## WEEKLY PROGRESS UPDATE FOR JUNE 5 – JUNE 9, 2000

# EPA REGION I ADMINISTRATIVE ORDER SDWA I-97-1019 MASSACHUSETTS MILITARY RESERVATION TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period from June 5 to June 9, 2000.

#### 1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of June 9 is summarized in Table 1.

Table 1. Drilling progress as of June 9, 2000								
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)				
MW-105	Impact Area Response Well (P-19)	335	205					
MW-106	Impact Area Response Well (P-18)	220	85	140.5-150.5 170.5-180.5				
MW-107	Impact Area Response Well (P-20)	210	88					
•	w ground surface w water table	·						

Drilling was completed on MW-107 (P-20). Wells were constructed on MW-106 (P-18). The drilling on MW-105 (P-19) commenced again and was completed at bedrock. The development of newly installed wells continued.

Samples collected during the reporting period are summarized in Table 2. Soil samples were collected from the UXO detonation craters of the five 37mm rounds at Former A Range. Groundwater sampling continued for Long Term Monitoring wells and Impact Area Response wells. Profile samples were collected during drilling at the borings for MW-105 and MW-107. Deep soil samples were collected during drilling at the borings for MW-107. Shallow soil samples (0"-6" and 18"-24") were collected from MW-106 and MW-107. Post excavation soil samples were collected in Demo 1 from three C-4 locations.

The Guard, EPA, and MADEP had a meeting on June 8 to discuss technical issues, including the following:

- There was no update from Jacobs on the CS-19 Investigation. EPA indicated that Jacobs was giving a
  presentation of the CS-19 Investigation to AFCEE today and EPA summarized their presentation as
  surface soil contamination which is a continual source of contamination to groundwater.
- There was no update from JPO on the Water Supply Investigation. The Guard indicated that the pump test was completed on Site WS-3 and the pump test on Site WS-1 has started. EPA asked that the Guard check to be sure that Mr. Cambareri has a copy of the chemistry results to date.
- Tetra Tech presented an update of the Munitions Survey Investigation. The geophysical contractor is scheduled to be back on site on June 12 and will spend approximately 3 days to complete Donneley Pond. The geophysics should be completed on the slit trench on June 19. The crews should be back to brush cutting in the J-2 Range soon. Ogden asked the status of the map of the J-2 Range extent to be surveyed. Tetra Tech will provide a copy of the map of the J-2 Range in the next day or two. The

aerial geophysical contract has been awarded to Blackhawk Geometric who is teamed with Fugro. The aerial survey is scheduled to be on site on June 16 with the survey starting on June 19. It is expected to take 5 to 9 days to complete the survey and 10 days to supply a preliminary report. The Guard asked what are the limitations of this type of survey. Tetra Tech indicated that height of the flight is the biggest limitation. The summary of the Demo 1 geophysical survey will be presented next Thursday from 11:00 to 12:00. The water bodies data summary should be ready in early July. A demonstration of a geophysical survey technique by Geo Centers will take place June 20 at the calibration area. A DU workplan is currently being prepared but further discussion with the Guard is required.

