INTERIM MONTH REPORT FOR MAY 1 – MAY 13, 2005

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 May 1 through May 13, 2005.

1. SUMMARY OF REMEDIATION ACTIONS

The following is a description of remediation actions taken as part of or in preparation for Rapid Response Action (RRA) Plans for various Areas of Concern at Camp Edwards through May 13, 2005. A Rapid Response Action is an interim action that may be conducted prior to risk assessments or remedial investigations to address a known, ongoing threat of contamination to groundwater and/or soil.

Demo Area 1 Groundwater RRA

The Demo Area 1 Groundwater RRA consists of the removal and treatment of contaminated groundwater to control further migration of explosives and perchlorate. Extraction, treatment, and recharge systems (ETR) at Frank Perkins Road and Pew Road has been designed and include single extraction wells, ex-situ treatment processes to remove explosives and perchlorate from the groundwater, and injection wells to return treated water to the aquifer.

The Pew Road ETR continues operation at a flow rate of 100 gallons per minute (gpm). Perchlorate and hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) have been detected in influent samples. The Granular Activated Carbon (GAC) media was exchanged in the first and second pair of treatment vessels on March 9, 2005. Perchlorate breakthrough was detected after the first pair of GAC vessels on April 14 and April 28, 2005. Perchlorate has not been detected after the second pair of GAC vessels. RDX has not been detected in any mid-fluent samples. Perchlorate and RDX have not been detected in samples collected from the effluent. The next GAC exchange will be scheduled after breakthrough at the second pair of GAC vessels. Based on past operational history, this second GAC exchange is anticipated to be required at the end of June 2005. As of May 13, 2005, approximately 34 million gallons of water have been treated and re-injected at the Pew Road ETR System.

The Frank Perkins Road ETR continues operation at a flow rate of 220 gpm. Perchlorate, RDX, and octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) have been detected in influent samples. Perchlorate was detected in mid-fluent samples collected after the first pair of GAC vessels in each of the three treatment containers. The GAC vessels are followed by ion exchange (IX) vessels, which are designed for treatment of perchlorate. Perchlorate and RDX have not been detected in mid-fluent samples collected after the IX vessels or in effluent samples. As of May 13, 2005, approximately 68 million gallons of water had been treated and re-injected at the Frank Perkins Road ETR System.

Demo Area 1 Soil RRA

The Demo Area 1 Soil RRA consists of the removal of all geophysical anomalies within the perimeter road (7.4 acres) and the removal and thermal treatment of contaminated soil from in and around the Demo 1 kettle hole. To date, the total amount of soil excavated at Demo Area 1 is 16,641 cubic yards, with an additional 195 cubic yards excavated at Demo Area 1 burn pits.

Investigation of and unexploded ordnance (UXO) anomaly removal at targets identified during the EM-61 survey continued. Small anomalies were removed using a mechanical screen.

Impact Area Soil RRA

The Impact Area Soil RRA consists of the removal and treatment of contaminated soil and targets at Targets 23 and 42. A total of 590 cubic yards have been removed from Target 23 and 796 cubic yards have been removed from Target 42 and treated in the Thermal Treatment Unit.

Two lysimeters, installed at Target 42 as part of the Central Impact Area Focused Investigation, that were not holding water were pulled out and evaluated.

J-2 Range Soil RRA

The J-2 Range Soil RRA consists of the removal and treatment of soil in six general areas within the J-2 Range that contain selected explosives and perchlorate. Soil removal locations include Twin Berms Area, Berm 2, Berm 5, Fixed Firing Points 3 and 4 (FFP-3 and 4) and adjacent Range Road Burn Area (RRBA), Disposal Area 1, and Disposal Area 2. To date, a total of 6,236 cubic yards of soil has been excavated and treated at the Thermal Treatment Unit.

UXO clearance and soil removal was conducted at the J-2 Range Polygon 2 Northern section. Two burn pits were uncovered during UXO clearance. A post-excavation sample was collected from the first burn pit.

J-3 Range Soil RRA

The J-3 Range Soil RRA consists of the removal and treatment of contaminated soil from two primary areas within the J-3 Range, the Demolition Area and Melt/Pour Building Area. A total of 1,085 cubic yards of soil has been excavated from the Demolition Area. A total of 1,146 cubic yards of soil has been excavated from the Melt/Pour Building Area. Soil has been treated in the Thermal Treatment Unit or containerized for off-site disposal.

Site work was not conducted for the J-3 Range soil RRA during early May.

2. SUMMARY OF ACTIONS TAKEN

Drilling progress as of May 13, 2005 is summarized in Table 1.

	Table 1. Drilling progres	s as of Ma	y 13, 2005	
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Depth to Water Table (ft bgs)	Completed Well Screens (ft bgs)
MW-368	J-2 Range (J2P-53)	351	104	155-165; 202-212; 235-245
MW-369	J-1 Range (J1P-26)	306	116	
ft bgs = feet	below ground surface			

Completed well installation at MW-368 (J2P-53) and completed drilling at MW-369 (J1P-26).

