WEEKLY PROGRESS UPDATE
FOR FEBRUARY 17 – FEBRUARY 21, 2003

EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019, 1-2000-0014, & BOURNE-BWSC-4-1503-1

MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period from February 17 through February 21, 2003.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of February 21 is summarized in Table 1.

Table 1. Drilling progress as of February 21, 2003

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-255	Demo Area 1 (D1P-19)	270	164	
MW-258	Demo Area 1 (D1P-17)	210	166	77-82; 87-92; 109-119
MW-260	Demo Area 2 (D2P-4)	230	60	171-181

bgs = below ground surface
bwt = below water table

Completed well installation of MW-258 (D1P-17) and MW-260 (D23P-4), and commenced well installation of MW-255 (D1P-19).

Samples collected during the reporting period are summarized in Table 2. Groundwater samples were collected from Bourne water supply, monitoring wells, and the ASP well.

The following are the notes from the February 20, 2003 Technical Team meeting of the Impact Area Groundwater Study Program office at Camp Edwards:

Participants

Ben Gregson (IAGWSPO)
Bill Gallagher (IAGWSPO)
Mark Panni (MADEP)
Heather Sullivan (ACE-phone)
Katarzyna Chelkowska (ACE)
Jay Clausen (AMEC-phone)
Dick Skryness (ECC)
MAJ Bill Myer (IAGWSPO)
Jane Dolan (EPA)
Gina Kaso (ACE)
Don Wood (ACE-phone)
Marc Grant (AMEC-phone)
John Rice (AMEC-phone)
Leo Yuskus (Haley & Ward)
Tina Dolen (IAGWSPO)
Desiree Moyer (EPA)
Ed Wise (ACE)
Sheila Holt (ACE)
Kim Harriz (AMEC)
Herb Colby (AMEC-phone)

Punchlist Items

#3 Provide ASR inquiry letter for Indian Head NAVSTA (Corps). The letter to Indian Head was sent out last week. Copies of the letter were distributed to the agencies.

#8 Provide Camp Edwards Long-Term Range Use Schedule for agency review (Corps). LTC Cunha has requested a letter from the EPA stating specific details regarding the use of the information, due to increased base security concerns.

#10 Provide updated Central Impact Area plume map and cross section (Corps). Maps distributed at meeting.

#11 Provide list of items discovered during OE clearance for wells J1P-16, -17, -18 and D1P-17 (Corps). Lists distributed at meeting. The only munition items found among the four locations were a 105 mm projectile at J1P-18 well pad and a submunition in the access road. All remaining discoveries were classified as OE scrap.

MSP3 and Southeast Ranges Update

Gina Kaso (ACE) provided an update on the MSP3 tasks.

Ox Pond. The Schonstedt survey was completed. A draft map of findings was emailed today. An ROA for potential anomaly excavations was submitted for approval and is due the first week in March.

Gun&Mortar. Anomaly excavation at Former F Range was completed on 2/14. 56 anomalies were investigated. Anomalies M012 and M017 were determined to be a single burn pit. Soil sampling was completed in the pit. Anomaly excavation at MP-4 is scheduled to commence 2/24.

Former Demo sites (Inactive Demo sites). The Schonstedt and EM61 surveys are completed. Data will be available next week.

ASP. The Schonstedt survey commenced on 2/19 in areas A, B, C, and E.

NBC Ranges. The EM61 and Schonstedt surveys are completed. Data will be available at the end of February.

SE Ranges Field Work. UXO clearance at J1P-16 continued and is likely to continue for an additional week; this area is saturated with anomalies primarily attributed to OE fragment. ROA approval was received for proposed location J3P-35A. No response has been received from the property owners regarding the access agreement for PZ211. Jane Dolan (EPA) requested a copy of the 2/13 letter from the Army/NGB to the EPA concerning the J-3 Range Hillside/Barrage Rocket sites.

