

Table 1
Well Screen Interval Rationale
Northern Area
Former Raytheon Facility
Wayland, MA

Well ID	Well Screen Interval (feet)	Total VOC PID "Field Screening Data (ppm)" for Well Screen Interval	Placement Rationale for Screen Interval
MW-261S	17 - 22	71.5 – 147	Close proximity to suspected release based on Waterloo Profiler Screening Investigation; elevated field-screened VOC data across screened interval.
MW-262S	20 - 25	1.7 – 2.3	Up-gradient from suspected release; set in medium to fine sand unit.
MW-262M	46 - 51	0.4 – 0.5	Up-gradient from suspected release; set in fine sand and silt unit.
MW-262D	71 - 76	<0.1	Up-gradient from suspected release; set in till unit on top of bedrock.
MW-263S	20 - 25	<0.1	Cross-gradient from suspected release; set within fine sand and silt unit. Elevated VOC concentrations at nearby Waterloo Profiler Screening Program location (B-224).
MW-263M	45 - 50	<0.1	Cross-gradient from suspected release; set in gravel and fine sand and silt units. Waterloo Profiler Screening Program location B-224 located nearby.
MW-264S	10 - 20	<0.1 – 0.4	Downgradient from suspected release; well installed within silt and clay unit with a 10- foot screen for use as a water table well.
MW-264M	34 - 44	6.5 – 9.6	Downgradient from suspected release; well installed within fine sand and silt unit with a 10- foot screen due to slightly elevated field-screening VOC data. Waterloo Profiler Screening Program location B-227 and B-226 located nearby.
MW-264D	72 - 77	0.8 – 5.8	Downgradient from suspected release; slightly elevated field-screening VOC data; well installed on top of till.
MW-265S	8 - 18	<0.1	Downgradient from suspected release, well installed within fine sand and silt, and coarse to fine sand units with a 10- foot screen for use as a water table well.
MW-265M	40 - 45	<0.1 – 9.3	Downgradient from suspected release; set within medium to fine sand unit. Elevated VOC concentrations at nearby Waterloo Profiler Screening Program location (B-240).
MW-265D	83.75 - 88.75	Not Recorded	Downgradient from suspected release; well set on top of bedrock.
MW-266S	7 – 17	<0.1	Downgradient from suspected release; well installed within fine sand and silt, and silt and clay units with a 10- foot screen for use as a water table well.
MW-266Ma	47 - 52	<0.1	Downgradient from suspected release; set within fine sand and silt unit. Elevated VOC concentrations at nearby Waterloo Profiler Screening Program location (B-230).
MW-266Mb	58 - 68	4.2 – 25.2	Downgradient from suspected release; well installed within fine sand and silt unit with a 10- foot screen due to elevated field-screened VOC data.
MW-266D	100 - 105	0.6 – 11.5	Downgradient from suspected release; well installed within coarse to fine sand unit on top of bedrock across elevated field-screened VOC data.

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Well ID	Well Screen Interval (feet)	Total VOC PID “Field Screening Data (ppm)” for Well Screen Interval	Placement Rationale for Screen Interval
MW-266B	121 - 126	Not Applicable	Downgradient from suspected release; well installed in shallow competent bedrock.
MW-267S	72 - 77	0.4 – 5.3	Downgradient from suspected release; well set within fine sand and silt unit across interval of slightly elevated field-screening VOC data, Waterloo Profiler Screening Program location (B-237) located nearby.
MW-267M	85 - 95	6.3 – 16.9	Downgradient from suspected release; well installed within fine sand and silt unit with a 10-foot screen due to elevated field-screened VOC data across. Waterloo Profiler Screening Program location (B-237) located nearby.
MW-267D	116 - 121	<0.1	Downgradient from suspected release; well installed within coarse to fine sand unit on top of bedrock.
MW-267B	148 - 153	Not Applicable	Downgradient from suspected release; well installed in shallow bedrock.
MW-268S	69 - 74	6.3 – 27.0	Downgradient from suspected release; well installed within fine sand and silt unit across interval of elevated field-screening VOC data. Waterloo Profiler Screening Program location (B-238) located nearby.
MW-268M	84 - 94	16.6 – 50.1	Downgradient from suspected release; well installed within fine sand and silt unit with a 10- foot screen due to elevated field-screening VOC data. Waterloo Profiler Screening Program location (B-238) located nearby.
MW-268D	122 - 127	Not Recorded	Downgradient from suspected release; well installed within gravel unit on top of competent bedrock.
MW-268B	148 - 153	Not Applicable	Downgradient from suspected release; well installed in shallow bedrock.
MW-269S	10 - 20	<0.1 – 1.9	Downgradient from suspected release; well installed within gravel unit with a 10--foot screen for use as a water table well.
MW-269Ma	27 - 32	1.9	Downgradient from suspected release; well installed within silt and clay unit across interval of slightly elevated field-screening VOC data.
MW-269Mb	74 - 84	<0.1 – 7.1	Downgradient from suspected release; well installed within silt and clay unit, well installed with a 10- foot screen across slightly elevated field-screening VOC data.
MW-269D	139 - 144	<0.1	Downgradient from suspected release; well installed within coarse to fine sand unit on top of bedrock.

* The Waterloo Profiler Screening Investigation was conducted in August 2002

Table 2
Summary of Monitoring Well Construction
Former Raytheon Facility
Wayland, Massachusetts

Well Designation	Date Installed	Ground Surface Elevation (feet ASL ^a)	Screen Length (feet)	Total Well Depth (feet)	Screened Interval		Geologic Designation ^b
					Bottom Elevation (feet ASL)	Top Elevation (feet ASL)	
Northern Area							
MW-261S	3-Dec-02	127.3	5	22	105.3	110.3	Fine Sand and Silt
MW-262S	3-Dec-02	127.4	5	25	102.4	107.4	Medium to Fine Sand and Silt
MW-262M	3-Dec-02	127.3	5	51	76.3	81.3	Fine Sand and Silt
MW-262D	3-Dec-02	127.5	5	76	51.5	56.5	Till
MW-263S	2-Dec-02	127.8	5	25	102.8	107.8	Fine Sand and Silt
MW-263M	2-Dec-02	125.4	5	50	75.4	80.4	Gravel, Coarse to Fine Sand
MW-264S	10-Dec-02	123.6	10	20	103.6	113.6	Silt and Clay
MW-264M	10-Dec-02	123.0	10	44	79.0	89.0	Fine Sand and Silt
MW-264D	10-Dec-02	123.7	5	77	46.7	51.7	Fine Sand and Silt
MW-265S	9-Dec-02	127.5	10	18	109.5	119.5	Coarse to Fine Sand and Silt
MW-265M	9-Dec-02	127.5	5	45	82.5	87.5	Medium to Fine Sand
MW-265D	9-Dec-02	127.5	5	89	38.5	43.5	Fine Sand and Silt, Till
MW-266S	12-Dec-02	125.0	10	17	108.0	118.0	Fine Sand and Silt, Clay
MW-266Ma	12-Dec-02	125.3	5	52	73.3	78.3	Fine Sand and Silt
MW-266Mb	12-Dec-02	125.2	10	68	57.2	67.2	Fine Sand and Silt
MW-266D	12-Dec-02	125.3	5	105	20.3	25.3	Coarse to Fine Sand
MW-266B	30-Dec-02	125.1	5	138	-12.9	-7.9	Bedrock
MW-267S	9-Dec-02	123.2	5	77	46.2	51.2	Fine Sand and Silt
MW-267M	6-Dec-02	123.3	10	95	28.3	38.3	Fine Sand and Silt
MW-267D	6-Dec-02	123.1	5	121	2.1	7.1	Coarse to Fine Sand
MW-267B	27-Dec-02	122.9	5	153	-30.1	-25.1	Bedrock
MW-268S	9-Dec-02	121.4	5	74	47.4	52.4	Fine Sand and Silt
MW-268M	9-Dec-02	121.5	10	94	27.5	37.5	Fine Sand and Silt
MW-268D	6-Dec-02	121.6	5	127	-5.4	-0.4	Gravel
MW-268B	30-Dec-02	121.5	5	153	-31.5	-26.5	Bedrock
MW-269S	17-Dec-02	122.4	10	20	102.4	112.4	Gravel
MW-269Ma	17-Dec-02	122.4	5	32	90.4	95.4	Silt and Clay
MW-269Mb	17-Dec-02	122.2	10	84	38.2	48.2	Silt and Clay
MW-269D	17-Dec-02	122.1	5	144	-21.9	-16.9	Coarse to Fine Sand

Notes:

^a ASL = Above Mean Sea Level

^b Geologic designation presented is based on generalized groupings following review of boring logs.

OHM = Oil & Hazardous Material

HWSA = Hazardous Waste Storage Area

NA = Not Applicable - no soil samples collected during Fastwell microwell installation

- = Data not available

* = Elevation measure from top of casing.

Table 3
Summary of Groundwater Gauging Data
Northern Area
Former Raytheon Facility
Wayland, MA

Well Designation	Measuring Point (MP)	MP Elevation (feet ASL ^a)	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
			(feet from MP)	(feet ASL)	(feet from MP)	(feet ASL)	(feet from MP)	(feet ASL)	(feet from MP)	(feet ASL)
			06-08-Jan-03		31-Jan-03		17-Feb-03		12-Mar-03	
MW-261	PVC	131.28	10.87	120.41	-	-	-	-	-	-
MW-262S	PVC	129.60	8.19	121.41	-	-	-	-	-	-
MW-262M	PVC	130.52	12.89	117.63	-	-	-	-	-	-
MW-262D	PVC	129.73	11.35	118.38	-	-	-	-	-	-
MW-263S	PVC	127.96	8.49	119.47	-	-	-	-	-	-
MW-263M	PVC	127.77	8.91	118.86	-	-	-	-	-	-
MW-264S	PVC	126.32	5.51	120.81	-	-	-	-	-	-
MW-264M	PVC	126.28	6.80	119.48	-	-	-	-	-	-
MW-264D	PVC	126.63	8.96	117.67	-	-	-	-	-	-
MW-265S	PVC	130.06	7.49	122.57	-	-	-	-	-	-
MW-265M	PVC	129.89	10.82	119.07	-	-	-	-	-	-
MW-265D	PVC	130.07	14.20	115.87	-	-	-	-	-	-
MW-266S	PVC	126.79	6.92	119.87	-	-	-	-	-	-
MW-266Ma	PVC	127.72	9.46	118.26	-	-	-	-	-	-
MW-266Mb	PVC	126.88	8.71	118.17	-	-	-	-	-	-
MW-266D	PVC	127.70	10.03	117.67	-	-	-	-	-	-
MW-266B	PVC	128.14	11.70	116.44	-	-	-	-	-	-
MW-267S	PVC	125.30	8.31	116.99	-	-	-	-	-	-
MW-267M	PVC	125.40	8.18	117.22	-	-	-	-	-	-
MW-267D	PVC	125.88	8.46	117.42	-	-	-	-	-	-
MW-267B	PVC	124.02	7.46	116.56	-	-	-	-	-	-
MW-268S	PVC	123.66	6.66	117.00	-	-	-	-	-	-
MW-268M	PVC	123.41	6.48	116.93	-	-	-	-	-	-
MW-268D	PVC	124.86	7.73	117.13	-	-	-	-	-	-
MW-268B	PVC	122.34	24.35	97.99	6.33	116.01	7.45	114.89	7.06	115.28
MW-269S	PVC	125.54	7.06	118.48	-	-	-	-	-	-
MW-269Ma	PVC	124.96	7.30	117.66	-	-	-	-	-	-
MW-269Mb	PVC	125.42	9.43	115.99	-	-	-	-	-	-
MW-269D	PVC	125.34	9.62	115.72	-	-	-	-	-	-

