

**WEEKLY PROGRESS UPDATE
FOR MARCH 22 – MARCH 26, 2004**

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

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

The following summary of progress is for the period from March 22 through March 26, 2004.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of March 26, 2004 is summarized in Table 1.

Table 1. Drilling progress as of March 26, 2004				
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-307	J-2 Range (J2P-28)	331	224	125-135; 230-240; 295-305
MW-316	Western Boundary (BP-6)	356	169	185-195
MW-317	Western Boundary (CBP-9)	10		
MW-318	J-2 Range (J2P-35)	337	216	
MW-319	J-2 Range (J2P-21)	324	231	
MW-320	Northwest Corner (NWP-15)	270	154	114-124; 138-148
MW-321	J-2 Range (J2P-24)	312	207	
MW-322	J-2 Range (J2P-36)	336	217	
MW-323	Northwest Corner (NWP-8a)	195	120	
MW-324	J-2 Range (J2P-23)	150	27	
MW-325	L-Range (LP-13)	190	112	
bgs = below ground surface				
bwt = below water table				

Completed well installation at MW-307 (J2P-28), MW-316 (BP-6), and MW-320 (NWP-15); commenced well installation at MW-319 (J2P-21); completed drilling at MW-321 (J2P-24) and MW-322 (J2P-36); and commenced drilling at MW-317 (CBP-9), MW-323 (NWP-8a), MW-324 (J2P-23), and MW-325 (LP-13). Well development continued for recently installed wells.

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-321, MW-322, MW-323, MW-324, and MW-325. Groundwater samples were collected from Bourne water supply and monitoring wells, a residential well, recently installed wells, and as part of the December round of the Draft 2003 Long-Term Groundwater Monitoring Program. Investigation-derived waste (IDW) samples were collected from the Granular Activated Carbon (GAC) treatment system. Samples of well development water were collected from IW-272. Soil samples were collected from grids at the J-1 Range, Demo Area 1, Bunker #4 and Target 42 in the Impact Area, and from a drum in the J-3 Range.

The following are the notes from the March 25, 2004 Technical Team meeting of the Impact Area Groundwater Study Program office at Camp Edwards:

Participants

Ben Gregson (IAGWSP)	Bill Gallagher (IAGWSP)	Dave Hill (IAGWSP)
Paul Nixon (IAGWSP)	Pam Richardson (IAGWSP)	Todd Borci (EPA)
Meghan Cassidy (EPA)	Jane Dolan (EPA)	Desiree Moyer (EPA)
Bob Lim (EPA)	Len Pinaud (MADEP)	Dave Williams (MDPH-phone)
Gina Kaso (ACE)	Frank Fedele (ACE)	Ed Wise (ACE)
Katarzyna Chelkowska (ACE)	Dave Margolis (ACE)	Don Wood (ACE)
Darrin Smith (ACE)	Mark Koenig (ACE)	Scott Michalak (ACE)
Reemt Pauw (ACE)	Kim Harriz (AMEC)	Jay Clausen (AMEC-phone)
Joe Robb (AMEC)	Mike Goydas (Jacobs)	Kevin Hood (UConn/TOSC)

Punchlist Items

- #2 Provide update on access agreement with Schooner Pass Condominium Assoc (ACE)
Assoc. may vote on agreement in early April meeting. Gina Kaso (ACE) will continue to maintain contact with Army Corps real estate group for updates.
- #3 Provide status of access agreement with Camp Good News (ACE). AFCEE has a blanket agreement for federal government access to Camp Good News. IAGWSP must coordinate field work with the CGN director.
- #4 Provide status of perchlorate sampling of excavated material piles from J-1 Range Polygons 1&16 (ACE). Sampling scheduled to be conducted the first week of April.
- #5 Provide status of road maintenance (ACE). The Army Corps is in the process of prioritizing the roadways for maintenance. Frank Fedele (ACE) read off the list of roads scheduled for maintenance in order of priority.

Fieldwork Update

Frank Fedele (ACE) provided an update on the IAGWSP fieldwork.

- As part of AMEC's investigation, well installation was completed at MW-320 (NWP-15) and MW-316 (BP-6). Drilling commenced at MW-323 (NWP-8a) and CBP-9 (today). Well development was completed at MW-314 (NWP-14), IW-272(IW-D1-2), and MW-311 (D2P-5), continues for IW-273 (IW-D1-3), and commences today at MW-312 (D2P-6).
- UXO clearance will resume at LP-10 next week.
- Groundwater sampling at Bourne, LTM and new wells continues including new well MW-309 on 3/8/04.
- Soil sampling for the Central Impact Area Focused Investigation was completed. Lysimeter installation and sampling at Target 42 continues. Soil sampling at the Demo 2 berm is being conducted today.
- Preliminary design and construction of the Demo 1 Frank Perkins and Pew Road ETRs continued. The ITE study at the Demo 1 Pew Road location continues.
- Well pad restoration in the Central Impact Area continues.
- As part of ECC's investigation, well installation was completed for MW-315 (J1P-27) and MW-307 (J2P-28), and continues at MW-319 (J2P-21). Drilling was completed at MW-321 (J2P-24) and MW-322 (J2P-36) and continues at MW-324 (J2P-23) and MW-325 (LP-13).
- UXO clearance was completed at LP-13. Well pad construction was completed at J2P-23 and LP-13.
- Well development was completed at MW-310 (J2P-22) and MW-315 (J1P-27).
- In support of the J-3 Range RRA, UXO surface clearance and anomaly removal continued. The contents of the crushed partial drum at grid B7 was sampled for VOCs, metals, perchlorate, and explosives analysis on 3/22/04. Three separate burial areas in the vicinity of grids D6, D7 were uncovered. No stained soil was evident. The burial areas are shown on

a figure of the J-3 Range RRA Excavation Area. The first pit, labeled “skeet launchers” contained 37 rocket motors. The pit was 3 ft in diameter and 1-1.5 ft bgs deep. The second pit, labeled 20mm, contained 2000, 20mm projectiles, some with lot numbers. The 1000 20mm projectiles with fuzes were taken to the CDC. The 1000 projectiles without fuzes, did not have explosive residue and were disposed as OE scrap. The third pit labeled “40mm” had a wire-mesh blasting mat imbedded with 10 to 20, 40mm nose sections. This pit was 1 ft deep and 6 ft in diameter. Soil samples will be collected from the pits.

- At the J-1 and J-2 Ranges, soil sampling as part of the Supplemental Soil Workplans was completed.
- Sorting of scrap from J-2 Range Disposal Area 2 was temporarily stopped this week.
- UXO clearance and improvements to roads in support of field activities was stopped this week so that crews (2 crews with 7 members each) could be utilized at Demo 1 and J-3 Range. Jane Dolan (EPA) asked when a UXO crew would be mobilized for the J-2 Range RRA and requested an estimate as to the duration of the clearance work required.
- Ten items were BIPed on 3/18 at the J-3 Range and at Turpentine Road. BIPs of three 2.36 inch rockets were conducted today on J-3 Range, at grid C5 (2), grid C6 (1).

Demo 1 Update

Frank Fedele (ACE) and Paul Nixon (IAGWSP) provided an update on the Demo 1 fieldwork, distributing a figure showing details of the progress of the soil excavation as of 3/25.