CDC. Gina Kaso stated an updated total of 19768 items are scheduled for destruction in the CDC. Through Wednesday 2/19, 9861 items have been destroyed; 9907 remain. The CDC is scheduled to stay until 2/21. The CDC can be brought back when the work at Spring Valley is completed (estimated to be completed in one month). The CDC has been funded for an additional 4 weeks for the IAGWSP; the Corps current plan is to have the CDC return immediately upon completion of the work at Spring Valley. This plan may be reevaluated in the next month, depending on project needs.

Central Impact Area Perchlorate Plume

Bill Gallagher (IAGWSPO) discussed the new perchlorate plume cross-sections distributed earlier in the meeting.

- The Army/NGB/Corps had not reviewed the new cross-sections.
- Cross-section E-E', the transect along Turpentine Road, shows the highest concentrations of perchlorate encountered in the area. As seen on the cross-sections, it is the Army/NGB's opinion that the vertical extent of the perchlorate contamination has not been completely defined. Therefore, two additional locations are being proposed for profiling to bedrock, shown as CIAP-29 and CIAP-30 on the plan-view map and depicted on cross-section E-E'. No additional downgradient wells are proposed, including wells downgradient of MW-102 and MW-108. The Army/NGB considers these wells, with low level perchlorate detects, to

be located on the edge of the plume. The Army/NGB will forward a letter to the agencies providing details of the proposal to install two well sets.

- Desiree Moyer (EPA) and Mark Panni (MADEP) had specific questions regarding the plume boundary drawn between MW-43 and MW-141 and the lines drawn in the vicinity of the CS-19 area and including wells: MW-200, MW-201, MW-135, 58MW0007, and 58MW0020B. Jay Clausen (AMEC) to review the reasons for establishing the boundaries in the area of these wells. Mr. Gallagher noted that regardless of where the exact boundaries of the perchlorate plume adjacent to these wells were drawn, the entire perchlorate plume was contained within the RDX plume. The IAGWSP would continue to use the 1.5 ppb EPA MMR Relevant Standard until (if) official notice was received to utilize a different standard.
- Ms. Moyer further indicated AFCEE had drilled a well approximately 250 feet southwest of MW-183. Profile results for explosives were non detect. Screens were set at -59 to -69 ft above MSL (forward particle track from MW-201) and at -78 to -88 ft above MSL (forward particle track from 58MW0002). Mr. Gallagher indicated the Army/NGB would analyze the profile samples from this well for perchlorate with a 28-day turn around time and include this new well on the plume maps.
- Heather Sullivan indicated the pump test at MW-80 was rescheduled for next week. The pilot test for the ITE study for perchlorate was contracted to AMEC and scheduled to be completed in April. Ms. Sullivan to forward pump test/pilot test schedule information to Ms. Dolan. Ms. Dolan requested the Army/Corps provide a Pilot Test Plan.

Bourne Update

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

- Weekly and monthly groundwater sampling continues. Bourne Supply Wells 1 and 3 were offline last week for maintenance and therefore were not sampled. There were no significant new detections in the sampled wells.
- ROA approvals were received for proposed wells BP-2, BP-3, BP-4, and BP-5.
- John Rice (AMEC) indicated MW-257 sampling results would be available in a couple more weeks. Delays to the development of this well were due to the weather. WS4P-3 was the next well on the list to be drilled. Drilling of this well was pending contract negotiations with AMEC. Funding was also available for the four other proposed wells.
- Chemists from MADEP's Wall Experiment Station received the QA data they had requested last week. Although it was approved by the Army/NGB for the DEP chemist to talk directly with the AMEC chemist, the Army/NGB would prefer to be included on any discussion between DEP personnel and Ceimic laboratory personnel. Mark Panni to check with the Wall Experiment Station on the status of comments. Mr. Panni further requested that he be included on emails to/from the Wall Experiment Station.
- The Army/NGB has not finalized the Bourne Perchlorate Response Plan MOR. Finalizing this document will be contingent on discussions among the Army, EPA and MADEP being held today in Boston.