Notes:

^a ASL = Above Sea Level

Table 4
Summary of Vertical Hydraulic Gradient Data for January 2003
Northern Area
Former Raytheon Facility
Wayland, Massachusetts

Well Designation	Measuring Point Elevation (ft ASL)	Depth to Water (ft)	Saturated Midpoint Elevation (ft ASL)	Head Elevation (ft)	Head Change (ft)	Length Change (ft)	Hydraulic Gradient (ft/ft)	Up/Down
MW-262S	129.6	8.19	104.86	121.41	3.03	50.900	0.05953	Down
MW-262D	129.73	11.35	53.96	118.38				
MW-263S	127.96	8.49	105.28	119.47	0.61	27.400	0.02226	Down
MW-263M	127.77	8.91	77.88	118.86				
MW-264S	126.32	5.51	108.60	120.81	3.14	59.380	0.05288	Down
MW-264D	126.63	8.96	49.22	117.67				
MW-265S	130.06	7.49	114.50	122.57	6.70	73.270	0.09144	Down
MW-265D	130.07	14.2	41.23	115.87				
MW-266S	126.79	6.92	113.04	119.87	2.20	90.220	0.02438	Down
MW-266D	127.7	10.03	22.82	117.67				
MW-266S	126.79	6.92	113.04	119.87	3.43	123.430	0.02779	Down
MW-266B	128.14	11.7	-10.39	116.44				
MW-267S	125.3	8.31	48.72	116.99	-0.43	44.160	-0.00974	Up
MW-267D	125.88	8.46	4.56	117.42				
MW-267S	125.3	8.31	48.72	116.99	0.43	76.340	0.00563	Down
MW-267B	124.02	7.46	-27.62	116.56				
MW-268S	123.66	6.66	49.86	117.00	-0.13	52.800	-0.00246	Up
MW-268D	124.86	7.73	-2.94	117.13				
MW-268S	123.66	6.66	49.86	117.00	19.01	78.900	0.24094	Down
MW-268B	122.34	24.35	-29.04	97.99				
MW-269S	125.54	7.06	107.41	118.48	2.76	126.770	0.02177	Down
MW-269D	125.34	9.62	-19.36	115.72				

(-) vertical gradient represents upward groundwater flow
(+) vertical gradient represents downward groundwater flow

Table 5
Summary of Soil Analytical Results
Northern Area
Former Raytheon Facility
Wayland, Massachusetts

Sample I.D. Depth Date Sampled Comment	Reportable Concentrations S-1	MW-261S 4'-6' 3-Dec-02	MW-262M 2'-4' 3-Dec-02	MW-263S 2-Dec-02	MW-264D 6-Dec-02	MW-265M 7'-9' 2-Dec-02	MW-266D 4'-6' 9-Dec-02	MW-267B 5'-7' 2-Dec-02	MW-268B 4'-6' 2-Dec-02	MW-269D 4'-6' 9-Dec-02
Organics										
<i>Volatile Organic Compounds (VOCs) (ug/kg)</i>										
Acetone	3,000	29	21	-	-	-	62	-	-	16
Total VOCs		29	21				62			16

Notes:

ug/kg = micrograms per kilogram (parts per billion (ppb))

- = Not Detected

Table 6
Summary of Groundwater VOC Analytical Results
Northern Area
Former Raytheon Facility
Wayland, Massachusetts

Sample I.D. Date Sampled Comments	Reportable Concentrations GW-1	MW-261S 7-Jan-03	MW-262S 7-Jan-03	MW-262M 7-Jan-03	MW-262D 7-Jan-03	MW-263S 7-Jan-03	MW-263M 7-Jan-03	MW-263M 7-Jan-03	MW-264S 07-Jan-03	MW-264M 07-Jan-03	MW-264D 07-Jan-03	MW-265S 07-Jan-03	MW-265M 07-Jan-03
Parameter Sampling Method	Low Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow	Low-Flow
Organics													
Volatile Organic Compounds (VOCs) (µg/L)													
Tetrachloroethene	5	59	2.0	-	-	-	-	-	4.1	9.0	-	-	31
Trichloroethene	5	4,400	100	-	-	-	-	15	110	110	-	-	580
cis-1,2-Dichloroethene	70	130	1.4	-	-	-	-	10	140	140	-	-	2,900
trans-1,2-Dichloroethene	100	-	-	-	-	-	-	-	1.5	1.5	-	-	-
Vinyl Chloride	2	-	-	-	-	-	-	-	22	22	-	-	360
1,2,3-Trichlorobenzene	NS	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	5	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	1,000	-	-	-	2.7	-	24	24	-	-	-	-	-
2-Butanone	400	-	-	-	-	-	-	-	-	-	-	-	-
Tetrahydrofuran	5,000	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes, p/m-	6,000	-	-	-	-	-	0.60	0.66	-	-	-	-	-

Notes:

- = Analytical result below the method detection limit.

NS = No Standard

µg/L = micrograms per liter (parts per billion (ppb))

Exceeds RCGW-1

Table 6
Summary of Groundwater VOC Analytical Results
Northern Area
Former Raytheon Facility
Wayland, Massachusetts

Sample I.D. Date Sampled Comments Parameter Sampling Method	Reportable Concentrations GW-1	MW-265D 07-Jan-03 Low-Flow	MW-265D 07-Jan-03 DUP Low-Flow	MW-266S 06-Jan-03 Low-Flow	MW-266MA 06-Jan-03 Low-Flow	MW-266MB 06-Jan-03 Low-Flow	MW-266D 06-Jan-03 Low-Flow	MW-266B 06-Jan-03 Low-Flow	MW-267S 06-Jan-03 Low-Flow	MW-267M 06-Jan-03 Low-Flow	MW-267D 06-Jan-03 Low-Flow	MW-267D 06-Jan-03 DUP Low-Flow	MW-267B 06-Jan-03 Low-Flow	MW-268S 06-Jan-03 Low-Flow
Organics														
Volatile Organic Compounds (VOCs) (µg/L)		-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	5					66			6.4	6.5		8.8		-
Trichloroethene	5					4.1			460	220		330		-
cis-1,2-Dichloroethene	70					2.1			120	120		180		1.0
trans-1,2-Dichloroethene	100					-			-	-		-		-
Vinyl Chloride	2					-			-	-		-		-
1,2,3-Trichlorobenzene	NS					-			-	-		-		-
1,4-Dichlorobenzene	5					-			-	-		-		-
Toluene	1,000					-			-	-		-		-
2-Butanone	400					-			-	-		-		-
Tetrahydrofuran	5,000					-			-	-		-		-
Xylenes, p/m-	6,000					-			-	-		-		-

Notes:

- = Analytical result below the method detection limit.

NS = No Standard

µg/L = micrograms per liter (parts per billion (ppb))

Exceeds RCGW-1

Table 6
Summary of Groundwater VOC Analytical Results
Northern Area
Former Raytheon Facility
Wayland, Massachusetts

Sample I.D. Date Sampled Comments Parameter Sampling Method	Reportable Concentrations GW-1	MW-268M 06-Jan-03 Low-Flow	MW-268D 06-Jan-03 Low-Flow	MW-268B 06-Jan-03 Low-Flow	MW-268B 31-Jan-03 Low-Flow	MW-268B 31-Jan-03 Dup Low-Flow	MW-268B 17-Feb-03 Low Flow	MW-268B 17-Feb-03 Dup Low Flow	MW-268B 12-Mar-03 Low Flow	MW-269S 07-Jan-03 Low-Flow	MW-269MA 07-Jan-03 Low-Flow	MW-269MB 07-Jan-03 Low-Flow	MW-269D 07-Jan-03 Low-Flow	MW-TP-3 08-Jan-03 Low-Flow
Organics														
Volatile Organic Compounds (VOCs) (µg/L)														
Tetrachloroethene	5	64	-	-	-	-			-	-	-	-	-	0.73
Trichloroethene	5	3,900	11	-	-	-			-	3.7	-	-	-	4.5
cis-1,2-Dichloroethene	70	10,000	18	-	-	-			0.85	-	-	-	-	4.9
trans-1,2-Dichloroethene	100	-	-	-	-	-			-	-	-	-	-	-
Vinyl Chloride	2	290	1.3	-	-	-			-	-	-	-	-	-
1,2,3-Trichlorobenzene	NS	-	-	-	-	-			-	-	-	-	-	110
1,4-Dichlorobenzene	5	-	-	-	-	-			-	-	-	-	-	4.4
Toluene	1,000	-	-	-	-	-			-	-	-	-	-	-
2-Butanone	400	-	-	10	-	-			-	-	-	-	-	-
Tetrahydrofuran	5,000	-	-	11	-	-	12	12	-	-	-	-	-	-
Xylenes, p/m-	6,000	-	-	-	-	-			-	-	-	-	-	-

Notes:

- = Analytical result below the method detection limit.