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-369. Groundwater samples were collected from recently installed wells and as part of the April round of the 2005 Long-Term Groundwater Monitoring (LTGM) Plan. Process water samples were collected from the Pew Road and Frank Perkins Road ETR systems. A post-excavation sample was collected from a burn pit uncovered at the J-

2 Range. Pre- and post-detonation samples were collected at the J-2 Range and Demo Area 1, a soil sample was collected near and ordnance item at Demo Area 1, and as part of the J-2 Range RRA. Surface water samples were collected near a public beach, a private beach, and near the spit at Snake Pond.

The following are the notes from the May 12, 2005 Technical Team meeting of the Impact Area Groundwater Study Program office at Camp Edwards:

J-2 East Drive Point Status

Dave Hill (IAGWSP) stated that he has reviewed comments submitted by the agencies on the J-2 East Project Note describing the base boundary and off-site direct push investigation. Mr. Hill will provide responses to comments by Friday (5/13). Jay Ehret (USACE) discussed the status and proposed approach for the drive point investigation. The investigation will begin on Monday (5/16) at J2E-DP1. From there, the drive point installations will proceed southward along the eastern boundary swath. Drive point installation at the residential property location is expected to be performed the first or second week of June. There are natural/cultural resources approvals to be obtained for some locations before drilling can begin. If the approval process does not keep up with the actual drilling schedule, the equipment will be moved to the Northwest Corner, as a contingency, while awaiting permit approvals for the remaining J-2 East proposed locations.

Jay Ehret stated that concurrence on the location of J2E-DP2 is essential to move the project forward on schedule. Lynne Jennings (EPA) expressed interest in moving the location closer to the particle back track. Mike Goydas (Jacobs) cautioned that movement of J2E-DP2 to the location suggest by EPA would likely result in overlap with MW-342 groundwater data, and, therefore, he does not recommend changing it.

There was some discussion on the approach to use for installation of the drive point at the residential location. Jay Ehret stated that the location has been moved (based on EPA comment) to approximately 5-10 feet from the existing residential well. Lynne Jennings indicated that the Project Note states that a permanent structure (such as a piezometer or monitoring well) may be installed at locations that warrant it (e.g., contamination detected at depth) based on drill point profile results. Jay Ehret stated that a permanent installation on a residential property would require an easement. Gina Kaso (USACE) stated that the easement process will be initiated, if necessary. Mark Panni (DEP) suggested that, as a possible alternative, the Army consider installation of a temporary structure to possibly fulfill the groundwater elevation data needs, and avoid the easement permit process.

Jay Ehret also summarized some monitoring well installation schedule changes. Monitoring well J2P-53 was installed instead of J1P-28. The next location to be drilled will be J2P-55 (J2E-18).

CIA FSSR Assembly of Alternatives

Bill Gallagher (IAGWSP) discussed the need for a five month extension in the schedule (to October 7, 2005) for submission of the CIA draft Feasibility Study Screening Report (FSSR). Lynne Jennings asked that a detailed written justification for the extension of the report due date be provided. Mr. Gallagher agreed to write up the justification for the extension, which is needed to adequately evaluate each alternative, perform modeling, and for internal review of the report. The write up will also include a schedule for development of a work plan to address data gaps identified during previous meetings (e.g., UXO Work Plan, corrosion study report). Ms. Jennings asked if UXO sampling issues would be rolled into the FSSR report. Mr. Gallagher stated that UXO would be considered as part of the FSSR. Mr. Gallagher stated that it is recommended that the work plan proposed for HUTA/SCAR be substituted with a work plan to better refine source

areas believed to be contributing to groundwater contamination in the CIA. The development of recent state of the art sampling techniques (i.e., multi point composite sampling) warrants consideration and changes to previous submitted work plans. Mr. Gallagher stated that the UXO Corrosion Study Summary Report will be submitted by May 20, 2005. This report is intended to summarize current understanding of UXO corrosion. The Army does not anticipate agency comments on this document since it is a summary of other entities work. Ms. Jennings stated that she anticipates any agency comments will be tied to any conclusions made in the corrosion report that are relevant to the development of the Feasibility Study report.

Lynne Jennings suggested that interim milestones and deliverables be developed for the FSSR, starting with submission of an outline of the report and a schedule for interim deliverables. Kim Groff (AMEC) and Bill Gallagher stated that discussion notes (emerging decisions), assumptions, and example model runs will be provided to the agencies on an on-going basis.

Kim Groff and Herb Colby (AMEC) presented a table showing the revised draft Assembly of Alternatives. This table had been edited based on the discussions that ensued at the last tech meeting (4/28/05). Currently there are eight alternatives with 20 variants. Ms. Jennings expressed concern about using a 30-year time duration, rather than a more aggressive option, for partial aquifer restoration alternatives. Bill Gallagher stated that adjustments to the time duration can be made during the modeling effort to allow more flexibility with the duration, while balancing the time constraints for additional variations to the model runs and maintaining a sufficient level of confidence. It was agreed that the next step is for the agencies to comment on the current list of alternatives. Bill Gallagher will provide a schedule for all other deliverables. Further discussions will continue at the next tech meeting (5/26/05). Topics to be discussed include the number of modeling runs for the FSSR.

Demo 1 RSP Status

Discussion of the Demo 1 Remedy Selection Plan (RSP) was postponed to the RPM meeting.

Revised Combined Schedule Comment Resolution

Notes from the discussion on the Revised Combine Schedule will be included in a separate memorandum of resolution.