Documents and Schedules

Marc Grant (AMEC) reviewed the following priorities for the agencies' review schedule, distributing a one-page table that highlighted scheduling issues:

1. Demo 1 Groundwater RAM/RRA Plan MADEP comments – MADEP to forward tomorrow, 2/21.
2. HUTA2 All Transects Report Comments/HUTA1 Report Additional Comments – comments will impact Central Impact Area Soil Report which will have a scoping meeting in early April. Army/NGB would like a CRM for HUTA 2 by the scoping meeting. EPA comments expected first week of March, at the earliest.
3. Gun and Mortar COC Letter Report Comments - After meeting to be scheduled (tentative for 2/27) to address agencies questions on the letter.

4. AIRMAG Report Comments - Pending
5. MSPII ASP Letter Report MOR - Pending.
6. MSP3 J-1/J-3 Ranges Polygon Report Resolution Meeting - TBD.
7. Site-Wide Perchlorate Report EPA comments - Pending.
8. J1J3L Ranges Additional Delineation Report, EPA MOR approval - Pending.
9. LTGM Supplement for Dec 2002 MADEP comment - MADEP wanted to review Site-Wide Perchlorate Report prior to responding.

- Heather Sullivan to check on whether dry wells to be sampled at beginning or end of March per Jane Dolan's request.

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:

<u>Bourne Area</u>

- Groundwater samples from 02-02M1, M2 and 02-08M2, M3 had detections of perchlorate. The results were similar to the previous sampling rounds.

- Three groundwater samples had detections of chloroform.

DELIVERABLES SUBMITTED

Revised Draft MSP3 Gun and Mortar Workplan	02/17/2003
Draft Ecological Risk Assessment Workplan, Central Impact Area Soil Operable Unit	02/17/2003
Draft RRA/RAM Plan Demo Area 1 Soil Operable Unit	02/19/2003

3. SCHEDULED ACTIONS

Scheduled actions for the week of February 24 include complete well installation of MW-255 (D1P-19) and commence drilling of Demo Area 2 proposed wells D2P-1, D2P-2, and D2P-3. Groundwater sampling of the Bourne water supply and monitoring wells and newly installed wells 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. Well installation at D1P-17 (MW-258) was completed and well installation at D1P-19 (MW-255) continued this week.

Pumping and treating groundwater near the toe of the Demo Area 1 plume and at Frank Perkins Road has been selected as an Interim Action to address the Demo Area 1 Groundwater Operable Unit. The Draft RRA/RAM Plan, describing this action, was submitted to the agencies and the IART on January 21, 2003. A Rapid Response Action/Release Abatement Measure (RRA/RAM) is being prepared to address soil contamination at Demo Area 1. A poster board session and a presentation on the Soil RRA/RAM will be conducted at the Impact Area Review Team meeting on February 25th. The informal comment period on the Soil RRA/RAM will begin on February 25, 2003 and extends until March 11, 2003.