NS = No Standard

µg/L = micrograms per liter (parts per billion (ppb))

Exceeds RCGW-1

Table 7
Summary of Groundwater Miscellaneous Parameter Analytical Results
Northern Area
Former Raytheon Facility
Wayland, Massachusetts

Parameter	Sample I.D. Date Sampled Comments	MCP Reportable Concentrations GW-1	MW-261S 7-Jan-03 Low Flow	MW-TP-3 8-Jan-03 Low Flow
Organics				
Glycol Organics GF/FID (mg/L)		Compound Specific	-	-
Alcohol Organics by GF/FID (mg/L)				
Methyl Alcohol		10	9.8	-
Aldehydes (µg/L)				
Formaldehyde		1,000	140	-
PNA's by GC/MS 8270 (mg/L)		Compound Specific	-	-
Polychlorinated Biphenyls (mg/L)		0.0003	-	-
Inorganics (mg/L)				
Cyanide, Physiologically Available		0.2	-	-
Chloride		NS	7.0	2.3
Fluoride		NS	-	0.21
Nitrogen, Ammonia		NS	-	0.215
Nitrogen, Nitrate		NS	-	3.7
Boron, Total		NS	-	0.030

Notes:

- = Analytical result below the method detection limit.
- NS = No Standard
- µg/L=micrograms per liter (parts per billion (ppb))
- mg/L=milligrams per liter (parts per million (ppm))

Table 8
Summary of Groundwater Analytical Results for Dioxins
Former Raytheon Facility
Wayland, Massachusetts

Parameter	Sample I.D. Date Sampled Comments	MCP Reportable Concentrations GW-1	MADEP TEFs **	MW-261S 7-Jan-03 Low Flow	MW-TP-3 8-Jan-03 Low Flow
Dioxins					
Polychlorinated dibenzo-p-dioxins (PCDDs) (pg/L)					
2,3,7,8-TCDD		NS	1	-	-
1,2,3,7,8-PeCDD		NS	0.5	-	-
1,2,3,4,7,8-HxCDD		NS	0.1	-	-
1,2,3,6,7,8-HxCDD		NS	0.1	-	-
1,2,3,7,8,9-HxCDD		NS	0.1	-	-
1,2,3,4,6,7,8-HpCDD		NS	0.1	-	-
1,2,3,4,6,7,8,9-OCDD		NS	0.001	3.2	-
<i>Subtotal 2,3,7,8 TCDD Equivalent</i>				<i>0.003</i>	<i>0.000</i>
Polychlorinated dibenzo-p-dibenzofurans (PCDFs) (pg/L)					
2,3,7,8-TCDF		NS	0.1	-	-
1,2,3,7,8-PeCDF		NS	0.5	-	-
2,3,4,7,8-PeCDF		NS	0.5	-	-
1,2,3,4,7,8-HxCDF		NS	0.1	-	0.98
1,2,3,6,7,8-HxCDF		NS	0.1	-	-
2,3,4,6,7,8-HxCDF		NS	0.1	-	-
1,2,3,7,8,9-HxCDF		NS	0.1	-	-
1,2,3,4,6,7,8-HpCDF		NS	0.1	-	-
1,2,3,4,7,8,9-HpCDF		NS	0.1	-	-
1,2,3,4,6,7,8,9-OCDF		NS	0.001	5.6	-
<i>Subtotal 2,3,7,8 TCDD Equivalent</i>				<i>0.006</i>	<i>0.098</i>
Total Dioxins (pg/L)					
<i>Total 2,3,7,8 TCDD Equivalent</i>		30		<i>0.009</i>	<i>0.098</i>

Notes:

- = Analytical result below the method detection limit.

NS = No Standard

pg/L=picograms per liter (parts per quadrillion (ppq)), 10^{-12} g/L

** TEF = Toxicity Equivalent Factor (MADEP)

Table 9a
Summary of Groundwater Field Parameter Measurements
Northern Area
Former Raytheon Facility
Wayland, Massachusetts

Well ID	pH			
	06-08-Jan-03	31-Jan-03	17-Feb-03	12-Mar-03
MW-261S	6.3	-	-	-
MW-262D	8.0	-	-	-
MW-262M	7.4	-	-	-
MW-262S	6.6	-	-	-
MW-263M	8.2	-	-	-
MW-263S	6.0	-	-	-
MW-264D	8.1	-	-	-
MW-264M	6.4	-	-	-
MW-264S	6.5	-	-	-
MW-265D	7.6	-	-	-
MW-265M	6.0	-	-	-
MW-265S	5.9	-	-	-
MW-266B	7.5	-	-	-
MW-266D	8.3	-	-	-
MW-266Ma	7.3	-	-	-
MW-266Mb	6.6	-	-	-
MW-266S	6.2	-	-	-
MW-267B	12.8 ^a	-	-	-
MW-267D	8.0	-	-	-
MW-267M	6.7	-	-	-
MW-267S	6.7	-	-	-
MW-268B	9.7	8.1	5.2	8.6
MW-268D	8.1	-	-	-
MW-268M	6.4	-	-	-
MW-268S	7.4	-	-	-
MW-269D	7.6	-	-	-
MW-269Ma	7.0	-	-	-
MW-269Mb	9.7	-	-	-
MW-269S	6.7	-	-	-
MW-TP-3	5.2	-	-	-

Notes:

- = Not Measured

^a Meter recalibrated to verify values, values consistent throughout sampling

Table 9b
Summary of Groundwater Field Parameter Measurements
Northern Area
Former Raytheon Facility
Wayland, Massachusetts

Well ID	Conductivity (uS/cm)			
	06-08-Jan-03	31-Jan-03	17-Feb-03	12-Mar-03
MW-261S	148	-	-	-
MW-262D	235	-	-	-
MW-262M	184	-	-	-
MW-262S	165	-	-	-
MW-263M	239	-	-	-
MW-263S	157	-	-	-
MW-264D	201	-	-	-
MW-264M	205	-	-	-
MW-264S	108	-	-	-
MW-265D	238	-	-	-
MW-265M	255	-	-	-
MW-265S	39	-	-	-
MW-266B	225	-	-	-
MW-266D	234	-	-	-
MW-266Ma	142	-	-	-
MW-266Mb	172	-	-	-
MW-266S	30	-	-	-
MW-267B	2,169	-	-	-
MW-267D	175	-	-	-
MW-267M	195	-	-	-
MW-267S	286	-	-	-
MW-268B	174	164	266	175
MW-268D	200	-	-	-
MW-268M	_*	-	-	-
MW-268S	226	-	-	-
MW-269D	135	-	-	-
MW-269Ma	235	-	-	-
MW-269Mb	161	-	-	-
MW-269S	168	-	-	-
MW-TP-3	83	-	-	-

Notes:

uS/cm = microsiemens/cm

- = Not Measured

* Instrument error

Table 9c
Summary of Groundwater Field Parameter Measurements
Northern Area
Former Raytheon Facility
Wayland, Massachusetts

Well ID	Temperature (°C)			
	06-08-Jan-03	31-Jan-03	17-Feb-03	12-Mar-03
MW-261S	7.7	-	-	-
MW-262D	7.3	-	-	-
MW-262M	7.0	-	-	-
MW-262S	6.9	-	-	-
MW-263M	7.0	-	-	-
MW-263S	7.5	-	-	-
MW-264D	5.6	-	-	-
MW-264M	4.9	-	-	-
MW-264S	5.8	-	-	-
MW-265D	7.7	-	-	-
MW-265M	7.3	-	-	-
MW-265S	6.3	-	-	-
MW-266B	8.4	-	-	-
MW-266D	7.7	-	-	-
MW-266Ma	8.6	-	-	-
MW-266Mb	7.7	-	-	-
MW-266S	5.5	-	-	-
MW-267B	5.9	-	-	-
MW-267D	8.6	-	-	-
MW-267M	7.4	-	-	-
MW-267S	6.9	-	-	-
MW-268B	5.0	7.4	6.8	8.5
MW-268D	8.4	-	-	-
MW-268M	7.0	-	-	-
MW-268S	8.0	-	-	-
MW-269D	7.5	-	-	-
MW-269Ma	7.8	-	-	-
MW-269Mb	7.4	-	-	-
MW-269S	8.0	-	-	-
MW-TP-3	8.0	-	-	-

Notes:

- = Not Measured

Table 9d
Summary of Groundwater Field Parameter Measurements
Northern Area
Former Raytheon Facility
Wayland, Massachusetts

Well ID	Oxidation Reduction Potential (ORP) (mV)			
	06-08-Jan-03	31-Jan-03	17-Feb-03	12-Mar-03
MW-261S	-5	-	-	-
MW-262D	1	-	-	-
MW-262M	-77	-	-	-
MW-262S	-22	-	-	-
MW-263M	-198	-	-	-
MW-263S	118	-	-	-
MW-264D	-159	-	-	-
MW-264M	18	-	-	-
MW-264S	56	-	-	-
MW-265D	115	-	-	-
MW-265M	105	-	-	-
MW-265S	159	-	-	-
MW-266B	24	-	-	-
MW-266D	-157	-	-	-
MW-266Ma	-74	-	-	-
MW-266Mb	-21	-	-	-
MW-266S	214	-	-	-
MW-267B	-41	-	-	-
MW-267D	-13	-	-	-
MW-267M	-70	-	-	-
MW-267S	-39	-	-	-
MW-268B	94	-25	51	215
MW-268D	-56	-	-	-
MW-268M	-39	-	-	-
MW-268S	-16	-	-	-
MW-269D	64	-	-	-
MW-269Ma	-57	-	-	-
MW-269Mb	-4	-	-	-
MW-269S	-22	-	-	-
MW-TP-3	163	-	-	-

Notes:

mV = millivolts
 - = Not Measured

Table 9e
Summary of Groundwater Field Parameter Measurements
Northern Area
Former Raytheon Facility
Wayland, Massachusetts

Well ID	Dissolved Oxygen (mg/L)			
	07-09-Jan-03	31-Jan-2003	06-08-Jan-03	12-Mar-03
MW-261S	1.1	-	-	-
MW-262D	8.3	-	-	-
MW-262M	4.4	-	-	-
MW-262S	10.8	-	-	-
MW-263M	0.5	-	-	-
MW-263S	1.6	-	-	-
MW-264D	0.4	-	-	-
MW-264M	0.4	-	-	-
MW-264S	1.3	-	-	-
MW-265D	5.4	-	-	-
MW-265M	3.8	-	-	-
MW-265S	21.5 ^a	-	-	-
MW-266B	0.2	-	-	-
MW-266D	0.9	-	-	-
MW-266Ma	0.2	-	-	-
MW-266Mb	1.1	-	-	-
MW-266S	14.9 ^a	-	-	-
MW-267B	9.3	-	-	-
MW-267D	4.4	-	-	-
MW-267M	0.5	-	-	-
MW-267S	0.2	-	-	-
MW-268B	9.5	1.5	2.4	3.2
MW-268D	4.2	-	-	-
MW-268M	7.6	-	-	-
MW-268S	2.6	-	-	-
MW-269D	7.0	-	-	-
MW-269Ma	0.2	-	-	-
MW-269Mb	5.9	-	-	-
MW-269S	0.1	-	-	-
MW-TP-3	1.4	-	-	-