- Ogden presented an update of the Rapid Response Action. The redline/strikeout version of the work plan is currently being reviewed by the Guard and is due to the Agencies by June 13. The responsiveness summary will be provided after EPA comments on the work plan and will be provided as an attachment to the plan. The results of the delineation samples have been received. EDB was not confirmed at Area 2, no additional detections of nitroglycerin in the J-3 Wetland, no additional detections of DNT at GP-7, eight more sample grids are required at the KD Range rocket firing position, and five to six more grids are required at the APC. Sampling is scheduled for next week. EPA requested a data summary table for the preliminary results. The Guard indicated that this is the third round of sampling at the APC and suggested that they may propose the most contaminated area should be excavated as part of the RRA and the rest of the area be addressed as part of a later cleanup. The J-3 Wetland NOI will be sent to the Sandwich Conservation Commission on June 13. Bryce and Envirogen will be onsite on Tuesday and Wednesday (6/13-14) for treatability sampling. EPA asked where the treatability samples would be collected. Each area will be sampled and treated as a separate study.
- The DEP requested that the weekly updates (munitions survey, RRA, IAGS) be summarized in bullet form and distributed shortly before the meeting to facilitate note taking and discussion.
- Ogden presented an update of the Groundwater Investigation. MW-106 (P-18) was completed and the drill rig was demobilized. Continue drilling on MW-105 (P-19) which is at a depth of 305' bgs. MW-107 (P-20) is on standby waiting for screen depth. Distributed the draft boring log for MW-107. Data for MW-107 should be ready on Friday on Monday. Continue to collect groundwater samples from the LTM wells and the Impact Area response wells. Have collected groundwater samples up to well MW-102. Soil samples from Demo 2 have been collected and the results are due today. Distributed copies of the draft cross-section of the inner and outer transects with available well data added. It was suggested that the wells that have been sampled with no detects should be noted on the sections to distinguish them from the wells without data.
- EPA requested that the discussion of TM 99-4 (J-3 Wetland) be put off until next week.
- A map of the Demo 1 plume and proposed well was distributed. There was a discussion of the plume shape. It was agreed that the cigar shape is appropriate based on the chemistry and hydrogeology results. There was a discussion on the location of the additional well, as shown in the draft TM 00-2. It was agreed to move the location of the well east into the parking lot of the G Range.
- A handout of the particle tracks from the CIA wells was distributed. Ogden indicated that more particle tracks would be available next week. It was suggested that there should be a discussion of the up and down gradient supplemental CIA wells next week.
- EPA indicated that they are working on comments to the HUTA. EPA distributed copies of an
  abstract from a conference in which CRREL describes testing a GC-thermionic detector for field
  screening for explosives. The detector appears to achieve better results then the immunoassay kits.
  EPA also indicated that CRREL talked about doing wipe samples on range scrap and field testing.
  CRREL indicated that about seventy percent of the scrap had explosive detections. Tetra Tech and
  Ogden will discuss these results with CRREL.
- Document status was discussed. EPA indicated that they should have their comments on the Interim Results Report today, and comments on Tech Memo 99-6, J-1/J-3/L Range Workplan, and Tech Memo 00-1 should be ready next week.

- A letter from EPA to Mr. Fatz indicates that EPA must review and approve Textron's workplan for the J-1 and J-3 Ranges. Ogden indicated that Textron appeared ready to start work prior to the Guard's investigation, possibly in the next few weeks. DEP's comments regarding combining the J-2 study with the J-1/J-3/L Range study were discussed, as well as the need for groundwater flow direction in the J Ranges. EPA indicated they want to pursue the J-2 and J-1/J-3/L studies under separate plans, although the studies may occur at about the same time.
- EPA should have their comments regarding CDC air testing by Tuesday 6/13, although these comments will have no effect on the demonstration scheduled for 6/14. EPA indicated that the rounds found to date that are in the explosives magazine don't require a RCRA permit. New rounds located may require a RCRA permit, which will require some type of stack testing.
- A letter on the GS-6 proposed soil sampling was distributed. EPA requested that the samples be collected from 5 discrete locations at depths of 0"-3", 3"-6", and 6"-12"in the area where the rounds were located. If there were any evidence of the location of the rounds then one of the samples would be collected at that point.
- EPA indicated that there was a discrepancy between the Blow in Place table distributed at a tech meeting from the table that was distributed at the IART meeting. EPA requested that due to the numbers of UXO detected that a running table be created with the rounds detected, detonated, and relocated.
- EPA requested that the next IART meeting be heavily focused on the groundwater investigation update.
- It was agreed to send a 104e request for information to GE because they held a contract for Susquehanna's work.
- EPA asked the status of the discussion on the Interim Long Term Monitoring annual sampling. Ogden indicated that a supplement to the revised plan would be provided by the end of next week. The supplement would include proposed monitoring locations for the annual sampling.
- The technical meeting was followed by a reconnaissance of Training Area BA-1, grenade courts, and Demo 2.

