

**WEEKLY PROGRESS UPDATE  
FOR JANUARY 19 – JANUARY 23, 2004**

**EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019 and 1-2000-0014**

**MASSACHUSETTS MILITARY RESERVATION  
TRAINING RANGE AND IMPACT AREA**

The following summary of progress is for the period from January 19 through January 23, 2004.

**1. SUMMARY OF ACTIONS TAKEN**

Drilling progress as of January 23, 2004 is summarized in Table 1.

<b>Table 1. Drilling progress as of January 23, 2004</b>				
<b>Boring Number</b>	<b>Purpose of Boring/Well</b>	<b>Total Depth (ft bgs)</b>	<b>Saturated Depth (ft bwt)</b>	<b>Completed Well Screens (ft bgs)</b>
EW-274	Demo Area 1 (EW-D1-1)	203	113	
IW-272	Demo Area 1 (IW-D1-2)	331	236	
MW-299	Northwest Corner (NWP-12)	225	128	
MW-301	Northwest Corner (NWP-8ba)	248	149	
MW-302	J-2 Range (J2P-32)	310	201	
MW-303	J-1 Range (J1P-21)	321	218	
MW-305	J-2 Range (J2P-33)	338	235	
MW-306	J-1 Range (J1P-22)	230	106	
MW-307	J-2 Range (J2P-28)	71		

bgs = below ground surface  
bwt = below water table

Commenced well installation at EW-274 (EW-D1-1), completed drilling of MW-301 (NWP-8ba), and continued drilling of MW-299 (NWP-12), MW-306 (J1P-22) and MW-307 (J2P-28).

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-299, MW-301, and MW-306. Groundwater samples were collected from Bourne water supply and monitoring wells, residential wells, recently installed wells, and as part of the December round of the Draft 2003 Long-Term Groundwater Monitoring Program. Investigation-derived waste (IDW) samples were collected from the Granular Activated Carbon (GAC) treatment system. Soil samples were collected from the J-2 Range at MW-307.

**2. SUMMARY OF DATA RECEIVED**

Rush data are summarized in Table 3. These data are for analyses that are performed on a fast turn around time, typically 1-5 days. Perchlorate and explosive analyses for monitoring wells, and perchlorate, explosive and volatile organic compound (VOC) analyses for groundwater profile samples, are conducted in this timeframe, as well as any analyses pursuant to a special request. The rush data are not validated, but are provided as an indication of the most recent preliminary results. Table 3 summarizes only detects, and does not show samples with non-detects.

The status of the explosive detections with respect to confirmation using Photo Diode Array (PDA) spectra is indicated in Table 3. PDA is a procedure that has been implemented for the explosive analysis, to reduce the likelihood of false positive identifications. Where the PDA status is "YES" in Table 3, the detected compound is verified as properly identified. Where the status is "NO", the identification of an explosive has been determined to be a false positive. Where the status is blank, PDA has not yet been used to evaluate the detection, or PDA is not applicable because the analyte is a VOC or perchlorate. Most explosive detections verified by PDA are confirmed to be present upon completion of validation. Table 3 includes the following detections:

Table 3 includes detections from the following areas:

#### Northwest Corner

- Groundwater samples from RSNW06 had detections of RDX and perchlorate. The detection of RDX was confirmed by PDA spectra. The results were similar to previous sampling rounds.
- Profile samples from MW-301 (NWP-8ba) had detections of perchlorate and explosives. None of the explosive compounds were confirmed by PDA spectra. Perchlorate was detected in three intervals at 1, 121 and 131 feet below the water table. Well screens will be set at the depth (-2 to 8 ft bwt) of the water table, and at the depth (121 to 131 ft bwt) corresponding to the deeper perchlorate detections.

#### Western Boundary

- Groundwater samples from 1-88A and MW-80M1 had detections of perchlorate. The results were similar to previous sampling rounds.

### **3. DELIVERABLES SUBMITTED**

Phase IIb Former K Range Additional Delineation Work Plan  
Draft Northwest Corner Data Summary Report

01/19/2004  
01/22/2004

### **4. SCHEDULED ACTIONS**

Scheduled actions for the week of January 26 include complete well installation at MW-301 (NWP-8ba) and EW-274 (EW-D1-1); commence well installation at MW-299 (NWP-12), MW-305 (J2P-33) and IW-273 (IW-D1-3); complete drilling at MW-306 (J1P-22); and continue drilling at MW-307 (J2P-28). Groundwater sampling of Bourne water supply and monitoring wells and as part of the December round of the Draft 2003 Long-Term Groundwater Monitoring Plan will continue.