Notes:

mg/L = milligrams per liter

- = Not Measured

^a Meter recalibrated to verify values, values consistent throughout sampling

Table 10
Summary of August 2002 Sediment Dioxin/Furan Analytical Results
Former Raytheon Facility
Wayland, Massachusetts

Parameter	Sample I.D.	SS-21		SS-22		SS-22		SS-23		SS-24		SS-25		SS-26	
	Date Sampled	12-Aug-02	Flags	12-Aug-02	Flags	12-Aug-02	Flags	12-Aug-02	Flags	12-Aug-02	Flags	12-Aug-02	Flags	12-Aug-02	Flags
Polychlorinated dibenzo-p-dioxins (PCDDs) (pg/g)															
2,3,7,8-TCDD		8.28		0.20	je	0.06	u	0.55	u	0.40	je	1.13	j	3.08	
1,2,3,7,8-PeCDD		32.1		0.93	j	0.82	je	0.84	j	1.41	j	3.92	j	9.97	
1,2,3,4,7,8-HxCDD		40.4		1.72	j	1.36	j	1.8	j	1.86	j	4.84	j	12.6	
1,2,3,6,7,8-HxCDD		252		6.66		6.15		7.61		10.3		24.8		69.4	
1,2,3,7,8,9-HxCDD		145		6.49	j	5.66	j	6.74		6.95		17.2		43.9	
1,2,3,4,6,7,8-HpCDD		5100	d	225		164		207		225		427		1620	d
OCDD		55200	d	1920		1380		1790	d	2130	d	4110	d	16400	d
Polychlorinated dibenzo-p-dibenzofurans (PCDFs) (pg/g)															
2,3,7,8-TCDF		49.1		1.56	j	1.58	j	2.33		2.96		10.2		17.3	
1,2,3,7,8-PeCDF		17.9		0.85	j	0.92	j	1.07	j	1.37	j	4.38	j	7.53	
2,3,4,7,8-PeCDF		49.5		1.54	j	1.67	j	2.18	j	3.32	j	10.2		18.8	
1,2,3,4,7,8-HxCDF		130		3.17	j	3.59	j	5.23	j	11.1		27.8		50.6	
1,2,3,6,7,8-HxCDF		54.5		1.30	j	1.49	j	1.98	j	3.28	j	11.1		25.1	
1,2,3,7,8,9-HxCDF		1.88	u	0.30	j	0.32	j	0.41	j	0.24	j	0.49	j	1.25	j
2,3,4,6,7,8-HxCDF		40.8		1.21	j	1.26	j	1.96	je	2.60	j	8.37		17.8	
1,2,3,4,6,7,8-HpCDF		1270	d	21.2		24.9		35.4		60.3		178		451	
1,2,3,4,7,8,9-HpCDF		98.2		1.56	j	1.56	j	2.19	j	4.86		11.6		43.6	
OCDF		2820	d	40.2		46.0		66.2		130		296		1030	

Notes:
 - = Analytical result below the method detection limit.
 NA = Not Analyzed
 NS = No Standard
 pg/g=picograms per gram (dry weight basis)

FLAGS
 u not detected, value shown is one-half of DL
 j concentration less than LMCL
 e EMPC = peak did not meet confirmation criteria
 d result reported from a dilution of the original extract
 - data not flagged

Table 11
Summary of March 2003 Sediment Sampling Methods
Former Raytheon Facility
Wayland, Massachusetts

	<i>Sampling Method</i>	<i>Recovery</i>
WS-1	GeoProbe	34"
WS-2	GeoProbe	30"
WS-3	Hand Auger	12"
WS-4	GeoProbe	48"
WS-5	GeoProbe	23"
WS-6	GeoProbe	32"
WS-7	GeoProbe	37"
WS-8	Hand Auger	12"
DUP-2	Hand Auger	12"
WS-9	GeoProbe	36"
WS-10	GeoProbe	33"
WS-11	GeoProbe	48"
WS-12	GeoProbe	36"
WS-13	GeoProbe	48"
WS-14	GeoProbe	48"
WS-15	GeoProbe	20"
WS-16	GeoProbe	48"
WS-17	GeoProbe	48"
WS-18	GeoProbe	17"
WS-19	GeoProbe	27"
WS-20	GeoProbe	40"
WS-21	GeoProbe	34"
WS-22	GeoProbe	39"
WS-23	GeoProbe	48"
WS-23	Hand Auger	12"
DUP-1	Hand Auger	12"
WS-24	GeoProbe	48"
WS-25	Hand Auger	24"
WS-26	GeoProbe	48"
WS-27	GeoProbe	28"
WS-28	Hand Auger	24"
WS-29	GeoProbe	48"
WS-30	Hand Auger	24"
WS-31	GeoProbe	20"
WS-32	GeoProbe	22"
WS-33	Hand Auger	12"
WS-34	Hand Auger	12"
WS-35	Hand Auger	12"
WS-36	GeoProbe	16"

Table 12
March 2003 Sediment Sampling Log
Former Raytheon Facility
Wayland, Massachusetts

Location	Depth	Dioxin	TOC	PCBs	PAHs	Metals
WS-1	(6-12")	X	X			
WS-2	(6-15")	X	X	X		
WS-2	(18-24")	X	X			
WS-3	(6-12")	X	X	X		
WS-3	(18-24")	X	X			
WS-4	(6-18")	X	X	X		
WS-4	(18-24")	X	X			
WS-5	(6-18")	X	X	X	X	X
WS-5	(18-24")	X	X			
WS-6	(6-12")	X	X			
WS-7	(6-15")	X	X	X		
WS-7	(18-24")	X	X			
WS-8	(6-12")	X	X	X		
DUP-2	(6-12")	X	X	X		
WS-9	(6-12")	X	X			
WS-10	(6-12")	X	X			
WS-10	(18-24")	X	X			
WS-11	(18-24")	X	X			
WS-12	(6-12")	X	X			
WS-12	(18-24")	X	X			
WS-13	(6-18")	X	X	X	X	X
WS-14	(6-12")	X	X			
WS-15	(6-12")	X	X			
WS-16	(6-15")	X	X	X		
WS-17	(6-12")	X	X			
WS-18	(6-12")	X	X			
WS-19	(6-18")	X	X	X	X	X
WS-20	(6-12")	X	X			
WS-21	(6-12")	X	X			
WS-22	(6-12")	X	X			
WS-22	(18-24")	X	X			
WS-23	(6-12")	X	X			
WS-23	(6-12")	X	X	X	X	X
DUP-1	(6-12")	X	X	X	X	X
WS-24	(6-18")	X	X	X	X	X
WS-25	(0-24")	X	X			
WS-26	(6-12")	X	X			
WS-27	(6-12")	X	X			
WS-28	(0-24")	X	X			
WS-29	(0-24")	X	X			
WS-30	(0-24")	X	X	X		
WS-31	(6-12")	X	X			
WS-32	(6-12")	X	X			
WS-33	(6-12")	X	X			
WS-34	(6-12")	X	X			
WS-35	(6-12")	X	X			
WS-36	(6-16")	X	X	X	X	X
Equipment Blank -1		X	X		X	X
Equipment Blank -1		X	X		X	X

Table 13a

Summary of Sediment PCDD/PCDF and PCB Analytical Results - March 2003

Former Raytheon Facility

Wayland, Massachusetts

Parameter	Sample I.D.	WS-1		WS-2		WS-2		WS-3		WS-4		WS-4	
	Depth Date Sampled Comments	(6-12")	Flags	(6-15")	Flags	(18-24")	Flags	(6-12")	Flags	(6-18")	Flags	(18-24")	Flags
		05-Mar-03		05-Mar-03		05-Mar-03		05-Mar-03		05-Mar-03		05-Mar-03	
Polychlorinated Biphenyls (ug/kg) (EPA Method 8082)		NA				NA							
Aroclor 1254				13	u			13	u	13	u		
Aroclor 1260				13	u			520		724			
Total PCBs				26				533		737			
Total Organic Carbon(%)		0.135		0.534		9.83		1.02		0.872		6.31	
Polychlorinated dibenzo-p-dioxins (PCDDs) (pg/g)													
2,3,7,8-TCDD		0.35	u	0.05	u	0.05	u	0.05	u	0.4	u	0.1	u
1,2,3,7,8-PeCDD		0.45	u	0.05	u	0.43	j	0.2	jb	3.7	j	0.1	u
1,2,3,4,7,8-HxCDD		0.3	u	0.04	u	0.5	j	0.05	u	5.1		0.05	u
1,2,3,6,7,8-HxCDD		0.3	u	0.04	u	2.9	j	0.61	jb	31.9		0.05	u
1,2,3,7,8,9-HxCDD		0.3	u	0.04	u	4.1	j	0.46	ejb	15.3		0.05	u
1,2,3,4,6,7,8-HpCDD		2.0	j	1.0	ej	11.8		18.6		605.0		2.2	j
OCDD		11.8		7.6	j	46.6		169		5800		15.6	
Polychlorinated dibenzo-p-dibenzofurans (PCDFs) (pg/g)													
2,3,7,8-TCDF		0.25	u	0.04	u	0.95	j	0.81	j	6.8		0.05	u
1,2,3,7,8-PeCDF		0.25	u	0.035	u	0.22	ej	0.03	u	0.4	u	0.045	u
2,3,4,7,8-PeCDF		0.25	u	0.31	ej	0.11	ej	0.4	jb	11		0.045	u
1,2,3,4,7,8-HxCDF		0.51	ej	0.82	j	0.36	ej	0.91	jb	32.9		0.41	j
1,2,3,6,7,8-HxCDF		0.2	u	0.26	ej	0.16	j	0.5	jb	15.8		0.035	u
2,3,4,6,7,8-HxCDF		0.2	u	0.19	ej	0.035	u	0.6	jb	22.8		0.04	u
1,2,3,7,8,9-HxCDF		0.25	u	0.03	u	0.27	ej	0.23	jb	5.3	eX	0.045	u
1,2,3,4,6,7,8-HpCDF		1.7	j	3.3	j	0.55	j	4.4	jb	239		1.2	ej
1,2,3,4,7,8,9-HpCDF		0.4	u	0.045	u	0.05	u	0.42	jb	12.3		0.05	u
OCDF		0.65	u	2.3	j	0.61	ej	6.7	jb	393		1.1	j
Total 2,3,7,8 TCDD Equivalent		1.21		0.45		1.60		1.12		32.39		0.33	

Notes:

NA = Not Analyzed

= sediment sampling location in proposed remedial area

pg/g=picograms per gram (dry weight basis)