Miscellaneous

Jane Dolan (EPA) asked the Army to look into the origin of the samples (identified as SSJ1RD010, SSJ1RD014, SSJ1RD017, SSJ1RD018, SSJ1RD022 soil grab series and SSJ2SG001-004 soil grid series) listed in Table 2 of the April Monthly Progress Report.

3. SUMMARY OF DATA RECEIVED

Table 3 summarizes the detections that exceeded an EPA Maximum Contaminant Level (MCL) or Health Advisory (HA) for drinking water for explosives, or exceeded a 4 ppb concentration for perchlorate received for the reporting period of April 29, 2005 through May 13, 2005.

Table 4 summarizes first-time validated detections of explosives below the MCL/HA for drinking water or of perchlorate below a 4 ppb concentration received from April 29, 2005 through May 13, 2005.

First time validated detections of explosives and perchlorate in groundwater compared to the MCL/HAs are summarized below:

Explosives in Groundwater Compared to MCL/HAs

For validated data received from April 29, 2005 through May 13, 2005, no wells had first-time validated detections of explosives above or below the MCL/HAs.

Perchlorate in Groundwater Compared to MCL/HAs

For validated data received from April 29, 2005 through May 13, 2005, no wells had first-time validated detections of perchlorate above the concentration of 4 ppb. One well, MW-198M3 (J-3 Range) had a validated detection of perchlorate at a concentration of 730 ug/L, which is more than twice the previous maximum concentration of 310 ug/L. One well, MW-331M1 (J-2 Range), had a first-time validated detection of perchlorate below the concentration of 4 ppb.

Rush data are summarized in Table 5. These data are for analyses that are performed on a fast turn around time, typically 1-10 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 5 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 5. 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 5, 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 5 includes detections from the following areas:

Demo Area 1

- Process water samples collected from the Frank Perkins Road ETR system influent (FPR-INF) and mid-fluent (FPR-MID-1) had detections of perchlorate. A process water sample collected from the influent (FPR-INF) also had detections of RDX and HMX, which were confirmed by PDA spectra.
- Process water samples collected from the Pew Road ETR system influent (PR-INF) and midfluent (PR-MID-1) had detections of perchlorate. Process water samples collected from the influent (PR-INF) also had detections of RDX, which were confirmed by PDA spectra.

4. DELIVERABLES SUBMITTED

Monthly Progress Report # 97 for April 2005

05/09/2005

5. SCHEDULED ACTIONS

Scheduled actions through the end of May include complete drilling at MW-372 (J2P-55) and commence drilling at DP-371 (J2E-DP1). Groundwater sampling of recently installed wells and as part of the April round of the 2005 LTGM Plan will continue. Activities conducted as part of

the Demo 1 soil and groundwater RRAs and J-2 Range soil RRA will continue. A lysimeter will be reinstalled at Target 42 in the Central Impact Area as part of the Central Impact Area Focused Investigation.

SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
58MW0018B-A	58MW0018	CS-19	05/11/2005	GROUNDWATER	175.9	185.58	34.55	44.55
58MW0018C-A	58MW0018	CS-19	05/11/2005	GROUNDWATER	149.92	159.6	0	10
90WT0014-	90WT0014	J-1 RANGE	05/13/2005	GROUNDWATER	86	96	-4	6
MW-361M1-	MW-361	J-3 RANGE	05/13/2005	GROUNDWATER	134.03	144.03	119.73	129.73
MW-361M2-	MW-361	J-3 RANGE	05/13/2005	GROUNDWATER	104.09	114.09	89.79	99.79
MW-361M2-FD	MW-361	J-3 RANGE	05/13/2005	GROUNDWATER	104.09	114.09	89.79	99.79
MW-361M3-	MW-361	J-3 RANGE	05/13/2005	GROUNDWATER	59.87	69.87	45.57	55.57
W02-10M1A	02-10	WESTERN BOU	05/10/2005	GROUNDWATER	135	145	94	104
W02-10M2A	02-10	WESTERN BOU	05/10/2005	GROUNDWATER	110	120	68.61	78.61
W02-10M3A	02-10	WESTERN BOU	05/10/2005	GROUNDWATER	85	95	43.65	53.65
W02-12M1A	02-12	WESTERN BOU	05/13/2005	GROUNDWATER	109	119	58.35	68.35
W02-12M2A	02-12	WESTERN BOU	05/13/2005	GROUNDWATER	94	104	43.21	53.21
W02-12M3A	02-12	WESTERN BOU	05/13/2005	GROUNDWATER	79	89	28.22	38.22
W02M1A	MW-2	CIA	05/04/2005	GROUNDWATER	212	217	75	80
W02M2A	MW-2	CIA	05/04/2005	GROUNDWATER	170	175	33	38
W02SSA	MW-2	CIA	05/04/2005	GROUNDWATER	137	147	0	10
W105M1A	MW-105	CIA	05/02/2005	GROUNDWATER	205	215	78	88
W105M2A	MW-105	CIA	05/02/2005	GROUNDWATER	165	175	38	48
W108DDA	MW-108	CIA	05/09/2005	GROUNDWATER	317	327	153	163
W108M3A	MW-108	CIA	05/06/2005	GROUNDWATER	262	272	98	108
W108M4A	MW-108	CIA	05/06/2005	GROUNDWATER	240	250	76	86
W111M1A	MW-111	CIA	05/12/2005	GROUNDWATER	224	234	92	102
W111M2A	MW-111	CIA	05/12/2005	GROUNDWATER	182	192	50	60
W111M3A	MW-111	CIA	05/12/2005	GROUNDWATER	165	175	33	43
W133M1A	MW-133	CIA	05/11/2005	GROUNDWATER	352	362	136	146
W133M2A	MW-133	CIA	05/11/2005	GROUNDWATER	321	331	105	115
W133M2D	MW-133	CIA	05/11/2005	GROUNDWATER	321	331	105	115
W138M2A	MW-138	CIA	05/13/2005	GROUNDWATER	151	161	30	40
W141M1A	MW-141	CIA	05/03/2005	GROUNDWATER	190	200	62	72
W141M2A	MW-141	CIA	05/03/2005	GROUNDWATER	162	172	34	44
W141M2D	MW-141	CIA	05/03/2005	GROUNDWATER	162	172	34	44
W141SSA	MW-141	CIA	05/03/2005	GROUNDWATER	128	138	0	10
W147M1A	MW-147	L RANGE	05/11/2005	GROUNDWATER	167	177	94	104
W147M2A	MW-147	L RANGE	05/11/2005	GROUNDWATER	150	160	77	87
W147M3A	MW-147	L RANGE	05/11/2005 GROUNDWATER		82	92	9	19
W149M1A	MW-149	CIA	05/10/2005	GROUNDWATER	237.5	247.5	136	146
W159M1A	MW-159	CIA	05/10/2005	GROUNDWATER	178.5	188.5	53	63
W15M1A	MW-15	CIA	05/04/2005	GROUNDWATER	163	173	55	65

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

AOC = Area of Concern

SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W15M2A	MW-15	CIA	05/05/2005	GROUNDWATER	144	154	36	46
W177M2A	MW-177	CIA	05/03/2005	GROUNDWATER	278	288	87.3	97.3
W178M1A	MW-178	CIA	05/02/2005	GROUNDWATER	257	267	117	127
W178M2A	MW-178	CIA	04/29/2005	GROUNDWATER	167	177	27	37
W179DDA	MW-179	CIA	05/02/2005	GROUNDWATER	329	339	188.1	198.1
W179M1A	MW-179	CIA	05/02/2005	GROUNDWATER	187	197	46.1	56.1
W182M2A	MW-182	CIA	05/12/2005	GROUNDWATER	273	283	102.89	112.89
W183M2A	MW-183	CIA	05/12/2005	GROUNDWATER	270	280	87.9	97.9
W184M1A	MW-184	CIA	05/12/2005	GROUNDWATER	186	196	58.2	68.2
W184M2A	MW-184	CIA	05/12/2005	GROUNDWATER	126	136	0	10
W185M2A	MW-185	CIA	05/09/2005	GROUNDWATER	156	166	19.5	29.5
W200M1A	MW-200	CIA	05/05/2005	GROUNDWATER	294	304	89.8	99.8
W201M2A	MW-201	CIA	05/09/2005	GROUNDWATER	286	296	86.9	96.9
W201M3A	MW-201	CIA	05/09/2005	GROUNDWATER	266	276	66.5	76.5
W202M1A	MW-202	CIA	05/10/2005	GROUNDWATER	264	274	117.7	127.7
W202M1D	MW-202	CIA	05/10/2005	GROUNDWATER	264	274	117.7	127.7
W203M2A	MW-203	CIA	05/10/2005	GROUNDWATER	176	186	32.58	42.58
W204M1A	MW-204	CIA	05/02/2005	GROUNDWATER	141	151	81	91
W204M2A	MW-204	CIA	05/04/2005	GROUNDWATER	76	86	17.2	27.2
W205DDA	MW-205	CIA/J-1 RANGE	05/06/2005	GROUNDWATER	266	276	167.6	177.6
W205M1A	MW-205	CIA	05/06/2005	GROUNDWATER	167	177	67.6	77.6
W207M1A	MW-207	CIA	05/09/2005	GROUNDWATER	254	264	100.52	110.52
W207M2A	MW-207	CIA	05/09/2005	GROUNDWATER	224	234	79.33	89.33
W208M1A	MW-208	CIA	05/09/2005	GROUNDWATER	195	205	56.18	66.18
W208M2A	MW-208	CIA	05/09/2005	GROUNDWATER	158	168	18.41	28.41
W209M1A	MW-209	CIA	05/09/2005	GROUNDWATER	240	250	121	131
W209M2A	MW-209	CIA	05/09/2005	GROUNDWATER	220	230	110	120
W212M1A	MW-212	CIA	05/12/2005	GROUNDWATER	333	343	125.6	135.6
W212M1D	MW-212	CIA	05/12/2005	GROUNDWATER	333	343	125.6	135.6
W219M1A	MW-219	WESTERN BOU	05/10/2005	GROUNDWATER	357	367	178	188
W219M2A	MW-219	WESTERN BOU	05/10/2005	GROUNDWATER	332	342	153.05	163.05
W219M3A	MW-219	WESTERN BOU	05/10/2005	GROUNDWATER	315	325	135.8	145.8
W219M4A	MW-219	WESTERN BOU	05/10/2005	GROUNDWATER	225	235	45.7	55.7
W222M2A	MW-222	CIA	04/29/2005	GROUNDWATER	185	195	68.58	78.58
W223M1A	MW-223	CIA	05/10/2005	GROUNDWATER	211	221	118.79	128.79
W223M2A	MW-223	CIA	05/10/2005	GROUNDWATER	185	195	93.31	103.31
W223M2D	MW-223	CIA	05/10/2005	GROUNDWATER	185	195	93.31	103.31
W235M1A	MW-235	CIA	05/04/2005	GROUNDWATER	154	164	25.3	35.3

