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**GROUNDWATER MONITORING  
VALIDATED ANALYTICAL RESULTS FOR THE FIRST QUARTER 1994  
OB GROUNDS, SENECA ARMY DEPOT**

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D#11

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**Section 1.0**  
**Inorganics**

**OB GROUNDS FIRST QUARTER 1994 MONITORING  
INORGANICS ANALYSIS RESULTS**

WVWK3	MATRIX SITE	DATE SAMPLED	DATE ANALYZED	WATER		WATER		WATER		WATER		WATER	
				OB	OB	OB	OB	OB	OB	OB	OB		
	ES ID			3/01/94	3/01/94	3/01/94	3/01/94	3/01/94	3/01/94	2/28/94	2/28/94	2/28/94	2/28/94
	LAB ID			MW-1	MW-2	MW-3	MW-4	MW-7	MW-16				
	UNITS			39506-021	39517-023	39506-020	39506-015	39479-005	39479-006				
	ug/L	296	850	587	6070	277	2040	17.9	15.6	15.6	15.6	15.6	17.9
	ug/L	15.6	17.9	15.6	15.6	15.6	15.6	2.9	2.9	2.9	2.9	2.9	15.6
	ug/L	2.9	2.9	2.9	2.9	2.9	2.9	43.6	45	42.9	40.8	40.8	2.9
	ug/L	43.6	45	23.7	110	42.9	40.8	0.4	0.4	0.4	0.43	0.43	18.6
	ug/L	0.4	0.4	0.4	0.4	0.4	0.43	2.1	2.1	2.1	2.1	2.1	0.4
	ug/L	2.1	2.1	2.1	2.1	2.1	2.1	104000	146000	73800	132000	2.1	2.1
	ug/L	108000	116000	104000	146000	73800	132000	162000	162000	162000	162000	162000	162000
	ug/L	3.1	2.3	2.3	9.1	2.3	2.8	2.3	2.3	2.8	2.8	2.3	2.3
	ug/L	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	ug/L	2.6	2.6	2.6	13.1	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	ug/L	295	1380	597	9090	533	3080	0.7	0.7	0.7	8.5	0.78	417
	ug/L	0.7	1.3	3.2	7.3	0.7	8.5	19000	27400	16200	24800	0.78	417
	ug/L	23900	18700	19000	27400	16200	24800	6.8	6.8	6.8	53.6	30300	66.4
	ug/L	1	21.3	3.7	143	0.1	0.1	0.1	0.1	0.1	0.1	0.1	66.4
	ug/L	0.1	0.1	0.1	0.79	10.4	10.4	10.4	10.4	10.4	10.4	10.4	0.1
	ug/L	10.4	10.4	10.4	17.5	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
	ug/L	1470	1350	1080	5040	1100	1630	1100	1100	1100	1630	1600	10.4
	ug/L	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
	ug/L	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	ug/L	9560	10700	3740	18800	5340	5190	5340	5190	5190	5190	5190	16100
	ug/L	2.8	2.8	2.8	3.4	4.7	2.8	4.7	2.8	2.8	2.8	3.3	3.3
	ug/L	3.3	3.3	3.3	8.5	3.3	8.5	3.3	3.3	3.3	3.3	3.3	3.3
	ug/L	15.8	12	3.8	53.9	4.3	18.3	4.3	18.3	18.3	18.3	19.5	19.5
	ug/L	1	1	1	1	1	1	1	1	1	1.3	1	1

Notes:

(1) \* All Arsenic, Lead, Selenium and Thallium samples were analyzed on March 8, 1994. All other samples were analyzed on March 10, 1994.

OB GROUNDS FIRST QUARTER 1994 MONITORING  
INORGANICS ANALYSIS RESULTS

M Y	T.WK3	MATRIX SITE	DATE SAMPLED DATE ANALYZED	WATER		WATER		WATER		WATER		WATER		UNITS
				OB	3/02/94	OB	3/04/94	OB	3/07/94	OB	3/02/94	OB	3/01/94	
M	M	LAB ID	ES ID	MW-24		MW-25		MW-26		MW-27		MW-28		UNITS
				39517-021	39517-018	39517-020	39517-022	39517-017	MW-29	39506-019				
M	M		694	53.4	J	928	17.9	U	201	1910	17.9	U	17.9	L
M	M		15.6	15.6	U	15.6	15.6	U	15.6	15.6	15.6	U	15.6	L
M	M		2.9	2.9	U	3.2	2.9	J	2.9	2.9	2.9	U	2.9	L
M	M		77.1	37.7	J	41.4	65.6	J	77.3	78.5	72.5	J	72.5	L
M	M		0.4	0.4	U	0.4	0.4	U	0.4	0.4	0.4	U	0.4	L
M	M		2.1	2.1	U	2.1	2.1	U	2.1	2.1	2.1	U	2.1	L
M	M		155000	1010000	U	93700	116000	U	71400	122000	179000	U	179000	L
M	M		2.3	2.3	U	10.2	2.3	U	2.3	4.7	2.3	J	2.3	L
M	M		3.2	3.2	U	3.2	3.2	U	3.2	3.2	3.2	J	3.2	L
M	M		2.6	2.6	U	15.9	2.6	U	2.6	2.6	2.6	U	2.6	L
M	M		1050	171	U	112	79.4	J	158	3060	65.1	J	65.1	L
M	M		8.8	3.9	R	0.7	0.7	U	10.7	8.4	0.95	J	0.95	L
M	M		51000	18200	U	22	55700	U	16000	29900	26700	U	26700	L
M	M		16.1	30.7	U	1	123	U	2.1	638	6.1	J	6.1	L
M	M		0.1	0.18	U	0.1	0.1	U	0.1	0.1	0.1	U	0.1	L
M	M		10.4	10.4	U	10.4	10.4	U	10.4	10.4	10.4	J	10.4	L
M	M		3740	1190	J	14200	6220	U	4870	2020	1120	J	1120	L
M	M		1.7	1.7	U	1.7	1.7	U	1.7	1.7	1.7	U	1.7	L
M	M		3.6	3.6	U	3.6	3.6	U	3.6	3.6	3.6	U	3.6	L
M	M		42300	3830	J	69100	20000	U	30600	14700	20700	U	20700	L
M	M		3.2	2.8	J	2.8	2.8	U	2.8	2.8	2.8	U	2.8	L
M	M		3.3	3.3	U	5.8	3.3	U	3.3	4.4	3.3	J	3.3	L
M	M		12.5	37.5	J	6.2	4.9	J	3.6	17	5.2	J	5.2	L
M	M		11.6	1	U	1	2.9	J	1	2.4	1	J	1	L

Notes:

(1) \* All Arsenic, Lead, Selenium and Thallium samples were analyzed on March 8, 1994. All other samples were analyzed on March 10, 1994.

**OB GROUNDS FIRST QUARTER 1994 MONITORING  
INORGANICS ANALYSIS RESULTS**

MATRIX SITE	DATE SAMPLED	DATE ANALYZED	ES ID	LAB ID	UNITS	WATER OB	WATER OB
						3/01/94	3/01/94
						MW-29R	MW-161
						(MW-29 Rinsate)	(Duplicate of MW-29)
						U	U
						17.9	1640
						15.6	15.6
						2.9	2.9
						2.4	79.7
						0.4	0.4
						2.1	2.1
						187	124000
						2.3	3.5
						3.2	3.2
						2.6	2.6
						26.4	2710
						5.3	5.4
						64.9	30600
						1	59.6
						0.1	0.1
						10.4	10.4
						692	2280
						1.7	1.7
						3.6	3.6
						2020	15000
						2.8	3.2
						3.3	3.3
						3.6	15.4
						1	1

Notes:

(1) All Arsenic, Lead, Selenium and Thallium samples were analyzed on March 8, 1994. All other samples were analyzed on March 10, 1994.

**Section 2.0**  
**Explosives**

OB GROUNDS FIRST QUARTER 1994 MONITORING  
EXPLOSIVES ANALYSIS RESULTS

W/KG	MATRIX SITE	WATER		WATER		WATER		WATER		WATER	
		OB	OB	OB	OB	OB	OB	OB	OB	OB	OB
	DATE SAMPLED	3/01/94	3/02/94	3/01/94	3/01/94	3/01/94	3/01/94	3/01/94	2/28/94	2/28/94	2/28/94
	DATE ANALYZED	3/14/94	3/15/94	3/14/94	3/14/94	3/14/94	3/14/94	3/14/94	3/14/94	3/14/94	3/14/94
	ES ID	MW-1	MW-2	MW-3	MW-4	MW-7	MW-16	MW-7	MW-7	MW-16	MW-16
	LAB ID	39506-014	39517-016	39506-013	39506-008	39506-001	39479-002	39506-001	39479-001	39479-002	39479-002
	UNITS										
	ug/L	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
robenzene	ug/L	0.08	0.08	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
benzene	ug/L	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
ene	ug/L	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
toluene	ug/L	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
2,6-dinitrotoluene	ug/L	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
4,6-dinitrotoluene	ug/L	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
toluene	ug/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
ene	ug/L	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
ene	ug/L	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
ene	ug/L	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
ene	ug/L	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06

Notes:

(1) \* Samples were collected on March 3rd and 7th.



OB GROUNDS FIRST QUARTER 1994 MONITORING  
EXPLOSIVES ANALYSIS RESULTS

WKG	MATRIX SITE	WATER		WATER		WATER		WATER		WATER	
		OB	DATE SAMPLED	OB	DATE SAMPLED	OB	DATE SAMPLED	OB	DATE SAMPLED	OB	DATE SAMPLED
	benzene	0.08	3/02/94	0.08	3/04/94	0.08	3/02/94	0.08	3/01/94	0.08	3/01/94
	benzene	0.08	3/15/94	0.07	3/15/94	0.06	3/15/94	0.07	3/14/94	0.08	3/14/94
	benzene	0.07	MW-24	0.07	MW-26	0.06	MW-27	0.07	MW-28	0.07	MW-29
	benzene	0.06	39517-014	0.06	39517-013	0.07	39517-015	0.06	39506-010	0.06	39506-012
	benzene	0.07		0.07		0.07		0.07		0.07	
	toluene	0.08		0.08		0.08		0.08		0.08	
	2,6-dinitrotoluene	0.13		0.13		0.13		0.13		0.13	
	4,6-dinitrotoluene	0.05		0.05		0.05		0.05		0.05	
	toluene	0.06		0.06		0.06		0.06		0.06	
	toluene	0.05		0.05		0.05		0.05		0.05	
	ene	0.04		0.04		0.04		0.04		0.04	
	ene	0.06		0.06		0.06		0.06		0.06	
	ene	0.06		0.06		0.06		0.06		0.06	