Flags

u not detected, value shown is one-half of DL

j concentration less than LMCL

e EMPC = peak did not meet confirmation criteria

d result reported from a dilution of the original extract

b detected in laboratory method blank as well as field sample

Table 13a

Summary of Sediment PCDD/PCDF and PCB Analytical Results - March 2003

Former Raytheon Facility

Wayland, Massachusetts

Parameter	Sample I.D.	WS-5		WS-5		WS-6		WS-7		WS-7		WS-8	
	Depth Date Sampled Comments	(6-18") 05-Mar-03	Flags	(18-24") 05-Mar-03	Flags	(6-12") 05-Mar-03	Flags	(6-15") 05-Mar-03	Flags	(18-24") 05-Mar-03	Flags	(6-12") 20-Mar-03	Flags
Polychlorinated Biphenyls (ug/kg) (EPA Method 8082)				NA		NA				NA			
Aroclor 1254		13	u					13	u			209	u
Aroclor 1260		37						83	u			209	u
Total PCBs		50						96				418	
Total Organic Carbon(%)		1.66		0.158		5.38		1.98		2.42		11.7	
Polychlorinated dibenzo-p-dioxins (PCDDs) (pg/g)													
2,3,7,8-TCDD		0.1	u	0.15	u	0.25	u	0.1	u	0.05	u	0.3	u
1,2,3,7,8-PeCDD		0.1	u	0.15	u	0.2	u	0.35	ej	0.05	u	0.48	ej
1,2,3,4,7,8-HxCDD		0.1	u	0.15	u	0.25	u	0.56	j	0.05	u	0.71	j
1,2,3,6,7,8-HxCDD		0.1	u	0.15	u	0.25	u	2.7	j	0.05	u	3.2	j
1,2,3,7,8,9-HxCDD		0.1	u	0.15	u	0.25	u	3.7	j	0.05	u	3.1	j
1,2,3,4,6,7,8-HpCDD		4.3	j	0.3	u	3.6	ej	58.2		1.1	j	122	
OCDD		21.8		0.55	u	23.9		380		5.3	j	1470	
Polychlorinated dibenzo-p-dibenzofurans (PCDFs) (pg/g)													
2,3,7,8-TCDF		0.67	j	0.1	u	0.2	u	0.44	j	0.05	u	0.85	j
1,2,3,7,8-PeCDF		0.05	u	0.1	u	0.15	u	0.14	ej	0.04	u	0.2	u
2,3,4,7,8-PeCDF		0.2	ej	0.1	u	0.15	u	0.41	j	0.04	u	0.69	ej
1,2,3,4,7,8-HxCDF		0.45	ej	0.1	u	0.1	u	1.1	j	0.035	u	3.1	jb
1,2,3,6,7,8-HxCDF		0.05	u	0.1	u	0.1	u	0.46	j	0.035	u	1.2	j
2,3,4,6,7,8-HxCDF		0.32	j	0.1	u	0.15	u	0.48	j	0.035	u	1.2	j
1,2,3,7,8,9-HxCDF		0.05	u	0.1	u	0.15	u	0.31	j	0.045	u	0.45	u
1,2,3,4,6,7,8-HpCDF		2	j	0.15	u	0.2	u	5.5		0.05	u	13.6	
1,2,3,4,7,8,9-HpCDF		0.1	u	0.15	u	0.25	u	0.49	ej	0.05	u	0.65	u
OCDF		2.7	j	0.4	u	0.55	u	9.1	j	0.15	u	20.7	
Total 2,3,7,8 TCDD Equivalent		0.55		0.46		0.72		2.32		0.17		4.03	

Notes:

NA = Not Analyzed

= sediment sampling location in proposed remedial area

pg/g=picograms per gram (dry weight basis)

Flags

u not detected, value shown is one-half of DL

j concentration less than LMCL

e EMPC = peak did not meet confirmation criteria

d result reported from a dilution of the original extract

b detected in laboratory method blank as well as field sample

Table 13a

Summary of Sediment PCDD/PCDF and PCB Analytical Results - March 2003

Former Raytheon Facility

Wayland, Massachusetts

Parameter	Sample I.D.	WS-8		WS-9		WS-10		WS-10		WS-11	
	Depth Date Sampled Comments	(6-12") 20-Mar-03 DUP-2	Flags	(6-12") 05-Mar-03	Flags	(6-12") 05-Mar-03	Flags	(18-24") 05-Mar-03	Flags	(18-24") 05-Mar-03	Flags
Polychlorinated Biphenyls (ug/kg) (EPA Method 8082)				NA		NA		NA		NA	
Aroclor 1254		202	u								
Aroclor 1260		202	u								
Total PCBs		403									
Total Organic Carbon(%)		9.03		12.4		13.5		9.14		0.087	
Polychlorinated dibenzo-p-dioxins (PCDDs) (pg/g)											
2,3,7,8-TCDD		0.1	u	0.15	u	0.15	u	0.2	u	0.25	u
1,2,3,7,8-PeCDD		0.1	u	0.1	u	0.85	ej	0.15	u	0.35	u
1,2,3,4,7,8-HxCDD		0.1	u	0.15	u	0.89	j	0.2	u	0.25	u
1,2,3,6,7,8-HxCDD		0.69	jb	0.15	u	1.4	j	0.2	u	0.25	u
1,2,3,7,8,9-HxCDD		0.87	jb	0.15	u	1.5	ej	0.2	u	0.25	u
1,2,3,4,6,7,8-HpCDD		25.7		1.4	ej	7.7		7.8		0.45	u
OCDD		252		9.5	jb	43.1		62.1		0.75	u
Polychlorinated dibenzo-p-dibenzofurans (PCDFs) (pg/g)											
2,3,7,8-TCDF		0.51	j	0.1	u	0.1	u	0.15	u	0.2	u
1,2,3,7,8-PeCDF		0.05	u	0.5	j	0.61	ej	0.1	u	0.15	u
2,3,4,7,8-PeCDF		0.25	jb	0.1	u	0.81	j	0.1	u	0.2	u
1,2,3,4,7,8-HxCDF		0.73	jb	0.41	j	1.1	ej	0.1	u	0.15	u
1,2,3,6,7,8-HxCDF		0.29	jb	0.17	ej	0.8	ej	0.1	u	0.15	u
2,3,4,6,7,8-HxCDF		0.29	jb	0.05	u	1.4	j	0.1	u	0.2	u
1,2,3,7,8,9-HxCDF		0.1	u	0.35	j	1.2	j	0.1	u	0.2	u
1,2,3,4,6,7,8-HpCDF		2.6	jb	0.66	ej	2.6	j	0.91	ej	0.25	u
1,2,3,4,7,8,9-HpCDF		0.1	u	0.1	u	1.7	j	0.2	u	0.3	u
OCDF		4.3	jb	1.2	j	3.9	ej	2.2	j	0.55	u
Total 2,3,7,8 TCDD Equivalent		1.00		0.50		2.40		0.62		0.88	

Notes:

NA = Not Analyzed

= sediment sampling location in proposed remedial area

pg/g=picograms per gram (dry weight basis)

Flags

u not detected, value shown is one-half of DL

j concentration less than LMCL

e EMPC = peak did not meet confirmation criteria

d result reported from a dilution of the original extract

b detected in laboratory method blank as well as field sample

Table 13a

Summary of Sediment PCDD/PCDF and PCB Analytical Results - March 2003

Former Raytheon Facility

Wayland, Massachusetts

Parameter	Sample I.D.	WS-12		WS-12		WS-13		WS-14		WS-15		WS-16	
	Depth Date Sampled Comments	(6-12") 05-Mar-03	Flags	(18-24") 05-Mar-03	Flags	(6-18") 05-Mar-03	Flags	(6-12") 05-Mar-03	Flags	(6-12") 05-Mar-03	Flags	(6-15") 05-Mar-03	Flags
Polychlorinated Biphenyls (ug/kg) (EPA Method 8082)		NA		NA				NA		NA			
Aroclor 1254						17	u					481	u
Aroclor 1260						17	u					481	u
Total PCBs						35						962	
Total Organic Carbon(%)		10.6		3.47		5.32		3.87		11.7		9.81	
Polychlorinated dibenzo-p-dioxins (PCDDs) (pg/g)													
2,3,7,8-TCDD		0.1	u	0.05	u	0.25	u	0.05	u	0.45	u	0.2	u
1,2,3,7,8-PeCDD		0.15	u	0.05	u	0.35	u	0.05	u	0.55	u	0.15	u
1,2,3,4,7,8-HxCDD		0.64	j	0.05	u	0.25	u	0.045	u	0.5	u	0.2	u
1,2,3,6,7,8-HxCDD		2.5	j	0.7	j	2.4	j	0.5	j	1	j	0.2	u
1,2,3,7,8,9-HxCDD		2.9	j	0.91	ej	3.6	j	0.52	ej	1.2	ej	0.2	u
1,2,3,4,6,7,8-HpCDD		38.9		3.7	j	13.0		4.4	j	25.9		2.6	j
OCDD		236		19.8		78.1		22.8		181		16	
Polychlorinated dibenzo-p-dibenzofurans (PCDFs) (pg/g)													
2,3,7,8-TCDF		0.1	u	0.04	u	0.88	j	0.56	j	0.35	u	0.15	u
1,2,3,7,8-PeCDF		0.05	u	0.18	ej	0.15	u	0.03	u	0.3	u	0.1	u
2,3,4,7,8-PeCDF		0.1	u	0.035	u	0.2	u	0.8	j	0.35	u	0.1	u
1,2,3,4,7,8-HxCDF		0.55	j	0.2	j	0.39	ej	2.4	j	0.3	u	0.1	u
1,2,3,6,7,8-HxCDF		0.05	u	0.03	u	0.15	u	0.98	j	0.3	u	0.1	u
2,3,4,6,7,8-HxCDF		0.1	u	0.035	u	0.15	u	1	j	0.35	u	0.1	u
1,2,3,7,8,9-HxCDF		0.1	u	0.55	ej	0.2	u	0.46	j	0.4	u	0.15	u
1,2,3,4,6,7,8-HpCDF		1.9	j	0.26	j	1.5	j	9.5		1.2	j	0.49	j
1,2,3,4,7,8,9-HpCDF		0.15	u	0.05	u	0.3	u	0.38	ej	0.55	u	0.2	u
OCDF		3.7	j	0.42	j	1.7	j	6.8	j	0.85	u	0.5	u
Total 2,3,7,8 TCDD Equivalent		1.43		0.42		1.67		1.29		1.92		0.56	

Notes:

