WEEKLY PROGRESS UPDATE
FOR OCTOBER 25 - OCTOBER 29, 1999

EPA REGION I ADMINISTRATIVE ORDER SDWA I-97-1019
MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period for October 25 to October 29, 1999.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of October 29 is summarized in Table 1.

Table 1. Drilling progress as of October 29, 1999

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-48b	LRWS-3 far field well	230	129	161-171 191-201 221-231
MW-49b	LRWS-3 far field well	195	124	130-140 160-170 185-195
MW-56	J Well far field well	280	209	76-86 106-116
MW-57	Sandwich far field	115	27	
MW-58	Steel Lined Pit	110	8	100-110
MW-76	Demo 1 response well	170	100	85-95 105-115 125-135
MW-79	Demo 1 response well	130	40	

bgs = below ground surface
bwt = below water table

Samples collected during the reporting period are summarized in Table 2. Groundwater sampling continued for the second round of supplemental IRP wells, the second round of the base water supply wells, the third round of the new Demo 1 wells, and the first round of the newly installed wells. Groundwater profile samples were collected from MW-57 and MW-79; locations and drilling status for these wells are indicated in Table 1. Soil samples were collected from supplemental grids at Demo 2 where the UXO detonation was conducted on October 2. The map of the water table contours from the 10/8/99 water level measurements was completed and is shown in Figure 1.

The Guard, EPA, and MADEP had a meeting on October 28 to discuss technical issues, including the following:

- Jacobs Engineering updated on the CS-19 work. They are currently in comment resolution with the EPA. IRP will investigate the central area of CS-19, and the two areas north of CS-19 (bunker and cleared area) will be investigated by the IAGS. EPA raised the question of how this would be handled under the IAGS. It was agreed EPA would include the CS-19 bunker issue in their comments on the Trenches FSP due on November 4. Work would start on December 6 providing the

UXO avoidance issue for the 40mm rounds near the mortar targets can be worked out (UXO contractor will mobilize for trenches and mortar targets on 12/6).

- The format for the Tech Memos was discussed. The outline for the tech memos would be the Introduction, background, procedures, results, data evaluation, and conclusions. DEP and EPA indicated that they did not want the tech memo to be used for "closing out" sites. The Guard stated that the memos are to summarize data into small packages with recommendations that can be revisited at any time.
- A 5-page handout of the GP-16 grid comparison results were reviewed. After a comparison of the results, Ogden proposed to continue with the 22 X 22 grids and suggested that only composite samples be collected at the gun and mortar grids. EPA agreed with using the 22 X 22 grids but suggested collecting 10 percent discrete samples along with composites. EPA stated that they would review the data and comment later.
- An 8-page letter dated 10/28/99 from Ogden to EPA/MADEP was handed out and discussed. The letter provides a response to comments on the Draft PEP Analytical Report. Each response was discussed briefly. The agencies will review and comment.
- An update of the field activities was discussed which included the drilling of MW-57 (Sandwich far field well) and MW-79 (demo 1 upgradient response well). Well development and groundwater sampling continue. Soil samples from the Demo 2 detonation were collected, and results are expected Monday 11/1.
- The EPA requested an update of the document status list. EPA also requested that the draft milestones provided last week be revisited at a level of detail consistent with the milestones provided by AFCEE for CS-19 (handout provided by EPA).
- EPA asked if there were any documents that required EPA comments. The Guard stated that the Training Areas Work Plan required comments. EPA stated that they would work on it after the PEP comments. Ogden requested that EPA also comment on the groundwater model recommendations (7/22/99) and the Demo 1 Deep Soil TM 99-2 (7/27/99). These two documents, and also the Evaluation of Remedial Technologies (5/13/99) are key to developing remedies for Demo 1.
- The Guard indicated in response to a question from last week that MP-8 was used to fire 40mm practice rounds, probably up until relatively recently. This could explain the presence of these rounds observed in the mortar target reconnaissance.

A meeting of the Impact Area Review Team was convened on October 28. Topics discussed included a presentation of the Governor's plan to transfer stewardship of Camp Edwards; the 8/4/99 Notice of Noncompliance and other enforcement issues; investigations update; TOSC Program update; and on-base munitions/UXO update. The next meeting was scheduled for December 2, 1999.