- Excavation of soil to 2-3 ft bgs was completed in grids 93 and 67 and to 1-2 ft bgs in grids 40 and 91; all areas with RDX exceeding the action level. Total soil excavated was 400 cu yards. Meghan Cassidy (EPA) asked if soil from grid 91 would be characterized as RCRA hazardous waste? Paul Nixon (IAGWSP) indicated the concentrations were not 1.35% RDX in the soil and therefore not hazardous waste. Ms. Cassidy emphasized that it was important to be aware of whether the waste was or was not RCRA hazardous waste and to document the determination accordingly. Mr. Nixon further indicated there was no evidence of burning of the soil, but the soil from this grid had been segregated from other excavated soil. Todd Borci (EPA) requested the IAGWSP double check for evidence of burning. Analytical results from the additional excavated soil is pending. No additional soil excavation will be conducted in the foreseeable future. 400 tons of soil was screened this past week and is in the feed area at H Range. A total of 1500 tons of soil has been stockpiled.
- Staking of grids in the kettle hole for anomaly removal was completed yesterday, 3/24.
- Three hundred tons of soil has been processed over the past 2 weeks. Processing of soil that has been spiked with contaminants continues; results from these runs are expected tomorrow, 3/27.
- Three thousand tons of soil has been processed to date, at an average rate of 24 tons per hour. The thermal treatment unit is expected to be restarted on Tuesday, 3/30 with the Proof of Performance test scheduled to be conducted on Wednesday, Thursday, and Friday (3/31-4/2).

ROA Status and Drilling Schedule

Darrin Smith (ACE) reviewed the ROA status and drilling schedule, distributing an ROA status table and drilling schedule.

- Changes in ROA status since the last meeting include the following approvals: ROAs for J1P-24, LP-13 and Demo 2 Excavations. ROAs were submitted for J3P-45 and J3P-46 (just today)
- Jane Dolan (EPA) inquired about the UXO clearance and road building schedule for J1P-24. Dave Margolis (ACE) indicated these activities were scheduled from 3/30-4/6.
- Ms. Dolan also asked about the status of the ROA for the swath along Gibbs Road. Dave Hill (IAGWSP) explained that the ROA could not be issued for this area because of overhead utility lines. All wells in this vicinity had been installed off the road due to the utilities. Mr. Hill

indicated specific well locations would be needed for ROA submittal and these locations could be selected today.

- The near term drilling schedule was reviewed. For AMEC's investigations, the Barber rig finished up at BP-6 yesterday, 3/24, and is mobilizing to CBP-9 today. The Sonic rig finished at NWP-15 on 3/23 and was continuing to drill from 75 ft bgs at NWP-8a this morning.
- ECC Barber rigs are drilling at LP-13 (at 86 ft bgs this morning) and J2P-23 (at 110 ft bgs). The Cable-Tool rig was completing well installation at J2P-21 and would move on to J2P-35; this order is reversed on the drilling schedule handout.
- Ms. Dolan asked for more information on the status of the J2P-28 well pad, which the ECC weekly update had indicated needed to be fixed. Mr. Smith to provide more information.

J-2 Range Groundwater Investigation

Dave Hill (IAGWSP), with the assistance of Mike Goydas (Jacobs), led a discussion on the on-going investigation of the J-2 Range perchlorate groundwater contamination.

- Investigation of the J-2 Range perchlorate plumes continues with the recent drilling of wells MW-321 (J2P-24) and MW-322 (J2P-36). The profile results for these wells was distributed.
- Profile results for MW-322, the eastern-most Wood Road well, shows low level detections of perchlorate (max is 1.3 ppb), similar to MW-305, but about 10 feet deeper. With this information, the core of the plume has been defined. By 3:30 pm today, drilling locations will be proposed for Gibbs Road (north of utility access) along the trajectory of the core of the plume. Jane Dolan's (EPA) expectations were that the rest of the wells for plume definition, including nine upgradient wells, would be now scoped.
- Profile results for MW-321, in the northeast part of the range, show detections of HMX, RDX and perchlorate at low levels. These results have not been compared with the results from surrounding wells. After installation of J2P-23 and development and surveying of the newly installed wells, the synoptic water level round will be conducted. This information will be used to assess groundwater flow directions and guide the selection of additional monitoring wells to characterize contamination in this part of J-2 Range.
- Ms. Dolan requested a list of wells that would be proposed for the synoptic water level round and inquired about the schedule for sampling of the sentry wells. Ms. Dolan requested the IAGWSP coordinate the sampling of the sentry wells with the Co-op, expeditiously.
- Pam Richardson (IAGWSP) indicated that yesterday, 3/24, the IAGWSP had identified seven residences on Peter's Pond Drive (off of Route 30 and Quaker Meeting House Road) that have private wells. Steps are being taken to see if these wells can be sampled.
- Mike Goydas (Jacobs) indicated the IAGWSP would be reviewing the previous synoptic water levels rounds, and may be able to propose additional wells based on this data. Meghan Cassidy (EPA) encouraged the IAGWSP to work out a way to quickly move forward on well selection. Mr. Goydas indicated more wells would be needed to assess the contamination from the east side of J-2 Range compared to the western plume, as there were not as many pre-existing wells.
- Todd Borci and Meghan Cassidy joined in their request to the IAGWSP to quickly develop and relay their strategy, scope and schedule (including a sequence of events) for additional investigation of groundwater contamination on the eastern side of the J-2 Range.

Northwest Corner Update

Bill Gallagher (IAGWSP) provided an update on the Northwest Corner investigation.

- As stated in the drilling schedule discussion, MW-323 (NWP-8a), southern-most well on Canal View Road is being drilled. The rig was starting from 75 ft bgs this morning and would begin profiling.

- Installation of MW-320 was completed. The profile results showed perchlorate detected from 0-30 ft bwt with the highest concentrations at the water table (2.11 ppb) decreasing with depth to 0.88 ppb at 30 ft bwt.
- Monthly monitoring of residential wells and designated Canal View Road wells was completed last week. Sampling of RSNW06 was conducted on Monday, 3/22. at the homeowners request.
- First round groundwater sampling results were received for MW-309, the detections of perchlorate were consistent with the profile results.

	<u>Profile</u>	<u>Groundwater</u>
MW-309S	0.64 ppb	0.66 ppb.
MW-309M1	1.15 ppb	0.88 ppb.