OB GROUNDS FIRST QUARTER 1994 MONITORING  
EXPLOSIVES ANALYSIS RESULTS

.WK3	MATRIX SITE	DATE SAMPLED	DATE ANALYZED	WATER		UNITS
				OB	OB	
		3/07/94	3/14/94	3/07/94	3/14/94	
			MW-29R	MW-161		
			39506-011	39506-009		
			(MW-29 Hinsate)	(Duplicate of MW-29)		
		ug/L	0.08	0.08	U	
		ug/L	0.08	0.08	U	
		ug/L	0.07	0.07	U	
		ug/L	0.07	0.07	U	
		ug/L	0.06	0.06	U	
		ug/L	0.07	0.07	U	
		ug/L	0.08	0.08	U	
		ug/L	0.13	0.13	U	
		ug/L	0.05	0.05	U	
		ug/L	0.06	0.06	U	
		ug/L	0.05	0.05	U	
		ug/L	0.04	0.04	U	
		ug/L	0.06	0.06	U	
		ug/L	0.06	0.06	U	

**Section 3.0**  
**Indicator Parameters**

3.1

Indicator Parameters Results

**OB GROUNDS FIRST QUARTER 1994 MONITORING  
INDICATOR ANALYSIS RESULTS**

3	MATRIX SITE DATE SAMPLED DATE ANALYZED	WATER OB DATE	WATER OB DATE	WATER OB DATE	WATER OB DATE	WATER OB DATE	WATER OB DATE
	ES ID	MW-1 **	MW-1A **	MW-1B **	MW-1C **	MW-2 **	MW-2A **
	LAB ID	7.24	7.21	7.23	7.23	7.40	7.44
	UNITS	5	2	2	4	2	4
	mg/L	7.24	7.21	7.23	7.23	7.40	7.44
	units	3	-	-	-	2	-
	mg/L	190	-	-	-	100	-
	umhos/cm	720	730	720	710	640	500
	mg/L as N	0.82	-	-	-	0.05 U	-
	mg/L	0.02 U	0.02	0.03	0.05	0.02 U	0.07

**Notes:**

- (1) \* Analysis dates vary for each parameter (See Section 4.5).
- (2) \*\* The Lab ID is different for each parameter (See Section 4.5).

OB GROUNDS FIRST QUARTER 1994 MONITORING  
INDICATOR ANALYSIS RESULTS

PARAMETER	MATRIX SITE	DATE SAMPLED	DATE ANALYZED	ES ID	LAB ID	UNITS	WATER OB	WATER OB	WATER OB	WATER OB	WATER OB	WATER OB
3												
(l) Organic Carbon						mg/L	3	11	3	3	3	4
oxide						units	7.45	7.38	7.33	7.31	7.25	7.25
ate						mg/L	-	2	-	-	2	2
pecific Conductance						mg/L	-	110	-	-	190	190
ate+Nitrite						umhos/cm	500	600	590	580	580	840
(l) Organic Halides						mg/L as N	-	0.07	-	-	0.05 U	0.05 U
						mg/L	0.02 U	0.02 U	0.02	0.02 U	0.02 U	0.02 U

Notes:

- (1) \* Analysis dates vary for each parameter (See Section 4.5).
- (2) \*\* The Lab ID is different for each parameter (See Section 4.5).

**OB GROUNDS FIRST QUARTER 1994 MONITORING  
INDICATOR ANALYSIS RESULTS**

PARAMETER	MATRIX SITE DATE SAMPLED DATE ANALYZED	WATER OB 4/03/94 *	WATER OB 4/03/94 *	WATER OB 4/03/94 *	WATER OB 4/03/94 *	WATER OB 4/04/94 *	WATER OB 4/04/94 *	WATER OB 4/04/94 *	WATER OB 4/04/94 *
	ES ID LAB ID UNITS	MW-4B **	MW-4C **	MW-5A ** ***	MW-5B **	MW-5C **	MW-5D **	MW-6A ** ***	
3		3 7.30	2 7.33	3 7.36	2 7.35	2 7.36	2 7.49		
4	Organic Carbon oxide	—	—	—	—	—	—	—	—
5	Specific Conductance	820	800	680	670	670	680	680	680
6	Ammoniate+Nitrite	—	—	—	—	—	—	—	—
7	Organic Halides	0.02	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

**Notes:**

- (1) \* Analysis dates vary for each parameter (See Section 4.5).
- (2) \*\* The Lab ID is different for each parameter (See Section 4.5).
- (3) \*\*\* The MW-5 and MW-6 wells were frozen and not sampled in March.

**OB GROUNDS FIRST QUARTER 1994 MONITORING  
INDICATOR ANALYSIS RESULTS**

PARAMETER	MATRIX SITE DATE SAMPLED DATE ANALYZED	WATER OB DATE ANALYZED	WATER OB DATE ANALYZED	WATER OB DATE ANALYZED	WATER OB DATE ANALYZED	WATER OB DATE ANALYZED
	ES ID LAB ID UNITS	MW-6C **	MW-7 **	MW-7A **	MW-7B **	MW-7C **
3						
Total Organic Carbon	mg/L	2	3	2	2	4
bromide	units	7.46	7.44	7.49	7.46	7.23
chloride	mg/L	-	1 U	-	-	1
sulfate	mg/L	-	34	-	-	160
Specific Conductance	umhos/cm	680	470	470	470	740
Nitrate+Nitrite	mg/L as N	-	0.16	-	-	0.17
Total Organic Halides	mg/L	0.06	0.02 U	0.02 U	0.02 U	0.02 U

**Notes:**

- (1) \* Analysis dates vary for each parameter (See Section 4.5).
- (2) \*\* The Lab ID is different for each parameter (See Section 4.5).



OB GROUNDS FIRST QUARTER 1994 MONITORING  
INDICATOR ANALYSIS RESULTS

PARAMETER	MATRIX SITE	DATE SAMPLED	DATE ANALYZED	ES ID	LAB ID	UNITS	WATER OB	DATE	WATER OB	DATE	WATER OB	DATE	WATER OB	DATE	WATER OB	DATE
Total Organic Carbon						mg/L	3	3/02/94	3/07/94	3/04/94	3/02/94	3/01/94				
						units	7.30	*	*	*	*					
Chloride						mg/L	34	3/02/94	3/07/94	3/04/94	3/02/94	3/01/94				
						mg/L	240	*	*	*	*					
Specific Conductance						umhos/cm	1200	3/02/94	3/07/94	3/04/94	3/02/94	3/01/94				
						mg/L as N	12	*	*	*	*					
Total Organic Halides						mg/L	0.02 U	MW-24	MW-25	MW-26	MW-27	MW-28	MW-29			
							0.02 U	**	**	**	**	**	**	**	**	**
							2	3/07/94	3/04/94	3/02/94	3/01/94					
							1									
							66									
							580									
							0.05 U									
							0.02 U									
							12.09									
							1 U									
							41									
							1400									
							0.38									
							0.02 U									
							7.39									
							11									
							100									
							920									
							1.20									
							0.02 U									
							8.56									
							5									
							130									
							510									
							0.59									
							0.02 U									
							7.22									
							7									
							140									
							790									
							0.71									
							0.02 U									

Notes:

- (1) \* Analysis dates vary for each parameter (See Section 4.5).
- (2) \*\* The Lab ID is different for each parameter (See Section 4.5).

**OB GROUNDS FIRST QUARTER 1994 MONITORING  
INDICATOR ANALYSIS RESULTS**

PARAMETER	MATRIX SITE DATE SAMPLED DATE ANALYZED	WATER OB DATE ANALYZED	WATER OB DATE ANALYZED	WATER OB DATE ANALYZED	WATER OB DATE ANALYZED
	ES ID	MW-29R	MW-161	MW-20R	MW-20
	LAB ID	**	**	**	**
	UNITS	(Rinstate of MW-29)	(Duplicate of MW-29)	(Rinstate of MW-1A,1B,1C)	(Duplicate of MW-1A,1B,1C)
1 Organic Carbon	mg/L	1 U	4	1 U	3
oxide	units	6.86	7.26	7.28	7.21
ate	mg/L	1 U	7	-	-
Specific Conductance	mg/L	2	140	-	-
ite + Nitrite	umhos/cm	10	790	24	750
1 Organic Halides	mg/L as N	0.05 U	0.80	-	-
	mg/L	0.02 U	0.02 U	0.02 U	0.03

**Notes:**

- (1) \* Analysis dates vary for each parameter (See Section 4.5).
- (2) \*\* The Lab ID is different for each parameter (See Section 4.5).

3.2  
Statistical Analysis

**Well in the OB area  
Background Upgradient Concentrations**

Backgroundwell MW--4					
pH		jan-82	apr-82	jun-82	sep-82
		7.2	7.2	7.8	7.9
		7.2	7.2	7.8	7.9
		7.2	7.2	7.8	7.9
		7.2	7.2	7.8	7.9
Average	7.53	Variance	0.114		
Spec Cond		jan-82	apr-82	jun-82	sep-82
		1130	1300	590	--
		1120	1302	590	--
		1130	1301	600	--
		1130	1300	600	--
Average	1007.75	Variance	98398.57		
TOC		jan-82	apr-82	jun-82	sep-82
		1	54	30	28
		1	54	30	29
		1	54	30	27
		1	55	30	28
Average	28.31	Variance	379.30		
TOX		jan-82	apr-82	jun-82	sep-82
		0.06	0.005	0.005	--
		0.05	0.005	0.005	--
		0.05	0.005	0.005	--
		0.052	0.005	0.005	--
Average	0.021	Variance	0.000565		

**Well in the OB area  
Background Upgradient Concentrations**

<b>Backgroundwell MW--5</b>					
pH		jan-82	apr-82	jun-82	sep-82
		7.3	7.6	7.8	7.6
		7.3	7.6	7.8	7.6
		7.3	7.6	7.8	7.6
		7.3	7.6	7.8	7.6
Average	7.58	Variance	0.034		
Spec Cond		jan-82	apr-82	jun-82	sep-82
		730	719	620	795
		730	718	620	790
		730	719	620	795
		730	720	620	795
Average	689.67	Variance	2669.52		
TOC		jan-82	apr-82	jun-82	sep-82
		1	39	43	37
		1	39	42	38
		1	40	42	37
		1	39	42	38
Average	30.00	Variance	302.27		
TOX		jan-82	apr-82	jun-82	sep-82
		-	-	-	0.041
		-	-	0.064	-
		-	-	0.098	-
		0.016	-	0.045	-
Average	0.0528	Variance	0.0009307		

Students t - Test for wells in the OD area  
 TOC - Year 1994, 1st quarter

Well MW -5		Well MW -6		Well MW -7	
TOC	pH	Spec Cond.	TOX		
30	7.575	689.7	0.0528		
302.3	0.034	2669.5	0.0009307		
16	16	16	5		
ANIONIC CARBON (TOC)					
Well MW -5	Well MW -6	Well MW -7			
-6.35	-6.35	t* = -6.37	Compliance Well MW -7		
2.63	2.63	tc = 2.61	No Change		
No Change	No Change	No Change	No Change		
Well MW -5					
-4.72	-2.23	t* = -2.43	Compliance Well MW -7		
2.96	3.24	tc = 3.07	No Change		
No Change	No Change	No Change	No Change		
INDUCTANCE					
Well MW -5	Well MW -6	Well MW -7			
-1.22	-0.75	t* = -17.01	Compliance Well MW -7		
2.87	2.60	tc = 2.60	No Change		
No Change	No Change	No Change	No Change		
ANIONIC HALIDES (TOX)					
Well MW -5	Well MW -6	Well MW -7			
-2.40	-1.02	t* = -2.40	Compliance Well MW -7		
3.75	5.32	tc = 3.75	No Change		
No Change	No Change	No Change	No Change		