2. SUMMARY OF DATA RECEIVED

Rush data are summarized in Table 3. These data are for analyses that are performed on a fast turnaround time, typically 1-5 days. Explosive analyses for monitoring wells, and explosive and VOC analyses for groundwater profile samples, are conducted in this timeframe. The rush data are not validated, but are provided as an indication of the most recent preliminary results. Table 3 summarizes only detects, and does not show samples with non-detects.

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

verified by PDA are confirmed to be present upon completion of validation. Table 3 includes the following detections:

- Groundwater profile samples from MW-56 (J Well far field well) had detections of chloroform in 8 intervals and toluene in 5 intervals.

3. DELIVERABLES SUBMITTED

Weekly Progress Update (Oct 11-15)	10/26/99
Revised Public Meeting Tables	10/29/99

4. SCHEDULED ACTIONS

Scheduled actions for the week of November 1 include completion of drilling MW-57 (Sandwich far field) and MW-79 (demo 1 response well); commence drilling on MW-77 (demo 1 response well) and MW-56b (J well far field well); development and sampling of newly installed wells; continued ground water sampling of second round of supplemental IRP wells; and soil sampling of the targets located near MW-1 and MW-25.

5. SUMMARY OF ACTIVITIES FOR DEMO 1

Drilling was started at the upgradient well, MW-79. This location is approximately 500 feet northeast of the center of the topographic depression at Demo 1. Roadbuilding was completed at the next downgradient drilling location.

TABLE 2
SAMPLING PROGRESS
10/25-10/29

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
90MW0004E	FIELDQC	10/25/1999	FIELDQC	0.00	0.00		
G57DAT	FIELDQC	10/28/1999	FIELDQC	0.00	0.00		
G79MBE	FIELDQC	10/29/1999	FIELDQC	0.00	0.00		
W17M1T	FIELDQC	10/29/1999	FIELDQC	0.00	0.00		
W67M1T	FIELDQC	10/26/1999	FIELDQC	0.00	0.00		
W69M1T	FIELDQC	10/27/1999	FIELDQC	0.00	0.00		
03WT0021	03WT0021	10/25/1999	GROUNDWATER			0.00	10.00
15MW0001	15MW0001	10/25/1999	GROUNDWATER			0.00	10.00
90MW0005	90MW0005	10/26/1999	GROUNDWATER			98.00	103.00
90MW0031	90MW0031	10/25/1999	GROUNDWATER			112.00	117.00
PPAWSMW-1	PPAWSMW-1	10/28/1999	GROUNDWATER			10.00	20.00
PPAWSMW-2	PPAWSMW-2	10/28/1999	GROUNDWATER			0.00	10.00
PPAWSPW-1	PPAWSPW-1	10/28/1999	GROUNDWATER			158.00	178.00
PPAWSPW-2	PPAWSPW-2	10/28/1999	GROUNDWATER			85.00	105.00
PPAWSPW-2D	PPAWSPW-2	10/28/1999	GROUNDWATER			85.00	105.00
W17M1A	MW-17	10/29/1999	GROUNDWATER			97.00	107.00
W17M2A	MW-17	10/29/1999	GROUNDWATER			67.00	77.00
W17M3A	MW-17	10/29/1999	GROUNDWATER			37.00	47.00
W21M1A	MW-21	10/29/1999	GROUNDWATER			93.00	103.00
W34M1A	MW-34	10/25/1999	GROUNDWATER			75.00	85.00
W34M1D	MW-34	10/25/1999	GROUNDWATER			75.00	85.00
W34M2A	MW-34	10/25/1999	GROUNDWATER			55.00	65.00
W34M3A	MW-34	10/25/1999	GROUNDWATER			34.00	44.00
W35M1A	MW-35	10/28/1999	GROUNDWATER			69.00	79.00
W35M2A	MW-35	10/28/1999	GROUNDWATER			14.00	24.00
W35SSA	MW-35	10/28/1999	GROUNDWATER			0.00	10.00
W36M1A	MW-36	10/25/1999	GROUNDWATER			79.00	89.00
W36M2A	MW-36	10/25/1999	GROUNDWATER			59.00	69.00
W36SSA	MW-36	10/25/1999	GROUNDWATER			0.00	10.00
W65M1A	MW-65	10/26/1999	GROUNDWATER			88.00	98.00
W65M2A	MW-65	10/28/1999	GROUNDWATER			8.00	13.00
W65SSA	MW-65	10/26/1999	GROUNDWATER			-5.00	5.00
W67M1A	MW-67	10/27/1999	GROUNDWATER			87.00	97.00
W67SSA	MW-67	10/27/1999	GROUNDWATER			5.00	15.00
W69M1A	MW-69	10/27/1999	GROUNDWATER			77.00	87.00
W69M1D	MW-69	10/27/1999	GROUNDWATER			77.00	87.00
W69M2A	MW-69	10/27/1999	GROUNDWATER			40.00	50.00
W69SSA	MW-69	10/27/1999	GROUNDWATER			0.00	10.00
W70M1A	MW-70	10/27/1999	GROUNDWATER			130.00	140.00
W70M2A	MW-70	10/28/1999	GROUNDWATER			5.00	15.00
W71M1A	MW-71	10/29/1999	GROUNDWATER			20.00	30.00
W71M2A	MW-71	10/28/1999	GROUNDWATER			0.00	10.00
GACDP25	GAC WATER	10/25/1999	IDW	0.00	0.00		
GACWD49	GAC WATER	10/27/1999	IDW	0.00	0.00		
G57DAA	MW-57	10/29/1999	PROFILE	88.00	93.00	1.00	6.00
G57DBA	MW-57	10/29/1999	PROFILE	98.00	103.00	11.00	16.00
G79MAA	MW-79	10/29/1999	PROFILE	100.00	100.00	9.70	9.70
G79MBA	MW-79	10/29/1999	PROFILE	110.00	110.00	19.70	19.70