## **5. SUMMARY OF ACTIVITIES FOR DEMO AREA 1**

A comment resolution meeting for the Draft Groundwater Report Addendum was held on January 21, 2004. Modeling activities in support of the Feasibility Study are ongoing. A modeling meeting was held with the Agencies to discuss the Demo Area 1 Feasibility Study modeling results on January 22, 2004.

Installation of extraction and injection wells for the Groundwater RRA is ongoing. Installation of subsurface piping and well vaults for the Frank Perkins Road Extraction, Treatment and Recharge System is nearly complete but has been temporarily delayed due to weather conditions.

Geophysical anomaly excavation within the Demo Area 1 depression continues. Site preparation activities for the Thermal Treatment of excavated soils continues at the H Range just south of Demo Area 1.

**TABLE 2  
SAMPLING PROGRESS  
01/18/2004 - 1/24/2004**

SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
4036000-01G-A	4036000-01G	01/20/2004	GROUNDWATER	38	69.8	6	12
4036000-06G-A	4036000-06G	01/20/2004	GROUNDWATER	108	128	6	12
4261000-05G	4261000-05G	01/23/2004	GROUNDWATER	58	68		
4261000-09G	4261000-09G	01/23/2004	GROUNDWATER	62	77		
4261000-11G	4261000-11G	01/23/2004	GROUNDWATER	98	118		
90MW0070-A	90MW0070	01/22/2004	GROUNDWATER	132.5	137.5	78	83
90MW0071-A	90MW0071	01/22/2004	GROUNDWATER	150	155	82	87
97-2C-A	97-2	01/21/2004	GROUNDWATER	132	132	68	68
97-2D-A	97-2	01/21/2004	GROUNDWATER	115.4	115.4	82.9	82.9
97-2F-A	97-2	01/21/2004	GROUNDWATER	120	120	76.7	76.7
ASPWELL-A	ASPWELL	01/22/2004	GROUNDWATER	0	0		
RSNW01-A	RSNW01	01/21/2004	GROUNDWATER				
RSNW03-A	RSNW03	01/22/2004	GROUNDWATER				
RSNW06-A	RSNW06	01/21/2004	GROUNDWATER				
TW00-1-A	00-1	01/19/2004	GROUNDWATER	64	70	52.1	58.1
TW00-2D-A	00-2	01/19/2004	GROUNDWATER	71	77	43.95	49.95
TW00-2S-A	00-2	01/19/2004	GROUNDWATER	29	35	0	10
TW01-1-A	01-1	01/20/2004	GROUNDWATER	62	67	55.21	60.21
TW01-2-A	01-2	01/20/2004	GROUNDWATER	50	56	24.5	30.5
W02-05M1A	02-05	01/19/2004	GROUNDWATER	110	120	81.44	91.44
W02-05M2A	02-05	01/19/2004	GROUNDWATER	92	102	63.41	73.41
W02-05M2D	02-05	01/19/2004	GROUNDWATER	92	102	63.41	73.41
W02-05M3A	02-05	01/19/2004	GROUNDWATER	70	80	41.37	51.37
W02-09M1A	02-09	01/19/2004	GROUNDWATER	74	84	65.26	75.26
W02-09M2A	02-09	01/19/2004	GROUNDWATER	59	69	50.3	60.3
W02-09SSA	02-09	01/19/2004	GROUNDWATER	7	17	0	10
W02-13M1A	02-13	01/19/2004	GROUNDWATER	98	108	58.33	68.33
W02-13M2A	02-13	01/19/2004	GROUNDWATER	83	93	44.2	54.2
W02-13M3A	02-13	01/19/2004	GROUNDWATER	68	78	28.3	38.3
W02-15M1A	02-15	01/19/2004	GROUNDWATER	125	135	75.63	85.63
W02-15M2A	02-15	01/19/2004	GROUNDWATER	101	111	51.5	61.5
W02-15M3A	02-15	01/19/2004	GROUNDWATER	81	91	31.4	41.4
W05DDA	MW-05	01/21/2004	GROUNDWATER	335	340	223	228
W05SSA	MW-05	01/20/2004	GROUNDWATER	119	129	7	17
W110M1A	MW-110	01/22/2004	GROUNDWATER	315.5	325.5	142	152