#### 2. SUMMARY OF DATA RECEIVED

Rush data are summarized in Table 3. These data are for analyses that are performed on a fast turnaround time, typically 1-5 days. Explosive analyses for monitoring wells, and explosive and VOC analyses for groundwater profile samples, are conducted in this timeframe. 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 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. Most explosive detections verified by PDA are confirmed to be present upon completion of validation. Table 3 includes the following detections:

- The groundwater samples from 90MW0022, MW-16S, MW-25S, MW-27S, MW-43M2, MW-85S had detections of RDX that were verified by PDA spectra. Previous sampling rounds of these wells had similar explosive detections for all but MW-85S, which was the first time it was sampled.
- The groundwater sample from 90WT0013 had detections of 1,3,5-trinitrobenzene and picric acid, which were not verified by PDA spectra.

- The groundwater sample from 90WT0019 had a detection of picric acid, which was not verified by PDA spectra.
- The groundwater sample from MW-01S had detections of RDX and HMX, which were verified by PDA spectra. Previous sampling rounds from this well had similar detections.
- The groundwater sample from MW-45S had detections of 1,3,5-trinitrobenzene, 2,6-dinitrotoluene, nitroglycerin, and picric acid, which were not verified by PDA spectra.
- The groundwater sample from MW-73S had detections of TNT, 2-amino-4,6-dinitrotoluene, 4-amino-2,6-dinitrotoluene, RDX, and HMX, which were verified by the PDA spectra. Previous sampling rounds from this well had similar detections.
- The groundwater profile samples from MW-107 had detections of PETN (2 intervals), RDX (2 intervals), HMX (1 interval), and nitroglycerin (1 interval). The RDX, HMX, and nitroglycerin were verified by PDA spectra.

#### 3. DELIVERABLES SUBMITTED

The following deliverables were submitted during the reporting period.

Weekly Progress Update May 15-19	06/7/00
Weekly Progress Update May 22-26	06/7/00
Draft TM 00-2, Demo 1 Response Plan Investigation	06/8/00
Monthly Progress Report #38 (May 2000)	06/9/00

## 4. SCHEDULED ACTIONS

Scheduled actions for the week of June 12 include the construction of monitoring wells at MW-105 and MW-107; the commencement of drilling of the KD Range boring; the continued groundwater sampling of the Impact Area response wells and Long Term Monitoring wells; the collection of soil samples from under the C4 located in Demo 2; and the collection of soil samples from the additional Rapid Response Action grids at the APC and in the KD Range.

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

The geophysical data for Demo 1 are being processed for evaluation of anomalies. The draft technical memorandum for the Demo 1 response actions was submitted and is now under review by the regulatory agencies and other stakeholders. The draft FS Workplan for AO3 (including Demo 1) is under review by the regulatory agencies and other stakeholders.