Most likely an increase in the indicator parameter  
 Most likely no change in the indicator parameter

Students t - Test for wells in the OD area  
 TOC - Year 1994, 1st quarter

Well MW -4	TOC	pH	Specific Cond.	TOX
e =	28.3	7.525	1007.8	0.021
=	379.3	0.114	98398.6	0.00056473
=	16	16	12	12

ANNIC CARBON (TOC)

Well MW -1	Compliance Well MW -2	Compliance Well MW -3	Background W
-5.09	t* = -5.12	t* = -4.37	t* =
2.65	tc = 2.62	tc = 2.86	tc =
No Change	No Change	No Change	

Well MW -1

Well MW -1	Compliance Well MW -2	Compliance Well MW -3	Background W
-3.51	t* = -1.15	t* = -2.13	t* =
2.94	tc = 2.97	tc = 3.01	tc =
No Change	No Change	No Change	

INDUCTANCE

Well MW -1	Compliance Well MW -2	Compliance Well MW -3	Background W
-3.17	t* = -4.87	t* = -4.63	t* =
2.72	tc = 2.95	tc = 2.72	tc =
No Change	No Change	No Change	

ANNIC HALIDES (TOX)

Well MW -1	Compliance Well MW -2	Compliance Well MW -3	Background W
0.91	t* = 1.52	t* = -0.15	t* =
3.66	tc = 4.31	tc = 2.72	tc =
No Change	No Change	No Change	

Most likely an increase in the indicator parameter  
 Most likely no change in the indicator parameter

Section 4.0  
QA/QC Data

- 4.1 Surrogate Spike Recoveries
- 4.2 Matrix Spike/Matrix Spike Duplicates
- 4.3 Method Blanks
- 4.4 Laboratory Control Samples and  
Duplicates for Indicator Parameters
- 4.5 Indicator Parameter Data



## 4.1 Surrogate Spike Recoveries

2E  
WATER EXPLOSIVES SURROGATE RECOVERY

Lab Name: PACE INC

Contract:

Lab Code: RESAN

Case No.: SENEK

SAS No.:

SDG No.: SEN17

	EPA SAMPLE NO.	S1 (34DNT)	OTHER
1	BM2524	79	
2	BM2525	69	
3	BM2526	49	
4	BLANK SPIKE	66	
5	BLANK SPIKE DUP	76	
6	OBDMW7	68	
7	OBMW16	71	
8	OBDMW4	53	
9	OBDMW4MS	61	
10	OBDMW4MSD	55	
11	OMW161	54	
12	OBMW28	66	
13	OMW29R	64	
14	OBMW29	57	
15	OBDMW3	81	
16	OBDMW1	44	
17	OBMW25	63	
18	OBMW23	64	
19	OBMW26	64	
20	OBMW24	70	

S1 (34DNT) = 3,4-DINITROTOLUENE

# Column to be used to flag recovery values

D Surrogates diluted out

2E  
WATER EXPLOSIVES SURROGATE RECOVERY

Lab Name: PACE INC

Contract:

Lab Code: RESAN

Case No.: SENEK

SAS No.:

SDG No.: SEN17

	EPA SAMPLE NO.	S1 (34DNT)	OTHER
1	OBMW27	78	
2	OBDMW2	48	
3	OBMW30	58	
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

S1 (34DNT) = 3,4-DINITROTOLUENE

# Column to be used to flag recovery values

D Surrogates diluted out

page 2 of 2

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1/87 Rev.

700002

## 4.2 Matrix Spike/Matrix Spike Duplicates

U.S. EPA - CLP

5A  
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

OBDMW4S

Lab Name: PACE New England, Inc.

Contract:

Lab Code:

Case No.: SENECA

SAS No.:

SDG No.: MSEN17

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	7740.2600	6068.1900	2000.00	83.6		P
Antimony	75-125	525.1000	15.6000	500.00	105.0		P
Arsenic	75-125	2047.4100	2.9000	2000.00	102.4		P
Barium	75-125	2121.2200	109.5700	2000.00	100.6		P
Beryllium	75-125	47.8800	0.4000	50.00	95.8		P
Cadmium	75-125	59.6000	2.1000	50.00	119.2		P
Calcium							NR
Chromium	75-125	213.4600	9.0800	200.00	102.2		P
Cobalt	75-125	498.2000	3.2000	500.00	99.6		P
Copper	75-125	266.3500	13.0600	250.00	101.3		P
Iron		10282.6000	9094.5800	1000.00	118.8		P
Lead	75-125	481.6200	7.3400	500.00	94.9		P
Magnesium							NR
Manganese	75-125	655.2600	142.8000	500.00	102.5		P
Mercury	75-125	1.7900	0.7900	1.00	100.0		CV
Nickel	75-125	513.3100	17.5300	500.00	99.2		P
Potassium							NR
Selenium	75-125	1953.8100	1.7000	2000.00	97.7		P
Silver	75-125	40.2900	3.6000	50.00	80.6		P
Sodium							NR
Thallium	75-125	1886.0900	3.3500	2000.00	94.1		P
Vanadium	75-125	512.8800	8.4800	500.00	100.9		P
Zinc	75-125	560.3500	53.9200	500.00	101.3		P
Cyanide	75-125	90.8500	1.0000	100.00	90.8		AS

Comments:

3E  
QC Report for SW 846 Method 8330

Lab Number: 39506-008

Sample Designation: OBDMW4 Matrix Spike/Duplicate

Date Analyzed: 03/14/94

Matrix: Aqueous

Compound	Spike added	Sample conc.	MS Conc.	MS% Rec.
HMX	2.5 ug/L	0 ug/L	1.69	68
RDX	2.5 ug/L	0.11 ug/L	1.52	56
2,4-DNT	2.5 ug/L	0 ug/L	1.58	63
2,4,6-TNT	2.5 ug/L	0 ug/L	1.83	73

Compound	Spike added	MSD conc.	MS% Rec.	%RPD
HMX	2.5 ug/L	1.77	71	4
RDX	2.5 ug/L	1.44	58	4
2,4-DNT	2.5 ug/L	1.54	62	2
2,4,6-TNT	2.5 ug/L	1.89	76	4

3E  
QC Report for SW 846 Method 8330

Lab Number: SM2523/SM2524

Sample Designation: Lab Control Spike/Duplicate

Date Analyzed: 03/14/94

Matrix: Aqueous

Compound	Spike added	Sample conc.	MS Conc.	MS% Rec.
HMX	2.5 ug/L	0 ug/L	1.72	69
RDX	2.5 ug/L	0 ug/L	1.69	68
2,4-DNT	2.5 ug/L	0 ug/L	1.69	68
2,4,6-TNT	2.5 ug/L	0 ug/L	1.84	74

Compound	Spike added	MSD conc.	MS% Rec.	%RPD
HMX	2.5 ug/L	1.89	76	10
RDX	2.5 ug/L	1.90	76	11
2,4-DNT	2.5 ug/L	1.88	75	10
2,4,6-TNT	2.5 ug/L	2.09	84	13

FORM III EXP MODIFIED

700004

### 4.3 Method Blanks



4A  
EXPLOSIVES METHOD BLANK SUMMARY

Lab Name: PACE NEW ENGLAND, INC.                      Contract:  
 Lab Code: RESAN            Case No.: SENEK            SAS No.: \_\_\_\_\_            SDG No.: SEN17  
 Lab File ID: L1C13333    Lab Sample ID: BM2524  
 Date Analyzed: 03/14/94    Time Analyzed: 11:53  
 Matrix: (soil/water) WATER    Level: (low/med) LOW  
 Instrument ID: LC1

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	LCS	SM2523	L1C13336	03/14/94 13:27
2	LCS DUPLICATE	SM2524	L1C13337	03/14/94 13:56
3	OBDMW7	39479-001	L1C13338	03/14/94 14:57
4	OBMW16	39479-002	L1C13339	03/14/94 15:26
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

700005

4A  
EXPLOSIVES METHOD BLANK SUMMARY

Lab Name: PACE NEW ENGLAND, INC.                      Contract:  
 Lab Code: RESAN            Case No.: SENEK    SAS No.: \_\_\_\_\_            SDG No.: SEN17  
 Lab File ID: L1C13334    Lab Sample ID: BM2525  
 Date Analyzed: 03/14/94    Time Analyzed: 12:22  
 Matrix: (soil/water) WATER    Level: (low/med) LOW  
 Instrument ID: LC1

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	OBDMW4	39506-008	L1C13340	03/14/94 15:55
2	OBDMW4MS	39506-008MS	L1C13341	03/14/94 16:24
3	OBDMW4MSD	39506-008MSD	L1C13342	03/14/94 16:53
4	OMW161	39506-009	L1C13345	03/14/94 18:21
5	OBMW28	39506-010	L1C13346	03/14/94 18:50
6	OMW29R	39506-011	L1C13347	03/14/94 19:19
7	OBMW29	39506-012	L1C13348	03/14/94 19:49
8	OBDMW3	39506-013	L1C13349	03/14/94 20:18
9	OBDMW1	39506-014	L1C13350	03/14/94 20:47
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

700006

4A  
EXPLOSIVES METHOD BLANK SUMMARY

Lab Name: PACE NEW ENGLAND, INC.                      Contract:  
 Lab Code: RESAN            Case No.: SENEK            SAS No.: \_\_\_\_\_            SDG No.: SEN17  
 Lab File ID: L1C13335    Lab Sample ID: BM2526  
 Date Analyzed: 03/14/94    Time Analyzed: 12:51  
 Matrix: (soil/water) WATER    Level: (low/med) LOW  
 Instrument ID: LC1

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	OBMW25	39517-011	L1C13356	03/14/94 11:00
2	OBMW23	39517-012	L1C13357	03/14/94 11:30
3	OBMW26	39517-013	L1C13358	03/14/94 11:59
4	OBMW24	39517-014	L1C13359	03/14/94 12:28
5	OBMW27	39517-015	L1C13360	03/14/94 12:57
6	OBDMW2	39517-016	L1C13361	03/14/94 13:26
7	OBMW30	39517-017	L1C13362	03/14/94 13:56
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

700007

1A  
EXPLOSIVES ANALYSIS DATA SHEET

EPA SAMPLE NO.

METHOD BLANK

Lab Name: PACE, INC.