**Profiling methods may include: Volatiles, Explosives, and Perchlorate**

**Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, Perchlorate and Wet Chemistry**

**Other Sample Types methods are variable**

**SBD = Sample Begin Depth, measured in feet bgs**

**SED = Sample End Depth, measured in feet bgs**

**BWTS = Depth below water table, start depth, measured in feet**

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W110M2A	MW-110	01/22/2004	GROUNDWATER	248.5	258.5	75	85
W124M1A	MW-124	01/21/2004	GROUNDWATER	234	244	98	108
W124M2A	MW-124	01/21/2004	GROUNDWATER	219	229	83	93
W149M1A	MW-149	01/20/2004	GROUNDWATER	237.5	247.5	136	146
W149SSA	MW-149	01/21/2004	GROUNDWATER	105.5	115.5	4	14
W180M2A	MW-180	01/22/2004	GROUNDWATER	195	205	34.5	44.5
W180M3A	MW-180	01/22/2004	GROUNDWATER	171	181	10.3	20.3
W200M1A	MW-200	01/20/2004	GROUNDWATER	294	304	89.8	99.8
W201M1A	MW-201	01/20/2004	GROUNDWATER	306	316	106.9	116.9
W201M2A	MW-201	01/20/2004	GROUNDWATER	286	296	86.9	96.9
W201M3A	MW-201	01/20/2004	GROUNDWATER	266	276	66.5	76.5
W204M1A	MW-204	01/21/2004	GROUNDWATER	141	151	81	91
W204M2A	MW-204	01/21/2004	GROUNDWATER	76	86	17.2	27.2
W204M2D	MW-204	01/21/2004	GROUNDWATER	76	86	17.2	27.2
W219M1A	MW-219	01/21/2004	GROUNDWATER	357	367	178	188
W219M2A	MW-219	01/21/2004	GROUNDWATER	332	342	153.05	163.05
W219M3A	MW-219	01/21/2004	GROUNDWATER	315	325	135.8	145.8
W219M4A	MW-219	01/21/2004	GROUNDWATER	225	235	45.7	55.7
W277SSA	MW-277	01/20/2004	GROUNDWATER	102	112		
W278M2A	MW-278	01/20/2004	GROUNDWATER	97	102		
W279SSA	MW-279	01/20/2004	GROUNDWATER	66	76		
W45M1A	MW-45	01/21/2004	GROUNDWATER	190	200	98	108
W45M2A	MW-45	01/21/2004	GROUNDWATER	110	120	18	28
W45M2A	MW-45	01/21/2004	GROUNDWATER	110	120	18	28
W45M2D	MW-45	01/21/2004	GROUNDWATER	110	120	18	28
W45M2D	MW-45	01/21/2004	GROUNDWATER	110	120	18	28
W45SSA	MW-45	01/21/2004	GROUNDWATER	89	99	0	10
W45SSA	MW-45	01/21/2004	GROUNDWATER	89	99	0	10
W83SSA	MW-83	01/20/2004	GROUNDWATER	33	43	0	10
W86M2A	MW-86	01/22/2004	GROUNDWATER	158	168	16	26
W87M1A	MW-87	01/22/2004	GROUNDWATER	194	204	62	72
W87M2A	MW-87	01/22/2004	GROUNDWATER	169	179	37	47
W87M3A	MW-87	01/22/2004	GROUNDWATER	140	150	8	18
W88M1A	MW-88	01/22/2004	GROUNDWATER	233	243	92	102
W88M2A	MW-88	01/22/2004	GROUNDWATER	213	223	72	82

