

**WEEKLY PROGRESS UPDATE
FOR JANUARY 13 – JANUARY 17, 2003**

**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 January 13 through January 17, 2003.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of January 17 is summarized in Table 1.

Table 1. Drilling progress as of January 17, 2003				
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-252	Demo Area 1 (D1P-18)	280	166	115-125; 145-155; 174-184
MW-254	K Range (KP-2)	270	205	190-200; 230-240
bgs = below ground surface bwt = below water table				

Completed well installation of MW-252 (D1P-18) and MW-254 (KP-2). Well development continued for newly installed wells.

Samples collected during the reporting period are summarized in Table 2. Groundwater samples were collected from Bourne water supply and monitoring wells, as part of the December LTGM round, and from recently installed monitoring wells.

The following are the notes from the January 16, 2003 Technical Team meeting of the Groundwater Program at Camp Edwards:

Participants

Ben Gregson (MAARNG)	MAJ Bill Myer (MAARNG)	Tina Dolen (MAARNG)
Dave Hill (IMAARNG)	Bill Gallagher (MAARNG)	Karen Wilson (MAARNG)
LTC Bill FitzPatrick (E&RC)	Jane Dolan (EPA)	Desiree Moyer (EPA)
Jim Murphy (EPA)	Len Pinaud (MADEP)	Mark Panni (MADEP)
Dave Williams (MDPH)	Darrell Deleppo (ACE)	Ed Wise (ACE)
Heather Sullivan (ACE)	Don Wood (ACE)	John MacPherson (ACE)
Sheila Holt (ACE)	Katarzyna Chelkowska (ACE)	Darrin Smith (ACE)
Kim Harriz (AMEC)	Jay Clausen (AMEC-phone)	Kim Henry (AMEC-phone)
Dick Skryness (ECC)	Al Larkins (ECC)	Mike Goydas (Jacobs)
Carla Buriks (Tt-phone)	Susan Stewart (Tt-phone)	Adam Balogh (TRC)
Kevin Hood (Univ. of Conn.)		

Punchlist Items

- #2 Provide update for sampling/reporting Perchlorate from the Sandwich Water Supply wells. Guard/EPA/MADEP and Dan Mahoney (Sandwich Water Board) agreed that the wells would be sampled and analyzed for perchlorate with a reporting limit of 1 ppb.
- #3 Determine status of sampling the well 4036009 (Guard). Resampling results provided in the Weekly Update. Discussed further as an agenda item.
- #5 Provide data validation summary for MW-187, MW-188 and MW-215 (Corps). MW-187 data provided by email earlier in the week.
- #7 Provide ASR inquiry letter for Indian Head NAVSTA and Tyndall AFB for EPA review (Corps). Jane Dolan (EPA) approved release of the letters.
- #9 Provide EPA/DEP needs assessment for J-3 GW Pilot test for perchlorate treatment (Corps). Email response to be provided shortly.
- #11 Provide draft CIA perchlorate plume map (Corps). Plan-view map provided at the meeting. Cross-sections to be provided next week.
- #14 Provide ASR final additional Witnesses full list (Corps). List distributed at the meeting. AMEC has proposed questions for J-2 Range witnesses that will be included in the Workplan to be submitted in February. At EPA's request, these questions can be provided to the agencies ahead of the Workplan submittal.
- #15 Reconsider sampling of Region Tech School irrigation well (Corps). The Guard is considering this as an option, but wants to take look at the data in the broader area, prior to making a decision on how they will approach further characterization.

MSP3 and Southeast Ranges Update

Heather Sullivan (ACE) provided an update on the MSP3 tasks.

Ox Pond. Brush is being cut for site access. The Schonstedt survey being completed of 100 m swath around the perimeter of the pond will likely be completed tomorrow. Discoveries so far include ammo cans, expended small arms, expended rifle grenades, and other OE and non-OE scrap. Small subsurface items, depressions, and other surface features are being noted during the survey. Dr Sue Goodfellow (E&RC) is going to look at an interesting rock formation found in the area.

