WEEKLY PROGRESS UPDATE
FOR OCTOBER 29 – NOVEMBER 2, 2001

EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019 & 1-2000-0014
MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period from October 29 to November 2, 2001.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of November 2 is summarized in Table 1.

Table 1. Drilling progress as of November 2, 2001

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-186	Demo 1 Area Well (D1P-8)	320	198	182-192, 202-212
PW-1	Central Impact Area Pump Test Well	208	79	
OW-4	Pump Test Observation Well	190	65	171-181
OW-3	Pump Test Observation Well	10		
OW-2	Pump Test Observation Well	190	64	175-185
OW-1	Pump Test Observation Well	190	64	126-136

bgs = below ground surface
bwt = below water table

Completed well installation of MW-186 (D1P-8), OW-4 (Observation Well), OW-2 (Observation Well) and OW-1 (Observation Well). Awaiting sieve analysis for the PW-1 (Pump Test Well). Commenced drilling of OW-3 (Observation Well). Well development continued for newly installed observation wells.

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-186 (D1P-8). Split profile samples were collected from AFCEE well 90MW0105C (FS-12). The August Long Term Groundwater Monitoring round was completed. Groundwater samples were also collected from municipal wells in Sandwich. Water samples were collected from the FS-12 treatment system influent and effluent and from the GAC treatment system. Soil sampling for white phosphorus analysis was conducted at sites in the Central Impact Area, Demo Area 1, Demo Area 2, Round Swamp, J-1 Range, and the J-3 Wetland. Soil samples were also collected at J-2 and L Ranges as part of the excavation of BIP craters. As part of the munitions survey project, post-detonation soil samples were collected from the Gravity Range. Soil samples were also collected at the N Range mortar disposal pit.

The Guard, EPA, and MADEP had a meeting on November 1 to discuss technical issues, including the following:

Attendees

Ben Gregson (IAGWSPO)	Bill Gallagher (IAGWSPO)	Karen Wilson (IAGWSPO)
Dave Hill (IAGWSPO)	CPT Bill Meyer (IAGWSPO)	LTC Bill FitzPatrick (MAARNG)
COL Albert Bleakley (JPO)	Todd Borci (EPA)	Jane Dolan (EPA)
Mike Jasinski (EPA – phone)	Desiree Moyer (EPA)	Len Pinaud (MADEP)
Mark Panni (MADEP)	Darrell Deleppo (ACE)	Heather Sullivan (ACE)
John McPherson (ACE)	Gina Tyo (ACE)	Rob Foti (ACE)
Marc Grant (AMEC – phone)	Herb Colby (AMEC)	Scott Veenstra (AMEC – phone)
Kim Harriz (AMEC)	Larry Hudgins (Tetra Tech)	Susan Stewart (Tetra Tech–phone)
Leo Montroy (Tetra Tech-phone)	Joe Dauchy (Tetra Tech)	Dave Williams (MDPH)
Adam Balogh (TRC - phone)	Ken Gaynor (Jacobs)	

Punchlist Items

#2 Access 90PZ208 (Corps). MADEP has not received information from Corps required to pursue a court order for access to private property. Heather Sullivan (ACE) to follow up with Ray Cottengaim (ACE).

#3 Provide comment on PCN sampling (EPA). Expect letter to be sent next week.

#8 Provide BEHP/Chloroform detections maps (AMEC). Maps distributed.

#9 Provide list of profile detection reversals for FY01 (AMEC). List distributed via email and at meeting.

#11 Provide feedback on HUTA1 soil data for backfill (EPA). EPA requested Guard's recommendation on how to handle two lifts that had low detections of explosives. Response via email is acceptable.

#19 Provide hazard assessment on BA-1 Disposal Area (Corps). Nick Iaiennaro (ACE) is attempting to contact Boeing representatives, however Corps is proceeding with the project. Workplan likely to be submitted Monday, 11/5.

#20 Provide copy of letter dropped off at 90PZ208 property owner's house (Corps). Letter provided.

#21 Provide copy of data results of Pea Gravel from Expansion Chamber (Corps). Data provided. Three samples were collected, including two pea gravel samples and one sample of the filter dust. The samples had detections of tri- and tetrachlorinatednaphthalenes in concentrations ranging from 10-100 ppm. Filter dust TCLP result exceeded criteria for lead.

#22 Provide EPA information on propellant found in the J-1 Range Interberm Area (Tetra Tech). Information was distributed. One grain (2 gram "nugget") of propellant was found at this location.

#23 Provide USGS age-dating proposal (IAGWSPO). Dave Hill (IAGWSPO) contacted Don Walter (USGS) regarding proposal. Will forward to EPA upon receipt.

#24 Respond to EPA request regarding dye sampling (Corps/AMEC). Ms. Dolan's comments to be incorporated into J-Ranges Work Plan. Ms. Dolan clarified that three grids, sampled at 0-6 inches was sufficient at Demo 1 Area.

#25 Provide MW-80 and MW-7 resampling results (AMEC). Both resampling results came back non-detect for perchlorate. Mr. Hill questioned if sample results for wells had been in error. Ms. Sullivan indicated that no error had been detected to date. A Corrective Action Report will be prepared if an error is found. Both wells to be included in December LTM sampling round. Results from sampling Bourne water supply and sentry wells expected next week.

CS-19 VOC Data

Ken Gaynor (Jacobs) reported that profile screening of the second borehole drilled in the CS-19 area showed no detections of VOCs. The second borehole was drilled to 20 feet below the first borehole, which did have VOC detections. The boreholes are 10 feet apart. A well screen was being set in the second borehole at the same depth in the first borehole where the highest VOC detection was recorded. Sampling results from this well screen would be available Monday 11/5. Because there were no detections of VOCs in the second borehole, AFCEE was not planning on completing the previously proposed particle backtracking.

- Mike Jasinski (EPA) indicated that this was not in accordance with EPA's understanding and he was sending Mike Minior (AFCEE) an email for clarification and to set up a meeting to discuss.
- Todd Borci (EPA) indicated that the EPA was requesting that the backtrack be completed and that AFCEE indicate what the next steps in the process would be based on this initial data.

Sampling of Wells for LTM of VOCs

Heather Sullivan (ACE) indicated that the wells that had been requested by EPA for sampling and analysis for VOCs would be added to the December 2001 LTM round. Once the data is received, the Guard proposes to review the data and revaluate (with EPA's counsel) the need for continued monitoring of VOCs in these wells. Todd Borci (EPA) stated that he felt this was a good approach.

N Range Update

Rob Foti (ACE) reported that the second anomaly (10 feet from "81 mm mortar" anomaly) investigated at N Range resulted in the discovery of 334, 60 mm inert mortars. The mortars were unfuzed (red plastic caps), stenciled inert loaded, did not have tail fins and were painted blue (indicative of training rounds). The excavation was 10 ft by 15 ft and 4 ft 11 inches deep at its maximum depth. Soil samples were collected within the excavation and the excavation was backfilled and regraded. A snow fence was placed within the excavation for reference. The rounds are stockpiled in a bunker on J-2 Range under Range Control's management. Engineering controls have been removed. Nick Iaiennaro (ACE) is in touch with the Rock Island District regarding the ammunition data cards. This information will be forwarded to EPA when received.

Former A Range

- Larry Hudgins (Tetra Tech) indicated that excavation of all anomalies on the Former A Range had been completed. Eleven BIPs were to be completed today (11/01) as a result of the investigation. Post-BIP samples will be collected and the holes then backfilled. A list of the UXO discoveries was provided to the agencies. The majority of the items were 37mm or 40mm anti-aircraft munitions fired into the backstop and buried deep. Over 200 surface items had been cleared by USA Environmental as part as AMEC's soil investigation.
- Todd Borci (EPA) requested clarification of the number of caches of rockets that were discovered. Although Mr. Hudgins reported only the two caches in the access road where discovered, the table listed several anomalies with multiple (>30) 3.5 practice rockets. Gina Tyo (ACE) indicated that the table will be reviewed more closely and revised as appropriate.

Demo 2 Geophysical Anomalies

- Todd Borci (EPA) provided the Corps with a list of eight anomalies in the Demo 2 Area that EPA had questions regarding and was requesting to be intrusively investigated.
- Gina Tyo (ACE) indicated that the Corps agreed to complete the intrusive investigation of these eight anomalies at Demo 2.

Miscellaneous

- Jane Dolan (EPA) indicated that the private investigator performing the Archive Search Report interviews had received additional interviewee names during recent interviews. The names should be written down with the person's affiliation. Interviewing these additional individuals should be prioritized with respect to the current interviewee list. Gina Tyo (ACE) indicated that she was distributing summaries of the latest interviews and the current list of interviewees.
- Ms. Dolan further requested that site visits be scheduled with Interviewee's 9, 24, and 25 preferably on a Wednesday or Thursday.
- Ms. Dolan inquired about the Monthly Water Supply Reports. Len Pinaud (MADEP) indicated that he had made some initial contacts, but was still working on getting copies of these reports.

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:

- Soil from supplemental BIP grid sample HDA10160101AA had a detection of TNT that was confirmed by PDA spectra.

- A groundwater sample from MW-98S (Central Impact Area) had a detection of 4A-DNT that was confirmed by PDA spectra. The detection was similar to previous sampling rounds.

- A groundwater sample from MW-144S (J-3 Range) had a detection of HMX that was confirmed by PDA spectra. The detection was similar to previous sampling rounds.

- Groundwater samples from MW-100M1 and duplicate (Central Impact Area), MW-107M2 (Central Impact Area) and MW-143M2 (J-3 Range) had detections of RDX and HMX that were confirmed by PDA spectra. The detections were similar to previous sampling rounds.

- Groundwater samples from MW-99M1 (Central Impact Area), MW-101M1 (Central Impact Area), MW-105M1, MW-104M2 (Central Impact Area) and MW-143M1 and duplicate, MW-143M3 (J-3 Range) had detections of RDX that were confirmed by PDA spectra. The detections were similar to previous sampling rounds, except that MW-143M3 had an additional previous validated detection of HMX.

- Groundwater profile samples from MW-186 (Demo 1 Area) had detections of 2,4-DANT (7 intervals), nitroglycerin (6 intervals) and picric acid (10 intervals). All detections of 2,4-DANT were confirmed by PDA spectra.

3. DELIVERABLES SUBMITTED

Draft Field Sampling Plan for Remaining Central Impact Area Targets	11/02/01
Weekly Progress Update, October 22 – October 26, 2001	11/02/01

4. SCHEDULED ACTIONS

Scheduled actions for the week of November 5 include commence drilling additional wells in J-1 Range, groundwater sampling of newly installed Central Impact Area wells, and continued BIP crater excavation at J-3 Range.

5. SUMMARY OF ACTIVITIES FOR DEMO 1

The Demo 1 Soil Report is being revised and will be submitted in December. Additional monitoring wells are being scoped to define the downgradient edge of the groundwater plume.

TABLE 2
SAMPLING PROGRESS
10/27/2001-11/2/2001

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
GTR.A.3.00030.3.0	GTR.A.3.00030.R	11/01/2001	CRATER GRID	1.00	1.25		
GTR.A.3.00031.3.0	GTR.A.3.00031.R	11/01/2001	CRATER GRID	1.00	1.25		
GTR.A.3.00032.3.0	GTR.A.3.00032.R	11/01/2001	CRATER GRID	0.50	0.75		
GTR.A.3.00033.3.0	GTR.A.3.00033.R	11/01/2001	CRATER GRID	0.50	0.75		
GTR.A.3.00034.3.0	GTR.A.3.00034.R	11/01/2001	CRATER GRID	0.50	0.75		
GTR.A.3.00035.3.0	GTR.A.3.00035.R	11/01/2001	CRATER GRID	0.50	0.75		
GTR.A.3.00036.3.0	GTR.A.3.00036.R	11/01/2001	CRATER GRID	0.50	0.75		
GTR.A.3.00037.3.0	GTR.A.3.00037.R	11/01/2001	CRATER GRID	0.50	0.75		
GTR.A.3.00038.3.0	GTR.A.3.00038.R	11/01/2001	CRATER GRID	0.50	0.75		
GTR.A.3.00039.3.0	GTR.A.3.00039.R	11/01/2001	CRATER GRID	0.50	0.75		
GTR.A.3.00040.3.0	GTR.A.3.00040.R	11/01/2001	CRATER GRID	0.75	1.00		
G186DSE	FIELDQC	10/29/2001	FIELDQC	0.00	0.00		
HC05K1AAE	FIELDQC	11/01/2001	FIELDQC	0.00	0.00		
HC101TTDS2E	FIELDQC	11/02/2001	FIELDQC	0.00	0.00		
HC150A1AAE	FIELDQC	10/29/2001	FIELDQC	0.00	0.00		
HC27B1AAE	FIELDQC	10/30/2001	FIELDQC	0.00	0.00		
HC27B1AAF	FIELDQC	10/31/2001	FIELDQC	0.00	0.00		
HCJ1P15DS1T	FIELDQC	11/01/2001	FIELDQC	0.00	0.00		
HD05K1AAT	FIELDQC	11/01/2001	FIELDQC	0.00	0.00		
HD150B4AAT	FIELDQC	10/29/2001	FIELDQC	0.00	0.00		
HD23F2AAT	FIELDQC	10/31/2001	FIELDQC	0.00	0.00		
HD23F3AAE	FIELDQC	10/31/2001	FIELDQC	0.00	0.00		
HDA10230101AE	FIELDQC	11/02/2001	FIELDQC	0.00	0.00		
HDA10230101AT	FIELDQC	11/02/2001	FIELDQC	0.00	0.00		
W154M1T	FIELDQC	10/30/2001	FIELDQC	0.00	0.00		
4261000-02G	4261000-02G	10/31/2001	GROUNDWATER			0.00	0.00
4261000-04G	4261000-04G	10/31/2001	GROUNDWATER			0.00	0.00
4261000-06G	4261000-06G	10/31/2001	GROUNDWATER			0.00	0.00
4261000-09G	4261000-09G	10/31/2001	GROUNDWATER			0.00	0.00
4261000-10G	4261000-10G	10/31/2001	GROUNDWATER			0.00	0.00
4261000-11D	4261000-11G	10/31/2001	GROUNDWATER			0.00	0.00
4261000-11G	4261000-11G	10/31/2001	GROUNDWATER			0.00	0.00
W106M2A	MW-106	10/30/2001	GROUNDWATER	140.50	150.50	8.00	18.00
W140M1A	MW-140	10/29/2001	GROUNDWATER	107.00	117.00	19.00	29.00
W154M1A	MW-154	10/30/2001	GROUNDWATER	187.50	192.50	91.00	96.00
W176M1A	MW-176	11/01/2001	GROUNDWATER	270.00	280.00	158.55	168.55
W176M2A	MW-176	11/02/2001	GROUNDWATER	229.00	239.00	117.60	127.60
W178M1A	MW-178	10/31/2001	GROUNDWATER	257.00	267.00	117.00	127.00
W178M2A	MW-178	10/31/2001	GROUNDWATER	167.00	177.00	27.00	37.00
W179DDA	MW-179	11/01/2001	GROUNDWATER	329.00	339.00	188.10	198.10
W179M1A	MW-179	10/31/2001	GROUNDWATER	187.00	197.00	46.00	56.00
W182M2A	MW-182	11/02/2001	GROUNDWATER	273.00	283.00	102.89	112.89
W28M1A	MW-28	10/29/2001	GROUNDWATER	270.00	280.00	173.00	183.00

Profiling methods include: Volatiles and Explosives
Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry
Other Sample Types methods are variable
SBD = Sample Begin Depth, measured in feet bgs
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10/27/2001-11/2/2001

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W28M2A	MW-28	10/29/2001	GROUNDWATER	175.00	185.00	78.00	88.00
DW102901	GAC WATER	10/29/2001	IDW	0.00	0.00		
FS12TSEF	FS12TSEF	10/29/2001	PROCESS WATEF	0.00	0.00		
FS12TSIN	FS12TSIN	10/29/2001	PROCESS WATEF	0.00	0.00		
AMEC001	AMEC001	10/31/2001	PROFILE	9.00	9.00		
AMEC002	AMEC002	10/31/2001	PROFILE	9.00	9.00		
AMEC003	AMEC003	10/31/2001	PROFILE	19.00	19.00		
AMEC004	AMEC004	10/31/2001	PROFILE	19.00	19.00		
AMEC005	AMEC005	10/31/2001	PROFILE	29.00	29.00		
AMEC006	AMEC006	10/31/2001	PROFILE	29.00	29.00		
AMEC007	AMEC007	10/31/2001	PROFILE	39.00	39.00		
AMEC008	AMEC008	10/31/2001	PROFILE	39.00	39.00		
AMEC009	AMEC009	10/31/2001	PROFILE	49.00	49.00		
AMEC010	AMEC010	10/31/2001	PROFILE	49.00	49.00		
AMEC011	AMEC011	10/31/2001	PROFILE	59.00	59.00		
AMEC012	AMEC012	10/31/2001	PROFILE	59.00	59.00		
AMEC013	AMEC013	10/31/2001	PROFILE	69.00	69.00		
AMEC014	AMEC014	10/31/2001	PROFILE	69.00	69.00		
AMEC015	AMEC015	10/31/2001	PROFILE	79.00	79.00		
AMEC016	AMEC016	10/31/2001	PROFILE	79.00	79.00		
AMEC017	AMEC017	10/31/2001	PROFILE	89.00	89.00		
AMEC018	AMEC018	10/31/2001	PROFILE	89.00	89.00		
AMEC019	AMEC019	10/31/2001	PROFILE	99.00	99.00		
AMEC020	AMEC020	10/31/2001	PROFILE	99.00	99.00		
AMEC021	AMEC021	10/31/2001	PROFILE	109.00	109.00		
AMEC022	AMEC022	10/31/2001	PROFILE	109.00	109.00		
AMEC023	AMEC023	10/31/2001	PROFILE	119.00	119.00		
AMEC024	AMEC024	10/31/2001	PROFILE	119.00	119.00		
AMEC025	AMEC025	10/31/2001	PROFILE	129.00	129.00		
AMEC026	AMEC026	10/31/2001	PROFILE	129.00	129.00		
AMEC027	AMEC027	11/01/2001	PROFILE	139.00	144.00		
AMEC028	AMEC028	11/01/2001	PROFILE	139.00	144.00		
AMEC029	AMEC029	11/01/2001	PROFILE	149.00	154.00		
AMEC030	AMEC030	11/01/2001	PROFILE	149.00	154.00		
AMEC031	AMEC031	11/01/2001	PROFILE	159.00	164.00		
AMEC032	AMEC032	11/01/2001	PROFILE	159.00	164.00		
G186DQA	MW-186	10/29/2001	PROFILE	290.00	290.00	168.00	168.00
G186DSA	MW-186	10/29/2001	PROFILE	310.00	310.00	188.00	188.00
G186DTA	MW-186	10/29/2001	PROFILE	320.00	320.00	198.00	198.00
HCJ1P15DS1A	J1P-15	11/01/2001	SOIL GRAB				
HCJ1P15DS2A	J1P-15	11/01/2001	SOIL GRAB				
HC01B1DAA	01B	10/31/2001	SOIL GRID	0.00	2.00		
HC01D1DAA	01D	11/01/2001	SOIL GRID	0.00	0.00		
HC05K1AAA	05K	10/30/2001	SOIL GRID	0.00	0.50		

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HC07A1DAA	07A	10/30/2001	SOIL GRID	0.00	2.00		
HC07A1DAD	07A	10/30/2001	SOIL GRID	0.00	2.00		
HC101TTDS1A	101TTDS	11/02/2001	SOIL GRID	0.00	0.25		
HC101TTDS2A	101TTDS	11/02/2001	SOIL GRID	0.00	0.25		
HC11D1DAA	11D	10/31/2001	SOIL GRID	1.50	2.00		
HC11E1DAA	11E	10/31/2001	SOIL GRID	1.50	2.00		
HC12C1AAA	12C	10/30/2001	SOIL GRID	0.00	0.50		
HC12F1DAA	12F	10/30/2001	SOIL GRID	1.50	2.00		
HC13I1DAA	13I	10/30/2001	SOIL GRID	1.50	2.00		
HC150A1AAA	150A	10/29/2001	SOIL GRID	0.00	0.50		
HC150B1AAA	150B	10/29/2001	SOIL GRID	0.00	0.50		
HC23F1AAA	23F	10/31/2001	SOIL GRID	0.00	0.50		
HC27B1AAA	27B	10/30/2001	SOIL GRID	0.00	0.50		
HD05K1AAA	05K	11/01/2001	SOIL GRID	0.00	0.50		
HD150B4AAA	150B	10/29/2001	SOIL GRID	0.00	0.50		
HD23F2AAA	23F	10/31/2001	SOIL GRID	0.00	0.50		
HD23F3AAA	23F	10/31/2001	SOIL GRID	0.00	0.50		
HDA10220101AA	A10220101	11/02/2001	SOIL GRID	0.00	0.25		
HDA10230101AA	A10230101	11/02/2001	SOIL GRID	0.00	0.25		

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TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 10/13/01-11/2/01

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
HDA10160101AA	A10160101	10/19/2001	CRATER GRAB	0.00	0.25			8330N	2,4,6-TRINITROTOLUENE	YES
W100M1A	MW-100	10/23/2001	GROUNDWATER	179.00	189.00	45.00	55.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W100M1A	MW-100	10/23/2001	GROUNDWATER	179.00	189.00	45.00	55.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W100M1D	MW-100	10/23/2001	GROUNDWATER	179.00	189.00	45.00	55.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W100M1D	MW-100	10/23/2001	GROUNDWATER	179.00	189.00	45.00	55.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W101M1A	MW-101	10/23/2001	GROUNDWATER	158.00	168.00	27.00	37.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W105M1A	MW-105	10/22/2001	GROUNDWATER	205.00	215.00	78.00	88.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W105M2A	MW-105	10/22/2001	GROUNDWATER	165.00	175.00	38.00	48.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W107M2A	MW-107	10/22/2001	GROUNDWATER	125.00	135.00	5.00	15.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W107M2A	MW-107	10/22/2001	GROUNDWATER	125.00	135.00	5.00	15.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W143M1A	MW-143	10/17/2001	GROUNDWATER	144.00	154.00	114.00	124.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W143M1D	MW-143	10/17/2001	GROUNDWATER	144.00	154.00	114.00	124.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W143M2A	MW-143	10/17/2001	GROUNDWATER	117.00	122.00	87.00	92.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W143M2A	MW-143	10/17/2001	GROUNDWATER	117.00	122.00	87.00	92.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W143M3A	MW-143	10/17/2001	GROUNDWATER	107.00	112.00	77.00	82.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
W144SSA	MW-144	10/17/2001	GROUNDWATER	26.00	36.00	5.00	15.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITR	YES
W98SSA	MW-98	10/24/2001	GROUNDWATER	137.00	147.00	0.00	10.00	8330N	4-AMINO-2,6-DINITROTOLUENE	YES
W99M1A	MW-99	10/23/2001	GROUNDWATER	195.00	205.00	60.00	70.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3	YES
G186DAA	MW-186	10/25/2001	PROFILE	130.00	130.00	8.00	8.00	8330N	NITROGLYCERIN	NO
G186DAD	MW-186	10/25/2001	PROFILE	130.00	130.00	8.00	8.00	8330N	NITROGLYCERIN	NO
G186DBA	MW-186	10/24/2001	PROFILE	140.00	140.00	18.00	18.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G186DBA	MW-186	10/24/2001	PROFILE	140.00	140.00	18.00	18.00	8330N	NITROGLYCERIN	NO
G186DBD	MW-186	10/24/2001	PROFILE	140.00	140.00	18.00	18.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G186DBD	MW-186	10/24/2001	PROFILE	140.00	140.00	18.00	18.00	8330N	PICRIC ACID	NO
G186DCA	MW-186	10/25/2001	PROFILE	150.00	150.00	28.00	28.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G186DCA	MW-186	10/25/2001	PROFILE	150.00	150.00	28.00	28.00	8330N	PICRIC ACID	NO
G186DDA	MW-186	10/25/2001	PROFILE	160.00	160.00	38.00	38.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G186DDA	MW-186	10/25/2001	PROFILE	160.00	160.00	38.00	38.00	8330N	PICRIC ACID	NO
G186DEA	MW-186	10/25/2001	PROFILE	170.00	170.00	48.00	48.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G186DEA	MW-186	10/25/2001	PROFILE	170.00	170.00	48.00	48.00	8330N	PICRIC ACID	NO
G186DFA	MW-186	10/25/2001	PROFILE	180.00	180.00	58.00	58.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G186DFA	MW-186	10/25/2001	PROFILE	180.00	180.00	58.00	58.00	8330N	PICRIC ACID	NO

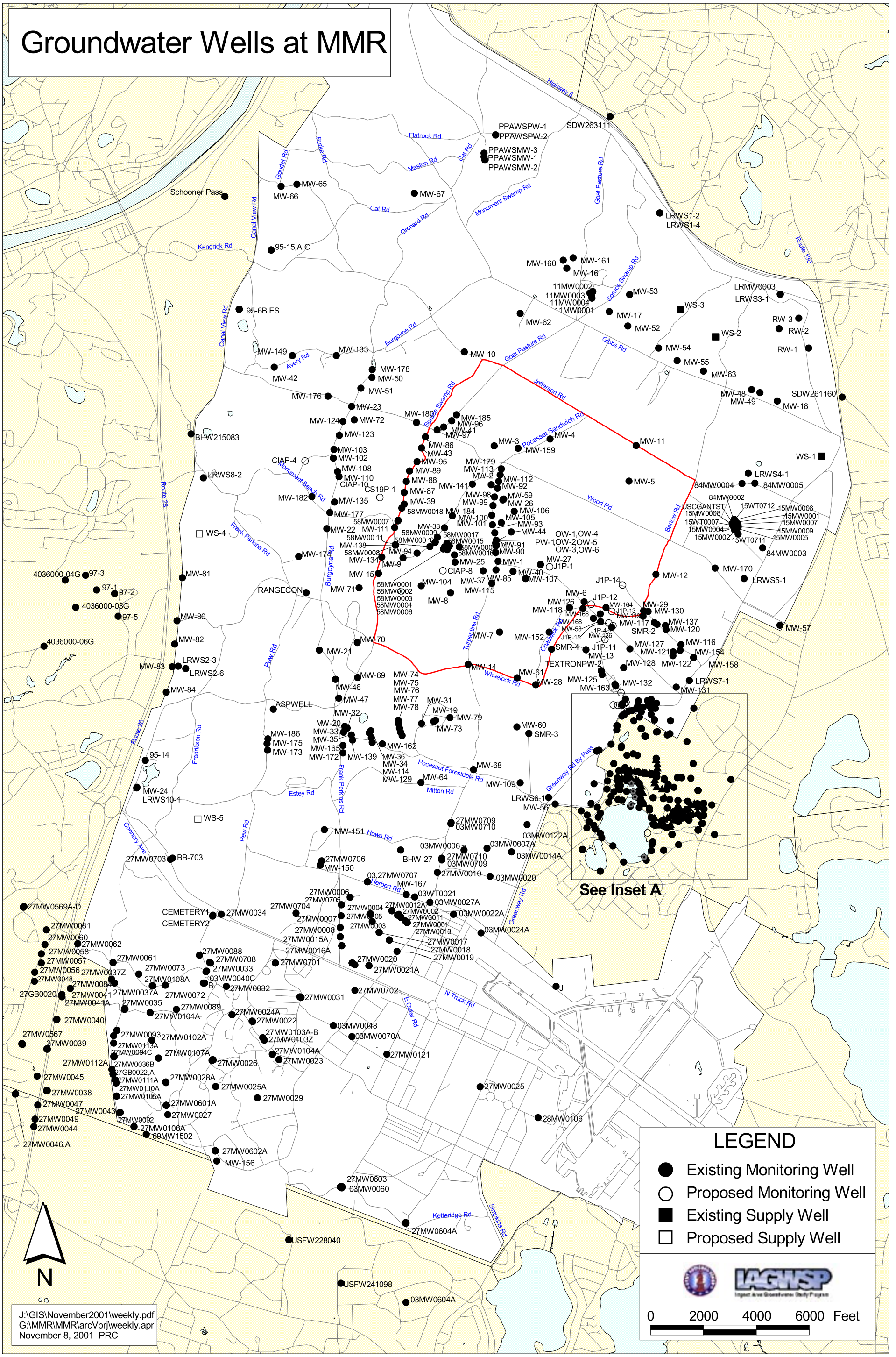
DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.
SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BGS
SED = SAMPLE COLLECTION END DEPTH IN FEET BGS
BWTS = DEPTH BELOW WATER TABLE, START DEPTH, MEASURED IN FEET
BWTE = DEPTH BELOW WATER TABLE, END DEPTH, MEASURED IN FEET
PDA/YES = Photo Diode Array, Detect Confirmed
PDA/NO = Photo Diode Array, Detect Not Confirmed
* = Interference in sample

TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 10/13/01-11/2/01

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G186DGA	MW-186	10/25/2001	PROFILE	190.00	190.00	68.00	68.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G186DGA	MW-186	10/25/2001	PROFILE	190.00	190.00	68.00	68.00	8330N	PICRIC ACID	NO
G186DHA	MW-186	10/25/2001	PROFILE	200.00	200.00	78.00	78.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G186DHA	MW-186	10/25/2001	PROFILE	200.00	200.00	78.00	78.00	8330N	NITROGLYCERIN	NO
G186DHA	MW-186	10/25/2001	PROFILE	200.00	200.00	78.00	78.00	8330N	PICRIC ACID	NO
G186DQA	MW-186	10/29/2001	PROFILE	290.00	290.00	168.00	168.00	8330N	NITROGLYCERIN	NO
G186DQA	MW-186	10/29/2001	PROFILE	290.00	290.00	168.00	168.00	8330N	PICRIC ACID	NO
G186DSA	MW-186	10/29/2001	PROFILE	310.00	310.00	188.00	188.00	8330N	NITROGLYCERIN	NO
G186DSA	MW-186	10/29/2001	PROFILE	310.00	310.00	188.00	188.00	8330N	PICRIC ACID	NO
G186DTA	MW-186	10/29/2001	PROFILE	320.00	320.00	198.00	198.00	8330N	NITROGLYCERIN	NO
G186DTA	MW-186	10/29/2001	PROFILE	320.00	320.00	198.00	198.00	8330N	PICRIC ACID	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
* = Interference in sample

Groundwater Wells at MMR



LEGEND

- Existing Monitoring Well
- Proposed Monitoring Well
- Existing Supply Well
- Proposed Supply Well

0 2000 4000 6000 Feet

N

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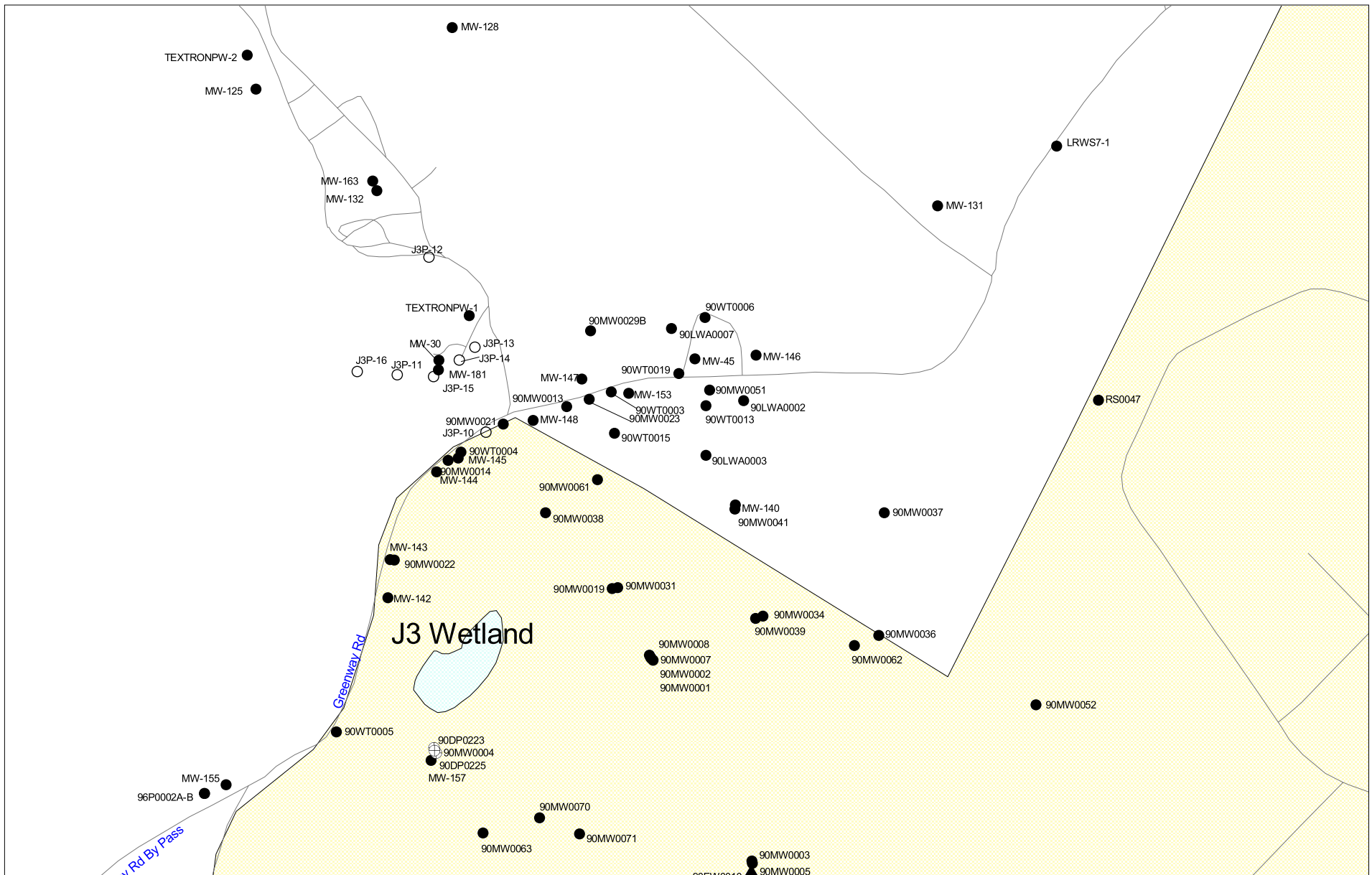
November 8, 2001 PRC



0 600 1200 Feet

Inset A

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November 8, 2001 PRC