Contract:

Lab Code: RESAN

Case No.: SENEK

SAS No.: \_\_\_\_\_

SDG No.: SEN17

Matrix: (soil/water) WATER

Lab Sample ID: BM2525

Sample wt/vol: 400 (g/mL) ML

Lab File ID: L1C13334

Level: (low/med) LOW

Date Received: -----

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/14/94

Dilution Factor: 1.00000

COMPOUND	CAS NO.	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
Octahydro-1,3,5,7-tetranitro- 1,3,5,7-tetrazocine	2691-41-0	0.08	U
Hexahydro-1,3,5-trinitro- 1,3,5-triazine	121-82-4	0.08	U
1,3,5-Trinitrobenzene	99-35-4	0.07	U
1,3-Dinitrobenzene	99-65-0	0.07	U
Methyl-2,4,6-trinitrophenyl- nitramine	479-45-8	0.06	U
Nitrobenzene	98-95-3	0.07	U
2,4,6-Trinitrotoluene	118-96-7	0.08	U
4-Amino-2,6-dinitrotoluene	1946-51-0	0.13	U
2-Amino-4,6-dinitrotoluene	355-72-78-2	0.05	U
2,6-Dinitrotoluene	606-20-2	0.06	U
2,4-Dinitrotoluene	121-14-2	0.05	U
2-Nitrotoluene	88-72-2	0.04	U
3-Nitrotoluene	99-08-1	0.06	U
4-Nitrotoluene	99-99-0	0.06	U

1A  
EXPLOSIVES ANALYSIS DATA SHEET

EPA SAMPLE NO.

METHOD BLANK

Lab Name: PACE, INC.

Contract:

Lab Code: RESAN

Case No.: SENEK

SAS No.: \_\_\_\_\_

SDG No.: SEN17

Matrix: (soil/water) WATER

Lab Sample ID: BM2526

Sample wt/vol: 400

(g/mL) ML

Lab File ID: L1C13335

Level: (low/med) LOW

Date Received: -----

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 03/14/94

Dilution Factor: 1.00000

COMPOUND	CAS NO.	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
Octahydro-1,3,5,7-tetranitro- 1,3,5,7-tetrazocine	2691-41-0	0.08	U
Hexahydro-1,3,5-trinitro- 1,3,5-triazine	121-82-4	0.08	U
1,3,5-Trinitrobenzene	99-35-4	0.07	U
1,3-Dinitrobenzene	99-65-0	0.07	U
Methyl-2,4,6-trinitrophenyl- nitramine	479-45-8	0.06	U
Nitrobenzene	98-95-3	0.07	U
2,4,6-Trinitrotoluene	118-96-7	0.08	U
4-Amino-2,6-dinitrotoluene	1946-51-0	0.13	U
2-Amino-4,6-dinitrotoluene	355-72-78-2	0.05	U
2,6-Dinitrotoluene	606-20-2	0.06	U
2,4-Dinitrotoluene	121-14-2	0.05	U
2-Nitrotoluene	88-72-2	0.04	U
3-Nitrotoluene	99-08-1	0.06	U
4-Nitrotoluene	99-99-0	0.06	U

U.S. EPA - CLP

3  
BLANKS

Lab Name: PACE New England, Inc.

Contract:

Lab Code:

Case No.: SENEK

SAS No.:

SDG No.: MSEN17

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Aluminum	17.9	U	17.9	U	17.9	U	17.9	U	17.900	U	P
Antimony	15.6	U	23.8	B	25.4	B	21.9	B	15.600	U	P
Arsenic	2.9	U	2.9	U	2.9	U	2.9	U	2.900	U	P
Barium	2.4	U	7.7	B	7.9	B	8.1	B	2.400	U	P
Beryllium	0.4	U	0.4	U	0.4	U	0.4	U	0.400	U	P
Cadmium	2.1	U	2.1	U	2.1	U	2.1	U	2.100	U	P
Calcium	19.0	U	19.0	U	19.0	U	19.0	U	62.980	B	P
Chromium	2.3	U	2.4	B	2.3	U	2.3	U	2.300	U	P
Cobalt	3.2	U	3.2	U	3.2	U	3.2	U	3.200	U	P
Copper	-7.4	B	-7.4	B	-6.9	B	-7.6	B	-11.730	B	P
Iron	8.5	U	32.8	B	8.5	U	8.5	U	39.280	B	P
Lead	-0.7	B	0.7	U	0.7	U	0.7	U	0.700	U	P
Magnesium	22.0	U	25.2	B	22.0	U	22.0	U	25.000	B	P
Manganese	1.0	U	1.0	U	1.0	B	1.3	B	1.000	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	B	CV
Nickel	10.4	U	10.4	U	10.4	U	10.4	U	10.400	U	P
Potassium	648.9	U	648.9	U	648.9	U	648.9	U	648.900	U	P
Selenium	-2.0	B	1.7	U	1.7	U	-2.4	B	1.700	U	P
Silver	3.6	U	3.6	U	3.6	U	3.6	U	3.600	U	P
Sodium	22.4	U	22.4	U	22.4	U	22.4	U	47.210	B	P
Thallium	2.8	U	2.8	U	2.8	U	2.8	U	2.800	U	P
Vanadium	3.3	U	3.3	U	3.3	U	3.3	U	3.300	U	P
Zinc	3.0	B	7.8	B	8.1	B	8.1	B	3.090	B	P
Cyanide	2.0	U	2.0	U	2.0	U	2.0	U	1.000	U	AS

U.S. EPA - CLP

3  
BLANKS

Lab Name: PACE New England, Inc.

Contract:

Lab Code:

Case No.: SENEC

SAS No.:

SDG No.: MSEN17

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum			22.8	B	17.9	U	17.9	U			P
Antimony			31.0	B	19.9	B	27.8	B			P
Arsenic			2.9	U							P
Barium			7.8	B	7.4	B	7.3	B			P
Beryllium			0.4	U	0.4	U	0.4	U			P
Cadmium			2.2	B	2.1	U	2.1	U			P
Calcium			21.8	B	19.0	U	19.0	U			P
Chromium			2.3	U	2.3	U	2.3	U			P
Cobalt			3.2	U	3.2	U	3.2	U			P
Copper			-8.1	B	-9.0	B	-7.9	B			P
Iron			36.7	B	8.5	U	8.5	U			P
Lead			0.7	U							P
Magnesium			42.4	B	22.0	U	27.9	B			P
Manganese			1.0	U	1.0	U	1.0	U			P
Mercury											
Nickel			10.4	U	10.4	U	10.4	U			P
Potassium			648.9	U	648.9	U	648.9	U			P
Selenium			-2.0	B							P
Silver			3.6	U	3.6	U	3.6	U			P
Sodium			22.4	U	22.4	U	22.4	U			P
Thallium			2.8	U							P
Vanadium			3.3	U	3.3	U	3.3	U			P
Zinc			8.3	B	7.0	B	7.5	B			P
Cyanide			2.0	U	2.0	U	2.0	U			AS

U.S. EPA - CLP

3  
BLANKS

Lab Name: PACE New England, Inc.

Contract:

Lab Code:

Case No.: SENECS

SAS No.:

SDG No.: MSEN17

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						C	Prepa- ration Blank	C	M
			1	C	2	C	3	C				
Aluminum			17.9	U							P	
Antimony			28.6	B							P	
Arsenic												
Barium			6.8	B							P	
Beryllium			0.4	U							P	
Cadmium			2.1	U							P	
Calcium			19.0	U							P	
Chromium			2.3	U							P	
Cobalt			3.2	U							P	
Copper			-8.4	B							P	
Iron			40.0	B							P	
Lead												
Magnesium			34.3	B							P	
Manganese			1.0	U							P	
Mercury												
Nickel			10.4	U							P	
Potassium			648.9	U							P	
Selenium												
Silver			3.6	U							P	
Sodium			22.4	U							P	
Thallium												
Vanadium			3.3	U							P	
Zinc			7.3	B							P	
Cyanide			2.0	U		2.0	U				AS	



#### **4.4 Laboratory Control Samples and Duplicates for Indicator Parameters**

U.S. EPA - CLP

6  
DUPLICATES

EPA SAMPLE NO.

OBDMW4D
---------

Lab Name: PACE New England, Inc.

Contract:

Lab Code:

Case No.: SENEC

SAS No.:

SDG No.: MSEN17

Matrix (soil/water): WATER

Level (low/med): LOW

% Solids for Sample: 0.0

% Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		6068.1900		6706.8900		10.0		P
Antimony		15.6000	U	15.6000	U			P
Arsenic		2.9000	U	2.9000	U			P
Barium		109.5700	B	112.1800	B	2.4		P
Beryllium		0.4000	U	0.4000	B	200.0		P
Cadmium		2.1000	U	2.1000	U			P
Calcium		145613.2000		146233.4800		0.4		P
Chromium	10.0	9.0800	B	10.1000		10.6		P
Cobalt		3.2000	U	4.1300	B	200.0		P
Copper		13.0600	B	13.2000	B	1.1		P
Iron		9094.5800		9291.3600		2.1		P
Lead	3.0	7.3400		7.2500		1.2		P
Magnesium		27445.7100		27696.8100		0.9		P
Manganese		142.8000		146.9700		2.9		P
Mercury	0.2	0.7900		0.8200		3.7		CV
Nickel		17.5300	B	12.5700	B	33.0		P
Potassium	5000.0	5044.7300		5241.4400		3.8		P
Selenium		1.7000	U	1.7000	U			P
Silver		3.6000	U	3.6000	U			P
Sodium	5000.0	18773.5100		18806.3000		0.2		P
Thallium		3.3500	B	2.8000	U	200.0		P
Vanadium		8.4800	B	9.4500	B	10.8		P
Zinc	20.0	53.9200		54.9000		1.8		P
Cyanide		1.0000	U	1.0000	U			AS

U.S. EPA - CLP

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LABORATORY CONTROL SAMPLE

Lab Name: PACE New England, Inc.