NA = Not Analyzed

= sediment sampling location in proposed remedial area

pg/g=picograms per gram (dry weight basis)

Flags

u not detected, value shown is one-half of DL

j concentration less than LMCL

e EMPC = peak did not meet confirmation criteria

d result reported from a dilution of the original extract

b detected in laboratory method blank as well as field sample

Table 13a

Summary of Sediment PCDD/PCDF and PCB Analytical Results - March 2003

Former Raytheon Facility

Wayland, Massachusetts

Parameter	Sample I.D.	WS-17		WS-18		WS-19		WS-20		WS-21	
	Depth Date Sampled Comments	(6-12") 05-Mar-03	Flags	(6-12") 05-Mar-03	Flags	(6-18") 05-Mar-03	Flags	(6-12") 05-Mar-03	Flags	(6-12") 05-Mar-03	Flags
Polychlorinated Biphenyls (ug/kg) (EPA Method 8082)		NA		NA				NA		NA	
Aroclor 1254						13	u				
Aroclor 1260						13	u				
Total PCBs						26					
Total Organic Carbon(%)		5.76		0.395		2.27		0.325		10.8	
Polychlorinated dibenzo-p-dioxins (PCDDs) (pg/g)											
2,3,7,8-TCDD		0.2	u	0.05	u	0.1	u	0.05	u	0.15	u
1,2,3,7,8-PeCDD		0.15	u	0.05	u	0.1	u	0.1	u	0.1	u
1,2,3,4,7,8-HxCDD		0.15	u	0.05	u	0.1	u	0.05	u	0.15	u
1,2,3,6,7,8-HxCDD		0.15	u	0.05	u	0.56	j	0.05	u	0.37	ej
1,2,3,7,8,9-HxCDD		0.15	u	0.05	u	0.51	j	0.05	u	0.38	j
1,2,3,4,6,7,8-HpCDD		0.66	j	0.2	ej	1.9	ej	0.1	u	2.7	ej
OCDD		2.8	ejb	1.1	ej	11.3		0.8	j	16.3	
Polychlorinated dibenzo-p-dibenzofurans (PCDFs) (pg/g)											
2,3,7,8-TCDF		0.15	u	0.04	u	0.49	j	0.05	u	0.1	u
1,2,3,7,8-PeCDF		0.1	u	0.035	u	0.05	u	0.045	u	0.1	u
2,3,4,7,8-PeCDF		0.1	u	0.035	u	0.05	u	0.045	u	0.1	u
1,2,3,4,7,8-HxCDF		0.1	u	0.13	ej	0.05	u	0.035	u	0.38	j
1,2,3,6,7,8-HxCDF		0.1	u	0.03	u	0.05	u	0.035	u	0.5	u
2,3,4,6,7,8-HxCDF		0.1	u	0.03	u	0.05	u	0.035	u	0.1	u
1,2,3,7,8,9-HxCDF		0.1	u	0.04	u	0.05	u	0.045	u	0.1	u
1,2,3,4,6,7,8-HpCDF		0.1	u	0.13	ej	0.56	ej	0.05	u	0.95	j
1,2,3,4,7,8,9-HpCDF		0.15	u	0.05	u	0.1	u	0.05	u	0.15	u
OCDF		3.8	j	0.61	j	1.6	j	0.1	u	1.2	j
Total 2,3,7,8 TCDD Equivalent		0.51		0.17		0.44		0.21		0.55	

Notes:

NA = Not Analyzed

= sediment sampling location in proposed remedial area

pg/g=picograms per gram (dry weight basis)

Flags

u not detected, value shown is one-half of DL

j concentration less than LMCL

e EMPC = peak did not meet confirmation criteria

d result reported from a dilution of the original extract

b detected in laboratory method blank as well as field sample

Table 13a

Summary of Sediment PCDD/PCDF and PCB Analytical Results - March 2003

Former Raytheon Facility

Wayland, Massachusetts

Parameter	Sample I.D.	WS-22		WS-22		WS-23		WS-23		WS-23		WS-24	
	Depth Date Sampled Comments	(6-12") 05-Mar-03	Flags	(18-24") 05-Mar-03	Flags	(6-12") 05-Mar-03	Flags	(6-12") 20-Mar-03	Flags	(6-12") 20-Mar-03	Flags	(6-18") 05-Mar-03	Flags
Polychlorinated Biphenyls (ug/kg) (EPA Method 8082)		NA		NA									
Aroclor 1254								196	u	196	u	13	u
Aroclor 1260								196	u	196	u	13	u
Total PCBs								391		391		26	
Total Organic Carbon(%)		6.41		8.82		5.88		10.9		11.2		0.086	
Polychlorinated dibenzo-p-dioxins (PCDDs) (pg/g)													
2,3,7,8-TCDD		0.1	u	0.1	u	0.1	u	0.25	u	0.05	u	0.1	u
1,2,3,7,8-PeCDD		0.1	u	0.1	u	0.1	u	0.35	u	0.1	u	0.1	u
1,2,3,4,7,8-HxCDD		0.15	u	0.1	u	0.1	u	0.65	u	0.34	jb	0.05	u
1,2,3,6,7,8-HxCDD		0.48	j	0.1	u	1.2	j	2.5	j	1.1	jb	0.1	u
1,2,3,7,8,9-HxCDD		0.54	j	0.1	u	1.8	j	1.6	ej	1.00	jb	0.05	u
1,2,3,4,6,7,8-HpCDD		3.6	j	0.98	j	6.6		23.3		9.8	b	0.15	u
OCDD		21.4		5.1	jb	31.5		175		97.4		0.51	ej
Polychlorinated dibenzo-p-dibenzofurans (PCDFs) (pg/g)													
2,3,7,8-TCDF		0.1	u	0.05	u	0.49	ej	0.78	j	0.74	j	0.05	u
1,2,3,7,8-PeCDF		0.1	u	0.05	u	0.05	u	0.2	u	0.05	u	0.045	u
2,3,4,7,8-PeCDF		0.1	u	0.05	u	0.1	u	0.66	ej	0.34	jb	0.05	u
1,2,3,4,7,8-HxCDF		0.19	j	0.05	u	0.26	ej	1.7	jb	0.76	jb	0.04	u
1,2,3,6,7,8-HxCDF		0.1	u	0.05	u	0.05	u	0.35	u	0.37	jb	0.04	u
2,3,4,6,7,8-HxCDF		0.1	u	0.05	u	0.1	u	0.35	u	0.31	jb	0.045	u
1,2,3,7,8,9-HxCDF		0.1	u	0.05	u	0.1	u	0.4	u	0.05	u	0.05	u
1,2,3,4,6,7,8-HpCDF		0.52	ej	0.1	u	0.46	j	6.6		2.5	jb	0.05	u
1,2,3,4,7,8,9-HpCDF		0.15	u	0.1	u	0.1	u	0.6	u	0.1	u	0.1	u
OCDF		0.5	u	0.61	ej	0.3	u	12.6		4.5	jb	0.2	u
Total 2,3,7,8 TCDD Equivalent		0.48		0.29		0.74		2.10		0.92		0.27	

Notes:

NA = Not Analyzed

= sediment sampling location in proposed remedial area

pg/g=picograms per gram (dry weight basis)

Flags

u not detected, value shown is one-half of DL

j concentration less than LMCL

e EMPC = peak did not meet confirmation criteria

d result reported from a dilution of the original extract

b detected in laboratory method blank as well as field sample

Table 13a

Summary of Sediment PCDD/PCDF and PCB Analytical Results - March 2003

Former Raytheon Facility

Wayland, Massachusetts

Parameter	Sample I.D.	WS-25		WS-26		WS-27		WS-28		WS-29		WS-30	
	Depth Date Sampled Comments	(0-24") 05-Mar-03	Flags	(6-12") 05-Mar-03	Flags	(6-12") 05-Mar-03	Flags	(0-24") 05-Mar-03	Flags	(0-24") 05-Mar-03	Flags	(0-24") 05-Mar-03	Flags
Polychlorinated Biphenyls (ug/kg) (EPA Method 8082)		NA		NA		NA		NA		NA			
Aroclor 1254												417	u
Aroclor 1260												417	u
Total PCBs												833	
Total Organic Carbon(%)		12.3		9.68		10.3		6.84		12.8		7.6	
Polychlorinated dibenzo-p-dioxins (PCDDs) (pg/g)													
2,3,7,8-TCDD		0.05	u	0.1	u	0.1	u	0.05	u	0.46	ej	0.15	u
1,2,3,7,8-PeCDD		0.05	u	0.05	u	0.1	u	0.05	u	1.1	j	0.15	u
1,2,3,4,7,8-HxCDD		0.1	u	0.1	u	0.05	u	0.19	ej	1.1	j	0.15	u
1,2,3,6,7,8-HxCDD		0.42	j	0.1	u	0.32	j	1.2	j	3.5	j	0.37	ej
1,2,3,7,8,9-HxCDD		0.41	ej	0.19	ej	0.29	ej	1.6	j	4	J	0.15	u
1,2,3,4,6,7,8-HpCDD		7.1		1.2	j	2.6	j	6.6		70.2		3.6	ej
OCDD		45		6.8	jb	13.4		27.4		507		18	
Polychlorinated dibenzo-p-dibenzofurans (PCDFs) (pg/g)													
2,3,7,8-TCDF		0.52	j	0.05	u	0.34	ej	0.53	ej	3.2		0.64	j
1,2,3,7,8-PeCDF		0.045	u	0.045	u	0.045	u	0.13	ej	1.6	j	0.1	u
2,3,4,7,8-PeCDF		0.33	ej	0.045	u	0.045	u	0.18	j	3.1	j	0.31	j
1,2,3,4,7,8-HxCDF		0.61	j	0.045	u	0.27	ej	0.4	j	6.5	j	0.73	j
1,2,3,6,7,8-HxCDF		0.045	u	0.045	u	0.035	u	0.17	j	2.5	j	0.1	u
2,3,4,6,7,8-HxCDF		0.21	ej	0.05	u	0.035	u	0.04	u	2.7	j	0.1	u
1,2,3,7,8,9-HxCDF		0.05	u	0.05	u	0.045	u	0.05	u	1.4	ej	0.1	u
1,2,3,4,6,7,8-HpCDF		1.6	j	0.24	ej	0.53	ej	0.76	j	24.1		2	ej
1,2,3,4,7,8,9-HpCDF		0.1	u	0.1	u	0.05	u	0.05	u	1.8	j	0.15	u
OCDF		2.8	j	0.4	u	0.94	j	0.79	ej	27.4		2.1	j
Total 2,3,7,8 TCDD Equivalent		0.60		0.25		0.40		0.69		6.69		0.75	