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SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W235SSA	MW-235	CIA	05/04/2005	GROUNDWATER	127	137	0	10
W23DDA	MW-23	CIA	05/11/2005	GROUNDWATER	272	282	149	159
W23M1A	MW-23	CIA	05/11/2005	GROUNDWATER	225	235	103	113
W23M1D	MW-23	CIA	05/11/2005	GROUNDWATER	225	235	103	113
W23M2A	MW-23	CIA	05/11/2005	GROUNDWATER	189	194	67	72
W244M1A	MW-244	J-1 RANGE	05/04/2005	GROUNDWATER	270	280	150.73	160.73
W244M1D	MW-244	J-1 RANGE	05/04/2005	GROUNDWATER	270	280	150.73	160.73
W266M2A	MW-266	CIA/J-1 RANGE	05/13/2005	GROUNDWATER	239	249	92.26	102.26
W27SSA	MW-27	CIA	05/04/2005	GROUNDWATER	117	127	0	10
W298M2A	MW-298	NW CORNER	05/12/2005	GROUNDWATER	174	184	87.58	97.58
W298SSA	MW-298	NW CORNER	05/12/2005	GROUNDWATER	83	93	0	10
W37M1A	MW-37	CIA	05/02/2005	GROUNDWATER	181	191	62	72
W37M2A	MW-37	CIA	05/02/2005	GROUNDWATER	145	155	26	36
W37M3A	MW-37	CIA	05/02/2005	GROUNDWATER	130	140	11	21
W38M1A	MW-38	CIA	05/13/2005	GROUNDWATER	217	227	99	109
W38M2A	MW-38	CIA	05/13/2005	GROUNDWATER	187	197	69	79
W38M3A	MW-38	CIA	05/13/2005	GROUNDWATER	170	180	52	62
W38M3A-QA	MW-38	CIA	05/13/2005	GROUNDWATER	170	180	52	62
W38M4A	MW-38	CIA	05/13/2005	GROUNDWATER	132	142	14	24
W39M1A	MW-39	CIA	05/13/2005	GROUNDWATER	220	230	84	94
W39M2A	MW-39	CIA	05/13/2005	GROUNDWATER	175	185	39	49
W39M2A-QA	MW-39	CIA	05/13/2005	GROUNDWATER	175	185	39	49
W41M1A	MW-41	CIA	05/09/2005	GROUNDWATER	235	245	108	118
W41M2A	MW-41	CIA	05/09/2005	GROUNDWATER	194	204	67	77
W42M1A	MW-42	CIA	05/10/2005	GROUNDWATER	205	215	137	147
W42M2A	MW-42	CIA	05/10/2005	GROUNDWATER	185.8	195.8	118	128
W42M3A	MW-42	CIA	05/10/2005	GROUNDWATER	165.8	175.8	98	108
W43M1A	MW-43	CIA	05/11/2005	GROUNDWATER	223	233	90	100
W43M2A	MW-43	CIA	05/11/2005	GROUNDWATER	200	210	67	77
W50M1A	MW-50	CIA	05/05/2005	GROUNDWATER	207	217	89	99
W51M1A	MW-51	CIA	05/09/2005	GROUNDWATER	234	244	88	98
W51M2A	MW-51	CIA	05/09/2005	GROUNDWATER	203	213	58	68
W65M2A	MW-65	NW CORNER	05/12/2005	GROUNDWATER	129	134	14	19
W65M2D	MW-65	NW CORNER	05/12/2005	GROUNDWATER	129	134	14	19
W80DDA	MW-80	WESTERN BOU	05/12/2005	GROUNDWATER	158	168	114	124
W80M1A	MW-80	WESTERN BOU	05/12/2005 GROUNDWATER		130	140	86	96
W80M2A	MW-80	WESTERN BOU	05/12/2005	005 GROUNDWATER		110	56	66
W80M3A	MW-80	WESTERN BOU	05/12/2005	GROUNDWATER	70	80	26	36