Contract:

Lab Code:

Case No.: SENEC

SAS No.:

SDG No.: MSEN17

Solid LCS Source:

Aqueous LCS Source: SOL+\SPX\MAL

Analyte	Aqueous (ug/L)			Solid (mg/kg)				%R
	True	Found	%R	True	Found	C	Limits	
Aluminum	2000.0	2013.43	100.7					
Antimony	500.0	530.90	106.2					
Arsenic	2000.0	1992.64	99.6					
Barium	2000.0	1954.68	97.7					
Beryllium	50.0	46.30	92.6					
Cadmium	50.0	58.46	116.9					
Calcium	10000.0	10528.95	105.3					
Chromium	200.0	200.33	100.2					
Cobalt	500.0	490.44	98.1					
Copper	250.0	238.83	95.5					
Iron	1000.0	1083.65	108.4					
Lead	500.0	473.44	94.7					
Magnesium	10000.0	10283.27	102.8					
Manganese	500.0	495.57	99.1					
Mercury	8.0	7.99	99.9					
Nickel	500.0	501.75	100.4					
Potassium	10000.0	10470.20	104.7					
Selenium	2000.0	1947.97	97.4					
Silver	50.0	49.73	99.5					
Sodium	10000.0	10477.12	104.8					
Thallium	2000.0	1921.54	96.1					
Vanadium	500.0	490.59	98.1					
Zinc	500.0	498.15	99.6					
Cyanide								

QUALITY CONTROL  
 Total Organic Carbon  
 Method: 415.1 EPA-600/4-84-017

QC Batch: 861 For: 39506  
 Matrix: WATER

METHOD BLANK: Result  
 mg/L  
 -----  
 < 1.00

LABORATORY CONTROL SAMPLES:		Accuracy	Precision
	True Value mg/L	Observed Value mg/L	Recovery %
			Relative Percent Difference %
	-----	-----	-----
LCS1	5.0	4.480	89.6
LCS2	5.0	4.530	90.6

FIELD SAMPLE:

Precision		Relative Percent Difference %		
Lab No.	Replicate 1 mg/L	Replicate 2 mg/L	Average mg/L	Difference %
-----	-----	-----	-----	-----
39506-1	3.60	4.08	3.84	12.5

Accuracy		Recovery %		
Lab No.	Replicate 1 mg/L	Spike Added mg/L	Spike Found mg/L	Difference %
-----	-----	-----	-----	-----
39506-1	3.60	5	8.07	89.4

QUALITY CONTROL

Chloride

Method: 325.1 EPA-600/4-84-017

QC Batch: 578 For: 39506

Matrix: WATER

METHOD BLANK:                      Result  
    mg/L  
    -----  
    < 1.00

LABORATORY CONTROL SAMPLES:		Accuracy	Precision
	True Value mg/L	Observed Value mg/L	Recovery %
			Relative Percent Difference %
	-----	-----	-----
LCS1	200.0	190.836	95.4
LCS2	200.0	189.403	94.7

FIELD SAMPLE:

Precision		Relative Percent Difference %		
Lab No.	Replicate 1 mg/L	Replicate 2 mg/L	Average mg/L	%
-----	-----	-----	-----	-----
39506-29	2.11	1.97	2.04	6.9

Accuracy		Recovery %		
Lab No.	Replicate 1 mg/L	Spike Added mg/L	Spike Found mg/L	%
-----	-----	-----	-----	-----
39506-29	2.11	50	49.66	95.1

QUALITY CONTROL

Sulfate

Method: EPA-600 300.0 / SW846 9056

QC Batch: 571A For: 39506

Matrix: WATER

METHOD BLANK:

Result  
mg/L  
-----  
< 1.00

LABORATORY CONTROL SAMPLES:

	True Value mg/L	Observed Value mg/L	Accuracy Recovery %	Precision Relative Percent Difference %
	-----	-----	-----	-----
LCS1	50.0	46.900	93.8	0.2
LCS2	50.0	47.000	94.0	

FIELD SAMPLE:

Precision

Lab No.	Replicate 1 mg/L	Replicate 2 mg/L	Average mg/L	Relative Percent Difference %
-----	-----	-----	-----	-----
39506-29	190.40	191.20	190.80	0.4

Accuracy

Lab No.	Replicate 1 mg/L	Spike Added mg/L	Spike Found mg/L	Recovery %
-----	-----	-----	-----	-----
39506-29 SNR	190.40	31.3	214.80	78.0

QUALITY CONTROL  
 Specific Conductance  
 Method: 120.1 EPA-600/4-84-017

QC Batch: 197 For: 39506  
 Matrix: WATER

METHOD BLANK:	Result mg/L
	-----
	1.21

LABORATORY CONTROL SAMPLES:		Accuracy	Precision
	True Value mg/L	Observed Value mg/L	Recovery %
	-----	-----	-----
LCS1	141.3	145.600	103.0
LCS2	141.3	146.300	103.5

			Relative Percent Difference %
	-----	-----	-----
			0.5

FIELD SAMPLE:

Precision	Replicate 1 mg/L	Replicate 2 mg/L	Average mg/L	Relative Percent Difference %
Lab No.	-----	-----	-----	-----
39506-29	839.00	837.00	838.00	0.2

QUALITY CONTROL  
 Nitrate plus Nitrite Nitrogen (combined)  
 Method: 353.2 EPA-600/4-84-017

QC Batch: 553 For: 39506  
 Matrix: WATER

METHOD BLANK: Result  
 mg/L  
 -----  
 < 0.05

LABORATORY CONTROL SAMPLES:	True Value mg/L	Observed Value mg/L	Accuracy	Precision
			Recovery %	Relative Percent Difference %
LCS1	0.5	0.441	88.2	4.7
LCS2	0.5	0.462	92.4	

FIELD SAMPLE:

Precision	Replicate 1 mg/L	Replicate 2 mg/L	Average mg/L	Relative Percent Difference
				%
Lab No.				
-----	-----	-----	-----	-----
39506-50	< 0.05	< 0.05	NC	NC

Accuracy	Replicate 1 mg/L	Spike Added mg/L	Spike Found mg/L	Recovery
				%
Lab No.				
-----	-----	-----	-----	-----
39506-50	< 0.05	1	0.93	93.0



QUALITY CONTROL

pH

Method: 150.1 EPA-600/4-84-017

QC Batch: 285 For: 39479

Matrix: WATER

LABORATORY CONTROL SAMPLES:

	True Value Units	Observed Value Units
	-----	-----
LCS1	7.0	7.01
LCS2	7.0	7.00

FIELD SAMPLE:

Precision

Lab No.	Replicate 1 Units	Replicate 2 Units
-----	-----	-----
39479-19	7.44	7.46

QUALITY CONTROL

pH

Method: 150.1 EPA-600/4-84-017

QC Batch: 287 For: 39506

Matrix: WATER

LABORATORY CONTROL SAMPLES:

	True Value Units	Observed Value Units
	-----	-----
LCS1	7.0	7.01
LCS2	7.0	7.00

FIELD SAMPLE:

Precision

Lab No.	Replicate 1 Units	Replicate 2 Units
-----	-----	-----
39506-43	7.25	7.24

QUALITY CONTROL

pH

Method: 150.1 EPA-600/4-84-017

QC Batch: 288 For: 39517

Matrix: WATER

LABORATORY CONTROL SAMPLES:

	True Value Units	Observed Value Units
	-----	-----
LCS1	7.0	7.00
LCS2	7.0	7.01

QUALITY CONTROL

pH

Method: 150.1 EPA-600/4-84-017

QC Batch: 290 For: 39517

Matrix: Water

LABORATORY CONTROL SAMPLES:

	True Value Units	Observed Value Units
	-----	-----
LCS1	7.0	7.02
LCS2	7.0	7.02

QUALITY CONTROL DATA

April 01, 1994  
 PACE Project Number: 140310511

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Client Reference: SEN-17 Seneca Army Depot Quarterly

Total Organic Halogen  
 Batch: 97 35921  
 Samples: 97 0012583

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970012583</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	39479-18	0.10	90%	90%	0%
			ND				

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	100%	100%	0%

QUALITY CONTROL DATA

April 01, 1994  
 PACE Project Number: 140310511

Client Reference: SEN-17 Seneca Army Depot Quarterly

Total Organic Halogen  
 Batch: 97 35922  
 Samples: 97 0012575

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970012575</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPI</u>
Total Organic Halogen	mg/L	0.02	39479-17 ND	0.10	80%	70%	13%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	100%	100%	0%

QUALITY CONTROL DATA

April 01, 1994

PACE Project Number: 140310511

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Client Reference: SEN-17 Seneca Army Depot Quarterly

Total Organic Halogen

Batch: 97 35972

Samples: 97 0012443, 97 0012451, 97 0012478, 97 0012486, 97 0012494

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970012478 39506-36</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	ND	0.10	80%	95%	17%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.050	101%	94%	7%

QUALITY CONTROL DATA

April 01, 1994  
 PACE Project Number: 140310511

Client Reference: SEN-17 Seneca Army Depot Quarterly

Total Organic Halogen

Batch: 97 35973

Samples: 97 0012460, 97 0012508, 97 0012532, 97 0012559

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970012508</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	ND	0.10	115%	85%	30%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.050	101%	87%	15%



QUALITY CONTROL DATA

April 01, 1994  
 PACE Project Number: 140310511

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Client Reference: SEN-17 Seneca Army Depot Quarterly

Total Organic Halogen  
 Batch: 97 36011  
 Samples: 97 0012761, 97 0012770

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970012761</u>	<u>39517-63</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	ND	0.10	91%	87%	4%	

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	104%	98%	6%

QUALITY CONTROL DATA

April 01, 1994  
 PACE Project Number: 140310511

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Client Reference: SEN-17 Seneca Army Depot Quarterly

Total Organic Halogen  
 Batch: 97 36012  
 Samples: 97 0012745, 97 0012753

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970012745 39517-61</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	ND	0.10	102%	95%	7%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	103%	98%	5%

QUALITY CONTROL DATA

April 01, 1994  
 PACE Project Number: 140310511

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Client Reference: SEN-17 Seneca Army Depot Quarterly

Total Organic Halogen

Batch: 97 36013

Samples: 97 0012591, 97 0012729, 97 0012737

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970012591</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	39517-58	0.10	89%	88%	1%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	98%	95%	3%

QUALITY CONTROL DATA

April 01, 1994  
 PACE Project Number: 140310511

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Client Reference: SEN-17 Seneca Army Depot Quarterly

Total Organic Halogen

Batch: 97 36014

Samples: 97 0012788, 97 0012796, 97 0012800

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970012788 39517-65</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	ND	0.10	111%	116%	4%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	103%	106%	3%

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for pages 10 through 17

April 01, 1994  
PACE Project Number: 140310511

Client Reference: SEN-17 Seneca Army Depot Quarterly

ND Not detected at or above the PRL.  
PRL PACE Reporting Limit  
RPD Relative Percent Difference



QUALITY CONTROL  
 Total Organic Carbon  
 Method: 415.1 EPA-600/4-84-017

QC Batch: 876  
 Matrix: WATER

METHOD BLANK:	Result mg/L
	-----
	< 1.00

LABORATORY CONTROL SAMPLES:		Accuracy	Precision
	True Value mg/L	Observed Value mg/L	Recovery %
			Relative Percent Difference %
	-----	-----	-----
LCS1	5.0	4.550	91.0
LCS2	5.0	4.580	91.6

FIELD SAMPLE:

Precision		Relative Percent Difference		
Lab No.	Replicate 1 mg/L	Replicate 2 mg/L	Average mg/L	Difference %
-----	-----	-----	-----	-----
39835-18	2.36	2.51	2.44	6.2

Accuracy		Spike		
Lab No.	Replicate 1 mg/L	Added mg/L	Found mg/L	Recovery %
-----	-----	-----	-----	-----
39835-18	2.36	5	6.55	83.8

QUALITY CONTROL

pH

Method: 150.1 EPA-600/4-84-017

QC Batch: 295

Matrix: WATER

LABORATORY CONTROL SAMPLES:

	True Value Units	Observed Value Units
	-----	-----
LCS1	7.0	7.00
LCS2	7.0	7.00

FIELD SAMPLE:

Precision	Replicate 1	Replicate 2
Lab No.	Units	Units
-----	-----	-----
39835-35	7.21	7.24



QUALITY CONTROL  
 Specific Conductance  
 Method: 120.1 EPA-600/4-84-017

QC Batch: 199  
 Matrix: Water

METHOD BLANK:	Result
	mg/L
	-----
	1.39

LABORATORY CONTROL SAMPLES:		Accuracy	Precision
	True Value	Observed Value	Relative Percent Difference
	mg/L	mg/L	%
	-----	-----	-----
LCS1	141.3	146.600	103.8
LCS2	141.3	147.500	104.4

FIELD SAMPLE:

Precision	Replicate 1	Replicate 2	Average	Relative Percent Difference
Lab No.	mg/L	mg/L	mg/L	%
-----	-----	-----	-----	-----
39835-35	726.00	728.00	727.00	0.3

QUALITY CONTROL DATA

May 02, 1994  
 PACE Project Number: 140412503

Client Reference: Seneca Army Depot Quarterly

Total Organic Halogen  
 Batch: 97 36532  
 Samples: 97 0021663, 97 0021701

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	970021663 <u>39835-1</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	0.02	0.10	130%	130%	0%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	80%	100%	22%

QUALITY CONTROL DATA

May 02, 1994  
 PACE Project Number: 140412503

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Client Reference: Seneca Army Depot Quarterly

Total Organic Halogen  
 Batch: 97 36533  
 Samples: 97 0021671, 97 0021680

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970021671</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	39835-2	0.10	110%	110%	0%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	80%	100%	22%

QUALITY CONTROL DATA

May 02, 1994  
 PACE Project Number: 140412503

Client Reference: Seneca Army Depot Quarterly

Total Organic Halogen  
 Batch: 97 36534  
 Samples: 97 0021698, 97 0021728

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970021698</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	39835-4 0.07	0.10	20%	30%	40%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	100%	100%	0%

QUALITY CONTROL DATA

May 02, 1994  
 PACE Project Number: 140412503

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Client Reference: Seneca Army Depot Quarterly

Total Organic Halogen

Batch: 97 36535

Samples: 97 0021710, 97 0021736

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970021710 39835-6</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	ND	0.10	80%	80%	0%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	100%	100%	0%

QUALITY CONTROL DATA

May 02, 1994  
 PACE Project Number: 140412503

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Client Reference: Seneca Army Depot Quarterly

Total Organic Halogen  
 Batch: 97 36536  
 Samples: 97 0021752, 97 0021779

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970021752 39835-10</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	ND	0.10	100%	90%	11%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	100%	100%	0%

QUALITY CONTROL DATA

May 02, 1994  
 PACE Project Number: 140412503

Client Reference: Seneca Army Depot Quarterly

Total Organic Halogen  
 Batch: 97 36537  
 Samples: 97 0021744, 97 0021760

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970021744</u> <u>39835-9</u>	<u>Spike</u>	<u>Spike</u> <u>Recv</u>	<u>Spike</u> <u>Dupl</u> <u>Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	0.02	0.10	100%	90%	11%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference</u> <u>Value</u>	<u>Recv</u>	<u>Dupl</u> <u>Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	100%	100%	0%

QUALITY CONTROL DATA

May 02, 1994  
 PACE Project Number: 140412503

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Client Reference: Seneca Army Depot Quarterly

Total Organic Halogen

Batch: 97 36538

Samples: 97 0021795, 97 0021809, 97 0021817

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970021795 39835-14</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dup1 Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	ND	0.10	80%	80%	0%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dup1 Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	100%	100%	0%



QUALITY CONTROL DATA

May 02, 1994  
 PACE Project Number: 140412503

Client Reference: Seneca Army Depot Quarterly

Total Organic Halogen  
 Batch: 97 36539  
 Samples: 97 0021787, 97 0021825, 97 0021833

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970021787 39835-13</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	0.02	0.10	100%	90%	11%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	80%	100%	22%

QUALITY CONTROL DATA

May 02, 1994  
 PACE Project Number: 140412503

Client Reference: Seneca Army Depot Quarterly

Total Organic Halogen  
 Batch: 97 36605  
 Samples: 97 0021841, 97 0021868, 97 0021884

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>970021884 39851-12</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	ND	0.10	80%	90%	12%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	100%	100%	0%

QUALITY CONTROL DATA

May 02, 1994  
 PACE Project Number: 140412503

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Client Reference: Seneca Army Depot Quarterly

Total Organic Halogen

Batch: 97 36606

Samples: 97 0021850, 97 0021876

METHOD BLANK:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Method Blank</u>
Total Organic Halogen	mg/L	0.01	ND

SPIKE AND SPIKE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	970021876 <u>39851-11</u>	<u>Spike</u>	<u>Spike Recv</u>	<u>Spike Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.02	ND	0.10	80%	100%	22%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>Reference Value</u>	<u>Recv</u>	<u>Dupl Recv</u>	<u>RPD</u>
Total Organic Halogen	mg/L	0.01	0.05	100%	100%	0%

Client Reference: Seneca Army Depot Quarterly

ND Not detected at or above the PRL.  
PRL PACE Reporting Limit  
RPD Relative Percent Difference

## 4.5 Indicator Parameter Data

Field Identification: OBDMW7

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	3	1	39479-003	03/07/94	861	415.1/1
Chloride (mg/L)	BDL	1	39479-011	03/07/94	578	325.1/1
Sulfate (mg/L)	34	1	39479-011	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	470		39479-011	03/07/94	197	120.1/1
Nitrate + Nitrite (mg/L as N)	0.16	0.05	39479-014	03/08/94	553	353.2/1
pH (units)	7.44		39479-019	03/02/94	285	150.1/1

Field Identification: OBMW16

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	4	1	39479-004	03/07/94	861	415.1/1
Chloride (mg/L)	1	1	39479-012	03/07/94	578	325.1/1
Sulfate (mg/L)	160	2	39479-012	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	740		39479-012	03/07/94	197	120.1/1
Nitrate + Nitrite (mg/L as N)	0.17	0.05	39479-015	03/08/94	553	353.2/1
pH (units)	7.23		39479-020	03/02/94	285	150.1/1

Field Identification: ASPT21

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Chloride (mg/L)	67	1	39479-013	03/07/94	578	325.1/1
Sulfate (mg/L)	120	2	39479-013	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	890		39479-013	03/07/94	197	120.1/1
Nitrate + Nitrite (mg/L as N)	0.31	0.05	39479-016	03/08/94	553	353.2/1
pH (units)	7.72		39479-021	03/02/94	285	150.1/1

References: 1) 40 CFR Part 136, Friday, October 26, 1984

500001

Field Identification: OBDMW4

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	4	1	39506-001	03/07/94	861	415.1/1
Chloride (mg/L)	2	1	39506-029	03/07/94	578	325.1/1
Sulfate (mg/L)	190	4	39506-029	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	840		39506-029	03/07/94	197	120.1/1
pH (units)	7.25		39506-043	03/04/94	287	150.1/1
Nitrate + Nitrite (mg/L as N)	BDL	0.05	39506-050	03/08/94	553	353.2/1

Field Identification: OMW161

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	4	1	39506-002	03/07/94	861	415.1/1
Chloride (mg/L)	7	1	39506-030	03/07/94	578	325.1/1
Sulfate (mg/L)	140	2	39506-030	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	790		39506-030	03/07/94	197	120.1/1
pH (units)	7.26		39506-044	03/04/94	287	150.1/1
Nitrate + Nitrite (mg/L as N)	0.80	0.05	39506-051	03/08/94	553	353.2/1

Field Identification: OBMW28

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	4	1	39506-003	03/07/94	861	415.1/1
Chloride (mg/L)	5	1	39506-031	03/07/94	578	325.1/1
Sulfate (mg/L)	130	2	39506-031	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	510		39506-031	03/07/94	197	120.1/1
pH (units)	8.56		39506-045	03/04/94	287	150.1/1
Nitrate + Nitrite (mg/L as N)	0.59	0.05	39506-052	03/08/94	553	353.2/1

Field Identification: OMW29R

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	BDL	1	39506-004	03/07/94	861	415.1/1
Chloride (mg/L)	BDL	1	39506-032	03/07/94	578	325.1/1
Sulfate (mg/L)	2	1	39506-032	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	10		39506-032	03/07/94	197	120.1/1
pH (units)	6.86		39506-046	03/04/94	287	150.1/1
Nitrate + Nitrite (mg/L as N)	BDL	0.05	39506-053	03/08/94	553	353.2/1

500002

Field Identification: OBMW29

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	6	1	39506-005	03/07/94	861	415.1/1
Chloride (mg/L)	7	1	39506-033	03/07/94	578	325.1/1
Sulfate (mg/L)	140	2	39506-033	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	790		39506-033	03/07/94	197	120.1/1
pH (units)	7.22		39506-047	03/04/94	287	150.1/1
Nitrate + Nitrite (mg/L as N)	0.71	0.05	39506-054	03/08/94	553	353.2/1

Field Identification: OBDMW3

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	11	1	39506-006	03/07/94	861	415.1/1
Chloride (mg/L)	2	1	39506-034	03/07/94	578	325.1/1
Sulfate (mg/L)	110	2	39506-034	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	600		39506-034	03/07/94	197	120.1/1
pH (units)	7.38		39506-048	03/04/94	287	150.1/1
Nitrate + Nitrite (mg/L as N)	0.07	0.05	39506-055	03/08/94	553	353.2/1

Field Identification: OBDMW1

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	5	1	39506-007	03/07/94	861	415.1/1
Chloride (mg/L)	3	1	39506-035	03/07/94	578	325.1/1
Sulfate (mg/L)	190	2	39506-035	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	720		39506-035	03/07/94	197	120.1/1
pH (units)	7.24		39506-049	03/04/94	287	150.1/1
Nitrate + Nitrite (mg/L as N)	0.82	0.05	39506-056	03/08/94	553	353.2/1

References: 1) 40 CFR Part 136, Friday, October 26, 1984

500003



Field Identification: OBMW25

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39517-001	03/07/94	861	415.1/1
Chloride (mg/L)	1	1	39517-038	03/07/94	578	325.1/1
Sulfate (mg/L)	66	1	39517-038	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	580		39517-038	03/07/94	197	120.1/1
pH (units)	7.37		39517-048	03/07/94	288	150.1/1
Nitrate + Nitrite (mg/L as N)	BDL	0.05	39517-068	03/08/94	553	353.2/1

Field Identification: OBMW23

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	1	1	39517-002	03/07/94	861	415.1/1
Chloride (mg/L)	13	1	39517-039	03/07/94	578	325.1/1
Sulfate (mg/L)	260	4	39517-039	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	930		39517-039	03/07/94	197	120.1/1
pH (units)	7.23		39517-049	03/09/94	290	150.1/1
Nitrate + Nitrite (mg/L as N)	0.05	0.05	39517-069	03/08/94	553	353.2/1