TABLE 2
SAMPLING PROGRESS
02/16/2003 - 02/22/2003

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
G260DFE	FIELDQC	02/17/2003	FIELDQC	0	0		
M-3B-E	FIELDQC	02/21/2003	FIELDQC	0	0		
M-5C-E	FIELDQC	02/20/2003	FIELDQC	0	0		
TW1-88A-E	FIELDQC	02/19/2003	FIELDQC	0	0		
W02-12M1F	FIELDQC	02/19/2003	FIELDQC	0	0		
W02-15M2T	FIELDQC	02/20/2003	FIELDQC	0	0		
W230M1T	FIELDQC	02/19/2003	FIELDQC	0	0		
4036000-06G-A	4036000-06G	02/19/2003	GROUNDWATER	108	128	6	12
97-2B-A	97-2	02/20/2003	GROUNDWATER	121.7	121.7	75.4	75.4
97-2G-A	97-2	02/19/2003	GROUNDWATER	126.8	126.8	73.7	73.7
ASPWELL-A	ASPWELL	02/21/2003	GROUNDWATER	0	0		
M-2B-A	M-2	02/20/2003	GROUNDWATER	65	65	1.5	1.5
M-2C-A	M-2	02/20/2003	GROUNDWATER	75	75	11.5	11.5
M-2D-A	M-2	02/20/2003	GROUNDWATER	85	85	21.5	21.5
M-3B-A	M-3	02/21/2003	GROUNDWATER	65	65	6.8	6.8
M-3B-D	M-3	02/21/2003	GROUNDWATER	65	65	6.8	6.8
M-3C-A	M-3	02/21/2003	GROUNDWATER	75	75	16.8	16.8
M-3D-A	M-3	02/21/2003	GROUNDWATER	85	85	26.8	26.8
M-4B-A	M-4	02/20/2003	GROUNDWATER	69	69	8.2	8.2
M-4C-A	M-4	02/20/2003	GROUNDWATER	79	79	18.2	18.2
M-4D-A	M-4	02/20/2003	GROUNDWATER	89	89	28.2	28.2
M-5B-A	M-5	02/20/2003	GROUNDWATER	65	65	7.2	7.2
M-5C-A	M-5	02/20/2003	GROUNDWATER	75	75	17.2	17.2
M-5D-A	M-5	02/20/2003	GROUNDWATER	85	85	27.2	27.2
M-6B-A	M-6	02/21/2003	GROUNDWATER	59	59	7.3	7.3
M-6C-A	M-6	02/21/2003	GROUNDWATER	69	69	17.3	17.3
M-6D-A	M-6	02/21/2003	GROUNDWATER	79	79	27.3	27.3
TW1-88A-A	1-88	02/19/2003	GROUNDWATER	102.9	102.9	67.4	67.4
TW1-88B-A	1-88	02/21/2003	GROUNDWATER	105.5	105.5	69.6	69.6
TW1-88B-D	1-88	02/21/2003	GROUNDWATER	105.5	105.5	69.6	69.6
W02-12M1A	02-12	02/20/2003	GROUNDWATER	109	119	58.35	68.35
W02-12M2A	02-12	02/21/2003	GROUNDWATER	94	104	43.21	53.21
W02-12M2D	02-12	02/21/2003	GROUNDWATER	94	104	43.21	53.21
W02-12M3A	02-12	02/21/2003	GROUNDWATER	79	89	28.22	38.22

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
02/16/2003 - 02/22/2003

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W02-13M1A	02-13	02/19/2003	GROUNDWATER	98	108	58.33	68.33
W02-13M2A	02-13	02/19/2003	GROUNDWATER	83	93	44.2	54.2
W02-13M3A	02-13	02/19/2003	GROUNDWATER	68	78	28.3	38.3
W02-15M1A	02-15	02/19/2003	GROUNDWATER	125	135	75.63	85.63
W02-15M2A	02-15	02/20/2003	GROUNDWATER	101	111	51.5	61.5
W02-15M3A	02-15	02/20/2003	GROUNDWATER	81	91	31.4	41.4
W213M1A	MW-213	02/21/2003	GROUNDWATER	133	143	85.01	95.01

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 01/24/03 - 02/22/03

OGDEN_ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
W02-02M1A	02-02	02/12/2003	GROUNDWATER	114.5	124.5	63.5	73.5	E314.0	PERCHLORATE	
W02-02M2A	02-02	02/12/2003	GROUNDWATER	94.5	104.5	42.65	52.65	E314.0	PERCHLORATE	
W02-08M2A	02-08	02/11/2003	GROUNDWATER	82	87	60.65	65.65	E314.0	PERCHLORATE	
W02-08M3A	02-08	02/11/2003	GROUNDWATER	62	67	40.58	45.58	E314.0	PERCHLORATE	
W02-15M1A	02-15	02/19/2003	GROUNDWATER	125	135	75.63	85.63	OC21V	CHLOROFORM	
W02-15M2A	02-15	02/20/2003	GROUNDWATER	101	111	51.5	61.5	OC21V	CHLOROFORM	
W02-15M3A	02-15	02/20/2003	GROUNDWATER	81	91	31.4	41.4	OC21V	CHLOROFORM	

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