:	AQ - Ground Water	**Date Received:**	08/10/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium [a]	< 6.0	6.0	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium [a]	153	20	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45094
(2) Prep QC Batch: MP8623

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	B24MW-2		
Lab Sample ID:	JC71736-2F	**Date Sampled:**	08/09/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/10/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45094
(2) Prep QC Batch: MP8623

RL = Reporting Limit

Report of Analysis

Client Sample ID:	B24MW-3		
Lab Sample ID:	JC71736-3	**Date Sampled:**	08/09/18
Matrix:	AQ - Ground Water	**Date Received:**	08/10/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145610.D	1	08/14/18 11:43	SS	n/a	n/a	V2E6393
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	B24MW-3		
Lab Sample ID:	JC71736-3	**Date Sampled:**	08/09/18
Matrix:	AQ - Ground Water	**Date Received:**	08/10/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	B24MW-3		
Lab Sample ID:	JC71736-3	**Date Sampled:**	08/09/18
Matrix:	AQ - Ground Water	**Date Received:**	08/10/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	12.5	10	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45094
(2) Prep QC Batch: MP8623

RL = Reporting Limit

Report of Analysis

Client Sample ID:	B24MW-3		
Lab Sample ID:	JC71736-3F	**Date Sampled:**	08/09/18
Matrix:	AQ - Groundwater Filtered	**Date Received:**	08/10/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45094
(2) Prep QC Batch: MP8623

RL = Reporting Limit

Report of Analysis

Client Sample ID:	FB080918DC1		
Lab Sample ID:	JC71736-4	**Date Sampled:**	08/09/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/10/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145617.D	1	08/14/18 15:03	SS	n/a	n/a	V2E6393
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080918DC1		
Lab Sample ID:	JC71736-4	**Date Sampled:**	08/09/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/10/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	FB080918DC1		
Lab Sample ID:	JC71736-4	**Date Sampled:**	08/09/18
Matrix:	AQ - Field Blank Water	**Date Received:**	08/10/18
		Percent Solids:	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Cadmium	< 3.0	3.0	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/14/18	08/15/18	ND	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45094
(2) Prep QC Batch: MP8623

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB080918DC1		
Lab Sample ID:	JC71736-5	**Date Sampled:**	08/09/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/10/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145618.D	1	08/14/18 15:32	SS	n/a	n/a	V2E6393
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
106-99-0	1,3-Butadiene [a]	ND	5.0	0.84	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-45-6	Chlorodifluoromethane [a]	ND	5.0	2.9	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB080918DC1		
Lab Sample ID:	JC71736-5	**Date Sampled:**	08/09/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/10/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Northrop Grumman, OU3 Hydro, Bethpage, NY		

VOA OU3 BPGWVS List

CAS No.	Compound	Result	RL	MDL	Units	Q
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
75-68-3	1-chloro-1,1-difluoroethane	ND	5.0		ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound