

**WEEKLY PROGRESS UPDATE
FOR OCTOBER 8 – OCTOBER 12, 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 8 to October 12, 2001.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of October 12 is summarized in Table 1.

Table 1. Drilling progress as of October 12, 2001				
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-183	Central Impact Area Well (CIAP-4)	385	204	286-296
MW-183	Central Impact Area Well (CIAP-4) redrill	225	44	
MW-184	Central Impact Area Well (P-30)	350	225	126-136, 186-196
MW-185	Central Impact Area Well (CIAP-5)	290	158	
B-30	J-2 Range Boring (J2P-11)	95	4	
Bgs = below ground surface				
Bwt = below water table				

Completed well installation of MW-184 (P-30), completed drilling of B-30 (J2P-11) and continued drilling of MW-185 (CIAP-5). Due to a broken casing as MW-183 was installed, only one well screen in MW-183 (CIAP-4) was installed, and commenced redrilling this well. Well development was continued for newly installed wells.

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-185 (CIAP-5) and B-30 (J2P-11). Groundwater samples were collected as part of the August Long Term Groundwater Monitoring round. Soil samples were collected from grids on J-3 Range and from post-detonation craters. Water samples were collected from the RRA containment pad and the GAC system.

The Guard, EPA, and MADEP had a meeting on October 11 to discuss technical issues, including the following:

Attendees

Ben Gregson (IAGWSPO)	CPT Bill Meyer (IAGWSPO)	Karen Wilson (IAGWSPO)
Tina Dolen (IAGWSPO)	LTC Bill FitzPatrick (MAARNG)	Todd Borci (EPA-phone)
Mike Jasinski (EPA)	Jane Dolan (EPA)	Desiree Moyer (EPA)
Len Pinaud (MADEP)	Gina Tyo (ACE)	Heather Sullivan (ACE)
John McPherson (ACE)	Ellen Iorio (ACE)	Ed Wise (ACE)

Marc Grant (AMEC)	Rob Clemens (AMEC)	Jay Clausen (AMEC-phone)
Scott Veenstra (AMEC – phone)	Herb Colby (AMEC)	Kim Harriz (AMEC)
Larry Hudgins (Tetra Tech)	Doug Lam (Tetra Tech)	Joe Dauchy (Tetra Tech)
Dave Williams (MDPH)	Adam Balogh (TRC)	Don Walter (USGS)
Ken Gaynor (Jacobs)		

RAD Survey Protocol

- EPA requested that the protocol be discussed in a meeting/conference call next week with Resolution of DU comments.
- Jane Dolan (EPA) asked what was the specific instrument that would be used for monitoring. Larry Hudgins (Tetra Tech) indicated it was the instrument that they had in the field office that was used to detect low energy alpha, beta, and gamma rays. The instrument was a Victoreen; Mr. Hudgins to check on model number.
- Ms. Dolan asked what was the source of the checklist in the protocol. Mr. Hudgins indicated that the source was experience and the manual.
- Regarding the DU Comment Resolution meeting, Ellen Iorio (ACE) indicated that a comment response would be forwarded to the agencies by the end of the week. The Resolution meeting could be held next week with discussion of RAD protocol.

HUTA 2 Scope

- Ellen Iorio (ACE) indicated that the Corps would be providing a brief synopsis on agreements made during last week's meeting regarding the HUTA scope. HUTA2 transect maps would be provided in hard copy today. The Guard/ACE was looking for approval from DEP/EPA to proceed. Feedback on HUTA2 maps was requested ASAP. Copies of the maps would be emailed to Todd Borci (EPA).
- Jane Dolan (EPA) inquired about the age of the photograph used for the transect maps. Joe Dauchy (Tetra Tech) thought it was from 1975, but will confirm. Punchlist item to be set for approval.

Demo Area 2

- Todd Borci (EPA) indicated that he had not seen digmaps for Demo 2 validation.
- Gina Tyo (ACE) indicated that 12 anomalies had already been validated. Failure to provide digmaps/notification to the agencies had been the Corps' disconnect. The Corps would make adjustments as needed. In the interim, Tetra Tech was continuing to verify the remaining 13 anomalies.
- Larry Hudgins (Tetra Tech) indicated that to date no UXO-related material had been uncovered. All materials were scrap.
- Mr. Borci indicated that the validation could proceed, but if fieldwork is conducted again without the EPA's concurrence, the contractors will be asked to stop work.
- Mr. Borci asked if the lower branches had been trimmed, but the vegetation left intact in the areas at Demo 2 that they had discussed. And if the areas that weren't covered were indicated on the map. Mr. Hudgins indicated yes.
- Jane Dolan (EPA) asked what was the seeded item (added to survey area for QA/QC purposes) that wasn't detected. Mr. Hudgins indicated that it was a pipe; all seeded items were pipes buried at various depths.
- Ms. Dolan requested a table showing the various thresholds that were used per area to select anomalies to validate.
- Mr. Borci requested that the latest scopes of work for the MSP projects be faxed or emailed to his attention.

- Mr. Borci asked if any work was being performed related to verification of the AirMag targets. Gina Tyo (ACE) indicated that Tetra Tech was groundtruthing cultural/geologic items. It was the Corps' understanding from the AirMag meeting that the agencies concurred with the need to verify certain cultural and geologic features, but that the EPA was also looking for some additional verification. The Corps assumed that verification of the agreed upon features could proceed. The Corps had intended this information to help further define the scope of the AirMag verification/validation and provide information (visual as well as historic) on what the cultural features are. Ms. Tyo had informed Ms. Dolan after the 10/04 Tech meeting that verification activities would be conducted the week of 10/08 and that additional verification targets were still being considered. The Corps assumed that the agencies and the Corps would reconvene regarding scoping the additional work.
- EPA indicated that it had been their assumption that the Corps would provide an anomaly/pick list at the 10/04 Tech meeting. And that verification would proceed only after the agencies had reviewed the list and commented. Mr. Borci pointed out that the EPA might have areas that they want verified that are near the areas that the Corps is already groundtruthing. Coordinating the groundtruthing effort would aide in streamlining the verification process.
- Ms. Iorio indicated that she had received the verification list only yesterday and could forward the list by next Friday. The list Tetra Tech is currently working off of is the same as the list from Tetra Tech's presentation. Ms. Iorio suggested that AirMag verification, HUTA2 and MSP scopes of work be discussed/approved in a breakout session after the 10/25 Tech meeting.

Former H Range

Ellen Iorio (ACE) provided a brief overview of work conducted/completed at the Former H Range.

- For the lead removal project, excavation has been completed. Erosion maps were prepared and the area had been hydroseeded. Analytical results were received and indicated that no further excavation was required. The project was complete except for moving the access road. Excavated soil classified as hazardous had been sent to Pennsylvania; non-hazardous soil had been sent to Bourne. A Completion of Work Report would be drafted and provided to the agencies.
- For the Military Features, these areas had been sampled; analytical results are pending.
- For groundwater monitoring, monitoring wells were installed and sampled; analytical results are pending.
- The Corps owes the agency a WorkPlan that will provide well details and method detection limits. The plan will be fedexed to the agencies by mid next week. The Ordnance and Explosive Work Plan will be sent next Friday, 10/19.

SE Ranges Plume Maps

Herb Colby (AMEC) indicated that the following changes had been made to the plume maps and additional changes were to be discussed at this meeting mostly to resolve discrepancies among various comments on the original maps. The majority had agreed upon the changes indicated below:

- added particle tracks with the extraction system on.
 - added for “Internal Discussion Purposes Only” on maps.
 - added plume overlay to the aerial photograph.
 - made minor changes to plume shape based on particle tracks.
 - added identification information requested.
 - made detection of RDX at MW-130, a singular dot.
 - 90WT0013 area changed from 2-10 ug/L to ND-2 ug/L.
 - labeled proposed wells.
- Heather Sullivan (ACE) stated that the Guard/ACE’s preference was that the plume boundaries be narrowed to reflect only the exact areas where contaminants had been detected. In addition, they would prefer one set of maps (not separate scoping and IART maps) so that the IART would also be able to see/participate in the progress/process of scoping of the wells. The Guard/ACE generally agreed with Len Pinaud’s (MADEP) written comments and would prefer to revise the plume maps accordingly.
 - Herb Colby (AMEC) pointed out that the Perchlorate map in particular was a “stretch” since it was based largely on three detects separated by some distance. This plume emphasized the relatively high hits at MW-163 and MW-132 and took into account the HMX and RDX plumes, since in other areas on base the perchlorate distribution mirrored the distribution of these explosives.
 - COL Bleakley (JPO) concurred that he preferred a more conservative approach, conservative meaning narrower plumes more confined by actual detections. Based on his experience with the IRP program, the public was more accepting of starting the plumes small and growing them based on additional detections. It seemed difficult for the public to accept larger plumes that were narrowed by artistic/scientific license without the aide of an extraction system. Furthermore, JPO’s combined plume maps that are based on stricter guidelines would look quite different than the IAGWSP plume maps as now depicted.
 - EPA concurred with dashing the > 2 ppb contour centered on MW-132 and MW-172 and moving the end of the >2ppb plume more north. But still preferred the broader plumes.
 - COL Bleakley further pointed out that it would be good to use yellow versus red dots to distinguish between detections above the HA such as those used on the Monthly maps rather than all red dots. Tina Dolen (IAGWSPO) concurred with this suggestion since it would allow for consistency of presentation to the public. Marc Grant (AMEC) pointed out that the IART maps do not distinguish between detections above HAs, all detections are red dots. Dave Williams (MDPH) suggested that a table be added to the map that lists specific concentrations.
 - COL Bleakley also suggested that detection at 90WT0013 be removed because only the one detection of RDX had been recorded for this well and that was in 1999. Plume maps should be used to depict current data, where plume is now.
 - COL Bleakley indicated that the SMB had questions about the FS-12 extraction system, requesting that the extraction wells be added to the figure. Also it should be noted that not all groundwater within the outlined capture zone is captured since the capture zone is three dimensional, but the boundary shown on the maps only represents the extent of the capture zone at the top of the water table. Marc Grant (AMEC) pointed out that particle tracks showed what detections would be captured.

- Mike Jasinski (EPA) stated that it was obvious there still was not concurrence on how the plume maps should be drawn so the maps would obviously not be ready for the next IART meeting. Maps should be presented at the December IART. Ed Wise (ACE) asked if the analytical results would be available from the proposed J Range wells by that time. Mr. Colby said possibly; John Rice (AMEC) pointed out that the drilling schedule was set but tentative.
- Ms. Dolan thought that the meeting today would include discussion of additional wells to define plumes. Ms. Sullivan indicated that the Corps understood that additional wells would be proposed in the EPA's comments on the J-1, J-3, L Range Report. Mr. Colby pointed out that it was the Guard's understanding that any additional wells would be included in the scope of Additional Delineation Work Plan #2. Ms. Dolan did not agree with this assumption. Mr. Rice pointed out that it was proving to be difficult to meet drilling schedules for the currently scoped wells because of overlapping of the exclusion zones for the UXO clearance of well pads and the drill pads ready to be set up upon. Ms. Dolan requested that AMEC propose additional wells for defining plume boundaries for discussion at the 10/18 Tech meeting.
- Ms. Sullivan stated that the AMEC would revise the plume maps to reflect a version that the Guard/Corps was more comfortable with. This would include taking 90MW0054 out of the RDX plume map, moving the >2 ppb contour up (north) on the RDX map, and taking a closer look at the perchlorate map. Plus the Corps hadn't felt comfortable about extending the L Range RDX plume further north as Ms. Dolan requested, based only on the backward particle tracks. Mr. Colby to provide revised plume maps tentatively by 10/18 Tech meeting.
- Ms. Dolan stated she had emailed the J-1, J-3, L Range Report comments earlier today, 10/11.
- Todd Borci (EPA) indicated that Cleared Area 11, a Phase IIb site, had been moved to the J Ranges and that it needed to be addressed. Mr. Colby indicated that it was the Guard's intent to include the area within the scope of Additional Delineation Work Plan #2.

Breakout meetings after the Tech meeting included a J-2 Range scoping meeting. A site visit was scheduled for J-1 and J-2 Ranges.

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:

- Groundwater samples from 27MW0017 had detections of 1,3-dinitrobenzene and nitroglycerin that were not confirmed by PDA. These compounds have never been valid detections in 27MW0017.

- Groundwater samples from MW-89M1 (Central Impact Area), MW-93M1 (Central Impact Area), MW-95M1, MW-95M2 (Central Impact Area), MW-135M2 (Central Impact Area), and MW-166M1 (J-1 Range) had detections of RDX that were confirmed by PDA. The detections of RDX are similar to the previous sampling rounds.
- Groundwater samples from MW-88M2 (Central Impact Area), MW-89M2 (Central Impact Area), MW-91M1 (Central Impact Area), MW-93M2 (Central Impact Area) and MW-166M2, MW-166M3 (J-1 Range) had detections of RDX and HMX that were confirmed by PDA. The detections of RDX and HMX are similar to the previous sampling rounds.
- Groundwater profile samples from MW-185 (Central Impact Area) had detections of 2,4-DANT (9 intervals), 2,4-DNT (10 intervals), 1,3-dinitrobenzene (6 intervals), 1,3,5-trinitrobenzene (5 intervals), nitroglycerin (9 intervals), picric acid (4 intervals), 2-nitrotoluene (1 interval), 3-nitrotoluene (1 interval) and 4-nitrotoluene (1 interval). Six of the 2,4-DNT detections were confirmed by PDA spectra.

3. DELIVERABLES SUBMITTED

October 2001 Progress Report	10/9/01
Weekly Progress Report for October 1 – October 5, 2001	10/12/01

4. SCHEDULED ACTIONS

Scheduled actions for the week of October 8 include well installations of MW-183 (CIAP-4) and MW-185 (CIAP-5) and commence drilling CIAP-2 and OW-1 for the Central Impact Area pump test. Groundwater sampling will continue for the August LTM round. Soil samples will be collected from J-3 Range grids. Excavation of UXO detonation craters will continue.

5. SUMMARY OF ACTIVITIES FOR DEMO 1

An additional downgradient well location (D1P-8) on Pew Road will be drilled in the coming weeks. Analytical results from additional soil borings and geophysical anomalies validation efforts were evaluated and the Demo 1 Soil Report is being revised. Additional monitoring wells are being scoped to define the downgradient edge of the groundwater plume.

TABLE 2
 SAMPLING PROGRESS
 10/6/2001-10/12/2001

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
HDA09110101AA	A09110101	10/12/2001	CRATER GRAB	0.00	0.25		
HDA10020101AA	A10020101	10/12/2001	CRATER GRAB	0.00	0.25		
95-15CE	FIELDQC	10/08/2001	FIELDQC	0.00	0.00		
G185DAE	FIELDQC	10/10/2001	FIELDQC	0.00	0.00		
G185DIE	FIELDQC	10/11/2001	FIELDQC	0.00	0.00		
G185DLE	FIELDQC	10/12/2001	FIELDQC	0.00	0.00		
HC102PB1AAE	FIELDQC	10/11/2001	FIELDQC	0.00	0.00		
HC102VB1AAE	FIELDQC	10/12/2001	FIELDQC	0.00	0.00		
HDA09110101AT	FIELDQC	10/12/2001	FIELDQC	0.00	0.00		
W157M2T	FIELDQC	10/09/2001	FIELDQC	0.00	0.00		
W161SST	FIELDQC	10/08/2001	FIELDQC	0.00	0.00		
W163SST	FIELDQC	10/10/2001	FIELDQC	0.00	0.00		
W69SST	FIELDQC	10/11/2001	FIELDQC	0.00	0.00		
90MW0034	90MW0034	10/08/2001	GROUNDWATER	94.00	99.00	28.57	33.57
95-15C	95-15C	10/08/2001	GROUNDWATER	147.00	157.00	78.16	88.16
95-15C	95-15C	10/08/2001	GROUNDWATER	147.00	157.00	78.16	88.16
W07DDA	MW-07	10/10/2001	GROUNDWATER	332.00	342.00	223.00	233.00
W102M1A	MW-102	10/12/2001	GROUNDWATER	267.00	277.00	121.10	131.10
W103M1A	MW-103	10/08/2001	GROUNDWATER	298.00	308.00	153.60	163.60
W103M2A	MW-103	10/08/2001	GROUNDWATER	282.00	292.00	137.60	147.60
W104M1A	MW-104	10/10/2001	GROUNDWATER	155.00	165.00	34.60	44.60
W104M2A	MW-104	10/10/2001	GROUNDWATER	135.00	145.00	14.50	24.50
W107M1A	MW-107	10/10/2001	GROUNDWATER	155.00	165.00	33.30	43.30
W114M2A	MW-114	10/10/2001	GROUNDWATER	120.00	130.00	37.50	47.50
W114M2D	MW-114	10/10/2001	GROUNDWATER	120.00	130.00	37.50	47.50
W120SSA	MW-120	10/10/2001	GROUNDWATER	103.00	113.00	0.00	10.00
W122SSA	MW-122	10/10/2001	GROUNDWATER	88.00	98.00	0.00	10.00
W130SSA	MW-130	10/11/2001	GROUNDWATER	103.00	113.00	0.00	10.00
W132SSA	MW-132	10/10/2001	GROUNDWATER	37.00	47.00	0.00	10.00
W134SSA	MW-134	10/11/2001	GROUNDWATER	133.00	143.00	0.00	10.00
W138M1A	MW-38	10/09/2001	GROUNDWATER	235.00	263.00	111.80	121.80
W138M2A	MW-38	10/09/2001	GROUNDWATER	151.00	161.00	28.20	38.20
W138M2D	MW-38	10/09/2001	GROUNDWATER	151.00	161.00	28.20	38.20
W138M3A	MW-38	10/09/2001	GROUNDWATER	135.00	145.00	12.10	22.10
W157DDA	MW-157	10/08/2001	GROUNDWATER	209.00	219.00	199.00	209.00
W157M1A	MW-157	10/08/2001	GROUNDWATER	154.00	164.00	144.00	154.00
W157M2A	MW-157	10/08/2001	GROUNDWATER	110.00	120.00	96.50	106.50
W157M2A	MW-157	10/10/2001	GROUNDWATER	110.00	120.00	96.50	106.50
W157M2D	MW-157	10/10/2001	GROUNDWATER	110.00	120.00	96.50	106.50
W160SSA	MW-160	10/08/2001	GROUNDWATER	137.50	147.50	5.00	15.00
W161SSA	MW-161	10/08/2001	GROUNDWATER	145.50	155.50	6.00	16.00
W163SSA	MW-163	10/10/2001	GROUNDWATER	38.00	48.00	0.00	10.00
W69SSA	MW-69	10/11/2001	GROUNDWATER	110.00	120.00	0.00	10.00

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

SED = Sample End Depth, measured in feet bgs

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

BWTE = Depth below water table, end depth, measured in feet

TABLE 2
SAMPLING PROGRESS
10/6/2001-10/12/2001

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
W80M1A	MW-180	10/10/2001	GROUNDWATER	130.00	140.00	82.73	92.73
W90M1A	MW-90	10/09/2001	GROUNDWATER	145.00	155.00	27.00	37.00
W90SSA	MW-90	10/09/2001	GROUNDWATER	118.00	128.00	0.00	10.00
W91SSA	MW-91	10/09/2001	GROUNDWATER	124.00	134.00	0.00	10.00
W96SSA	MW-96	10/12/2001	GROUNDWATER	134.00	144.00	0.00	10.00
W97M1A	MW-97	10/12/2001	GROUNDWATER	235.00	245.00	109.80	119.80
WI161SSA	MW-161	10/08/2001	GROUNDWATER	145.00	155.00	0.00	10.00
DW101101	GAC WATER	10/11/2001	IDW	0.00	0.00		
PWPPC10NO1A	RRA CONTAINMENT	10/11/2001	IDW	0.00	0.00		
PWPPC10NO1D	RRA CONTAINMENT	10/11/2001	IDW	0.00	0.00		
G185DAA	MW-185	10/10/2001	PROFILE	142.00	142.00	10.00	10.00
G185DBA	MW-185	10/10/2001	PROFILE	150.00	150.00	18.00	18.00
G185DCA	MW-185	10/10/2001	PROFILE	160.00	160.00	28.00	28.00
G185DDA	MW-185	10/10/2001	PROFILE	170.00	170.00	38.00	38.00
G185DDD	MW-185	10/10/2001	PROFILE	170.00	170.00	38.00	38.00
G185DEA	MW-185	10/10/2001	PROFILE	180.00	180.00	48.00	48.00
G185DFA	MW-185	10/10/2001	PROFILE	190.00	190.00	58.00	58.00
G185DGA	MW-185	10/10/2001	PROFILE	200.00	200.00	68.00	68.00
G185DHA	MW-185	10/10/2001	PROFILE	210.00	210.00	78.00	78.00
G185DIA	MW-185	10/11/2001	PROFILE	220.00	220.00	88.00	88.00
G185DJA	MW-185	10/11/2001	PROFILE	230.00	230.00	98.00	98.00
G185DKA	MW-185	10/11/2001	PROFILE	240.00	240.00	108.00	108.00
G185DLA	MW-185	10/12/2001	PROFILE	250.00	250.00	118.00	118.00
G185DMA	MW-185	10/12/2001	PROFILE	260.00	260.00	128.00	128.00
G185DNA	MW-185	10/12/2001	PROFILE	270.00	270.00	138.00	138.00
G185DOA	MW-185	10/12/2001	PROFILE	280.00	280.00	148.00	148.00
G185DPA	MW-185	10/12/2001	PROFILE	290.00	290.00	158.00	158.00
GAB30A	J2P-11	10/10/2001	PROFILE	95.00	95.00	4.30	4.30
GAB30D	J2P-11	10/10/2001	PROFILE	95.00	95.00	4.30	4.30
HC102PB1AAA	102PB	10/11/2001	SOIL GRID	0.00	0.25		
HC102PB1BAA	102PB	10/11/2001	SOIL GRID	0.25	0.50		
HC102PB1CAA	102PB	10/11/2001	SOIL GRID	0.50	1.00		
HC102PB1CAD	102PB	10/11/2001	SOIL GRID	0.50	1.00		
HC102PC1AAA	102PC	10/11/2001	SOIL GRID	0.00	0.25		
HC102PC1BAA	102PC	10/11/2001	SOIL GRID	0.25	0.50		
HC102PC1CAA	102PC	10/11/2001	SOIL GRID	0.50	1.00		
HC102PC1CAD	102PC	10/11/2001	SOIL GRID	0.50	1.00		
HC102PD1AAA	102PD	10/11/2001	SOIL GRID	0.00	0.25		
HC102PD1BAA	102PD	10/11/2001	SOIL GRID	0.25	0.50		
HC102PD1CAA	102PD	10/11/2001	SOIL GRID	0.50	1.00		
HC102PE1AAA	102PE	10/11/2001	SOIL GRID	0.00	0.25		
HC102PE1BAA	102PE	10/11/2001	SOIL GRID	0.25	0.50		
HC102PE1CAA	102PE	10/11/2001	SOIL GRID	0.50	1.00		
HC102VA1DAA	102VA	10/11/2001	SOIL GRID	1.50	2.00		

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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 10/6/2001-10/12/2001

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
HC102VB1AAA	102VB	10/12/2001	SOIL GRID	0.00	0.25		
HC102VB1BAA	102VB	10/12/2001	SOIL GRID	0.25	0.50		
HC102VB1CAA	102VB	10/12/2001	SOIL GRID	0.50	1.00		
HC102VB1DAA	102VB	10/12/2001	SOIL GRID	1.50	2.00		
HC102VD1AAA	102VD	10/12/2001	SOIL GRID	0.00	0.25		
HC102VD1BAA	102VD	10/12/2001	SOIL GRID	0.25	0.50		
HC102VD1CAA	102VD	10/12/2001	SOIL GRID	0.50	1.00		
HC102VD1DAA	102VD	10/12/2001	SOIL GRID	1.50	2.00		
HC102VE1AAA	102VE	10/12/2001	SOIL GRID	0.00	0.25		
HC102VE1BAA	102VE	10/12/2001	SOIL GRID	0.25	0.50		
HC102VE1CAA	102VE	10/12/2001	SOIL GRID	0.50	1.00		
HC102VE1DAA	102VE	10/12/2001	SOIL GRID	1.50	2.00		
HC102VG1AAA	102VG	10/12/2001	SOIL GRID	0.00	0.25		
HC102VG1BAA	102VG	10/12/2001	SOIL GRID	0.25	0.50		
HC102VG1CAA	102VG	10/12/2001	SOIL GRID	0.50	1.00		
HC102VG1DAA	102VG	10/12/2001	SOIL GRID	1.50	2.00		
HC102VH1AAA	102VH	10/12/2001	SOIL GRID	0.00	0.25		
HC102VH1BAA	102VH	10/12/2001	SOIL GRID	0.25	0.50		
HC102VH1CAA	102VH	10/12/2001	SOIL GRID	0.50	1.00		
HC102VH1DAA	102VH	10/12/2001	SOIL GRID	1.50	2.00		
HC102VJ1AAA	102VJ	10/11/2001	SOIL GRID	0.00	0.25		
HC102VJ1BAA	102VJ	10/11/2001	SOIL GRID	0.25	0.50		
HC102VJ1CAA	102VJ	10/11/2001	SOIL GRID	0.50	1.00		
HC102VJ1DAA	102VJ	10/11/2001	SOIL GRID	1.50	2.00		
HD102N11AAA	102N1	10/11/2001	SOIL GRID	0.00	0.25		
HD102N11BAA	102N1	10/11/2001	SOIL GRID	0.25	0.50		
HD102N11CAA	102N1	10/11/2001	SOIL GRID	0.50	1.00		
HD102N21AAA	102N2	10/11/2001	SOIL GRID	0.00	0.25		
HD102N21BAA	102N2	10/11/2001	SOIL GRID	0.25	0.50		
HD102N21CAA	102N2	10/11/2001	SOIL GRID	0.50	1.00		

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

SED = Sample End Depth, measured in feet bgs

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

BWTE = Depth below water table, end depth, measured in feet

TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 9/22/01-10/12/01

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
27MW0017A	27MW0017	10/01/2001	GROUNDWATER	134.00	139.00	49.70	54.70	8330N	1,3-DINITROBENZENE	NO
27MW0017A	27MW0017	10/01/2001	GROUNDWATER	134.00	139.00	49.70	54.70	8330N	NITROGLYCERIN	NO
W135M2A	MW-135	10/04/2001	GROUNDWATER	280.00	290.00	91.60	101.60	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W166M1A	MW-166	10/04/2001	GROUNDWATER	218.00	223.00	112.00	117.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W166M2A	MW-166	10/04/2001	GROUNDWATER	150.00	160.00	44.00	54.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W166M2A	MW-166	10/04/2001	GROUNDWATER	150.00	160.00	44.00	54.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
W166M3A	MW-166	10/04/2001	GROUNDWATER	125.00	135.00	16.40	26.40	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W166M3A	MW-166	10/04/2001	GROUNDWATER	125.00	135.00	16.40	26.40	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
W88M2A	MW-88	09/28/2001	GROUNDWATER	213.00	223.00	72.00	82.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W88M2A	MW-88	09/28/2001	GROUNDWATER	213.00	223.00	72.00	82.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
W89M1A	MW-89	09/28/2001	GROUNDWATER	234.00	244.00	92.00	102.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W89M2A	MW-89	10/03/2001	GROUNDWATER	214.00	224.00	72.00	82.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W89M2A	MW-89	10/03/2001	GROUNDWATER	214.00	224.00	72.00	82.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
W89M2D	MW-89	10/03/2001	GROUNDWATER	214.00	224.00	69.10	79.10	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W89M2D	MW-89	10/03/2001	GROUNDWATER	214.00	224.00	69.10	79.10	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
W91M1A	MW-91	10/03/2001	GROUNDWATER	170.00	180.00	45.00	55.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W91M1A	MW-91	10/03/2001	GROUNDWATER	170.00	180.00	45.00	55.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
W93M1A	MW-93	10/03/2001	GROUNDWATER	185.00	195.00	56.00	66.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W93M2A	MW-93	10/03/2001	GROUNDWATER	145.00	155.00	16.00	26.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W93M2A	MW-93	10/03/2001	GROUNDWATER	145.00	155.00	16.00	26.00	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7	YES
W95M1A	MW-95	10/01/2001	GROUNDWATER	202.00	212.00	78.00	88.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
W95M2A	MW-95	10/01/2001	GROUNDWATER	167.00	177.00	43.00	53.00	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5	YES
G185DAA	MW-185	10/10/2001	PROFILE	142.00	142.00	10.00	10.00	8330N	2,4-DINITROTOLUENE	NO
G185DAA	MW-185	10/10/2001	PROFILE	142.00	142.00	10.00	10.00	8330N	NITROGLYCERIN	NO
G185DAA	MW-185	10/10/2001	PROFILE	142.00	142.00	10.00	10.00	8330N	PICRIC ACID	NO
G185DBA	MW-185	10/10/2001	PROFILE	150.00	150.00	18.00	18.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	NO
G185DBA	MW-185	10/10/2001	PROFILE	150.00	150.00	18.00	18.00	8330N	2,4-DINITROTOLUENE	NO
G185DBA	MW-185	10/10/2001	PROFILE	150.00	150.00	18.00	18.00	8330N	NITROGLYCERIN	NO
G185DCA	MW-185	10/10/2001	PROFILE	160.00	160.00	28.00	28.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	NO
G185DCA	MW-185	10/10/2001	PROFILE	160.00	160.00	28.00	28.00	8330N	2,4-DINITROTOLUENE	NO
G185DCA	MW-185	10/10/2001	PROFILE	160.00	160.00	28.00	28.00	8330N	NITROGLYCERIN	NO
G185DDA	MW-185	10/10/2001	PROFILE	170.00	170.00	38.00	38.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	NO

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

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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 9/22/01-10/12/01

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G185DDA	MW-185	10/10/2001	PROFILE	170.00	170.00	38.00	38.00	8330N	2,4-DINITROTOLUENE	NO
G185DDA	MW-185	10/10/2001	PROFILE	170.00	170.00	38.00	38.00	8330N	NITROGLYCERIN	NO
G185DDD	MW-185	10/10/2001	PROFILE	170.00	170.00	38.00	38.00	8330N	1,3,5-TRINITROBENZENE	NO
G185DDD	MW-185	10/10/2001	PROFILE	170.00	170.00	38.00	38.00	8330N	1,3-DINITROBENZENE	NO
G185DDD	MW-185	10/10/2001	PROFILE	170.00	170.00	38.00	38.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	NO
G185DDD	MW-185	10/10/2001	PROFILE	170.00	170.00	38.00	38.00	8330N	2,4-DINITROTOLUENE	NO
G185DDD	MW-185	10/10/2001	PROFILE	170.00	170.00	38.00	38.00	8330N	NITROGLYCERIN	NO
G185DEA	MW-185	10/10/2001	PROFILE	180.00	180.00	48.00	48.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G185DEA	MW-185	10/10/2001	PROFILE	180.00	180.00	48.00	48.00	8330N	NITROGLYCERIN	NO
G185DFA	MW-185	10/10/2001	PROFILE	190.00	190.00	58.00	58.00	8330N	1,3,5-TRINITROBENZENE	NO
G185DFA	MW-185	10/10/2001	PROFILE	190.00	190.00	58.00	58.00	8330N	1,3-DINITROBENZENE	NO
G185DFA	MW-185	10/10/2001	PROFILE	190.00	190.00	58.00	58.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G185DFA	MW-185	10/10/2001	PROFILE	190.00	190.00	58.00	58.00	8330N	2,4-DINITROTOLUENE	NO
G185DGA	MW-185	10/10/2001	PROFILE	200.00	200.00	68.00	68.00	8330N	1,3-DINITROBENZENE	NO
G185DGA	MW-185	10/10/2001	PROFILE	200.00	200.00	68.00	68.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G185DGA	MW-185	10/10/2001	PROFILE	200.00	200.00	68.00	68.00	8330N	2,4-DINITROTOLUENE	NO
G185DHA	MW-185	10/10/2001	PROFILE	210.00	210.00	78.00	78.00	8330N	1,3,5-TRINITROBENZENE	NO
G185DHA	MW-185	10/10/2001	PROFILE	210.00	210.00	78.00	78.00	8330N	1,3-DINITROBENZENE	NO
G185DHA	MW-185	10/10/2001	PROFILE	210.00	210.00	78.00	78.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G185DHA	MW-185	10/10/2001	PROFILE	210.00	210.00	78.00	78.00	8330N	2,4-DINITROTOLUENE	NO
G185DHA	MW-185	10/10/2001	PROFILE	210.00	210.00	78.00	78.00	8330N	NITROGLYCERIN	NO
G185DIA	MW-185	10/11/2001	PROFILE	220.00	220.00	88.00	88.00	8330N	1,3,5-TRINITROBENZENE	NO
G185DIA	MW-185	10/11/2001	PROFILE	220.00	220.00	88.00	88.00	8330N	1,3-DINITROBENZENE	NO
G185DIA	MW-185	10/11/2001	PROFILE	220.00	220.00	88.00	88.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G185DIA	MW-185	10/11/2001	PROFILE	220.00	220.00	88.00	88.00	8330N	2,4-DINITROTOLUENE	NO
G185DIA	MW-185	10/11/2001	PROFILE	220.00	220.00	88.00	88.00	8330N	2-NITROTOLUENE	NO
G185DIA	MW-185	10/11/2001	PROFILE	220.00	220.00	88.00	88.00	8330N	3-NITROTOLUENE	NO
G185DIA	MW-185	10/11/2001	PROFILE	220.00	220.00	88.00	88.00	8330N	4-NITROTOLUENE	NO
G185DIA	MW-185	10/11/2001	PROFILE	220.00	220.00	88.00	88.00	8330N	NITROGLYCERIN	NO
G185DIA	MW-185	10/11/2001	PROFILE	220.00	220.00	88.00	88.00	8330N	PICRIC ACID	NO
G185DJA	MW-185	10/11/2001	PROFILE	230.00	230.00	98.00	98.00	8330N	1,3,5-TRINITROBENZENE	NO
G185DJA	MW-185	10/11/2001	PROFILE	230.00	230.00	98.00	98.00	8330N	1,3-DINITROBENZENE	NO