## TABLE 2 SAMPLING PROGRESS 06/03/2000-06/10/2000

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
HDGR37MM1	37MM1	06/09/2000	CRATER GRAB	0.00	0.25		
HDGR37MM2	37MM2	06/09/2000	CRATER GRAB	0.00	0.25		
HDGR37MM3	37MM3	06/09/2000	CRATER GRAB	0.00	0.25		
HDGR37MM4	37MM4	06/09/2000	CRATER GRAB	0.00	0.25		
HDGR37MM5	37MM5	06/09/2000	CRATER GRAB	0.00	0.25		
90WT0004-E	FIELDQC	06/09/2000	FIELDQC	0.00	0.00		
90WT0010-E	FIELDQC	06/05/2000	FIELDQC	0.00	0.00		
90WT0010-L-E	FIELDQC	06/05/2000	FIELDQC	0.00	0.00		
95-14-E	FIELDQC	06/08/2000	FIELDQC	0.00	0.00		
97-5-E	FIELDQC	06/10/2000	FIELDQC	0.00	0.00		
DEMO2PENE	DEMO2PENE	06/06/2000	FIELDQC	0.00	0.00		
G105DJE	FIELDQC	06/06/2000	FIELDQC	0.00	0.00		
G105DPE	FIELDQC	06/07/2000	FIELDQC	0.00	0.00		
G105DSE	FIELDQC	06/08/2000	FIELDQC	0.00	0.00		
G105DUE	FIELDQC	06/09/2000	FIELDQC	0.00	0.00		
HCGR37MM1-E	FIELDQC	06/09/2000	FIELDQC	0.00	0.00		
HCGR37MM1-T	FIELDQC	06/09/2000	FIELDQC	0.00	0.00		
HDD114AAE	FIELDQC	06/07/2000	FIELDQC	0.00	0.00		
S106DAE	FIELDQC	06/05/2000	FIELDQC	0.00	0.00		
S106DAT	FIELDQC	06/05/2000	FIELDQC	0.00	0.00		
S107DHE	FIELDQC	06/05/2000	FIELDQC	0.00	0.00		
W54SST	FIELDQC	06/06/2000	FIELDQC	0.00	0.00		
W59SST	FIELDQC	06/08/2000	FIELDQC	0.00	0.00		
90LWA0007	90LWA0007	06/08/2000	GROUNDWATER	32.00	102.00	-61.40	8.60
90MW0034	90MW0034	06/05/2000	GROUNDWATER	96.00	101.00	31.04	36.04
90MW0071	90MW0071	06/05/2000	GROUNDWATER	146.00	156.00	76.27	86.27
90WT0003	90WT0003	06/09/2000	GROUNDWATER	91.50	101.50	-0.70	9.30
90WT0004	90WT0004	06/09/2000	GROUNDWATER	38.00	48.00	4.02	14.02
90WT0005	90WT0005	06/09/2000	GROUNDWATER	51.00	61.00	-1.10	8.90
90WT0006	90WT0006	06/09/2000	GROUNDWATER	98.00	108.00	-0.40	9.60
90WT0008	90WT0008	06/09/2000	GROUNDWATER	61.00	71.00	1.00	11.00
90WT0010	90WT0010	06/05/2000	GROUNDWATER	82.00	92.00	-2.68	7.32
95-14	95-14	06/08/2000	GROUNDWATER	102.00	112.00	89.89	99.89
95-15	95-15	06/08/2000	GROUNDWATER	189.00	199.00	140.79	150.79
95-6B	95-6B	06/07/2000	GROUNDWATER	119.00	129.00	94.11	104.11
97-5	97-5	06/10/2000	GROUNDWATER	84.00	94.00	76.20	86.20
BHW215083	BHW215083	06/07/2000	GROUNDWATER	74.00	84.00		
W100M1A	MW-100	06/06/2000	GROUNDWATER	179.00	189.00	44.48	54.48
W100M1D	MW-100	06/06/2000	GROUNDWATER	179.00	189.00	44.48	54.48
W100M2A	MW-100	06/06/2000	GROUNDWATER	164.00	174.00	29.53	39.53
W101M1A	MW-101	06/06/2000	GROUNDWATER	158.00	168.00	25.38	35.38
W101SSA	MW-101	06/06/2000	GROUNDWATER	131.00	141.00	-1.75	8.25
W102M1A	MW-102	06/06/2000	GROUNDWATER	267.00	277.00	121.07	131.07
W102M2A	MW-102	06/07/2000	GROUNDWATER	237.00	247.00	90.92	100.92

Profiling methods include: Volatiles and Explosives

Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry Other Sample Types methods are variable

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## TABLE 2 SAMPLING PROGRESS 06/03/2000-06/10/2000