- The chromatograms were reviewed for HW-1, RDX was not present below the reporting limit.
- A handout was distributed which outlined the IAGWSP's proposed scope for the Project Note requested by EPA and MADEP for additional investigation of the Northwest Corner. In addition to work that had already been completed, the IAGWSP listed the following scope, some which had been specifically requested by the EPA:
 1. Conduct monitoring of HW-2 for explosives and perchlorate, 3X year.
 2. Request permission from property owners of residential well RSNW06 to complete a camera survey to determine the well depth and screen interval.
 3. Prepare a map of L-3 Range features with topographic contours and develop sampling program in consultations with the agencies.
 4. Collect composite soil samples at three locations and two depths at GP-12 & GP-14.
 5. Conduct a reconnaissance of the termination point of the reverse particle track from MW-284M2 (vicinity of 95-16) in effort to identify a potential source of RDX, with the purpose of selecting as many as three soil sampling locations.
 6. Collect composite soil samples for perchlorate analysis at five locations from a transect beginning at MW-279 and terminating at Kirbe Road, along the average prevailing wind direction on July 5, 2003.
 7. Collect soil samples at select, previously sampled locations along Canal View Road.
 8. Pending results of sampling of MW-320, install NWP-17 proposed to be installed north of MW-320 along Gaudet Road. Well to be installed only if MW-320 perchlorate concentrations are greater than 1 ppb.
 9. Install NWP-18 at L-3 Range on reverse particle track from MW-66.
- Considerable discussion ensued on the necessity of conducting the sampling outlined in point 6, with Todd Borci (EPA) contending this sampling was not necessary if the IAGWSP was not trying to differentiate the relative percentage of contribution among all potential perchlorate sources. Mr. Borci stated the sampling grids proposed in Point 6, would cross through an area in which data shows a number of grids with detections of perchlorate. Kim Harriz (AMEC) disagreed this was an accurate statement. In a follow-up email, Mr. Borci indicated if the Guard wanted to propose this sampling, clear and agreed upon data quality objectives would be needed prior to sampling, otherwise the data would be inconclusive.
- Mr. Borci also questioned why sampling in the vicinity of the soil pile at GP-19, where a detection of perchlorate was seen at soil grab location 66U, was not included in the proposal per EPA's request. Mr. Gallagher indicated there were several samples collected in the vicinity of 66U that had been non detect. This fact and the fact that the concentration of perchlorate at 66U was less than 5 ppb, suggested that the detection was not significant and no additional investigation was warranted. In a follow-up email, Todd Borci reiterated that multiple non-detects surrounding this sample contradicted an aerial dispersion mechanism for deposition for that particular area of contamination, and therefore further investigation was needed to determine the source.

- Len Pinaud (MADEP) felt it was important for the agencies and the IAGWSP to meet and discuss the report comments and come together on the issue of a Site Conceptual Model, before the investigation moved forward. Meghan Cassidy (EPA) agreed that it was important to set data quality objectives (decide on the purpose of gathering data) before developing the scope of any additional investigation. All parties agreed to a meeting next week (week of March 29) to discuss the comments on the Northwest Corner Data Summary Report, data gaps, and the scope of the follow-on investigation. All parties also agreed that well locations for NWP-17 and NWP-18 be selected and the ROA process initiated (points 8&9) and that the site map for L-3 Range and GP-14 be drafted (point 3).

Central Impact Area Focused Investigation, Targets 42/23

Job Robb (AMEC) presented an overview of the status of the Focused Investigation of Targets 42 & 23 in the Central Impact Area.

- The investigation included four tasks:
 - Low-Order UXO reconnaissance around the targets,
 - Transect soil sampling and UXO transect survey,
 - UXO wipe and soil sampling,
 - Lysimeter and tensiometer installation.
- The UXO survey at Target 42 identified 15 unexploded ordnance items within 100m of the target and 34 OE scrap items within 80 ft of the target. This included a cracked 155mm projectile. For Target 23, no UXO were identified, 29 OE scrap items were encountered within 80 ft of the target.
- Soil sampling was conducted for 10 grids along each transect. Samples were analyzed for explosives (8330) and every other sample was extracted using TCLP and SPLP methods and analyzed for both explosives and perchlorate. For the Target 42 transect, explosives were detected in the two grids closest to the target. The maximum detection of RDX was 1500 ug/Kg, 150 feet from Target 42. The maximum RDX in the SPLP results was 14 ug/L and for the TCLP result 28 ug/L, both from the grid nearest the target. No results have been received for Target 23.
- For the UXO wipe and soil sampling, only one UXO at Target 42 was deemed safe to sample - the cracked open, unfuzed 155mm projectile. At each target, five 155mm LITR projectiles are proposed to be wipe sampled and soil beneath sampled for perchlorate analysis. No other types of rounds suspected of containing perchlorate were identified and therefore the wipe/soil sampling of other types of rounds was not proposed. No other rounds were identified because they are unfuzed and therefore the type of fuze (which could have contained perchlorate) is not known. Todd Borci (EPA) requested the Guard provide further documentation on how each munition type was determined, since the information provided did not allow one to determine whether the item itself or its fuze contained perchlorate. Once this information was provided, EPA could provide a recommendation for which items should be wipe sampled. Mr. Borci (EPA) also stated that the unfuzed 81mm Mortar may be a candidate wipe sampling, since it may have used a fuze that contained perchlorate; similarly the flare may also be a candidate; however, this this determination could not be made based on the information provided. If the specific components of a munition are not known, this should be stated, but wipe sampling can be conducted of unfuzed munitions that potentially had fuzes that contained perchlorate. For wipe samples of 155 mm LITR items on the ground, Mr. Borci requested the one wipe sample for a single 155 mm round be collected from the area around all the smoke holes, not just those facing the ground and that wipe samples around the functioned nose cones be completed all around the cone, not just on the bottom. Mr. Borci also requested a single wipe sample for perchlorate from a single functioned 155 mm round be collected from all areas in which residue may exist. If this area is only around the vent holes, then that is where the sample should be collected.
- No 155mm A1 LITR rounds were identified during the reconnaissance and transect surveys.

- Todd Borci requested the tables of UXO and OE items provided in the 3/10/04 letter update of the investigation, be revised to provide more specific information on the munitions.
- For the lysimeter installation task, six lysimeters were installed under the cracked 155mm round. Due to contamination of the equipment blanks, it was noted that explosives (RDX and TNT) were detected in the original silica flour used in the installation. AMEC suspects the trace levels of explosives were from blasting caps used in the mining of the silica. A new supplier has been identified which processes silica flour from crushed glass. Todd Borci (EPA) requested this information and exactly what steps the Guard had taken to investigate the potential contamination be provided to EPA for review by their QA/QC laboratory personnel.
- Results for sampling of 3 lysimeters which were installed using the new flour are as follows: 3 feet (RDX at 8.65 ug/L); 5 feet (RDX at 30.36 ug/L; HMX at 0.67 ug/L) and 10 feet (RDX at 1.98 ug/L).
- Mr. Robb requested further clarification on the EPA's objectives for lysimeter sampling at the HUTA1, which had been requested in EPA comments on the work plan for the focused investigation. Mr. Borci explained the objective was to assess the effectiveness of soil removal in reducing pore water concentrations of explosives. Mr. Robb pointed out the soil was removed and then replaced in the HUTA test pits and it seemed evident that mixing of the soil occurred during soil replacement. Because the soil was disturbed, pan lysimeters may be more appropriate than the pressure-vacuum lysimeters used at the targets. Given this information, Mr. Borci requested that lysimeters be placed at several locations within each of the three test pits at two depths, with the deepest lysimeters placed as close to the base of the pit as possible. IAGWSP to provide a recommendation on how to proceed with the HUTA1 lysimeter investigation.
- IAGWSP received EPA's letter indicating that groundwater in the Central Impact Area had been adequately characterized.
- Desiree Moyer (EPA) indicated that comments on the additional HUTA soil sampling Workplan and Central Impact Area RRA plan would be forwarded shortly.
- Todd Borci (EPA) requested that the EPA RPMs be copied on all email communications between the AMEC and EPA risk assessors regarding the COC identification process.

Documents and Schedules

Ed Wise (ACE) distributed a handout outlining scheduling issues and a document status table, requesting team members email him with any questions.

- Gina Kaso (ACE) distributed a handout with outlines of the newly proposed Interim Month Progress Update and new format for the Monthly Progress Report (with an emphasis on remediation). The Interim Month report, to be issued on the 4th Monday of each month (versus the 10th of each month for the Monthly) would replace the 4 weekly reports currently being submitted. Todd Borci stated he was expecting one report format that would be issued every 2 weeks. Kim Harriz (AMEC) explained that the Monthly Report currently contained the cumulative detections maps for each analyte group, the revised combined schedule, and cumulative validated groundwater data. It would be very difficult to produce this information on a biweekly basis, since compiling the information is labor intensive. The new Interim Report would however, include all the elements of the weekly reports (but summarize the prior 2-3 weeks of activities, instead of just one week), plus it would provide a summary of the validated groundwater data received since the database close for the prior month's Monthly Report. The weekly reports currently provide only a summary of rush, unvalidated data received during the target week. The content of the Monthly Report would remain the same, since the Monthly Report had been designed to comply with the Administrative Order.
- Gina Kaso (ACE) requested that any comments on the Progress Reports format or schedule be provided by next week, since the new reporting format was scheduled to be implemented beginning in April 2004.

2. SUMMARY OF DATA RECEIVED

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

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

Table 3 includes detections from the following areas:

Western Boundary

- Groundwater samples from 02-05M1, M2, and M3; 02-09M1 and duplicate; and MW-213M2 and M3 had detections of perchlorate. The results were similar to previous sampling rounds.

Northwest Corner

- Groundwater samples from MW-277S, MW-279S, MW-284M2, RSNW03, and RSNW06 had detections of perchlorate. The results were similar to previous sampling rounds.

Impact Area

- A groundwater sample from 58MW00015A had a detection of perchlorate. The result was similar to previous sampling rounds.
- Pore water samples collected from lysimeters at Target 42 had detections of RDX and HMX that were confirmed by PDA spectra.

Demo Area 1

- Groundwater samples from MW-210M2 and MW-231M2 had detections of perchlorate. The results were similar to previous sampling rounds.

J-2 Range

- A groundwater sample from MW-130S had a detection of perchlorate. The result was similar to previous sampling rounds.

- Profile samples from MW-321 (J2P-24) had detections of perchlorate, explosives, and VOCs. Perchlorate was detected in three intervals at 65, 75, and 95 feet below the water table. Of the explosive compounds, HMX and RDX were confirmed by PDA spectra in two intervals between 55 and 65 feet below the water table. Well screens will be set at the depth (51 to 61 ft bwt) corresponding to the maximum HMX and RDX detections and at the depth (70 to 80 ft bwt) corresponding to the maximum perchlorate detection.
- Profile samples from MW-322 (J2P-36) had detections of perchlorate and explosives. Perchlorate was detected in six intervals from 91 to 141 feet below the water table. Of the explosive compounds, RDX was confirmed by PDA spectra in three intervals between 121 and 141 feet below the water table. Well screens will be set at the depth (0 to 10 ft bwt) of the water table and at the depth (126 to 136 ft bwt) corresponding to the maximum perchlorate detection.

3. DELIVERABLES SUBMITTED

Final J-1 Range Supplemental Groundwater Workplan	03/25/2004
Final J-1 Range Supplemental Soil Workplan	03/25/2004
MSP3 Gun and Mortar Positions Draft Investigation Report – GP-16	03/26/2004
Weekly Progress Update for March 15, 2004 – March 19, 2004	03/26/2004

4. SCHEDULED ACTIONS

Scheduled actions for the week of March 29 include complete well installation at MW-319 (J2P-21) and MW-323 (NWP-8a); commence well installation at MW-321 (J2P-24); complete drilling at MW-324 (J2P-23) and MW-325 (LP-13), continue drilling at MW-317 (CBP-9), and commence re-drilling at MW-313 (J2P-34). Groundwater sampling of Bourne water supply and monitoring wells, and recently installed wells will continue. Groundwater sampling as part of the December round of the Draft 2003 Long-Term Groundwater Monitoring Plan will conclude and the April 2004 round of the Draft 2004 Long-Term Groundwater Monitoring Plan will commence.

5. SUMMARY OF ACTIVITIES FOR DEMO AREA 1

Development of extraction and injection wells for the Groundwater RRA is ongoing. Installation of subsurface piping and well vaults for the Frank Perkins Road Extraction, Treatment and Recharge System will be completed this month. Installation of subsurface piping and electrical supply for the Pew Road Extraction, Treatment and Recharge System continues.

As part of the Soil RRA, excavation of contaminated soil within the Demo 1 depression continues. Approximately 3,000 tons of contaminated soil has been processed as part of preliminary soil treatment activities. The Proof of Performance testing is planned for March 31 through April 2, 2004. Anomaly removal commenced this week and will continue next week.

**TABLE 2
SAMPLING PROGRESS
03/21/2004 - 03/27/2004**

SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
4036000-01G-A	4036000-01G	03/22/2004	GROUNDWATER	38	69.8	6	12
4036000-03G-A	4036000-03G	03/22/2004	GROUNDWATER	50	60	6	12
4036000-04G-A	4036000-04G	03/22/2004	GROUNDWATER	54.6	64.6	6	12
4036000-06G-A	4036000-06G	03/22/2004	GROUNDWATER	108	128	6	12
97-2C-A	97-2C	03/23/2004	GROUNDWATER	132	132	68	68
97-2D-A	97-2D	03/23/2004	GROUNDWATER	115.4	115.4	82.9	82.9
97-2F-A	97-2F	03/23/2004	GROUNDWATER	120	120	76.7	76.7
MW-300M1-	MW-300M1	03/25/2004	GROUNDWATER	293.03	303.0	190.03	200.02
MW-303M3-	MW-303M3	03/25/2004	GROUNDWATER	140	150	27	37
RSNW06-A	RSNW06	03/22/2004	GROUNDWATER	0	0		
TW00-1-A	00-1	03/25/2004	GROUNDWATER	64	70	52.1	58.1
TW00-2D-A	00-2	03/25/2004	GROUNDWATER	71	77	43.95	49.95
TW00-2S-A	00-2	03/25/2004	GROUNDWATER	29	35	1.17	7.17
TW01-1-A	01-1	03/25/2004	GROUNDWATER	62	67	55.21	60.21
TW1-88A-A	1-88	03/22/2004	GROUNDWATER	102.9	102.9	67.4	67.4
TW1-88B-A	1-88	03/22/2004	GROUNDWATER	105.5	105.5	69.6	69.6
W02-10M1A	02-10	03/22/2004	GROUNDWATER	135	145	94	104
W02-10M2A	02-10	03/22/2004	GROUNDWATER	110	120	68.61	78.61
W02-10M3A	02-10	03/22/2004	GROUNDWATER	85	95	43.65	53.65
W02-12M1A	02-12	03/22/2004	GROUNDWATER	109	119	58.35	68.35
W02-12M2A	02-12	03/22/2004	GROUNDWATER	94	104	43.21	53.21
W02-12M3A	02-12	03/22/2004	GROUNDWATER	79	89	28.22	38.22
W02-13M1A	02-13	03/22/2004	GROUNDWATER	98	108	58.33	68.33
W02-13M2A	02-13	03/22/2004	GROUNDWATER	83	93	44.2	54.2
W02-13M3A	02-13	03/22/2004	GROUNDWATER	68	78	28.3	38.3
W02-15M1A	02-15	03/23/2004	GROUNDWATER	125	135	75.63	85.63
W02-15M2A	02-15	03/23/2004	GROUNDWATER	101	111	51.5	61.5
W02-15M3A	02-15	03/23/2004	GROUNDWATER	81	91	31.4	41.4
W02-15M3D	02-15	03/23/2004	GROUNDWATER	81	91	31.4	41.4
W15DDA	MW-15	03/23/2004	GROUNDWATER	324	334	217	227
W15M3A	MW-15	03/24/2004	GROUNDWATER	124	134	16	26
W15SSA	MW-15	03/23/2004	GROUNDWATER	105	115	0	10
W170M1A	MW-170	03/24/2004	GROUNDWATER	265	275	162	172
W170M1A	MW-170	03/25/2004	GROUNDWATER	265	275	162	172
W170M2A	MW-170	03/25/2004	GROUNDWATER	198	208	95	105

Profiling methods may include: Volatiles, Explosives, and Perchlorate

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

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

SED = Sample End Depth, measured in feet bgs

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

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

**TABLE 2
SAMPLING PROGRESS
03/21/2004 - 03/27/2004**

SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W170M2A	MW-170	03/24/2004	GROUNDWATER	198	208	95	105
W170M3A	MW-170	03/24/2004	GROUNDWATER	123	133	20	30
W170M3D	MW-170	03/24/2004	GROUNDWATER	123	133	20	30
W17M1A	MW-17	03/24/2004	GROUNDWATER	220	230	96	106
W17M2A	MW-17	03/24/2004	GROUNDWATER	190	200	66	76
W17M3A	MW-17	03/24/2004	GROUNDWATER	160	170	36	46
W188M1A	MW-188	03/22/2004	GROUNDWATER	155	165	41.1	51.1
W188M1D	MW-188	03/22/2004	GROUNDWATER	155	165	41.1	51.1
W21M1A	MW-21	03/26/2004	GROUNDWATER	261	271	93	103
W21M2A	MW-21	03/26/2004	GROUNDWATER	226	236	58	68
W22SSA	MW-22	03/24/2004	GROUNDWATER	170.5	180.5	0	10
W283M1A	MW-283	03/22/2004	GROUNDWATER	38	48	29.12	29.12
W287M1A	MW-287	03/23/2004	GROUNDWATER	160	170	25.45	35.45
W287SSA	MW-287	03/23/2004	GROUNDWATER	133	143	0	10
W297M1A	MW-297	03/23/2004	GROUNDWATER	92	102	20.28	30.28
W297SSA	MW-297	03/23/2004	GROUNDWATER	72	82	0.32	10.32
W314M1A	MW-314	03/23/2004	GROUNDWATER	45	55	18.83	28.83
W314M1D	MW-314	03/23/2004	GROUNDWATER	45	55	18.83	28.83
W314SSA	MW-314	03/23/2004	GROUNDWATER	24	34	0	10
W48DDA	MW-48	03/25/2004	GROUNDWATER	221	231	121	131
W48M1A	MW-48	03/24/2004	GROUNDWATER	191	201	91	101
W48M2A	MW-48	03/25/2004	GROUNDWATER	161	171	61	71
W48M2A	MW-48	03/24/2004	GROUNDWATER	161	171	61	71
W48M3A	MW-48	03/25/2004	GROUNDWATER	131.5	141.5	31	41
W48M3A	MW-48	03/24/2004	GROUNDWATER	131.5	141.5	31	41
W48SSA	MW-48	03/25/2004	GROUNDWATER	99	109	0	10
W49DDA	MW-49	03/25/2004	GROUNDWATER	185	195	115	125
W49M1A	MW-49	03/25/2004	GROUNDWATER	160	170	90	100
W49M2A	MW-49	03/25/2004	GROUNDWATER	130	140	60	70
W49M3A	MW-49	03/25/2004	GROUNDWATER	100.5	110.5	31	41
W49SSA	MW-49	03/25/2004	GROUNDWATER	68.5	78.5	0	10
W51DDA	MW-51	03/23/2004	GROUNDWATER	264	274	118	128
W51M3A	MW-51	03/23/2004	GROUNDWATER	173	183	28	38
W52M1A	MW-52	03/25/2004	GROUNDWATER	290	300	139	149
W52M2A	MW-52	03/25/2004	GROUNDWATER	225	235	74	84

Profiling methods may include: Volatiles, Explosives, and Perchlorate

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

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

SED = Sample End Depth, measured in feet bgs

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

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

**TABLE 2
SAMPLING PROGRESS
03/21/2004 - 03/27/2004**

SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W52M3A	MW-52	03/26/2004	GROUNDWATER	210	215	59	64
W53M1A	MW-53	03/26/2004	GROUNDWATER	224	234	99	109
W53SSA	MW-53	03/26/2004	GROUNDWATER	121.15	131.2	0	10
W65M1A	MW-65	03/26/2004	GROUNDWATER	210	220	95	105
W65M1D	MW-65	03/26/2004	GROUNDWATER	210	220	95	105
XXM971-A	97-1	03/24/2004	GROUNDWATER	83	93	62	72
XXM972-A	97-2	03/24/2004	GROUNDWATER	75	85	53	63
XXM972-D	97-2	03/24/2004	GROUNDWATER	75	85	53	63
XXM973-A	97-3	03/24/2004	GROUNDWATER	75	85	36	46
XXM975-A	97-5	03/24/2004	GROUNDWATER	84	94	76	86
DW032504-NV	GACWATER	03/25/2004	IDW	0	0		
DW032604-NV	GACWATER	03/26/2004	IDW	0	0		
IW272EFF2-A	MW-272	03/23/2004	PROCESS WATER	0	0		
IW272INF2-A	MW-272	03/23/2004	PROCESS WATER	0	0		
IW272MID2-A	MW-272	03/23/2004	PROCESS WATER	0	0		
IW272MID2-D	MW-272	03/23/2004	PROCESS WATER	0	0		
G323DAA	MW-323	03/25/2004	PROFILE	78	78	3.15	3.15
G323DBA	MW-323	03/25/2004	PROFILE	85	85	10.15	10.15
G323DBD	MW-323	03/25/2004	PROFILE	85	85	10.15	10.15
G323DCA	MW-323	03/25/2004	PROFILE	95	95	20.15	20.15
G323DDA	MW-323	03/25/2004	PROFILE	105	105	30.15	30.15
G323DEA	MW-323	03/25/2004	PROFILE	115	115	40.15	40.15
G323DFA	MW-323	03/25/2004	PROFILE	125	125	50.15	50.15
G323DGA	MW-323	03/25/2004	PROFILE	135	135	60.15	60.15
G323DHA	MW-323	03/25/2004	PROFILE	145	145	70.15	70.15
G323DIA	MW-323	03/25/2004	PROFILE	155	155	80.15	80.15
G323DJA	MW-323	03/26/2004	PROFILE	165	165	90.15	90.15
G323DKA	MW-323	03/26/2004	PROFILE	175	175	100.15	100.15
G323DLA	MW-323	03/26/2004	PROFILE	185	185	110.15	110.15
G323DMA	MW-323	03/26/2004	PROFILE	195	195	120.15	120.15
MW-321-21	MW-321	03/22/2004	PROFILE	260	260	155	155
MW-321-22	MW-321	03/22/2004	PROFILE	270	270	165	165
MW-321-23	MW-321	03/22/2004	PROFILE	280	280	175	175
MW-321-24	MW-321	03/22/2004	PROFILE	290	290	185	185
MW-321-25	MW-321	03/22/2004	PROFILE	300	300	195	195

Profiling methods may include: Volatiles, Explosives, and Perchlorate

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

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

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**TABLE 2
SAMPLING PROGRESS
03/21/2004 - 03/27/2004**

SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
MW-321-25FD	MW-321	03/22/2004	PROFILE	300	300	195	195
MW-321-26	MW-321	03/22/2004	PROFILE	310	310	205	205
MW-322-25	MW-322	03/22/2004	PROFILE	336	336	217	217
MW-322-25FD	MW-322	03/22/2004	PROFILE	336	336	217	217
MW-324-01	MW-324	03/25/2004	PROFILE	130	130	7	7
MW-324-02	MW-324	03/25/2004	PROFILE	140	140	17	17
MW-324-03	MW-324	03/26/2004	PROFILE	150	150	27	27
MW-324-03FD	MW-324	03/26/2004	PROFILE	150	150	27	27
MW-325-01	MW-325	03/25/2004	PROFILE	86	86	8	8
MW-325-02	MW-325	03/25/2004	PROFILE	90	90	12	12
MW-325-03	MW-325	03/25/2004	PROFILE	100	100	22	22
MW-325-04	MW-325	03/25/2004	PROFILE	110	110	32	32
MW-325-04FD	MW-325	03/25/2004	PROFILE	110	110	32	32
MW-325-05	MW-325	03/25/2004	PROFILE	120	120	42	42
MW-325-06	MW-325	03/25/2004	PROFILE	130	130	52	52
MW-325-07	MW-325	03/25/2004	PROFILE	140	140	62	62
MW-325-08	MW-325	03/25/2004	PROFILE	150	150	72	72
MW-325-09	MW-325	03/25/2004	PROFILE	160	160	82	82
MW-325-10	MW-325	03/25/2004	PROFILE	170	170	92	92
MW-325-11	MW-325	03/25/2004	PROFILE	180	180	102	102
MW-325-12	MW-325	03/25/2004	PROFILE	190	190	112	112
J3DRUM	TBD	03/22/2004	SOIL GRAB	0	0.2		
HC203A1AAA	203A	03/25/2004	SOIL GRID	0	0.5		
HC203A1BAA	203A	03/25/2004	SOIL GRID	1.5	2		
HC203B1AAA	203B	03/25/2004	SOIL GRID	0	0.5		
HC203B1BAA	203B	03/25/2004	SOIL GRID	1.5	2		
HD125LB1AAA	125LB	03/22/2004	SOIL GRID	2	2		
HD125LB1BAA	125LB	03/22/2004	SOIL GRID	4	4		
HD125LB1CAA	125LB	03/22/2004	SOIL GRID	6	6		
HD125LC1AAA	125LB	03/25/2004	SOIL GRID	2	2		
HD125LC1BAA	125LB	03/26/2004	SOIL GRID	4	4		
HD125LC1CAA	125LB	03/25/2004	SOIL GRID	6	6		
HD125LC1CAD	125LB	03/25/2004	SOIL GRID	6	6		
05CP-01	SS15142-A	03/24/2004	SOIL_GRID	0	0.25		
05CP-01FD	SS15142-A	03/24/2004	SOIL_GRID	0	0.25		

Profiling methods may include: Volatiles, Explosives, and Perchlorate

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

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

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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 2
SAMPLING PROGRESS
03/21/2004 - 03/27/2004**

SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
05CP-02	SS15142-A	03/24/2004	SOIL_GRID	0.25	0.5		
05CP-03	SS15142-A	03/24/2004	SOIL_GRID	0.5	1		
05CR-01	SS15143-A	03/24/2004	SOIL_GRID	0	0.25		
05CR-02	SS15143-A	03/24/2004	SOIL_GRID	0.25	0.5		
05CR-03	SS15143-A	03/24/2004	SOIL_GRID	0.5	1		
05J-01	CP05J	03/23/2004	SOIL_GRID	0	0.25		
05J-02	CP05J	03/23/2004	SOIL_GRID	0.25	0.5		
05J-03	CP05J	03/23/2004	SOIL_GRID	0.5	1		
05S-01	SS05S	03/23/2004	SOIL_GRID	0	0.25		
05S-01FD	SS05S	03/23/2004	SOIL_GRID	0	0.25		
05S-02	SS05S	03/23/2004	SOIL_GRID	0.25	0.5		
05S-03	SS05S	03/23/2004	SOIL_GRID	0.5	1		
05U-01	SS15144-A	03/23/2004	SOIL_GRID	0	0.25		
05U-01FD	SS15144-A	03/23/2004	SOIL_GRID	0	0.25		
05W01-01	SS15146-A	03/23/2004	SOIL_GRID	0	0.25		
05W02-01	SS15146-A	03/23/2004	SOIL_GRID	0	0.25		
05W02-01FD	SS15146-A	03/23/2004	SOIL_GRID	0	0.25		
05X-01	SS15147-A	03/24/2004	SOIL_GRID	0	0.25		
05X-02	SS15147-A	03/24/2004	SOIL_GRID	0.25	0.5		
05X-03	SS15147-A	03/24/2004	SOIL_GRID	0.5	1		
05Z-01	SS15198-A	03/23/2004	SOIL_GRID	0	0.25		
A5-NW02	D1-091	03/23/2004	SOIL_GRID	0	0.2		
A5-NW03	D1-093	03/23/2004	SOIL_GRID	0	0.2		
B4-NE03	D1-067	03/23/2004	SOIL_GRID	0	0.2		
B4-NW02	D1-066	03/23/2004	SOIL_GRID	0	0.2		
B5-SW02	D1-080	03/23/2004	SOIL_GRID	0	0.2		
C4-NW02	D1-040	03/23/2004	SOIL_GRID	0	0.2		
C5A-01	SS15200-A	03/23/2004	SOIL_GRID	0	0.25		
C5A-02	SS15200-A	03/23/2004	SOIL_GRID	0.25	0.5		
C5A-03	SS15200-A	03/23/2004	SOIL_GRID	0.5	1		