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

AOC = Area of Concern

SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W80M3A	MW-80	WESTERN BOU	05/12/2005	GROUNDWATER	70	80	26	36
W80M3D	MW-80	WESTERN BOU	05/12/2005	GROUNDWATER	70	80	26	36
W80M3D	MW-80	WESTERN BOU	05/12/2005	GROUNDWATER	70	80	26	36
W85M1A	MW-85	CIA	05/03/2005	GROUNDWATER	137.5	147.5	22	32
W85M1D	MW-85	CIA	05/03/2005	GROUNDWATER	137.5	147.5	22	32
W85SSA	MW-85	CIA	05/03/2005	GROUNDWATER	116	126	1	11
W87M1A	MW-87	CIA	05/03/2005	GROUNDWATER	194	204	62	72
W87M2A	MW-87	CIA	05/03/2005	GROUNDWATER	169	179	37	47
W88M3A	MW-88	CIA	05/02/2005	GROUNDWATER	173	183	32	42
W92SSA	MW-92	CIA	05/04/2005	GROUNDWATER	139	149	0	10
W94M1A	MW-94	CIA	05/05/2005	GROUNDWATER	160	170	36	46
W94M2A	MW-94	CIA	05/05/2005	GROUNDWATER	140	150	16	26
W94M2D	MW-94	CIA	05/05/2005	GROUNDWATER	140	150	16	26
W94SSA	MW-94	CIA	05/05/2005	GROUNDWATER	124	134	0	10
W95M1A	MW-95	CIA	05/05/2005	GROUNDWATER	202	212	78	88
W95M2A	MW-95	CIA	05/05/2005	GROUNDWATER	167	177	43	53
W95M2D	MW-95	CIA	05/05/2005	GROUNDWATER	167	177	43	53
W96M1A	MW-96	CIA	05/06/2005	GROUNDWATER	206	216	70	80
W96M2A	MW-96	CIA	05/09/2005	GROUNDWATER	160	170	24	34
W98SSA	MW-98	CIA	05/02/2005	GROUNDWATER	137	147	0	10
FPR-EFF-24A	FPR-EFF		05/04/2005	PROCESS WATER	0	0		
FPR-EFF-27A	FPR-EFF		05/10/2005	PROCESS WATER	0	0		
FPR-EFF-A-24B	FPR-EFF		05/04/2005	PROCESS WATER	0	0		
FPR-EFF-A-24D	FPR-EFF		05/04/2005	PROCESS WATER	0	0		
FPR-EFF-A-27A	FPR-EFF		05/10/2005	PROCESS WATER	0	0		
FPR-EFF-A-27B	FPR-EFF		05/10/2005	PROCESS WATER	0	0		
FPR-EFF-B-24B	FPR-EFF		05/04/2005	PROCESS WATER	0	0		
FPR-EFF-B-24D	FPR-EFF		05/04/2005	PROCESS WATER	0	0		
FPR-EFF-B-27A	FPR-EFF		05/10/2005	PROCESS WATER	0	0		
FPR-EFF-B-27B	FPR-EFF		05/10/2005	PROCESS WATER	0	0		
FPR-EFF-C-24B	FPR-EFF		05/04/2005	PROCESS WATER	0	0		
FPR-EFF-C-24D	FPR-EFF		05/04/2005	PROCESS WATER	0	0		
FPR-EFF-C-27A	FPR-EFF		05/10/2005	PROCESS WATER	0	0		
FPR-EFF-C-27B	FPR-EFF		05/10/2005	PROCESS WATER	0	0		
FPR-INF-27A	FPR-INF		05/10/2005	PROCESS WATER	0	0		
FPR-INF-A-24B	FPR-INF		05/04/2005	PROCESS WATER	0	0		
FPR-INF-A-27B	FPR-INF		05/10/2005	PROCESS WATER	0	0		
FPR-INF-B-24B	FPR-INF		05/04/2005	PROCESS WATER	0	0		

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

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SED = Sample End Depth, measured in feet bgs

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

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SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
FPR-INF-B-27B	FPR-INF		05/10/2005	PROCESS WATER	0	0		
FPR-INF-C-24B	FPR-INF		05/04/2005	PROCESS WATER	0	0		
FPR-INF-C-27B	FPR-INF		05/10/2005	PROCESS WATER	0	0		
FPR-MID-1A-24A	FPR-MID-1		05/04/2005	PROCESS WATER	0	0		
FPR-MID-1A-27A	FPR-MID-1		05/10/2005	PROCESS WATER	0	0		
FPR-MID-1B-24A	FPR-MID-1		05/04/2005	PROCESS WATER	0	0		
FPR-MID-1B-27A	FPR-MID-1		05/10/2005	PROCESS WATER	0	0		
FPR-MID-1C-24A	FPR-MID-1		05/04/2005	PROCESS WATER	0	0		
FPR-MID-1C-27A	FPR-MID-1		05/10/2005	PROCESS WATER	0	0		
FPR-MID-2A-24A	FPR-MID-2		05/04/2005	PROCESS WATER	0	0		
FPR-MID-2A-27A	FPR-MID-2		05/10/2005	PROCESS WATER	0	0		
FPR-MID-2B-24A	FPR-MID-2		05/04/2005	PROCESS WATER	0	0		
FPR-MID-2B-27A	FPR-MID-2		05/10/2005	PROCESS WATER	0	0		
FPR-MID-2C-24A	FPR-MID-2		05/04/2005	PROCESS WATER	0	0		
FPR-MID-2C-27A	FPR-MID-2		05/10/2005	PROCESS WATER	0	0		
PR-EFF-29A	PR-EFF		05/12/2005	PROCESS WATER	0	0		
PR-INF-29A	PR-INF		05/12/2005	PROCESS WATER	0	0		
PR-MID-1-29A	PR-MID-1		05/12/2005	PROCESS WATER	0	0		
PR-MID-2-29A	PR-MID-2		05/12/2005	PROCESS WATER	0	0		
MW-369-01	MW-369		05/02/2005	PROFILE	130	130	13.8	13.8
MW-369-02	MW-369		05/02/2005	PROFILE	140	140	23.8	23.8
MW-369-03	MW-369		05/02/2005	PROFILE	150	150	33.8	33.8
MW-369-03FD	MW-369		05/02/2005	PROFILE	150	150	33.8	33.8
MW-369-04	MW-369		05/02/2005	PROFILE	160	160	43.8	43.8
MW-369-05	MW-369		05/02/2005	PROFILE	170	170	53.8	53.8
MW-369-06	MW-369		05/02/2005	PROFILE	180	180	63.8	63.8
MW-369-07	MW-369		05/02/2005	PROFILE	190	190	73.8	73.8
MW-369-08	MW-369		05/02/2005	PROFILE	200	200	83.8	83.8
MW-369-09	MW-369		05/02/2005	PROFILE	210	210	93.8	93.8
MW-369-10	MW-369		05/02/2005	PROFILE	220	220	103.8	103.8
MW-369-11	MW-369		05/03/2005	PROFILE	230	230	113.8	113.8
MW-369-12	MW-369		05/03/2005	PROFILE	240	240	123.8	123.8
MW-369-13	MW-369		05/03/2005	PROFILE	250	250	133.8	133.8
MW-369-13FD	MW-369		05/03/2005	PROFILE	250	250	133.8	133.8
MW-369-15	MW-369		05/04/2005	PROFILE	0	260	143.8	-116.2
MW-369-17	MW-369		05/05/2005	PROFILE	FILE 270 270 15		153.8	153.8
MW-369-18	MW-369		05/05/2005	PROFILE	280	280	163.8	163.8
MW-369-19	MW-369		05/05/2005	PROFILE	290	290	173.8	173.8