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
W102SSA	MW-102	06/06/2000	GROUNDWATER	145.00	155.00	-1.01	8.99
W19SSA	MW-17	06/06/2000	GROUNDWATER	38.00	48.00	-6.86	3.14
W30SSA	MW-30	06/09/2000	GROUNDWATER	26.00	36.00	-4.56	5.44
W36SSA	MW-36	06/09/2000	GROUNDWATER	73.00	83.00	-5.46	4.54
W41M2A	MW-41	06/08/2000	GROUNDWATER	194.00	204.00	64.00	74.00
W43SSA	MW-43	06/07/2000	GROUNDWATER	129.00	139.00	-7.59	2.41
W53SSA	MW-53	06/09/2000	GROUNDWATER	121.00	131.00	-9.25	0.75
W54SSA	MW-54	06/06/2000	GROUNDWATER	148.00	158.00	-5.70	4.30
W55SSA	MW-55	06/06/2000	GROUNDWATER	133.00	143.00	-5.50	4.50
W59SSA	MW-59	06/08/2000	GROUNDWATER	128.00	138.00	-5.74	4.26
W72SSA	MW-72	06/07/2000	GROUNDWATER	106.00	116.00	-6.13	3.87
W72SSD	MW-72	06/07/2000	GROUNDWATER	106.00	116.00	-6.13	3.87
G105DJA	MW-105	06/06/2000	PROFILE	220.00	220.00	90.00	90.00
G105DJD	MW-105	06/06/2000	PROFILE	220.00	220.00	90.00	90.00
G105DKA	MW-105	06/06/2000	PROFILE	230.00	230.00	100.00	100.00
G105DLA	MW-105	06/06/2000	PROFILE	240.00	240.00	110.00	110.00
G105DMA	MW-105	06/06/2000	PROFILE	250.00	250.00	120.00	120.00
G105DNA	MW-105	06/06/2000	PROFILE	260.00	270.00	130.00	140.00
G105DOA	MW-105	06/06/2000	PROFILE	270.00	270.00	140.00	140.00
G105DPA	MW-105	06/07/2000	PROFILE	280.00	280.00	150.00	150.00
G105DQA	MW-105	06/07/2000	PROFILE	290.00	290.00	160.00	160.00
G105DRA	MW-105	06/07/2000	PROFILE	300.00	300.00	170.00	170.00
G105DSA	MW-105	06/08/2000	PROFILE	310.00	310.00	180.00	180.00
G105DTA	MW-105	06/08/2000	PROFILE	320.00	320.00	190.00	190.00
G105DUA	MW-105	06/08/2000	PROFILE	335.00	335.00	205.00	205.00
G107DAA	MW-107	06/05/2000	PROFILE	122.00	122.00	0.35	0.35
G107DBA	MW-107	06/06/2000	PROFILE	130.00	130.00	8.35	8.35
G107DBD	MW-107	06/06/2000	PROFILE	130.00	130.00	8.35	8.35
G107DCA	MW-107	06/06/2000	PROFILE	140.00	140.00	18.35	18.35
G107DDA	MW-107	06/06/2000	PROFILE	150.00	150.00	28.35	28.35
G107DEA	MW-107	06/06/2000	PROFILE	160.00	160.00	38.35	38.35
G107DED	MW-107	06/06/2000	PROFILE	160.00	160.00	38.35	38.35
G107DFA	MW-107	06/06/2000	PROFILE	170.00	170.00	48.35	48.35
G107DGA	MW-107	06/06/2000	PROFILE	180.00	180.00	58.35	58.35
G107DHA	MW-107	06/06/2000	PROFILE		190.00		68.35
G107DIA	MW-107	06/06/2000	PROFILE		200.00	78.35	78.35
G107DJA	MW-107	06/06/2000	PROFILE	210.00	210.00	88.35	88.35
S106DAA	MW-106	06/05/2000	SOIL BORING	0.00			
S106DBA	MW-106	06/05/2000	SOIL BORING	1.50			
S107DAA	MW-106	06/05/2000	SOIL BORING	0.00	0.50		
S107DBA	MW-106	06/05/2000	SOIL BORING	1.50	2.00		
S107DHA	MW-107	06/05/2000	SOIL BORING	60.00	62.00		
S107DIA	MW-107	06/05/2000	SOIL BORING	70.00	72.00		
S107DJA	MW-107	06/05/2000	SOIL BORING	80.00	82.00		

Profiling methods include: Volatiles and Explosives

Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry Other Sample Types methods are variable

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OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
S107DKA	MW-107	06/05/2000	SOIL BORING	90.00	92.00		
S107DLA	MW-107	06/05/2000	SOIL BORING	100.00	102.00		
S107DMA	MW-107	06/05/2000	SOIL BORING	110.00	112.00		
HDD114AAA	114A	06/06/2000	SOIL GRID	0.00	0.25		
HDD115AAA	115A	06/06/2000	SOIL GRID	0.00	0.25		
HDD116AAA	116A	06/06/2000	SOIL GRID	0.00	0.25		

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TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 5/29/00-6/9/00