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* = Interference in sample

TABLE 3
 DETECTED COMPOUNDS-UNVALIDATED
 SAMPLES COLLECTED 9/22/01-10/12/01

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G185DJA	MW-185	10/11/2001	PROFILE	230.00	230.00	98.00	98.00	8330N	2,4-DIAMINO-6-NITROTOLUENE	YES
G185DJA	MW-185	10/11/2001	PROFILE	230.00	230.00	98.00	98.00	8330N	2,4-DINITROTOLUENE	NO
G185DJA	MW-185	10/11/2001	PROFILE	230.00	230.00	98.00	98.00	8330N	NITROGLYCERIN	NO
G185DJA	MW-185	10/11/2001	PROFILE	230.00	230.00	98.00	98.00	8330N	PICRIC ACID	NO
G185DKA	MW-185	10/11/2001	PROFILE	240.00	240.00	108.00	108.00	8330N	2,4-DINITROTOLUENE	NO
G185DKA	MW-185	10/11/2001	PROFILE	240.00	240.00	108.00	108.00	8330N	NITROGLYCERIN	NO
G185DKA	MW-185	10/11/2001	PROFILE	240.00	240.00	108.00	108.00	8330N	PICRIC ACID	NO

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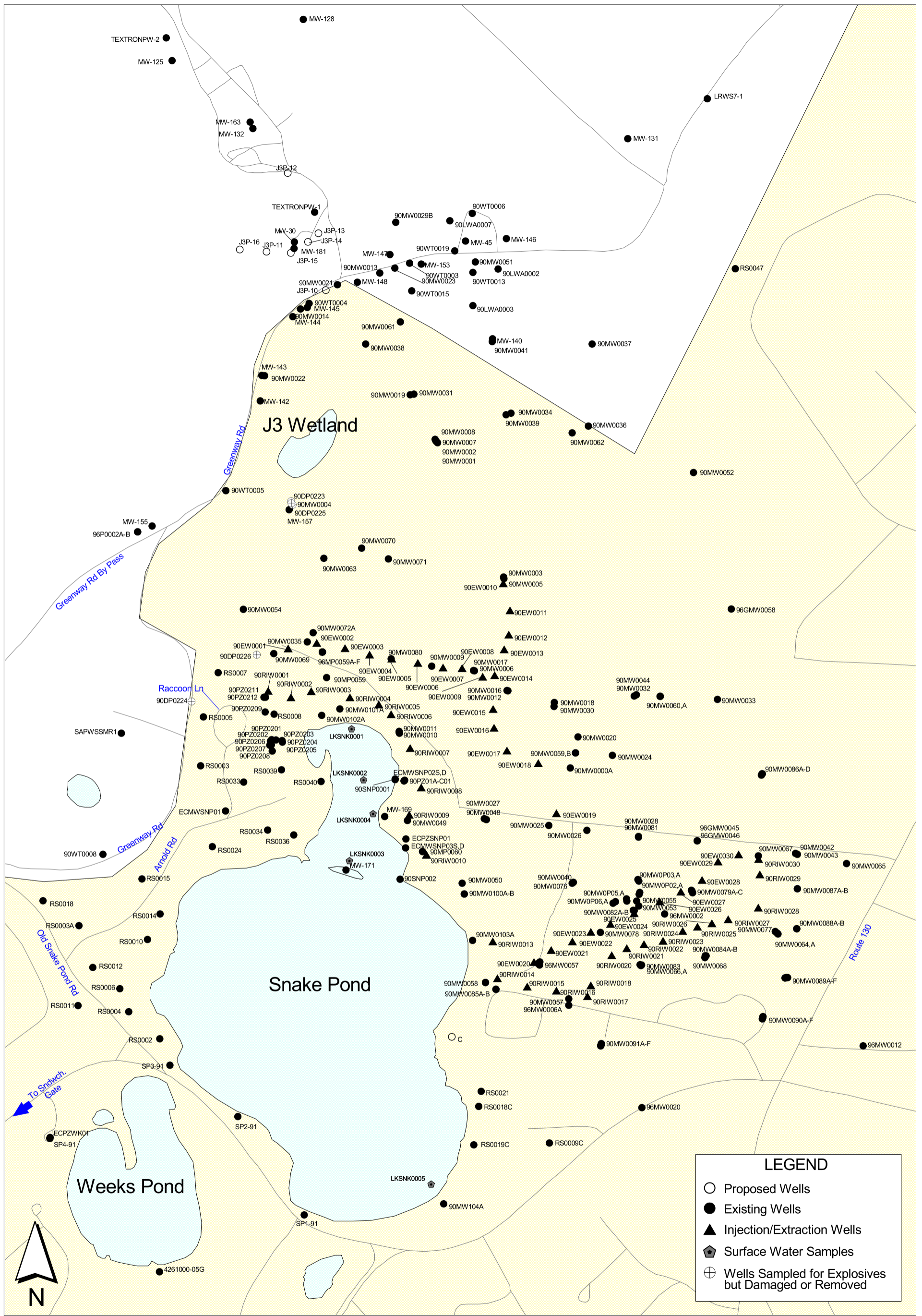
BWTS = DEPTH BELOW WATER TABLE, START DEPTH, MEASURED IN FEET

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



LEGEND

- Proposed Wells
- Existing Wells
- ▲ Injection/Extraction Wells
- Surface Water Samples
- ⊕ Wells Sampled for Explosives but Damaged or Removed

0 600 1200 Feet

Inset A