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

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SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
MW-369-20	MW-369		05/05/2005	PROFILE	300	300	183.8	183.8
ECC042905J201 (post)	SSJ2M21001		05/05/2005	SOIL GRAB	0	0.2		
ECC042905J202 (post)	SSJ2M21002		05/05/2005	SOIL GRAB	0	0.2		
ECC042905J203 (post)	SSJ2M21003		05/05/2005	SOIL GRAB	0	0.2		
ECC042905J204 (post)	SSJ2M21004		05/05/2005	SOIL GRAB	0	0.2		
ECC042905J206 (post)	SSJ2M21006		05/05/2005	SOIL GRAB	0	0.2		
ECC050205J201 (post)	SSJ2M21007		05/05/2005	SOIL GRAB	0	0.2		
ECC050205J202 (post)	SSJ2M21008		05/05/2005	SOIL GRAB	0	0.2		
ECC050205J203 (post)	SSJ2M21009		05/05/2005	SOIL GRAB	0	0.2		
ECC050205J204 (post)	SSJ2M21010		05/05/2005	SOIL GRAB	0	0.2		
ECC050205J204 (post)F	SSJ2M21010		05/05/2005	SOIL GRAB	0	0.2		
ECC050205J205 (post)	SSJ2M21011		05/05/2005	SOIL GRAB	0	0.2		
ECC050205J206 (post)	SSJ2M21012		05/05/2005	SOIL GRAB	0	0.2		
ECC050205J207 (post)	SSJ2M21013		05/05/2005	SOIL GRAB	0	0.2		
ECC050205J208 (post)	SSJ2M21014		05/05/2005	SOIL GRAB	0	0.2		
ECC050305D101 (post)	SSD1B4005		05/05/2005	SOIL GRAB	0	0.2		
ECC050305J201 (post)	SSJ2M21015		05/05/2005	SOIL GRAB	0	0.2		
ECC050305J202 (post)	SSJ2M21016		05/05/2005	SOIL GRAB	0	0.2		
ECC050305J203 (post)	SSJ2M21017		05/05/2005	SOIL GRAB	0	0.2		
ECC050305J204 (post)	SSJ2M21018		05/05/2005	SOIL GRAB	0	0.2		
ECC042905J201 (pre)	SSJ2M21001		05/04/2005	SOIL GRID	0	0.2		
ECC042905J202 (pre)	SSJ2M21002		05/04/2005	SOIL GRID	0	0.2		
ECC042905J203 (pre)	SSJ2M21003		05/04/2005	SOIL GRID	0	0.2		
ECC042905J204 (pre)	SSJ2M21004		05/04/2005	SOIL GRID	0	0.2		
ECC042905J206 (pre)	SSJ2M21006		05/04/2005	SOIL GRID	0	0.2		
ECC050205J201 (pre)	SSJ2M21007		05/04/2005	SOIL GRID	0	0.2		
ECC050205J202 (pre)	SSJ2M21008		05/04/2005	SOIL GRID	0	0.2		
ECC050205J203 (pre)	SSJ2M21009		05/04/2005	SOIL GRID	0	0.2		
ECC050205J204 (pre)	SSJ2M21010		05/04/2005	SOIL GRID	0	0.2		
ECC050205J205 (pre)	SSJ2M21011		05/04/2005	SOIL GRID	0	0.2		
ECC050205J206 (pre)	SSJ2M21012		05/04/2005	SOIL GRID	0	0.2		
ECC050205J207 (pre)	SSJ2M21013		05/04/2005	SOIL GRID	0	0.2		
ECC050205J208 (pre)	SSJ2M21014		05/04/2005	SOIL GRID	0	0.2		
ECC050305D101 (pre)	SSD1B4005		05/05/2005	SOIL GRID	0	0.2		
ECC050305J201 (pre)	SSJ2M21015		05/04/2005	SOIL GRID	0	0.2		
ECC050305J202 (pre)	SSJ2M21016		05/04/2005	SOIL GRID	0	0.2		
ECC050305J203 (pre)	SSJ2M21017		05/04/2005	SOIL GRID	0	0.2		
ECC050305J204 (pre)	SSJ2M21018		05/04/2005	SOIL GRID	0	0.2		