Field Identification: OBMW26

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	6	1	39517-003	03/07/94	861	415.1/1
Chloride (mg/L)	BDL	1	39517-040	03/07/94	578	325.1/1
Sulfate (mg/L)	41	1	39517-040	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	1400		39517-040	03/07/94	197	120.1/1
pH (units)	12.09		39517-050	03/07/94	288	150.1/1
Nitrate + Nitrite (mg/L as N)	0.38	0.05	39517-070	03/08/94	553	353.2/1

Field Identification: OBMW24

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	3	1	39517-004	03/07/94	861	415.1/1
Chloride (mg/L)	34	1	39517-041	03/07/94	578	325.1/1
Sulfate (mg/L)	240	4	39517-041	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	1200		39517-041	03/07/94	197	120.1/1
pH (units)	7.30		39517-051	03/07/94	288	150.1/1
Nitrate + Nitrite (mg/L as N)	12	0.3	39517-071	03/08/94	553	353.2/1

500004

Field Identification: OBMW27

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39517-005	03/07/94	861	415.1/1
Chloride (mg/L)	11	1	39517-042	03/07/94	578	325.1/1
Sulfate (mg/L)	100	1	39517-042	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	920		39517-042	03/07/94	197	120.1/1
pH (units)	7.39		39517-052	03/07/94	288	150.1/1
Nitrate + Nitrite (mg/L as N)	1.2	0.05	39517-072	03/08/94	553	353.2/1

Field Identification: OBDMW2

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39517-006	03/07/94	861	415.1/1
Chloride (mg/L)	2	1	39517-043	03/07/94	578	325.1/1
Sulfate (mg/L)	100	1	39517-043	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	640		39517-043	03/07/94	197	120.1/1
pH (units)	7.40		39517-053	03/07/94	288	150.1/1
Nitrate + Nitrite (mg/L as N)	BDL	0.05	39517-073	03/08/94	553	353.2/1

Field Identification: OBMW30

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39517-007	03/07/94	861	415.1/1
Chloride (mg/L)	23	1	39517-044	03/07/94	578	325.1/1
Sulfate (mg/L)	250	4	39517-044	03/08/94	571A	300.0/1
Specific Conductance (umhos/cm)	970		39517-044	03/07/94	197	120.1/1
pH (units)	7.07		39517-054	03/07/94	288	150.1/1
Nitrate + Nitrite (mg/L as N)	0.34	0.05	39517-074	03/08/94	553	353.2/1

Field Identification: ASBRNS

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39517-008	03/07/94	861	415.1/1
Chloride (mg/L)	24	1	39517-045	03/07/94	578	325.1/1
Sulfate (mg/L)	100	1	39517-045	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	880		39517-045	03/07/94	197	120.1/1
pH (units)	7.37		39517-055	03/07/94	288	150.1/1
Nitrate + Nitrite (mg/L as N)	12	0.3	39517-075	03/08/94	553	353.2/1

500005

Field Identification: ASHFHD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39517-009	03/07/94	861	415.1/1
Chloride (mg/L)	12	1	39517-046	03/07/94	578	325.1/1
Sulfate (mg/L)	29	1	39517-046	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	790		39517-046	03/07/94	197	120.1/1
pH (units)	8.63		39517-056	03/07/94	288	150.1/1
Nitrate + Nitrite (mg/L as N)	BDL	0.05	39517-076	03/08/94	553	353.2/1

Field Identification: ASHFHS

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	3	1	39517-010	03/07/94	861	415.1/1
Chloride (mg/L)	16	1	39517-047	03/07/94	578	325.1/1
Sulfate (mg/L)	48	1	39517-047	03/07/94	571A	300.0/1
Specific Conductance (umhos/cm)	790		39517-047	03/07/94	197	120.1/1
pH (units)	7.30		39517-057	03/07/94	288	150.1/1
Nitrate + Nitrite (mg/L as N)	1.7	0.05	39517-077	03/08/94	553	353.2/1

References: 1) 40 CFR Part 136, Friday, October 26, 1984

500006

PACE Interregional-New England  
P.O. Box 2130  
One Lafayette Road  
Hampton, NH 03842

April 01, 1994  
PACE Project Number: 140310511

Attn: Ms. Gretchen Franzheim

Client Reference: SEN-17 Seneca Army Depot Quarterly

PACE Sample Number: 97 0012443  
Date Collected: 03/01/94  
Date Received: 03/10/94  
Client Sample ID: 39506-40 *MW 2 9*  
Parameter                      Units                      PRL                      METHOD                      DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS  
Total Organic Halogen                      mg/L                      0.02                      ND                      SW846 9020                      03/29/94

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PACE Sample Number: 97 0012451  
Date Collected: 03/01/94  
Date Received: 03/10/94  
Client Sample ID: 39506-41 *MW 3*  
Parameter                      Units                      PRL                      METHOD                      DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS  
Total Organic Halogen                      mg/L                      0.02                      ND                      SW846 9020                      03/29/94

Client Reference: SEN-17 Seneca Army Depot Quarterly

PACE Sample Number:	97 0012460
Date Collected:	03/01/94
Date Received:	03/10/94
Client Sample ID:	39506-42
<u>Parameter</u>	<u>Units</u> <u>PRL</u> <u>METHOD</u> <u>DATE ANALYZED</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS					
Total Organic Halogen	mg/L	0.02	ND	SW846 9020	03/29/94

PACE Sample Number:	97 0012478
Date Collected:	03/01/94
Date Received:	03/10/94
Client Sample ID:	39506-36
<u>Parameter</u>	<u>Units</u> <u>PRL</u> <u>METHOD</u> <u>DATE ANALYZED</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS					
Total Organic Halogen	mg/L	0.02	ND	SW846 9020	03/29/94

PACE Sample Number:	97 0012486
Date Collected:	03/01/94
Date Received:	03/10/94
Client Sample ID:	39506-36
<u>Parameter</u>	<u>Units</u> <u>PRL</u> <u>MS</u> <u>METHOD</u> <u>DATE ANALYZED</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS					
Total Organic Halogen	mg/L	0.02	0.080	SW846 9020	03/29/94

Client Reference: SEN-17 Seneca Army Depot Quarterly

PACE Sample Number:			97 0012494		
Date Collected:			03/01/94		
Date Received:			03/10/94		
Client Sample ID:			39506-36		
<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>MSD</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS					
Total Organic Halogen	mg/L	0.02	0.095	SW846 9020	03/29/94

PACE Sample Number:			97 0012508		
Date Collected:			03/01/94		
Date Received:			03/10/94		
Client Sample ID:			39506-37		
<u>Parameter</u>	<u>Units</u>	<u>PRL</u>		<u>METHOD</u>	<u>DATE ANALYZED</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS					
Total Organic Halogen	mg/L	0.02	ND	SW846 9020	03/29/94

PACE Sample Number:			97 0012532		
Date Collected:			03/01/94		
Date Received:			03/10/94		
Client Sample ID:			39506-38		
<u>Parameter</u>	<u>Units</u>	<u>PRL</u>		<u>METHOD</u>	<u>DATE ANALYZED</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS					
Total Organic Halogen	mg/L	0.02	ND	SW846 9020	03/29/94

Client Reference: SEN-17 Seneca Army Depot Quarterly

PACE Sample Number:	97 0012559
Date Collected:	03/01/94
Date Received:	03/10/94 <i>29R</i>
Client Sample ID:	39506-39
<u>Parameter</u>	<u>Units</u> <u>PRL</u> <u>METHOD</u> <u>DATE ANALYZED</u>

INORGANIC ANALYSIS

## INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020	03/29/94
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PACE Sample Number:	97 0012575
Date Collected:	02/28/94
Date Received:	03/10/94 <i>117</i>
Client Sample ID:	39479-17
<u>Parameter</u>	<u>Units</u> <u>PRL</u> <u>METHOD</u> <u>DATE ANALYZED</u>

INORGANIC ANALYSIS

## INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020	03/28/94
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PACE Sample Number:	97 0012583
Date Collected:	02/28/94
Date Received:	03/10/94 <i>116</i>
Client Sample ID:	39479-18
<u>Parameter</u>	<u>Units</u> <u>PRL</u> <u>METHOD</u> <u>DATE ANALYZED</u>

INORGANIC ANALYSIS

## INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020	03/28/94
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Client Reference: SEN-17 Seneca Army Depot Quarterly

PACE Sample Number: 97 0012591  
Date Collected: 03/03/94  
Date Received: 03/10/94  
Client Sample ID: 39517-58 *MW 23*  
Parameter                      Units                      PRL                      METHOD                      DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS  
Total Organic Halogen                      mg/L                      0.02                      0.02                      SW846 9020                      03/31/94

PACE Sample Number: 97 0012729  
Date Collected: 03/03/94  
Date Received: 03/10/94  
Client Sample ID: 39517-59 *MW 23*  
Parameter                      Units                      PRL                      METHOD                      DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS  
Total Organic Halogen                      mg/L                      0.02                      ND                      SW846 9020                      03/31/94

PACE Sample Number: 97 0012737  
Date Collected: 03/04/94  
Date Received: 03/10/94  
Client Sample ID: 39517-60 *MW 26*  
Parameter                      Units                      PRL                      METHOD                      DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS  
Total Organic Halogen                      mg/L                      0.02                      ND                      SW846 9020                      03/31/94



Client Reference: SEN-17 Seneca Army Depot Quarterly

PACE Sample Number:	97 0012770
Date Collected:	03/02/94
Date Received:	03/10/94
Client Sample ID:	39517-64
Parameter	<u>Units</u> <u>PRL</u> <u>METHOD</u> <u>DATE ANALYZED</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS					
Total Organic Halogen	mg/L	0.02	ND	SW846 9020	03/30/94

PACE Sample Number:	97 0012788
Date Collected:	03/03/94
Date Received:	03/10/94
Client Sample ID:	39517-65
Parameter	<u>Units</u> <u>PRL</u> <u>METHOD</u> <u>DATE ANALYZED</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS					
Total Organic Halogen	mg/L	0.02	ND	SW846 9020	03/31/94

PACE Sample Number:	97 0012796
Date Collected:	03/03/94
Date Received:	03/10/94
Client Sample ID:	39517-66
Parameter	<u>Units</u> <u>PRL</u> <u>METHOD</u> <u>DATE ANALYZED</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS					
Total Organic Halogen	mg/L	0.02	ND	SW846 9020	03/31/94

April 01, 1994  
PACE Project Number: 140310511

Page 8

Client Reference: SEN-17 Seneca Army Depot Quarterly

PACE Sample Number: 97 0012800  
Date Collected: 03/03/94  
Date Received: 03/10/94 *FHS*  
Client Sample ID: 39517-67

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020 03/31/94
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These data have been reviewed and are approved for release.