OCDENIE	LOCID OD WELL ID	CAMPLES	CAMD TVDE	CDD	CED	DWTC	DWTE	METUOD	OCDEN, ANALYTE	
OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS		METHOD	OGDEN_ANALYTE	PDA
90MW0022	90MW0022	05/29/2000	GROUNDWATER		120.50	76.29		8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	
90WT0013	90WT0013	06/02/2000	GROUNDWATER	115.00	125.00	19.14	_	8330N	1,3,5-TRINITROBENZENE	NO
90WT0013	90WT0013	06/02/2000	GROUNDWATER	115.00	125.00	19.14	29.14	8330N	PICRIC ACID	NO
90WT0019	90WT0019	06/02/2000	GROUNDWATER	96.00	106.00	-0.48	9.52	8330N	PICRIC ACID	NO
W01SSA	MW-01	05/31/2000	GROUNDWATER	114.00	124.00	-5.95	4.05	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	3 YES
W01SSA	MW-01	05/31/2000	GROUNDWATER	114.00	124.00	-5.95	4.05	8330N	OCTAHYDRO-1,3,5,7-TETRANITE	F YES
W16SSA	MW-16	05/31/2000	GROUNDWATER	125.00	135.00	-10.01	-0.01	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	3 YES
W25SSA	MW-25	05/31/2000	GROUNDWATER	108.00	118.00	-5.75		8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	3 YES
W25SSD	MW-25	05/31/2000	GROUNDWATER	108.00	118.00	-5.75	4.25	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	3 YES
W27SSA	MW-27	05/30/2000	GROUNDWATER	117.00	127.00	-5.87	4.13	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W43M2A	MW-43	05/31/2000	GROUNDWATER	200.00	210.00	63.39	73.39	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W45SSA	MW-45	05/29/2000	GROUNDWATER	89.00	99.00	-5.21	4.79	8330N	1,3,5-TRINITROBENZENE	NO
W45SSA	MW-45	05/29/2000	GROUNDWATER	89.00	99.00	-5.21	4.79	8330N	2,6-DINITROTOLUENE	NO
W45SSA	MW-45	05/29/2000	GROUNDWATER	89.00	99.00	-5.21	4.79	8330N	NITROGLYCERIN	NO
W45SSA	MW-45	05/29/2000	GROUNDWATER	89.00	99.00	-5.21	4.79	8330N	PICRIC ACID	NO
W73SSA	MW-73		GROUNDWATER		49.00	-4.00	6.00	8330N	2,4,6-TRINITROTOLUENE	YES
W73SSA	MW-73	06/02/2000	GROUNDWATER	39.00	49.00	-4.00	6.00	8330N	2-AMINO-4,6-DINITROTOLUENE	YES
W73SSA	MW-73	06/02/2000	GROUNDWATER	39.00	49.00	-4.00	6.00	8330N	4-AMINO-2,6-DINITROTOLUENE	YES
W73SSA	MW-73	06/02/2000	GROUNDWATER	39.00	49.00	-4.00	6.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	3 YES
W73SSA	MW-73	06/02/2000	GROUNDWATER	39.00	49.00	-4.00	6.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITE	YES
W85SSA	MW-85	05/30/2000	GROUNDWATER	116.00	126.00	-3.15	6.85	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G107DBA	MW-107	06/06/2000	PROFILE	130.00	130.00			8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G107DBA	MW-107	06/06/2000	PROFILE	130.00	130.00			8330N	OCTAHYDRO-1,3,5,7-TETRANITE	YES
G107DBD	MW-107	06/06/2000	PROFILE	130.00	130.00			8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G107DBD	MW-107	06/06/2000	PROFILE	130.00	130.00			8330N	OCTAHYDRO-1,3,5,7-TETRANITE	YES
G107DEA	MW-107	06/06/2000	PROFILE	160.00	160.00			8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	3 YES
G107DEA	MW-107	06/06/2000	PROFILE	160.00	160.00			8330N	NITROGLYCERIN	YES
G107DED	MW-107	06/06/2000	PROFILE	160.00	160.00			8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	3 YES
G107DFA	MW-107	06/06/2000	PROFILE	170.00	170.00			8330N	PENTAERYTHRITOL TETRANITE	NO
G107DIA	MW-107	06/06/2000	PROFILE	200.00	200.00			8330N	PENTAERYTHRITOL TETRANITE	NO