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SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
ECC050305J204 (pre)F	SSJ2M21018		05/04/2005	SOIL GRID	0	0.2		
ECC050605D101	SSD1B6016		05/06/2005	SOIL GRID	0	0.2		
J2RRA21-02	SSJ2P2004		05/11/2005	SOIL GRID	0	0.2		
J2RRA22-02	SSJ2P2007		05/11/2005	SOIL GRID	0	0.2		
J2RRA35-02	SSJ2P2005		05/11/2005	SOIL GRID	0	0.2		
J2RRA36-02	SSJ2P2006		05/11/2005	SOIL GRID	0	0.2		
O34-BNP-001 (post)	SSJO34BNP		05/05/2005	SOIL GRID	0	0.2		
LKSNK0005AAA	LKSNK0005		05/06/2005	SURFACE WATER	0	0		
LKSNK0006AAA	LKSNK0006		05/06/2005	SURFACE WATER	0	0		
LKSNK0007AAA	LKSNK0007		05/06/2005	SURFACE WATER	0	0		

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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AOC = Area of Concern

TABLE 3 VALIDATED DETECTS EXCEEDING MCLs OR HEALTH ADVISORY LIMITS INTERIM MONTHLY DATA RECEIVED 04/29/05-05/13/05

WELL/LOCID	SAMPLE_ID	SAMPLED	AOC	METHOD	ANALYTE	CONC.	FLAG	UNITS	BWTS	BWTE	DW_LIMIT >DW_LIMIT
MW-112	W112M2A	03/28/2005	CIA	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	2.2		UG/L	26	36	2 X
MW-163	W163SSA	03/10/2005	J-3 RANGE	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	33		UG/L	0	10	2 X
MW-198	W198M3A	03/15/2005	J-3 RANGE	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	4.8		UG/L	78.5	83.5	2 X
MW-198	W198M2A	03/15/2005	J-3 RANGE	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	3.9		UG/L	98.4	103.4	2 X
MW-89	W89M2A	03/28/2005	CIA	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	10		UG/L	72	82	2 X
MW-197	W197M2A	03/17/2005	J-3 RANGE	E314.0	PERCHLORATE	14		UG/L	59.3	64.3	4 X
MW-198	W198M4A	03/15/2005	J-3 RANGE	E314.0	PERCHLORATE	160		UG/L	48.4	53.4	4 X
MW-198	W198M3A	03/15/2005	J-3 RANGE	E314.0	PERCHLORATE	730	J	UG/L	78.5	83.5	4 X
MW-198	W198M2A	03/15/2005	J-3 RANGE	E314.0	PERCHLORATE	110		UG/L	98.4	103.4	4 X
MW-326	MW-326M2-	04/11/2005	J-1 RANGE	E314.0	PERCHLORATE	16		UG/L	75	85	4 X

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TABLE 4 VALIDATED DETECTS BELOW MCLs OR HEALTH ADVISORY LIMITS NOT PREVIOUSLY DETECTED INTERIM MONTHLY DATA RECEIVED 04/29/05-05/13/05

WELL/LOCID	SAMPLE_ID	SAMPLED	AOC	METHOD	ANALYTE	CONC.	FLAG	UNITS	BWTS	BWTE	DW_LIMIT	>DW_LIMIT
MW-331M1	MW-331M1-	04/07/2005	J-2 RANGE	E314.0	PERCHLORATE	0.35	J	UG/L	121	131	4	

TABLE 5 DETECTED COMPOUNDS-UNVALIDATED INTERIM MONTHLY FOR 05/01/05 - 05/13/05

SAMPLE ID	LOCID OR WELL	SAMPLED	SAMP TYPE	AOC	SBD	SED	BWTS	BWTE	METHOD	ANALYTE	PDA
FPR-INF-26A	FPR-INF	04/26/2005	PROCESS WATER		0	0			8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
FPR-INF-26A	FPR-INF	04/26/2005	PROCESS WATER		0	0			8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TET	YES
FPR-INF-26A	FPR-INF	04/26/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
FPR-MID-1A-26A	FPR-MID-1	04/26/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
FPR-MID-1B-26A	FPR-MID-1	04/26/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
FPR-MID-1C-26A	FPR-MID-1	04/26/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
PR-INF-28A	PR-INF	04/28/2005	PROCESS WATER		0	0			8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
PR-INF-28A	PR-INF	04/28/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
PR-INF-28D	PR-INF	04/28/2005	PROCESS WATER		0	0			8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
PR-INF-28D	PR-INF	04/28/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
PR-MID-1-28A	PR-MID-1	04/28/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
PR-MID-1-28D	PR-MID-1	04/28/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES RECEIVED 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

AOC = Area of Concern

CIA = Central Impact Area

+ = Interference in sample