Profiling methods may include: Volatiles, Explosives, and Perchlorate

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

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

SED = Sample End Depth, measured in feet bgs

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

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

**TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 02/27/04 - 03/27/04**

SAMPLE ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	ANALYTE	PDA
58MW0015A-A	58MW0015A	03/08/2004	GROUNDWATER	160.68	169.94	36	45	E314.0	PERCHLORATE	
RSNW03-A	RSNW03	03/17/2004	GROUNDWATER					E314.0	PERCHLORATE	
RSNW06-A	RSNW06	03/22/2004	GROUNDWATER	0	0			E314.0	PERCHLORATE	
W02-05M1A	02-05	03/18/2004	GROUNDWATER	110	120	81.44	91.44	E314.0	PERCHLORATE	
W02-05M2A	02-05	03/18/2004	GROUNDWATER	92	102	63.41	73.41	E314.0	PERCHLORATE	
W02-05M3A	02-05	03/18/2004	GROUNDWATER	70	80	41.37	51.37	E314.0	PERCHLORATE	
W02-09M1A	02-09	03/18/2004	GROUNDWATER	74	84	65.26	75.26	E314.0	PERCHLORATE	
W02-09M1D	02-09	03/18/2004	GROUNDWATER	74	84	65.26	75.26	E314.0	PERCHLORATE	
W130SSA	MW-130	03/10/2004	GROUNDWATER	103	113	0	10	E314.0	PERCHLORATE	
W210M2A	MW-210	03/11/2004	GROUNDWATER	156	166	54.69	64.69	E314.0	PERCHLORATE	
W213M2A	MW-213	03/18/2004	GROUNDWATER	89	99	41.15	51.15	E314.0	PERCHLORATE	
W213M3A	MW-213	03/19/2004	GROUNDWATER	77	82	29.38	34.38	E314.0	PERCHLORATE	
W231M2A	MW-231	03/11/2004	GROUNDWATER	165	175	58.33	68.33	E314.0	PERCHLORATE	
W277SSA	MW-277	03/17/2004	GROUNDWATER	102	112	0	10	E314.0	PERCHLORATE	
W279SSA	MW-279	03/17/2004	GROUNDWATER	66	76	10	20	E314.0	PERCHLORATE	
W284M2A	MW-284	03/10/2004	GROUNDWATER	45	55	21.2	31.2	E314.0	PERCHLORATE	
MW-321-01	MW-321	03/15/2004	PROFILE	116	116	11	11	8260B	METHYL T-BUTYL ETHER	
MW-321-01	MW-321	03/15/2004	PROFILE	116	116	11	11	8260B	2-BUTANONE (METHYL ETHYL KETONE)	
MW-321-01	MW-321	03/15/2004	PROFILE	116	116	11	11	8330N	PICRIC ACID	NO
MW-321-01	MW-321	03/15/2004	PROFILE	116	116	11	11	8330N	NITROGLYCERIN	NO
MW-321-01	MW-321	03/15/2004	PROFILE	116	116	11	11	8330N	2,4,6-TRINITROTOLUENE	NO
MW-321-01	MW-321	03/15/2004	PROFILE	116	116	11	11	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	NO
MW-321-02	MW-321	03/15/2004	PROFILE	120	120	15	15	8260B	2-BUTANONE (METHYL ETHYL KETONE)	
MW-321-03	MW-321	03/15/2004	PROFILE	130	130	25	25	8260B	2-BUTANONE (METHYL ETHYL KETONE)	
MW-321-04	MW-321	03/15/2004	PROFILE	140	140	35	35	8330N	PICRIC ACID	NO
MW-321-04FD	MW-321	03/15/2004	PROFILE	140	140	35	35	8330N	PICRIC ACID	NO
MW-321-06	MW-321	03/15/2004	PROFILE	160	160	55	55	8260B	METHYL T-BUTYL ETHER	
MW-321-06	MW-321	03/15/2004	PROFILE	160	160			8260B	2-BUTANONE (METHYL ETHYL KETONE)	

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

SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BELOW GROUND SURFACE

SED = SAMPLE COLLECTION END DEPTH IN FEET BELOW GROUND SURFACE

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

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

PDA/YES = Photo Diode Array, Detect Confirmed

PDA/NO = Photo Diode Array, Detect Not Confirmed

*** = Interference in sample**

+ = PDAs are not good matches

**TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 02/27/04 - 03/27/04**

SAMPLE ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	ANALYTE	PDA
MW-321-06	MW-321	03/15/2004	PROFILE	160	160	55	55	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TET	YES
MW-321-06	MW-321	03/15/2004	PROFILE	160	160	55	55	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
MW-321-07	MW-321	03/15/2004	PROFILE	170	170	65	65	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
MW-321-07	MW-321	03/15/2004	PROFILE	170	170	65	65	8330N	PICRIC ACID	NO
MW-321-07	MW-321	03/15/2004	PROFILE	170	170	65	65	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TET	YES
MW-321-07	MW-321	03/15/2004	PROFILE	170	170	65	65	E314.0	PERCHLORATE	
MW-321-09	MW-321	03/16/2004	PROFILE	180	180	75	75	8260B	CHLOROFORM	
MW-321-09	MW-321	03/16/2004	PROFILE	180	180	75	75	8260B	2-BUTANONE (METHYL ETHYL KETONE)	
MW-321-09	MW-321	03/16/2004	PROFILE	180	180	75	75	8330N	PICRIC ACID	NO
MW-321-09	MW-321	03/16/2004	PROFILE	180	180	75	75	8330N	NITROGLYCERIN	NO
MW-321-09	MW-321	03/16/2004	PROFILE	180	180	75	75	8330N	2,4,6-TRINITROTOLUENE	NO
MW-321-09	MW-321	03/16/2004	PROFILE	180	180	75	75	E314.0	PERCHLORATE	
MW-321-10	MW-321	03/16/2004	PROFILE	190	190	85	85	8260B	CHLOROFORM	
MW-321-10	MW-321	03/16/2004	PROFILE	190	190	85	85	8260B	CARBON DISULFIDE	
MW-321-11	MW-321	03/16/2004	PROFILE	200	200	95	95	8260B	2-BUTANONE (METHYL ETHYL KETONE)	
MW-321-11	MW-321	03/16/2004	PROFILE	200	200	95	95	E314.0	PERCHLORATE	
MW-321-13	MW-321	03/17/2004	PROFILE	210	210	105	105	8260B	ACETONE	
MW-321-13	MW-321	03/17/2004	PROFILE	210	210	105	105	8260B	2-BUTANONE (METHYL ETHYL KETONE)	
MW-321-13	MW-321	03/17/2004	PROFILE	210	210	105	105	8260B	CHLOROFORM	
MW-321-13FD	MW-321	03/17/2004	PROFILE	210	210	105	105	8260B	2-BUTANONE (METHYL ETHYL KETONE)	
MW-321-13FD	MW-321	03/17/2004	PROFILE	210	210	105	105	8260B	CHLOROETHANE	
MW-321-13FD	MW-321	03/17/2004	PROFILE	210	210	105	105	8260B	ACETONE	
MW-321-13FD	MW-321	03/17/2004	PROFILE	210	210	105	105	8260B	CHLOROFORM	
MW-321-15	MW-321	03/18/2004	PROFILE	220	220	115	115	8260B	CHLOROFORM	
MW-321-15	MW-321	03/18/2004	PROFILE	220	220	115	115	8260B	2-BUTANONE (METHYL ETHYL KETONE)	
MW-321-15	MW-321	03/18/2004	PROFILE	220	220	115	115	8260B	XYLENE (TOTAL)	
MW-321-15	MW-321	03/18/2004	PROFILE	220	220	115	115	8260B	ACETONE	
MW-321-17	MW-321	03/18/2004	PROFILE	240	240	135	135	8260B	CHLOROETHANE	

