WEEKLY PROGRESS UPDATE
FOR MARCH 3 – MARCH 7, 2003

EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019, 1-2000-0014, & BOURNE-BWSC 4-15031

MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period from March 3 through March 7, 2003.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of March 7 is summarized in Table 1.

Table 1. Drilling progress as of March 7, 2003

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-259	Demo Area 2 (D2P-3)	240	55	189-199
MW-261	Demo Area 2 (D2P-1)	230	66	170-180; 210-220
MW-262	Demo Area 2 (D2P-2)	250	29	
MW-263	J-2 Range (J2P-17)	30		
MW-264	J-3 Range (J3P-35)	30		

bgs = below ground surface
bwt = below water table

Completed well installation of MW-259 (D2P-3) and MW-261 (D2P-1), continued drilling of MW-262 (D2P-2), and commenced drilling of MW-263 (J2P-17) and MW-264 (J3P-35). Well development continued for newly installed wells.

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-262. Groundwater samples were collected from Bourne water supply, monitoring wells, and from recently installed wells.

The following are the notes from the March 6, 2003 Technical Team meeting of the Impact Area Groundwater Study Program office at Camp Edwards:

Participants

Hap Gonser (AEC)
Bill Gallagher (IAGWSPO)
Meghan Cassidy (EPA)
Bob Lin (EPA)
Dave Williams (MDPH)
Heather Sullivan (ACE)
John Rice (AMEC)
Larry Pannell (Jacobs)
Ben Gregson (IAGWSPO)
LTC Bill FitzPatrick (E&RC)
Desiree Moyer (EPA)
Len Pinaud (MADEP)
Gina Kaso (ACE)
Marc Grant (AMEC)
Dianne Curry (AMEC-phone)
Susan Stewart (Tt-phone)
MAJ Bill Myer (IAGWSPO)
Todd Borci (EPA)
Jane Dolan (EPA)
Mark Panni (MADEP)
Ed Wise (ACE)
Kim Harriz (AMEC)
Dick Skryness (ECC)
Carla Buriks (Tt-phone)

Punchlist Items

#6 Provide status of MADEP's Wall Experiment Station comments on perchlorate analysis (Corps). An MDL study using Bourne groundwater, as requested by MADEP, will be started next week.

#7 Provide information on storage of 20MM rounds at J-2 Range that were to be destroyed in the CDC (Corps). Rounds are being moved to storage.

#8 Provide status of sampling of HW-1 in vicinity of well 4036009DC at the Northwest Corner (Corps). HW-1 sampled yesterday, 3/5.

#9 Provide update on UXO Clearance of BP-2, -3, -4, and -5 (Corps). BP-2 and BP-5 are being cleared this week.

ASR Update for February

Carla Buriks (Tetra Tech) provided a summary of ASR activities in February.

- The witness summary table for Witnesses 53 through 68 and follow-up interviews were provided to EPA/MADEP. Ed Wise (ACE) indicated no comments had been received on the table to date, encouraging Tech team members to review the table and provide comments expeditiously so the table could be finalized.
- The 104(e) tracking table is being updated with the Kerr-McGee and ETEX 104(e) information as provided in their request responses. The table will be completed in March.
- Witness summary tables are being updated to show the status of action items identified. This update to be provided in early March.
- The IAGWSPO, Corps, EPA and MADEP are working together on developing a final list of interviewees. Ten additional interviews have been funded.

MSP3 and Southeast Ranges Update

Gina Kaso (ACE) provided an update on the MSP3 task and SE Ranges fieldwork, noting that the cold weather, snow and ice pack, have impeded fieldwork efficiency.

Ox Pond – A draft map of findings was emailed 2/20. A conference call to discuss next steps will be scheduled for tomorrow. ROA to complete anomaly excavations has been approved with stipulations from Karen Wilson (IAGWSPO) and Sandwich ConsComm.