Notes:

NA = Not Analyzed

= sediment sampling location in proposed remedial area

pg/g=picograms per gram (dry weight basis)

Flags

u not detected, value shown is one-half of DL

j concentration less than LMCL

e EMPC = peak did not meet confirmation criteria

d result reported from a dilution of the original extract

b detected in laboratory method blank as well as field sample

Table 13a

Summary of Sediment PCDD/PCDF and PCB Analytical Results - March 2003

Former Raytheon Facility

Wayland, Massachusetts

Parameter	Sample I.D.	WS-31		WS-32		WS-33		WS-34		WS-35		WS-36	
	Depth Date Sampled Comments	(6-12") 05-Mar-03	Flags	(6-12") 05-Mar-03	Flags	(6-12") 20-Mar-03	Flags	(6-12") 20-Mar-03	Flags	(6-12") 20-Mar-03	Flags	(6-16") 05-Mar-03	Flags
Polychlorinated Biphenyls (ug/kg) (EPA Method 8082)		NA		NA		NA		NA		NA			
Aroclor 1254												13	u
Aroclor 1260												13	u
Total PCBs												26	
Total Organic Carbon(%)		5.63		3.65		5.58		5.69		6.32		0.434	
Polychlorinated dibenzo-p-dioxins (PCDDs) (pg/g)													
2,3,7,8-TCDD		0.1	u	0.15	u	0.1	u	0.15	u	0.2	u	0.1	u
1,2,3,7,8-PeCDD		0.1	u	0.15	u	0.2	u	0.2	u	0.25	u	0.1	u
1,2,3,4,7,8-HxCDD		0.1	u	0.15	u	0.25	u	0.3	u	0.35	u	0.1	u
1,2,3,6,7,8-HxCDD		0.1	u	0.15	u	0.2	u	0.73	ej	0.68	j	0.1	u
1,2,3,7,8,9-HxCDD		0.1	u	0.15	u	0.25	u	0.3	u	0.70	j	0.1	u
1,2,3,4,6,7,8-HpCDD		0.87	j	0.84	ej	4.6	j	9.8		10.7		0.2	u
OCDD		5.6	jb	4.5	jb	37.0		71.1		80.6		8.3	j
Polychlorinated dibenzo-p-dibenzofurans (PCDFs) (pg/g)													
2,3,7,8-TCDF		0.36	j	0.1	u	0.78	j	1.1		1.0		0.1	u
1,2,3,7,8-PeCDF		0.05	u	0.1	u	0.1	u	0.1	u	0.15	u	0.1	u
2,3,4,7,8-PeCDF		0.05	u	0.1	u	0.58	ej	0.78	j	0.86	j	0.1	u
1,2,3,4,7,8-HxCDF		0.05	u	0.35	j	1.3	jb	2.0	jb	1.7	jb	0.05	u
1,2,3,6,7,8-HxCDF		0.05	u	0.1	u	0.73	j	0.62	j	0.82	j	0.05	u
2,3,4,6,7,8-HxCDF		0.05	u	0.1	u	0.38	j	0.2	u	0.75	j	0.1	u
1,2,3,7,8,9-HxCDF		0.05	u	0.1	u	0.2	u	0.2	u	0.3	u	0.1	u
1,2,3,4,6,7,8-HpCDF		0.41	ej	0.42	ej	3.0	j	5.8		5.7		0.1	u
1,2,3,4,7,8,9-HpCDF		0.1	u	0.15	u	0.25	u	0.3	u	0.4	u	0.15	u
OCDF		0.3	u	0.35	u	4.2	j	8.0	j	8.7	j	0.3	u
Total 2,3,7,8 TCDD Equivalent		0.33		0.49		1.09		1.46		1.69		0.33	

Notes:

NA = Not Analyzed

= sediment sampling location in proposed remedial area

pg/g=picograms per gram (dry weight basis)

Flags

u not detected, value shown is one-half of DL

j concentration less than LMCL

e EMPC = peak did not meet confirmation criteria

d result reported from a dilution of the original extract

b detected in laboratory method blank as well as field sample

Table 13b

**Summary of Sediment Analytical Results - Metals, PCBs and PAHs
Former Raytheon Facility
Wayland, Massachusetts**

Parameter	Sample I.D.	WS-2	WS-3	WS-4	WS-5	WS-7	WS-8	WS-8	WS-13	WS-16	WS-19	WS-23	WS-23	WS-24	WS-30	WS-36
	Depth Date Sampled Comments	(6-15") 5-Mar-03	(6-12") 20-Mar-03	(6-18") 5-Mar-03	(6-18") 5-Mar-03	(6-15") 5-Mar-03	(6-12") 20-Mar-03	(6-12") 20-Mar-03	(6-18") 5-Mar-03	(6-15") 5-Mar-03	(6-18") 5-Mar-03	(6-12") 20-Mar-03	(6-12") 20-Mar-03	(6-18") 5-Mar-03	(0-24") 5-Mar-03	(6-16") 3/5/2003
Total Metals (mg/kg)		NA	NA	NA	7000	NA	NA	NA	7300	NA	8100	8900	8800	3300	NA	8700
Aluminum					7000				7300		8100	8900	8800	3300	NA	8700
Antimony					-				-		-	-	-	-		-
Arsenic					9.5				14		5.6	11	9.7	2.7		6.3
Barium					26				21		18	41	41	12		29
Beryllium					0.32				0.7		0.92	1.1	1.1	-		0.11
Cadmium					0.14				0.41		0.52	2.2	2.2	-		0.11
Calcium					850				2100		640	2800	2600	330		1200
Chromium					21				16		13	110	100	5.3		14
Chromium , Hexavalent					-				-		-	-	-	-		-
Cobalt					2.2				0.93		2	2.6	-	2.1		3.9
Copper					13				18		21	170	160	3.9		6.8
Iron					5900				2500		4700	4500	4100	3600		9600
Lead					12				7.5		11	38	38	1.8		4.4
Magnesium					840				410		840	410	400	840		2400
Manganese					72				57		44	81	79	30		83
Mercury					0.04				0.07		0.03	-	-	-		0.01
Nickel					4.7				3.6		5.8	11	11	4.9		8.1
Potassium					150				75		96	-	-	310		370
Selenium					-				-		-	-	-	-		-
Silver					0.29				-		0.15	4.1	3.8	-		-
Sodium					82				180		110	310	290	-		110
Thallium					-				-		-	-	-	-		-
Vanadium					11				18		12	19	18	5.5		15
Zinc					8.2				3.4		31	94	100	7.3		13
Polyaromatic Hydrocarbons (ug/kg) (EPA Method 8270 M)		NA	NA	NA	-	NA	NA	NA	-	NA	-	99	-	-	NA	-
Acenaphthene					-				-		-	99	-	-		-
Fluoranthene					-				100		-	1800	64	-		-
Benzo(a)anthracene					-				-		-	870	-	-		-
Benzo(a)pyrene					-				-		-	760	-	-		-
Benzo(b)fluoranthene					-				180		-	1000	-	-		-
Benzo(k)fluoranthene					-				67		-	440	-	-		-
Chrysene					-				87		-	960	-	-		-
Anthracene					-				-		-	320	-	-		-
Benzo(ghi)perylene					-				100		-	480	-	-		-
Fluorene					-				-		-	110	-	-		-
Phenanthrene					-				-		-	1400	-	-		-
Dibenzo(a,h)anthracene					-				-		-	140	-	-		-
Indeno(1,2,3-cd)Pyrene					-				95		-	540	-	-		-
Pyrene					31				100		-	1600	-	-		-
Perylene					-				-		-	170	-	-		-
Benzo(e)Pyrene					-				110		-	520	-	-		-
Polychlorinated Biphenyls (ug/kg) (EPA Method 8082)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aroclor 1254					-				-		-	-	-	-		-
Aroclor 1260					520	724	37.3	83	-		-	-	-	-		-
Total PCBs					520	724	37.3	83			-	-	-	-		-
Total Organic Carbon(%)		0.534	1.02	0.872	1.66	1.98	11.7	9.03	5.32	9.81	2.27	10.9	11.2	0.086	7.6	0.434

Notes:
 NA = Not Analyzed
 - = not detected above method detection limit
 mg/kg = milligram per kilogram (parts per million (ppm)).
 ug/kg = micrograms per kilogram (parts per billion (ppb)).