Gun&Mortar. Dr. Goodfellow and Karen Wilson (MAARNG) performed a site reconnaissance looking for sensitive cultural sites. The ROAs for these sites (MP-7, GP-16, among others) was submitted to SHPO on 1/13.

Former Demo sites (Inactive Demo sites). A road is being cleared to the depression. Grubbing commences today. The Schonstedt survey is scheduled to begin next Tuesday, 1/21. The EM61 survey will follow; the Guard hopes to complete the EM61 survey over 25% of the area.

J Ranges. OE items are being inventoried and stored at the CDC bunker. The reconciled findings table for J-2 Polygon 1 & 2 items is on schedule to be distributed next week.

ASP. A site walk was conducted in the B, C, & E Areas. The Corps needs to talk with Todd Borci regarding the location of a potential small arms burial area, as discussed by Witness #9.

Drilling – J1P-18 (MW-253) is being developed. SE Ranges wells are being sampled including J3P-26 (MW-251). Ray Cottengaim (ACE) is working on renewing access agreements for sampling of PZ211 and PZ208.

- The Impact Area will be closed 9:00am to 1:00pm the next three Fridays due to small arms firing at C Range and on Monday, 1/20 for Martin Luther King's birthday.

UXO. UXO clearance is being conducted for the Demo 2 proposed well D2P-2. Clearance and well pad building of D2P-3 & D2P-4 is completed.

- Jane Dolan requested the Corps add a summary of wells sampled with data pending to the Explosive summary that is distributed biweekly or in some other vehicle. Currently, the only way for the EPA to track this information is to find it in the Weekly Progress Update.

Well Schedule and ROA Status

Heather Sullivan (ACE) provided an update on the drilling schedule and ROA status. One-page drilling schedule and 3-page ROA status table was distributed.

- There were changes to the drilling schedule that was distributed. Rig #2 will complete D1P-18 by Tuesday, 1/20 and move to D1P-17. Rig #3 is being decontaminated today and will move to WS4P-4. Rig #4 is finishing up at J1P-18 and will move to CIAP-28.
- The revised Gun & Mortar ROA was submitted this week and is the only ROA outstanding with SHPO and NH.

CDC Progress Update

John MacPherson (ACE) gave a brief update on the status of the CDC.

- CDC operations continued with a total of 6,843 items (38%) destroyed to date. 11,264 items remain, consisting mostly of 20 MM rounds.
- Ed Wise (ACE) to request Frank Fedele (ACE) provide additional detail by email as available, particularly on the schedule for the CDC.
- Jane Dolan (ACE) asked if any progress had been made regarding the 40 MM rounds.

Well 4036009 in Bourne

Bill Gallagher (MAARNG) provided information on well 4036009. A figure with particle tracks from 4036009, Schooner Pass well, and MW-66 was distributed.

- Jeff Rose (MADEP Water Supply) found information on the well in MADEP files that indicated the well was 86 ft deep. The screen length is not known.
- The water elevation in well 4036009 is approximately 4 ft above MSL. Kim Harriz (AMEC) to look at well elevation to determine the approximate depth to water in the well.
- John MacPherson (ACE) indicated there were two additional monitoring wells in the parking lot behind the Gallo Arena that were installed reportedly to monitor a spill of refrigerant liquid (likely consisting of ethylene glycol). MADEP to review their records to see if they have information on the spill or monitor wells. However, if they are property transfer wells, they will likely not have any information.
- The site is Federal property leased by the Bourne Recreation Authority. Corps to contact BRA for information on refrigerant release and additional well information. Added as a Punchlist item.
- The necessity of issuing a press release regarding this detection was scheduled for discussion by the PM/CI group in an after meeting.
- Mark Panni (MADEP) requested the property boundary of the Gallo Rink be placed on the figure.
- Validation of the confirmation sampling should be available by Friday, 1/17. Guard to consider further actions regarding the detection and discuss further at the next Tech meeting.

Bourne Update

Bill Gallagher (MAARNG) summarized issues related to the Bourne area.

- Monthly/weekly sampling of the Bourne-area wells continues.
- UXO clearance was completed at WS4P-4. Items discovered consisted of wire rope wrapped around a tree. Road building is being finalized. The drill rig from D1P-18 is being mobilized to the WS4P-4 location.
- Among this week's detections, well 1-88A had an unvalidated detection of perchlorate at 1.24 ppb. The average concentration in this well has been around 0.4 ppb. This well is upgradient of Bourne Water Supply Well #1. Monitoring well 02-13 lies between the water supply well and 1-88A.
- AMEC has checked for possible mislabeling or lab errors, however nothing has been found.

- To further evaluate this result the Guard has:
 - Resampled 1-88A for perchlorate analysis on Wednesday, 1/15.
 - Sampled 1-88B for perchlorate analysis on 1/15.
 - Reanalyzed residual volume from original sample (at the request of Jeff Rose (MADEP Water Supply)).
- Results from these analyses should be available by Friday, 1/17.
- The Guard/Corps and agencies agreed on 4 new well locations upgradient of Bourne at a 1/09 After meeting. John Rice (AMEC) is performing a reconnaissance of these areas today, so that ROAs can be submitted for these locations new week.
- The Response to Comments Letter on the Bourne Response Plan was distributed today via email, but was not faxed due to length. Hard copies were mailed yesterday, 1/15.

MCP Update

Bill Gallagher (MAARNG) summarized three MCP-related issues discussed with MADEP at a meeting on Wednesday, 1/15.

Bourne Perchlorate Response Plan. There was confusion regarding what this document represented. The Guard proposed this plan to represent a Phase I Report and partial Phase II scope of work. MADEP agreed this deliverable, with some modification, could serve as these deliverables.

- No RTN has been issued for the site. There are 2 options. 1) The Guard can request the MADEP to assign an RTN. 2) The site may fall under a provision in the MCP for unregulated compounds where MCP procedures for site investigation need to be followed, but deliverables do not need to be submitted. Len Pinaud and Mark Panni to review this regulation and provide feedback on its applicability in this situation to the Guard. Ultimately, the decision of which way to proceed will have to be made by the LSP of record.

OE and Explosive Characterization under the MCP, Risk to Safety. The Army's interpretation is that this requirement needs to be addressed in the risk assessment process for all sites with RCS-1 exceedances. The DoD standards for safety are "applicable and suitable" standards required under the MCP Risk Assessment evaluation of risk to public safety.

- Len Pinaud indicated that MADEP was in agreement with the Army's position that the DoD standards would likely meet the MCP criteria for determining the risk to public safety for UXO, but MADEP requested the Army provide the standards to MADEP so that the Department could review them".

Risk Characterization. The Guard's August 2002 letter described the revised COC identification process currently being implemented for the Gun and Mortar firing positions and Demo Area 1. MADEP response to this letter was that the LSP had some latitude to make this decision. No response has been received from EPA and the Guard is moving forward with this approach. The Guard is hoping EPA provides comment before they get too far along in the Demo 1 Area Soil RRA/RAM. The Guard requests the agencies expedite their review of the Gun and Mortar Firing Positions Final COC List that uses the revised COC identification approach. The Demo 1 Soil RRA/RAM Plan to be submitted in February will provide additional opportunity to comment. Regarding future use scenarios, the military sees MMR as an active base and the Guard is assessing exposure scenarios based on this use. Residential use scenarios are not being considered.

Miscellaneous

- Bill Gallagher (MAARNG) noted there was not a clear protocol for document distribution to the agencies. Len Pinaud indicated they preferred electronic deliverables only. If files were over 5 MB, the files are not accepted in MADEP's system. These large files should be provided on a CD. In addition, MADEP cannot download files from transfer sites. EPA and MADEP to provide official guidance on the agencies' preferences for deliverables. In addition, Ben Gregson requested the EPA let the Guard know what form of communication constitutes an official receipt under the Administrative Order.

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 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:

Central Impact Area and Downgradient

- Groundwater samples from the MW-176M1 had detections of RDX. The results were similar to the previous sampling rounds.

Southeast Ranges

- Groundwater samples from MW-163S and MW-164M2 had detections of explosives that were confirmed by PDA spectra. The results were similar to the previous sampling rounds.
- Groundwater samples from MW-181S had detections of 4A-DNT, 2A-DNT, TNT, RDX, and HMX that were confirmed by PDA spectra. These are the first detections of 4A-DNT, 2A-DNT, TNT, and RDX in this well. The detection of HMX was similar to the previous sampling rounds.

DELIVERABLES SUBMITTED

No documents were submitted for the week of January 13 – January 17, 2003.

3. SCHEDULED ACTIONS

Scheduled actions for the week of January 20 include commence drilling of MW-256 (CIAP-28), MW-257 (WS4P-4), and MW-258 (D1P-17). Groundwater sampling at the Bourne water supply and monitoring wells and as part of the December LTGM round will continue.

4. SUMMARY OF ACTIVITIES FOR DEMO 1

Additional delineation of the downgradient portion of the groundwater plume is being conducted prior to finalizing the Feasibility Study for the Groundwater Operable Unit and as the Interim Action for groundwater remediation is being designed. Pumping and treating groundwater at the toe of the Demo 1 plume and at Frank Perkins Road has been selected as an Interim Action to address the Demo 1 Area Groundwater Operable Unit. A Rapid Response Action/Release Abatement Measure (RRA/RAM) is also being planned to address soil contamination at Demo 1. Drilling at D1P-17 will commence next week.

**TABLE 2
SAMPLING PROGRESS
01/11/2003 - 01/18/2003**

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
90MW0019-E	FIELDQC	01/14/2003	FIELDQC	0	0		
90MW0022-E	FIELDQC	01/13/2003	FIELDQC	0	0		
90MW0101A-E	FIELDQC	01/15/2003	FIELDQC	0	0		
27MW0108A-A	27MW0108A	01/13/2003	GROUNDWATER	222	227	80.7	85.7
4036000-01G-A	4036000-01G	01/14/2003	GROUNDWATER	38	69.8	6	12
4036000-03G-A	4036000-03G	01/14/2003	GROUNDWATER	50	60	6	12
4036000-04G-A	4036000-04G	01/14/2003	GROUNDWATER	54.6	64.6	6	12
4036000-06G-A	4036000-06G	01/14/2003	GROUNDWATER	108	128	6	12
90MW0006-A	90MW0006	01/14/2003	GROUNDWATER	129	134	52.85	57.85
90MW0011-A	90MW0011	01/14/2003	GROUNDWATER	46.5	51.5	34.8	39.8
90MW0011-D	90MW0011	01/14/2003	GROUNDWATER	46.5	51.5	34.8	39.8
90MW0019-A	90MW0019	01/14/2003	GROUNDWATER	161	166	78	83
90MW0022-A	90MW0022	01/13/2003	GROUNDWATER	112	117	72.79	77.79
90MW0031-A	90MW0031	01/15/2003	GROUNDWATER	195.32	200.22	112	117
90MW0034-A	90MW0034	01/13/2003	GROUNDWATER	93.71	98.59		
90MW0038-A	90MW0038	01/13/2003	GROUNDWATER	94.75	99.62	29	34
90MW0041-A	90MW0041	01/13/2003	GROUNDWATER	125.37	130.23	31.5	36.5
90MW0041-D	90MW0041	01/13/2003	GROUNDWATER	125.37	130.23	31.5	36.5
90MW0101A-A	90MW0101A	01/15/2003	GROUNDWATER	112.69	117.5	104.4	109.4
90MW0102A-A	90MW0102A	01/15/2003	GROUNDWATER	112.9	117.7	108.2	113.2
90PZ0208-A	90PZ0208	01/15/2003	GROUNDWATER	90	95	72.8	77.8
90WT0003-A	90WT0003	01/14/2003	GROUNDWATER	91.5	101.5	0	10
90WT0004-A	90WT0004	01/14/2003	GROUNDWATER	35	45	3	13
90WT0006-A	90WT0006	01/14/2003	GROUNDWATER	98	108	95	105
90WT0019-A	90WT0019	01/15/2003	GROUNDWATER	96	106	0	10
95-6A-A	95-6A	01/16/2003	GROUNDWATER	167.5	177.5	142.5	152.5
OW-1-A	OW-1	01/16/2003	GROUNDWATER	126	136	0	10
TW1-88A-A	1-88	01/14/2003	GROUNDWATER	102.9	102.9	67.4	67.4
TW1-88A-D	1-88	01/14/2003	GROUNDWATER	102.9	102.9	67.4	67.4
TW1-88B-A	1-88	01/14/2003	GROUNDWATER	105.5	105.5	69.6	69.6
TW1-88B-D	1-88	01/14/2003	GROUNDWATER	105.5	105.5	69.6	69.6
W01M1A	MW-01	01/16/2003	GROUNDWATER	220	225	104	109
W01M1D	MW-01	01/16/2003	GROUNDWATER	160	165	44	49
W01M2A	MW-01	01/15/2003	GROUNDWATER	160	165	44	49

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
01/11/2003 - 01/18/2003**

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W02-01M1A	02-01	01/17/2003	GROUNDWATER	95	105	42.9	52.9
W02-01M2A	02-01	01/17/2003	GROUNDWATER	83	93	30.9	40.9
W02-03M1A	02-03	01/17/2003	GROUNDWATER	130	140	86.1	96.1
W02-03M2A	02-03	01/17/2003	GROUNDWATER	92	102	48.15	58.15
W02-03M3A	02-03	01/17/2003	GROUNDWATER	75	85	31.05	41.05
W02-04M1A	02-04	01/17/2003	GROUNDWATER	123	133	73.97	83.97
W02-04M2A	02-04	01/17/2003	GROUNDWATER	98	108	48.93	58.93
W02-04M3A	02-04	01/17/2003	GROUNDWATER	83	93	34.01	44.01
W02-05M1A	02-05	01/17/2003	GROUNDWATER	110	120	81.44	91.44
W02-05M2A	02-05	01/17/2003	GROUNDWATER	92	102	63.41	73.41
W02-05M3A	02-05	01/17/2003	GROUNDWATER	70	80	41.37	51.37
W02-07M1A	02-07	01/17/2003	GROUNDWATER	135	145	101.14	111.14
W02-09M1A	02-09	01/17/2003	GROUNDWATER	74	84	65.26	75.26
W02-09M2A	02-09	01/17/2003	GROUNDWATER	59	69	50.3	60.3
W02-09M2D	02-09	01/17/2003	GROUNDWATER	59	69	50.3	60.3
W02-10M1A	02-10	01/17/2003	GROUNDWATER	135	145	94	104
W02-10M2A	02-10	01/17/2003	GROUNDWATER	110	120	68.61	78.61
W02-12M1A	02-12	01/14/2003	GROUNDWATER	109	119	58.35	68.35
W02-12M2A	02-12	01/14/2003	GROUNDWATER	94	104	43.21	53.21
W02-12M3A	02-12	01/14/2003	GROUNDWATER	79	89	28.22	38.22
W02-13M1A	02-13	01/14/2003	GROUNDWATER	98	108	58.33	68.33
W02-13M2A	02-13	01/14/2003	GROUNDWATER	83	93	44.2	54.2
W02-13M3A	02-13	01/14/2003	GROUNDWATER	68	78	28.3	38.3
W02M1A	MW-02	01/16/2003	GROUNDWATER	212	217	75	80
W02M2A	MW-02	01/16/2003	GROUNDWATER	170	175	33	38
W02M2D	MW-02	01/16/2003	GROUNDWATER	170	175	33	38
W102M1A	MW-102	01/13/2003	GROUNDWATER	267	277	123	133
W102M1D	MW-102	01/13/2003	GROUNDWATER	267	277	123	133
W102M2A	MW-102	01/13/2003	GROUNDWATER	237	247	93	103
W108M1A	MW-108	01/13/2003	GROUNDWATER	297	307	133	143
W108M2A	MW-108	01/13/2003	GROUNDWATER	282	292	118	128
W123M1A	MW-123	01/13/2003	GROUNDWATER	291	301	153	163
W123M2A	MW-123	01/13/2003	GROUNDWATER	236	246	98	108
W169M2A	MW-169	01/17/2003	GROUNDWATER	113.5	118.5	113	118

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
01/11/2003 - 01/18/2003**

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W171M1A	MW-171	01/16/2003	GROUNDWATER	141	146	143	148
W171M1D	MW-171	01/16/2003	GROUNDWATER	141	146	143	148
W171M2A	MW-171	01/16/2003	GROUNDWATER	81	86	83	88
W171M3A	MW-171	01/15/2003	GROUNDWATER	29	34	31	36
W178M1A	MW-178	01/13/2003	GROUNDWATER	257	267	117	127
W178M2A	MW-178	01/13/2003	GROUNDWATER	167	177	27	37
W251M1A	MW-251	01/16/2003	GROUNDWATER	128	133		
W251M2A	MW-251	01/16/2003	GROUNDWATER	98	103		
W251M3A	MW-251	01/17/2003	GROUNDWATER	83	88		
W85M1A	MW-85	01/13/2003	GROUNDWATER	137.5	147.5	22	32
W86M1A	MW-86	01/16/2003	GROUNDWATER	208	218	66	76
W86M1D	MW-86	01/16/2003	GROUNDWATER	208	218	66	76
W86M2A	MW-86	01/15/2003	GROUNDWATER	158	168	16	26
W87M1A	MW-87	01/15/2003	GROUNDWATER	194	204	62	72
W87M2A	MW-87	01/15/2003	GROUNDWATER	169	179	37	47
W87M3A	MW-87	01/15/2003	GROUNDWATER	140	150	8	18
W88M1A	MW-88	01/16/2003	GROUNDWATER	233	243	92	102
W88M2A	MW-88	01/16/2003	GROUNDWATER	213	223	72	82
W88M3A	MW-88	01/15/2003	GROUNDWATER	173	183	32	42
W88M3D	MW-88	01/15/2003	GROUNDWATER	173	183	32	42
W89M1A	MW-89	01/16/2003	GROUNDWATER	234	244	92	102
W89M2A	MW-89	01/16/2003	GROUNDWATER	214	224	72	82
W89M3A	MW-89	01/16/2003	GROUNDWATER	174	184	32	42
W99M1A	MW-99	01/14/2003	GROUNDWATER	195	205	60	70

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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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 12/20/02 - 01/18/03**

OGDEN ID	LOCID OR WELL	SAMPLED	SAMP TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN ANALYTE	PDA
W163SSA	MW-163	01/08/2003	GROUNDWATER	38	48	0	10	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
W163SSA	MW-163	01/08/2003	GROUNDWATER	38	48	0	10	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TET	YES
W164M2A	MW-164	01/08/2003	GROUNDWATER	157	167	49	59	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TET	YES
W164M2A	MW-164	01/08/2003	GROUNDWATER	157	167	49	59	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
W176M1A	MW-176	01/10/2003	GROUNDWATER	270	280	158.55	168.55	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
W181SSA	MW-181	01/09/2003	GROUNDWATER	32.25	42.25	0	10	8330N	4-AMINO-2,6-DINITROTOLUENE	YES
W181SSA	MW-181	01/09/2003	GROUNDWATER	32.25	42.25	0	10	8330N	2-AMINO-4,6-DINITROTOLUENE	YES
W181SSA	MW-181	01/09/2003	GROUNDWATER	32.25	42.25	0	10	8330N	2,4,6-TRINITROTOLUENE	YES
W181SSA	MW-181	01/09/2003	GROUNDWATER	32.25	42.25	0	10	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
W181SSA	MW-181	01/09/2003	GROUNDWATER	32.25	42.25	0	10	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TET	YES

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