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W88M3A	MW-88	01/22/2004	GROUNDWATER	173	183	32	42
W97M2A	MW-97	01/20/2004	GROUNDWATER	185	195	62	72
W97M3A	MW-97	01/20/2004	GROUNDWATER	140	150	17	27
W97M3D	MW-97	01/20/2004	GROUNDWATER	140	150	17	27
G299DDA	MW-299	01/20/2004	PROFILE	135	135	38.5	38.5
G299DEA	MW-299	01/20/2004	PROFILE	145	145	48.5	48.5
G299DFA	MW-299	01/21/2004	PROFILE	155	155	58.5	58.5
G299DGA	MW-299	01/21/2004	PROFILE	165	165	68.5	68.5
G299DHA	MW-299	01/21/2004	PROFILE	175	175	78.5	78.5
G299DHD	MW-299	01/21/2004	PROFILE	175	175	78.5	78.5
G299DIA	MW-299	01/21/2004	PROFILE	185	185	88.5	88.5
G299DJA	MW-299	01/22/2004	PROFILE	195	195	98.5	98.5
G299DKA	MW-299	01/22/2004	PROFILE	205	205	108.5	108.5
G299DLA	MW-299	01/22/2004	PROFILE	215	215	118.5	118.5
G299DMA	MW-299	01/23/2004	PROFILE	225	225	128.5	128.5
G301DKA	MW-301	01/21/2004	PROFILE	200	200	101	101
G301DLA	MW-301	01/21/2004	PROFILE	210	210	111	111
G301DMA	MW-301	01/21/2004	PROFILE	220	220	121	121
G301DNA	MW-301	01/22/2004	PROFILE	230	230	131	131
G301DOA	MW-301	01/22/2004	PROFILE	240	240	141	141
G301DPA	MW-301	01/22/2004	PROFILE	248	248	149	149
MW-306-01	MW-306	01/21/2004	PROFILE	130	130	6	6
MW-306-01A	MW-306	01/21/2004	PROFILE	140	140	16	16
MW-306-02	MW-306	01/21/2004	PROFILE	150	150	26	26
MW-306-03	MW-306	01/21/2004	PROFILE	160	160	36	36
MW-306-04	MW-306	01/22/2004	PROFILE	170	170	46	46
MW-306-04FD	MW-306	01/22/2004	PROFILE	170	170	46	46
MW-306-05	MW-306	01/22/2004	PROFILE	180	180	56	56
MW-306-07	MW-306	01/23/2004	PROFILE	190	190	66	66
MW-306-08	MW-306	01/23/2004	PROFILE	200	200	76	76
MW-306-09	MW-306	01/23/2004	PROFILE	210	210	86	86
MW-306-10	MW-306	01/23/2004	PROFILE	220	220	96	96
MW-306-11	MW-306	01/23/2004	PROFILE	230	230	106	106
MW-307-S02	MW-307	01/20/2004	SOIL GRAB	10	10.5		
MW-307-S03	MW-307	01/21/2004	SOIL GRAB	21	21.5		

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MW-307-S04	MW-307	01/22/2004	SOIL GRAB	31	33		
MW-307-S05	MW-307	01/23/2004	SOIL GRAB	41	43		
MW-307-S06	MW-307	01/23/2004	SOIL GRAB	51	52.5		
MW-307-S07	MW-307	01/23/2004	SOIL GRAB	61	62		

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**TABLE 3  
DETECTED COMPOUNDS-UNVALIDATED  
SAMPLES COLLECTED 12/26/03 - 1/24/04**