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

SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BGS

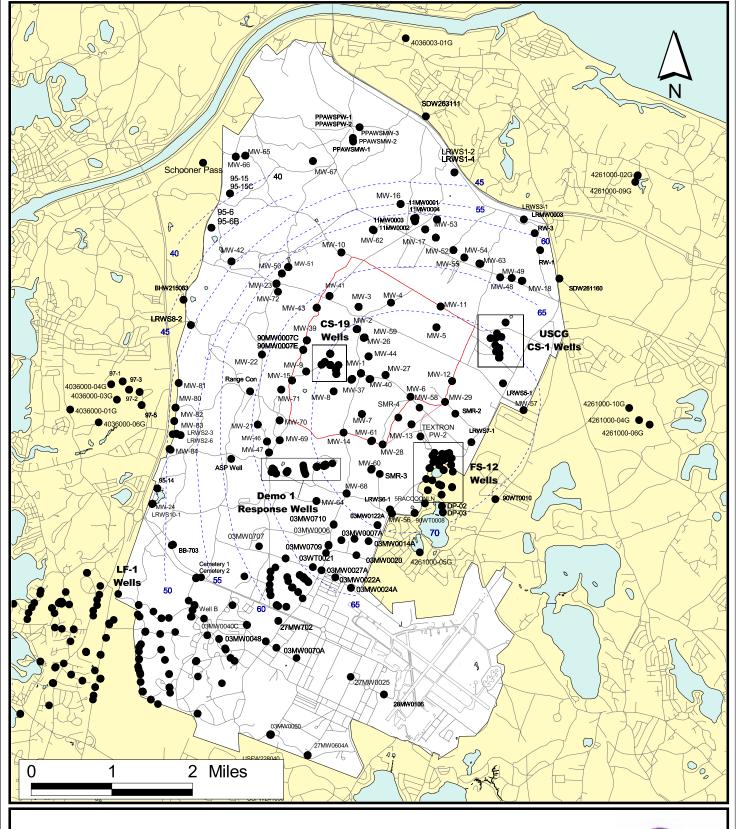
SED = SAMPLE COLLECTION END DEPTH IN FEET BGS

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



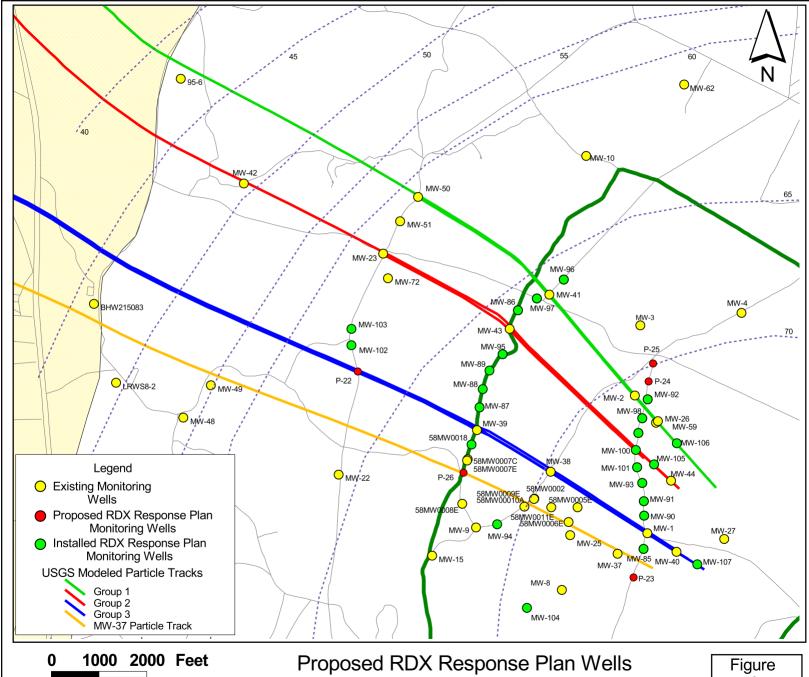
Sources & Notes

Map Coordinates: Stateplane, NAD83, Zone 4151, Meters Source: MASSGIS Location of Existing and Proposed Groundwater Monitoring Wells As Of 12/16/99



December 16, 1999 DRAFT

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In The Impact Area