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**TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 02/27/04 - 03/27/04**

SAMPLE ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	ANALYTE	PDA
MW-321-17	MW-321	03/18/2004	PROFILE	240	240	135	135	8260B	ACETONE	
MW-321-17	MW-321	03/18/2004	PROFILE	240	240	135	135	8260B	2-BUTANONE (METHYL ETHYL KETONE)	
MW-321-17	MW-321	03/18/2004	PROFILE	240	240	135	135	8330N	PICRIC ACID	NO
MW-321-19	MW-321	03/19/2004	PROFILE	250	250	145	145	8260B	ACETONE	
MW-321-19	MW-321	03/19/2004	PROFILE	250	250	145	145	8330N	PICRIC ACID	NO
MW-321-19	MW-321	03/19/2004	PROFILE	250	250	145	145	8330N	NITROGLYCERIN	NO
MW-321-21	MW-321	03/22/2004	PROFILE	260	260	155	155	8260B	ACETONE	
MW-321-22	MW-321	03/22/2004	PROFILE	270	270	165	165	8260B	ACETONE	
MW-321-23	MW-321	03/22/2004	PROFILE	280	280	175	175	8260B	CHLOROFORM	
MW-321-24	MW-321	03/22/2004	PROFILE	290	290	185	185	8260B	ACETONE	
MW-321-24	MW-321	03/22/2004	PROFILE	290	290	185	185	8260B	2-BUTANONE (METHYL ETHYL KETONE)	
MW-321-25	MW-321	03/22/2004	PROFILE	300	300	195	195	8260B	ACETONE	
MW-322-01	MW-322	03/12/2004	PROFILE	130	130	11	11	8330N	PICRIC ACID	NO
MW-322-01	MW-322	03/12/2004	PROFILE	130	130	11	11	8330N	NITROGLYCERIN	NO
MW-322-01	MW-322	03/12/2004	PROFILE	130	130	11	11	8330N	4-AMINO-2,6-DINITROTOLUENE	NO
MW-322-01	MW-322	03/12/2004	PROFILE	130	130	11	11	8330N	2-AMINO-4,6-DINITROTOLUENE	NO
MW-322-03	MW-322	03/15/2004	PROFILE	140	140	21	21	8330N	NITROGLYCERIN	NO
MW-322-03	MW-322	03/15/2004	PROFILE	140	140	21	21	8330N	2-AMINO-4,6-DINITROTOLUENE	NO
MW-322-03	MW-322	03/15/2004	PROFILE	140	140	21	21	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	NO
MW-322-03	MW-322	03/15/2004	PROFILE	140	140	21	21	8330N	PICRIC ACID	NO
MW-322-03FD	MW-322	03/15/2004	PROFILE	140	140	21	21	8330N	NITROGLYCERIN	NO
MW-322-03FD	MW-322	03/15/2004	PROFILE	140	140	21	21	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	NO
MW-322-03FD	MW-322	03/15/2004	PROFILE	140	140	21	21	8330N	2-AMINO-4,6-DINITROTOLUENE	NO
MW-322-03FD	MW-322	03/15/2004	PROFILE	140	140	21	21	8330N	PICRIC ACID	NO
MW-322-04	MW-322	03/15/2004	PROFILE	150	150	31	31	8330N	PICRIC ACID	NO
MW-322-04	MW-322	03/15/2004	PROFILE	150	150	31	31	8330N	NITROGLYCERIN	NO
MW-322-05	MW-322	03/15/2004	PROFILE	160	160	41	41	8330N	PICRIC ACID	NO
MW-322-05	MW-322	03/15/2004	PROFILE	160	160	41	41	8330N	NITROGLYCERIN	NO

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SAMPLES COLLECTED 02/27/04 - 03/27/04**

SAMPLE ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	ANALYTE	PDA
MW-322-09	MW-322	03/16/2004	PROFILE	190	190	71	71	8330N	PICRIC ACID	NO
MW-322-11	MW-322	03/17/2004	PROFILE	210	210	91	91	8330N	PICRIC ACID	NO
MW-322-11	MW-322	03/17/2004	PROFILE	210	210	91	91	8330N	NITROGLYCERIN	NO
MW-322-11	MW-322	03/17/2004	PROFILE	210	210	91	91	E314.0	PERCHLORATE	
MW-322-12	MW-322	03/17/2004	PROFILE	220	220	101	101	8330N	PICRIC ACID	NO
MW-322-12	MW-322	03/17/2004	PROFILE	220	220	101	101	E314.0	PERCHLORATE	
MW-322-13	MW-322	03/18/2004	PROFILE	230	230	111	111	8330N	PICRIC ACID	NO
MW-322-13	MW-322	03/18/2004	PROFILE	230	230	111	111	8330N	NITROGLYCERIN	NO
MW-322-13	MW-322	03/18/2004	PROFILE	230	230	111	111	E314.0	PERCHLORATE	
MW-322-13FD	MW-322	03/18/2004	PROFILE	230	230	111	111	8330N	NITROGLYCERIN	NO
MW-322-13FD	MW-322	03/18/2004	PROFILE	230	230	111	111	8330N	PICRIC ACID	NO
MW-322-13FD	MW-322	03/18/2004	PROFILE	230	230	111	111	E314.0	PERCHLORATE	
MW-322-14	MW-322	03/18/2004	PROFILE	240	240	121	121	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
MW-322-14	MW-322	03/18/2004	PROFILE	240	240	121	121	E314.0	PERCHLORATE	
MW-322-15	MW-322	03/18/2004	PROFILE	250	250	131	131	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
MW-322-15	MW-322	03/18/2004	PROFILE	250	250	131	131	E314.0	PERCHLORATE	
MW-322-16	MW-322	03/18/2004	PROFILE	260	260	141	141	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
MW-322-16	MW-322	03/18/2004	PROFILE	260	260	141	141	E314.0	PERCHLORATE	
MW-322-23	MW-322	03/19/2004	PROFILE	320	320	201	201	8330N	NITROGLYCERIN	NO
MW-322-24	MW-322	03/19/2004	PROFILE	330	330	211	211	8330N	PICRIC ACID	NO
MW-322-24	MW-322	03/19/2004	PROFILE	330	330	211	211	8330N	NITROGLYCERIN	NO
MW-322-25	MW-322	03/22/2004	PROFILE	336	336	217	217	8330N	PICRIC ACID	NO
LY125AA1A	125AA	03/17/2004	SOIL MOISTURE	0	0			8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
LY125AA3A	125AA	03/17/2004	SOIL MOISTURE	0	0			8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
LY125AB2A	125AB	03/17/2004	SOIL MOISTURE	0	0			8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
LY125AB2A	125AB	03/17/2004	SOIL MOISTURE	0	0			8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TET	YES

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