*Francis P. Bernick for*

Frances P. McConahy  
Project Manager

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for pages 1 through 8

April 01, 1994  
PACE Project Number: 140310511

Client Reference: SEN-17 Seneca Army Depot Quarterly

ND Not detected at or above the PRL.  
PRL PACE Reporting Limit



Field Identification: MW-1A OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39835-018	04/07/94	876	415.1/1
pH (units)	7.21		39835-035	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	730		39835-035	04/05/94	199	120.1/1

Field Identification: MW-1B OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39835-019	04/07/94	876	415.1/1
pH (units)	7.23		39835-036	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	720		39835-036	04/05/94	199	120.1/1

Field Identification: MW-1C OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	4	1	39835-020	04/07/94	876	415.1/1
pH (units)	7.23		39835-037	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	710		39835-037	04/05/94	199	120.1/1

Field Identification: MW-2A OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	4	1	39835-021	04/07/94	876	415.1/1
pH (units)	7.44		39835-038	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	500		39835-038	04/05/94	199	120.1/1

Field Identification: MW-2B OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	4	1	39835-022	04/07/94	876	415.1/1
pH (units)	7.42		39835-039	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	500		39835-039	04/05/94	199	120.1/1

Field Identification: MW-2C OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	3	1	39835-023	04/07/94	876	415.1/1
pH (units)	7.45		39835-040	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	500		39835-040	04/05/94	199	120.1/1

Field Identification: MW-20 OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	3	1	39835-024	04/07/94	876	415.1/1
pH (units)	7.21		39835-041	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	750		39835-041	04/05/94	199	120.1/1

Field Identification: MW-20-R OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	BDL	1	39835-025	04/07/94	876	415.1/1
pH (units)	7.28		39835-042	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	24		39835-042	04/05/94	199	120.1/1

Field Identification: MW-3A OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	3	1	39835-026	04/07/94	876	415.1/1
pH (units)	7.33		39835-043	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	590		39835-043	04/05/94	199	120.1/1

Field Identification: MW-3B OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	3	1	39835-027	04/07/94	876	415.1/1
pH (units)	7.31		39835-044	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	580		39835-044	04/05/94	199	120.1/1

Field Identification: MW-3C OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	5	1	39835-028	04/07/94	876	415.1/1
pH (units)	7.35		39835-045	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	580		39835-045	04/05/94	199	120.1/1

Field Identification: MW-4A OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	3	1	39835-029	04/07/94	876	415.1/1
pH (units)	7.31		39835-046	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	820		39835-046	04/05/94	199	120.1/1

Field Identification: MW-4B OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	3	1	39835-030	04/07/94	876	415.1/1
pH (units)	7.30		39835-047	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	820		39835-047	04/05/94	199	120.1/1

Field Identification: MW-4C OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39835-031	04/07/94	876	415.1/1
pH (units)	7.33		39835-048	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	800		39835-048	04/05/94	199	120.1/1

Field Identification: MW-7A OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39835-032	04/07/94	876	415.1/1
pH (units)	7.49		39835-049	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	470		39835-049	04/05/94	199	120.1/1

Field Identification: MW-7B OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39835-033	04/07/94	876	415.1/1
pH (units)	7.46		39835-050	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	470		39835-050	04/05/94	199	120.1/1

Field Identification: MW-7C OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
Total Organic Carbon (mg/L)	2	1	39835-034	04/07/94	876	415.1/1
pH (units)	7.45		39835-051	04/05/94	295	150.1/1
Specific Conductance (umhos/cm)	470		39835-051	04/05/94	199	120.1/1

References: 1) 40 CFR Part 136, Friday, October 26, 1984



Field Identification: MW-6A 08/00

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
pH (units)	7.49		39851-001	04/06/94	296	150.1/1
Specific Conductance (umhos/cm)	680		39851-001	04/06/94	200	120.1/1
Total Organic Carbon (mg/L)	2	1	39851-013	04/07/94	876	415.1/1

Field Identification: MW-6B 08/00

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
pH (units)	7.46		39851-002	04/06/94	296	150.1/1
Specific Conductance (umhos/cm)	680		39851-002	04/06/94	200	120.1/1
Total Organic Carbon (mg/L)	3	1	39851-014	04/07/94	876	415.1/1

Field Identification: MW-6C 08/00

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
pH (units)	7.46		39851-003	04/06/94	296	150.1/1
Specific Conductance (umhos/cm)	680		39851-003	04/06/94	200	120.1/1
Total Organic Carbon (mg/L)	2	1	39851-015	04/07/94	876	415.1/1

Field Identification: MW-5A 08/00

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
pH (units)	7.36		39851-004	04/06/94	296	150.1/1
Specific Conductance (umhos/cm)	680		39851-004	04/06/94	200	120.1/1
Total Organic Carbon (mg/L)	3	1	39851-016	04/07/94	877	415.1/1

Field Identification: MW-5B 08/00

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
pH (units)	7.35		39851-005	04/06/94	296	150.1/1
Specific Conductance (umhos/cm)	670		39851-005	04/06/94	200	120.1/1
Total Organic Carbon (mg/L)	2	1	39851-017	04/07/94	877	415.1/1

Field Identification: MW-5C OB/OD

Matrix: WATER

Parameter	Result	Reporting Limit	Lab No.	Date Analyzed	QC Batch	Method/Ref.
pH (units)	7.36		39851-006	04/06/94	296	150.1/1
Specific Conductance (umhos/cm)	670		39851-006	04/06/94	200	120.1/1
Total Organic Carbon (mg/L)	2	1	39851-018	04/07/94	877	415.1/1

References: 1) 40 CFR Part 136, Friday, October 26, 1984

PACE Interregional-New England  
P.O. Box 2130  
One Lafayette Road  
Hampton, NH 03842

May 02, 1994  
PACE Project Number: 140412503

Attn: Ms. Gretchen Franzheim

Client Reference: Seneca Army Depot Quarterly

PACE Sample Number: 97 0021663  
Date Collected: 04/03/94  
Date Received: 04/12/94  
39835-1

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>          </u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
<u>INORGANIC ANALYSIS</u>					
INDIVIDUAL PARAMETERS					
Total Organic Halogen	mg/L	0.02	0.02	SW846 9020	04/19/94

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PACE Sample Number: 97 0021671  
Date Collected: 04/03/94  
Date Received: 04/12/94  
Client Sample ID: 39835-2

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>          </u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
<u>INORGANIC ANALYSIS</u>					
INDIVIDUAL PARAMETERS					
Total Organic Halogen	mg/L	0.02	0.03	SW846 9020	04/19/94

Client Reference: Seneca Army Depot Quarterly

PACE Sample Number: 97 0021680  
Date Collected: 04/03/94  
Date Received: 04/12/94  
Client Sample ID: 39835-3

Parameter                      Units                      PRL                      METHOD      DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen                      mg/L                      0.02                      0.05                      SW846 9020      04/19/94

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PACE Sample Number: 97 0021698  
Date Collected: 04/03/94  
Date Received: 04/12/94  
Client Sample ID: 39835-4

Parameter                      Units                      PRL                      METHOD      DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen                      mg/L                      0.02                      0.07                      SW846 9020      04/20/94

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PACE Sample Number: 97 0021701  
Date Collected: 04/03/94  
Date Received: 04/12/94  
Client Sample ID: 39835-5

Parameter                      Units                      PRL                      METHOD      DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen                      mg/L                      0.02                      0.09                      SW846 9020      04/19/94

Client Reference: Seneca Army Depot Quarterly

PACE Sample Number: 97 0021710  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-6  
Parameter Units PRL METHOD DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS  
 Total Organic Halogen mg/L 0.02 ND SW846 9020 04/20/94

PACE Sample Number: 97 0021728  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-7  
Parameter Units PRL METHOD DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS  
 Total Organic Halogen mg/L 0.02 0.03 SW846 9020 04/20/94

PACE Sample Number: 97 0021736  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-8  
Parameter Units PRL METHOD DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS  
 Total Organic Halogen mg/L 0.02 ND SW846 9020 04/20/94

Client Reference: Seneca Army Depot Quarterly

PACE Sample Number: 97 0021744  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-9

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>                    </u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	0.02	SW846 9020	04/21/94
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PACE Sample Number: 97 0021752  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-10

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>                    </u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020	04/21/94
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PACE Sample Number: 97 0021760  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-11

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>                    </u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020	04/21/94
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Client Reference: Seneca Army Depot Quarterly

PACE Sample Number: 97 0021779  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-12

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020 04/21/94
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PACE Sample Number: 97 0021787  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-13

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	0.02	SW846 9020 04/22/94
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PACE Sample Number: 97 0021795  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-14

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020 04/22/94
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Client Reference: Seneca Army Depot Quarterly

PACE Sample Number: 97 0021809  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-15

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020 04/22/94
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PACE Sample Number: 97 0021817  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-16

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020 04/22/94
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PACE Sample Number: 97 0021825  
 Date Collected: 04/03/94  
 Date Received: 04/12/94  
 Client Sample ID: 39835-17

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020 04/22/94
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Client Reference: Seneca Army Depot Quarterly

PACE Sample Number: 97 0021833  
 Date Collected: 04/04/94  
 Date Received: 04/12/94  
 Client Sample ID: 39851-7

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020 04/22/94
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PACE Sample Number: 97 0021841  
 Date Collected: 04/04/94  
 Date Received: 04/12/94  
 Client Sample ID: 39851-8

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	ND	SW846 9020 04/27/94
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PACE Sample Number: 97 0021850  
 Date Collected: 04/04/94  
 Date Received: 04/12/94  
 Client Sample ID: 39851-9

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Total Organic Halogen	mg/L	0.02	0.06	SW846 9020 04/27/94
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Client Reference: Seneca Army Depot Quarterly

PACE Sample Number: 97 0021868  
 Date Collected: 04/04/94  
 Date Received: 04/12/94  
 Client Sample ID: 39851-10

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
<u>INORGANIC ANALYSIS</u>				
INDIVIDUAL PARAMETERS				
Total Organic Halogen	mg/L	0.02	ND	SW846 9020 04/27/94

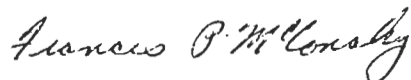
PACE Sample Number: 97 0021876  
 Date Collected: 04/04/94  
 Date Received: 04/12/94  
 Client Sample ID: 39851-11

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
<u>INORGANIC ANALYSIS</u>				
INDIVIDUAL PARAMETERS				
Total Organic Halogen	mg/L	0.02	ND	SW846 9020 04/27/94

PACE Sample Number: 97 0021884  
 Date Collected: 04/04/94  
 Date Received: 04/12/94  
 Client Sample ID: 39851-12

<u>Parameter</u>	<u>Units</u>	<u>PRL</u>	<u>METHOD</u>	<u>DATE ANALYZED</u>
<u>INORGANIC ANALYSIS</u>				
INDIVIDUAL PARAMETERS				
Total Organic Halogen	mg/L	0.02	ND	SW846 9020 04/27/94

These data have been reviewed and are approved for release.



Frances P. McConahy  
 Project Manager

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May 02, 1994  
PACE Project Number: 140412503

Client Reference: Seneca Army Depot Quarterly

ND Not detected at or above the PRL.  
PRL PACE Reporting Limit