SAMPLE ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	ANALYTE	PDA
RSNW06-A	RSNW06	01/21/2004	GROUNDWATER					8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
RSNW06-A	RSNW06	01/21/2004	GROUNDWATER					E314.0	PERCHLORATE	
TW1-88A-D	1-88	01/12/2004	GROUNDWATER	102.9	102.9	67.4	67.4	E314.0	PERCHLORATE	
W80M1A	MW-80	01/12/2004	GROUNDWATER	130	140	86	96	E314.0	PERCHLORATE	
G301DAA	MW-301	12/12/2003	PROFILE	100	100	1	1	8330N	PICRIC ACID	NO
G301DAA	MW-301	12/12/2003	PROFILE	100	100	1	1	8330N	2,6-DINITROTOLUENE	NO
G301DAA	MW-301	12/12/2003	PROFILE	100	100	1	1	E314.0	PERCHLORATE	
G301DCA	MW-301	12/17/2003	PROFILE	120	120	21	21	8330N	NITROGLYCERIN	NO
G301DCA	MW-301	12/17/2003	PROFILE	120	120	21	21	8330N	PICRIC ACID	NO
G301DCA	MW-301	12/17/2003	PROFILE	120	120	21	21	8330N	2,6-DINITROTOLUENE	NO*
G301DCD	MW-301	12/17/2003	PROFILE	120	120	21	21	8330N	2,6-DINITROTOLUENE	NO*
G301DCD	MW-301	12/17/2003	PROFILE	120	120	21	21	8330N	PICRIC ACID	NO
G301DCD	MW-301	12/17/2003	PROFILE	120	120	21	21	8330N	NITROGLYCERIN	NO
G301DDA	MW-301	12/17/2003	PROFILE	130	130	31	31	8330N	PICRIC ACID	NO
G301DDA	MW-301	12/17/2003	PROFILE	130	130	31	31	8330N	2,6-DINITROTOLUENE	NO*
G301DDA	MW-301	12/17/2003	PROFILE	130	130	31	31	8330N	2,4,6-TRINITROTOLUENE	NO*
G301DEA	MW-301	12/17/2003	PROFILE	140	140	41	41	8330N	PICRIC ACID	NO
G301DEA	MW-301	12/17/2003	PROFILE	140	140	41	41	8330N	2,6-DINITROTOLUENE	NO*
G301DEA	MW-301	12/17/2003	PROFILE	140	140	41	41	8330N	2,4,6-TRINITROTOLUENE	NO*
G301DFA	MW-301	12/17/2003	PROFILE	150	150	51	51	8330N	PICRIC ACID	NO
G301DGA	MW-301	12/22/2003	PROFILE	160	160	61	61	8330N	3-NITROTOLUENE	NO*
G301DGA	MW-301	12/22/2003	PROFILE	160	160	61	61	8330N	NITROGLYCERIN	NO*
G301DGA	MW-301	12/22/2003	PROFILE	160	160	61	61	8330N	4-NITROTOLUENE	NO*
G301DGA	MW-301	12/22/2003	PROFILE	160	160	61	61	8330N	2-NITROTOLUENE	NO*
G301DGA	MW-301	12/22/2003	PROFILE	160	160	61	61	8330N	PICRIC ACID	NO*
G301DGA	MW-301	12/22/2003	PROFILE	160	160	61	61	8330N	2,4,6-TRINITROTOLUENE	NO*
G301DHA	MW-301	12/22/2003	PROFILE	170	170	71	71	8330N	NITROBENZENE	NO

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.

SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BELOW GROUND SURFACE

SED = SAMPLE COLLECTION END DEPTH IN FEET BELOW GROUND SURFACE

BWTS = DEPTH BELOW WATER TABLE, START DEPTH, MEASURED IN FEET

BWTE = DEPTH BELOW WATER TABLE, END DEPTH, MEASURED IN FEET

PDA/YES = Photo Diode Array, Detect Confirmed

PDA/NO = Photo Diode Array, Detect Not Confirmed

\* = Interference in sample

+ = PDAs are not good matches



**TABLE 3  
DETECTED COMPOUNDS-UNVALIDATED  
SAMPLES COLLECTED 12/26/03 - 1/24/04**

<b>SAMPLE ID</b>	<b>LOCID OR WELL</b>	<b>SAMPLED</b>	<b>SAMP_TYPE</b>	<b>SBD</b>	<b>SED</b>	<b>BWTS</b>	<b>BWTE</b>	<b>METHOD</b>	<b>ANALYTE</b>	<b>PDA</b>
G301DJA	MW-301	12/23/2003	PROFILE	190	190	91	91	8330N	PICRIC ACID	NO
G301DJA	MW-301	12/23/2003	PROFILE	190	190	91	91	8330N	NITROGLYCERIN	NO*
G301DMA	MW-301	01/21/2004	PROFILE	220	220	121	121	E314.0	PERCHLORATE	
G301DMA	MW-301	01/21/2004	PROFILE	220	220	121	121	E314.0	PERCHLORATE	
G301DNA	MW-301	01/22/2004	PROFILE	230	230	131	131	E314.0	PERCHLORATE	
G301DNA	MW-301	01/22/2004	PROFILE	230	230	131	131	E314.0	PERCHLORATE	

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