Table 14
2003 Groundwater Monitoring Plan
Former Raytheon Facility
Wayland, MA

Well Count	Well Designation	AOC	No. of Times VOCs Analyzed	Quarterly Gauging	Sampling Method		Field Parameters	Laboratory Analyses				Sampling Frequency
					Low-Flow	Diffusion Bag		VOCs 8260	VOCs 8021	VOCs 8021 & MTBE	Arsenic	
1	MW-10	Southern Area	6	X	Discontinue sampling. Six rounds of no detections from May-98 to March-02.							
2	MW-TP-3	Northern Area	7	X		X		X				Annual
3	HA-101	Southern Area	5	X	*Not Sample for VOCs. Five rounds with only one TCE hit at 0.71 ug/L in Aug-01(second to last round)							X
4	HA-102	Southern Area	7	X		X			X			Annual
5	HA-103	Southern Area	6	X	Discontinue sampling. Six rounds of no detections from Nov-98 to March-02.							
6	HA-104	Southern Area	6	X		X			X			Annual
7	MW-32	Northern Area	6	X	Discontinue sampling. Six rounds of no detections from May-98 to March-02.							
8	MW-33S	Southern Area	14	X		X			X			Annual
9	MW-33M	Southern Area	11	X		X			X			Annual
10	MW-33D	Southern Area	6	X	Discontinue sampling. Five rounds of no detections from Sep-99 to March-02.							
11	MW-33B	Southern Area	4	X	Discontinue sampling. Six rounds of no detections from April-00 to March-02.							
12	MW-34	Eastern Area	6	X	Discontinue sampling. Six rounds of no detections from May-98 to April-02.							
13	MW-37	Southern Area	6	X		X			X			Annual
14	MW-37M	Southern Area	6	X		X			X			Annual
15	MW-38	Eastern Area	6	X	Discontinue sampling. Six rounds between May-98 and March-02 : 4 TCE hits (1.6-2.2 ug/L); 1 PCE hit (0.78 ug/L, Aug-01)							
16	MW-40	Eastern Area	6	X		X			X			Annual
17	MW-40S	Eastern Area	6	X		X			X			Annual
18	MW-41	Western Area	7	X	X		X		X		X	Semi-Annual
19	MW-42S	Southern Area	5	X		X			X			Annual
20	MW-43S	Southern/Pilot	14	X	X		X		X			Quarterly
21	MW-43D	Southern/Pilot	9	X	X		X		X			Quarterly
22	MW-44S	Southern/Pilot	6	X	X		X		X			Quarterly
23	MW-44M	Southern/Pilot	6	X	X		X		X			Quarterly
24	MW-44D	Southern/Pilot	6	X	X		X		X			Quarterly
25	MW-45S	Southern Area	7	X		X			X			Annual
26	MW-45M	Southern Area	10	X		X			X			Annual
27	MW-45D	Southern Area	7	X		X			X			Annual
28	MW-45B	Southern Area	4	X		X			X			Annual
29	MW-46S	Southern Area	6	X	Discontinue sampling. Six rounds of no detections from July-99 to March-02.							
30	MW-46M	Southern Area	6	X		X			X			Annual
31	MW-47S	Southern Area	7	X		X			X			Annual
32	MW-47M	Southern Area	7	X		X			X			Annual
33	MW-47D	Southern Area	7	X		X			X			Annual
34	MW-101	Southern/Pilot	4	X	X		X		X			Quarterly
35	MW-102	Southern/Pilot	5	X	X		X		X			Quarterly
36	MW-103	Southern/Pilot	4	X	X		X		X			Quarterly
37	MW-104	Southern/Pilot	5	X	X		X		X			Quarterly
38	MW-105	Southern/Pilot	6	X	X		X		X			Quarterly
39	MW-105M	Southern/Pilot	1	X	X		X		X			Quarterly
40	MW-106	Southern/Pilot	6	X	X		X		X			Quarterly
41	MW-106M	Southern/Pilot	1	X	X		X		X			Quarterly
42	MW-107	Southern/Pilot	5	X	X		X		X			Quarterly
43	MW-108	Southern/Pilot	5	X	X		X		X			Quarterly
44	MW-109	Southern Area	4	X		X			X			Annual
45	MW-110	Southern Area	4	X	Discontinue sampling. Four rounds of no detections from Aug-01 to Jan-02.							
46	MW-111	Southern Area	4	X		X			X			Annual
47	MW-112	Southern Area	4	X		X			X			Annual
48	MW-113	Southern Area	5	X		X			X			Annual
49	MW-114	Southern Area	4	X		X			X			Annual
50	MW-115	Southern Area	4	X		X			X			Annual
51	MW-116	Southern Area	4	X		X			X			Annual
52	MW-117	Southern/Pilot	1	X	X		X		X			Quarterly
53	MW-118	Southern/Pilot	1	X	X		X		X			Quarterly
54	MW-1S	Northern Area	4**	X		X			X			Annual
55	MW-1M**	Northern Area	4**	X	X		X		X			Annual
56	MW-1D**	Northern Area	4**	X	X		X		X			Annual
57	MW-201S	Southern Area	0	X	X		X	X				Semi-Annual
58	MW-201M	Southern Area	0	X	X		X	X				Semi-Annual
59	MW-201D	Southern Area	0	X	X		X	X				Semi-Annual
60	MW-202S*	Southern Area	1	X	X		X			X		Semi-Annual
61	MW-202M*	Southern Area	1	X	X		X			X		Semi-Annual
62	MW-202D*	Southern Area	1	X	X		X			X		Semi-Annual
63	MW-203S*	Southern Area	1	X	X		X			X		Semi-Annual
64	MW-203M*	Southern Area	1	X	X		X			X		Semi-Annual
65	MW-203D*	Southern Area	1	X	X		X			X		Semi-Annual
66	MW-204S	Southern Area	0	X	X		X	X				Semi-Annual
67	MW-204M	Southern Area	0	X	X		X	X				Semi-Annual
68	MW-204D	Southern Area	0	X	X		X	X				Semi-Annual
69	MW-205S*	Southern Area	1	X	X		X			X		Semi-Annual
70	MW-205M*	Southern Area	1	X	X		X			X		Semi-Annual
71	MW-205D*	Southern Area	1	X	X		X			X		Semi-Annual
72	MW-206S	Southern Area	0	X	X		X	X				Semi-Annual
73	MW-206M	Southern Area	0	X	X		X	X				Semi-Annual
74	MW-206D	Southern Area	0	X	X		X	X				Semi-Annual
75	MW-207S	Southern Area	0	X	X		X	X				Semi-Annual
76	MW-207M	Southern Area	0	X	X		X	X				Semi-Annual
77	MW-207D	Southern Area	0	X	X		X	X				Semi-Annual
78	MW-208S	Southern Area	0	X	X		X	X				Semi-Annual
79	MW-208M	Southern Area	0	X	X		X	X				Semi-Annual
80	MW-208D	Southern Area	0	X	X		X	X				Semi-Annual
81	MW-209*	Southern/Pilot	2	X	X		X		X			Quarterly
82	MW-210*	Southern/Pilot	2	X	X		X		X			Quarterly
83	MW-211*	Southern/Pilot	2	X	X		X		X			Quarterly
84	MW-212*	Southern/Pilot	2	X	X		X		X			Quarterly
85	MW-212M*	Southern/Pilot	1	X	X		X		X			Quarterly

Table 14
2003 Groundwater Monitoring Plan
Former Raytheon Facility
Wayland, MA

Well Count	Well Designation	AOC	No. of Times VOCs Analyzed	Quarterly Gauging	Sampling Method		Field Parameters	Laboratory Analyses					Sampling Frequency
					Low-Flow	Diffusion Bag		VOCs 8260	VOCs 8021	VOCs 8021 & MTBE	Arsenic	Chloride	
86	MW-213*	Southern/Pilot	2	X	X		X		X				Quarterly
87	MW-214*	Southern/Pilot	2	X	X		X		X				Quarterly
88	MW-215S*	Eastern Area	1	X	X		X		X				Semi-Annual
89	MW-215M*	Eastern Area	1	X	X		X		X				Semi-Annual
90	MW-215D*	Eastern Area	1	X	X		X		X				Semi-Annual
91	MW-216S*	Eastern Area	1	X	X		X		X				Semi-Annual
92	MW-216M*	Eastern Area	1	X	X		X		X				Semi-Annual
93	MW-216D*	Eastern Area	1	X	X		X		X				Semi-Annual
94	MW-217S*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
95	MW-217M*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
96	MW-217D*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
97	MW-218S*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
98	MW-218M*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
99	MW-218D*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
100	MW-219S*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
101	MW-219M*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
102	MW-219D*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
103	MW-220S*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
104	MW-220M*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
105	MW-220D*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
106	MW-221M*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
107	MW-221D*	Southern/Russell's	1	X	X		X			X		X	Semi-Annual
108	MW-261S	Northern Area	1	X	X		X		X				Semi-Annual
109	MW-262S	Northern Area	1	X	X		X		X				Semi-Annual
110	MW-262M	Northern Area	1	X	X		X		X				Semi-Annual
111	MW-262D	Northern Area	1	X	X		X		X				Semi-Annual
112	MW-263S	Northern Area	1	X	X		X		X				Semi-Annual
113	MW-263M	Northern Area	1	X	X		X		X				Semi-Annual
114	MW-264S	Northern Area	1	X	X		X		X				Semi-Annual
115	MW-264M	Northern Area	1	X	X		X		X				Semi-Annual
116	MW-264D	Northern Area	1	X	X		X		X				Semi-Annual
117	MW-265S	Northern Area	1	X	X		X		X				Semi-Annual
118	MW-265M	Northern Area	1	X	X		X		X				Semi-Annual
119	MW-265D	Northern Area	1	X	X		X		X				Semi-Annual
120	MW-266S	Northern Area	1	X	X		X		X				Semi-Annual
121	MW-266Ma	Northern Area	1	X	X		X		X				Semi-Annual
122	MW-266Mb	Northern Area	1	X	X		X		X				Semi-Annual
123	MW-266D	Northern Area	1	X	X		X		X				Semi-Annual
124	MW-266B	Northern Area	1	X	X		X		X				Semi-Annual
125	MW-267S	Northern/Western	1	X	X		X		X		X		Semi-Annual
126	MW-267M	Northern/Western	1	X	X		X		X		X		Semi-Annual
127	MW-267D	Northern/Western	1	X	X		X		X		X		Semi-Annual
128	MW-267B	Northern/Western	1	X	X		X		X		X		Semi-Annual
129	MW-268S	Northern/Western	1	X	X		X		X		X		Semi-Annual
130	MW-268M	Northern/Western	1	X	X		X		X		X		Semi-Annual
131	MW-268D	Northern/Western	1	X	X		X		X		X		Semi-Annual
132	MW-268B	Northern/Western	3	X	X		X		X		X		Semi-Annual
133	MW-269S	Northern/Western	1	X	X		X		X		X		Semi-Annual
134	MW-269Ma	Northern/Western	1	X	X		X		X		X		Semi-Annual
135	MW-269Mb	Northern/Western	1	X	X		X		X		X		Semi-Annual
136	MW-269D	Northern/Western	1	X	X		X		X		X		Semi-Annual
137	MW-307	Northern/Western	1	X	X		X		X		X		Semi-Annual
138	MW-313S	Northern/Western	1	X	X		X		X		X		Semi-Annual
139	MW-313D	Northern/Western	1	X	X		X		X		X		Semi-Annual
140	MW-314S	Northern/Western	1	X	X		X		X		X		Semi-Annual
141	MW-314D	Northern/Western	1	X	X		X		X		X		Semi-Annual
142	MW-315S	Northern/Western	1	X	X		X		X		X		Semi-Annual
143	MW-315D	Northern/Western	1	X	X		X		X		X		Semi-Annual
144	DEP-19S	Northern Area	1	X	X		X		X				Semi-Annual
145	DEP-19M	Northern Area	1	X	X		X		X				Semi-Annual
146	DEP-19D	Northern Area	1	X	X		X		X				Semi-Annual
147	DEP-20	Northern Area	1	X	X		X		X				Semi-Annual
148	DEP-21	Northern Area	1	X	X		X		X				Semi-Annual

Notes:
Wells marked as 'Southern/Pilot' are sampled quarterly under RAM plan.
*Samples were analyzed in mobile field lab
All existing wells onsite will be gauged for groundwater elevation on a quarterly basis.
Wells that have been sampled at least four times and exhibited CVOC concentrations below laboratory detection limits and/or applicable MCP reportable concentrations will be eliminated from the groundwater quality portion of the program.
Low Flow sampling techniques will be used for wells that meet one or more of the following criteria: sampled fewer than three times, requires analysis of metals or chloride, or requires collection of field parameter data.
** Number of analyses includes three rounds for MW-1, which preexisted MW-1S/M/D.