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
SED = Sample End Depth, measured in feet bgs
BWTS = Depth below water table, start depth, measured in feet
BWTE = Depth below water table, end depth, measured in feet

TABLE 2
SAMPLING PROGRESS
10/25-10/29

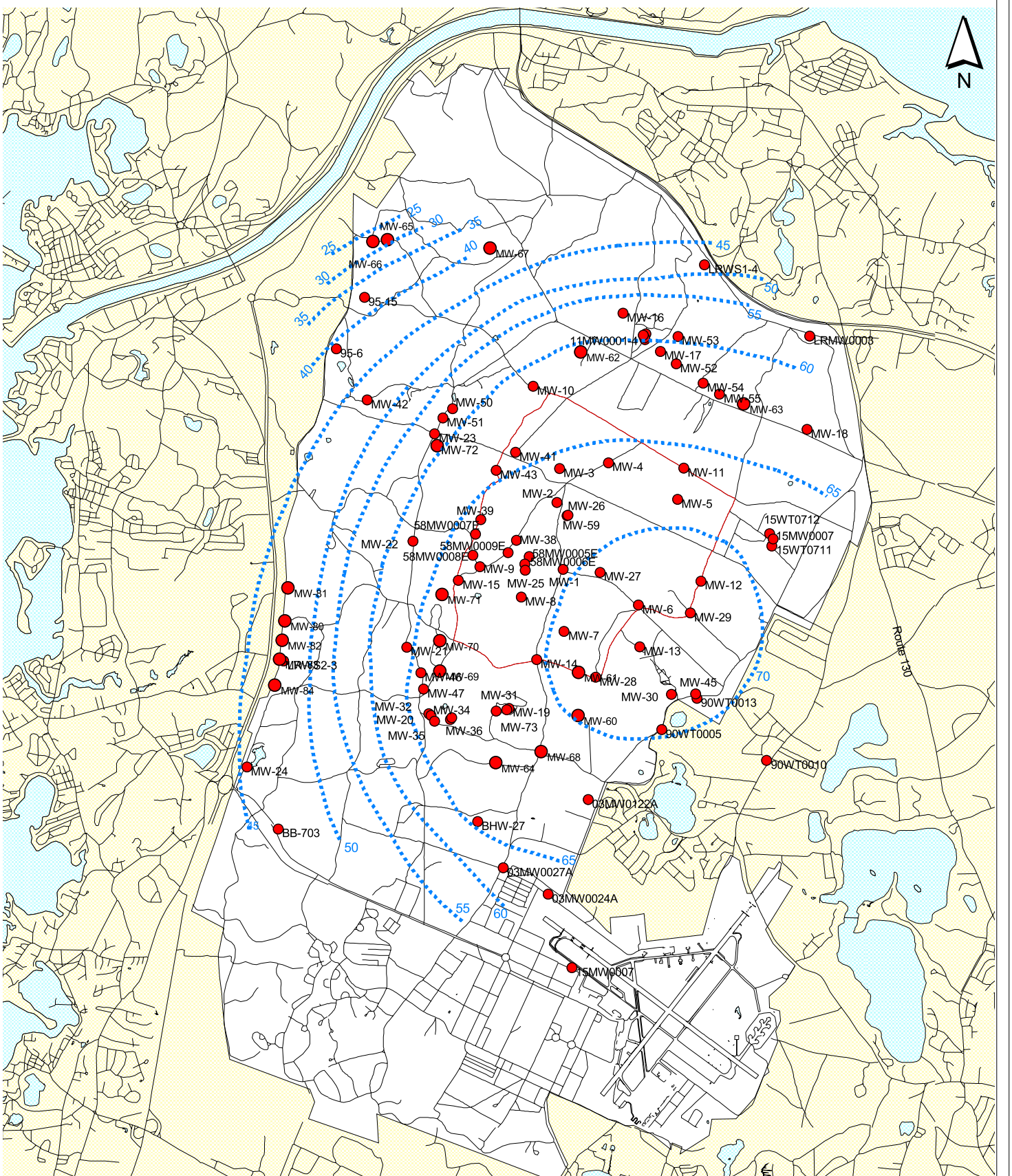
OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
G79MCA	MW-79	10/29/1999	PROFILE	120.00	120.00	29.70	29.70
G79MDA	MW-79	10/29/1999	PROFILE	130.00	130.00	39.70	39.70
SD2NWA	SD2NWA	10/26/1999	SOIL GRID	0.00	0.25		
SD2NWB	SD2NWB	10/26/1999	SOIL GRID	0.00	0.25		
SD2NWC	SD2NWC	10/26/1999	SOIL GRID	0.00	0.25		
SD2NWD	SD2NWD	10/26/1999	SOIL GRID	0.00	0.25		
SD2NWE	SD2NWE	10/26/1999	SOIL GRID	0.00	0.25		
SD2NWF	SD2NWF	10/26/1999	SOIL GRID	0.00	0.25		
SD2NWG	SD2NWG	10/26/1999	SOIL GRID	0.00	0.25		
SD2NWH	SD2NWH	10/26/1999	SOIL GRID	0.00	0.25		
SD2NWHD	SD2NWH	10/26/1999	SOIL GRID	0.00	0.25		

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 10/11/99-10/29/99

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G56DHA	MW-56	10/20/1999	PROFILE	140.00	145.00	69.00	74.00	OC21V	CHLOROFORM	
G56DIA	MW-56	10/20/1999	PROFILE	150.00	155.00	79.00	84.00	OC21V	CHLOROFORM	
G56DIA	MW-56	10/20/1999	PROFILE	150.00	155.00	79.00	84.00	OC21V	TOLUENE	
G56DJA	MW-56	10/20/1999	PROFILE	160.00	165.00	89.00	94.00	OC21V	CHLOROFORM	
G56DKA	MW-56	10/20/1999	PROFILE	170.00	175.00	99.00	104.00	OC21V	CHLOROFORM	
G56DKA	MW-56	10/20/1999	PROFILE	170.00	175.00	99.00	104.00	OC21V	TOLUENE	
G56DOA	MW-56	10/21/1999	PROFILE	210.00	215.00	139.00	144.00	OC21V	CHLOROFORM	
G56DOA	MW-56	10/21/1999	PROFILE	210.00	215.00	139.00	144.00	OC21V	TOLUENE	
G56DPA	MW-56	10/21/1999	PROFILE	220.00	225.00	149.00	154.00	OC21V	CHLOROFORM	
G56DQA	MW-56	10/21/1999	PROFILE	230.00	235.00	159.00	164.00	OC21V	CHLOROFORM	
G56DQA	MW-56	10/21/1999	PROFILE	230.00	235.00	159.00	164.00	OC21V	TOLUENE	
G56DRA	MW-56	10/21/1999	PROFILE	240.00	245.00	169.00	174.00	OC21V	CHLOROFORM	
G56DTA	MW-56	10/21/1999	PROFILE	260.00	275.00	189.00	204.00	OC21V	TOLUENE	

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



October 8, 1999
Water Table Contour Map

L:\MMR\GIS\November99\10-99WLcontours.pdf
G:\MMR\waterlevel table maps\October99contours
November 1, 1999