Gun&Mortar – Anomaly excavations were completed at MP-4 and trails and GP-7. Currently conducting work at Former F Trails and GP-11 trails. No significant findings to date. Draft table distributed at meeting with excavation results for Former F Range, MP-4, GP-7, and GP-11 trails.

Former Demo sites (Inactive Demo sites) – The Schonstedt and EM61 surveys data tables and figures have been distributed to the agencies. Corps would like to discuss anomaly picks on 3/7.

ASP – EM61 survey will be attempted without grubbing, if possible, at the Witness #9 location, north of Area E, and south of Area B. A figure showing the area will be provided.

NBC Ranges – The EM61 and Schonstedt surveys data will be provided next week in three figures; one showing all hits, one showing Schonstedt detects and one showing EM-61 responses.

J-3 Range Hillside/Barrage Rocket Sites – Operations which had ceased due to safety concerns will resume upon snow pack melting. Area is being checked daily.

SE Ranges Field Work – UXO clearance at J3P-35 (MW-264) was completed and Drill Rig #2 is setting up on this site. Drill Rig #3 is setting up on J2P-17 (MW-263) today. Sampling of newly installed wells continues.

Northwest Corner of Camp Edwards

Bill Gallagher (IAGWSPO) discussed the Army/NGB's revised proposed approach for characterizing groundwater at the Northwest Corner of Camp Edwards as outlined in AMEC's 3/06 letter that was distributed at the meeting.

- The letter outlined the IAGWSPO's approach, as summarized in last week's Tech meeting, based on a preliminary site conceptual model and with the objective of evaluating risks to current receptors.
- The approach included installing three wells at the base boundary, one each on particle tracks from wells 4036009DC (a decommissioned former supply well) and 4036011, a private water supply well, and one half-way between the particle track from 4036009DC and the particle track for MW-66. This third well is considered to be a data gap to address the possibility (although assumed unlikely) that perchlorate detected in the shallow well (66S) at GP-16 is connected to the detections at 4036009DC. However, the detection of perchlorate at MW-66 was not specifically addressed in the approach, because this well addressed a different operable unit (Gun and Mortar Positions). Installation of the three proposed wells will enable the team to get a better handle on the source(s) of the contamination, so that the investigation can be appropriately focused.
- In addition to the well installation, existing wells, including HW-1 in the vicinity of 4036009C and select well screens at 95-15, will be sampled. Heather Sullivan indicated HW-1 was sampled yesterday, 3/05, and 95-15B is being sampled today.
- Conversations with the BWD confirm that all private and commercial establishments in the area are public water users. Other sources will be investigated to identify if any additional monitoring or private wells are present in the area.
- Jane Dolan (EPA) requested that the Motel in the area be contacted to determine if they have an old production well.
- Ms. Sullivan indicated the Corps was looking for concurrence on the proposed locations prior to submitting ROAs. Meghan Cassidy (EPA) and Len Pinaud (MADEP) indicated the agencies would review the proposed well locations and provide comment at the next Tech meeting.

Central Impact Area Perchlorate Plume Map

Bill Gallagher (IAGWSPO) reviewed the revised perchlorate plume map for the Central Impact Area that was forwarded to the agencies in a February 28th letter from AMEC.

- The plume map was as provided to the agencies at last week's Tech meeting. Referring to Cross Section E-E' oriented north/south along Turpentine Road, Mr. Gallagher noted that it was the IAGWSPO's opinion that the source of the perchlorate was in the vicinity of the wells along this road that had perchlorate detections above the EPA MMR Relevant Standard of 1.5 ug/L, as illustrated with red highlighting. In these areas, the vertical extent of the plume was not yet defined. Therefore, the IAGWSPO was proposing to complete two borings for additional wells (CIAP-29 and CIAP-30) in the vicinity of MW-93 and MW-100. Additional borings were not proposed in any downgradient areas.
- Desiree Moyer (EPA) indicated the EPA approved of the proposed boring locations and had no additional locations to propose at this time. However, the EPA wanted to see some additional data presentation and analysis prior to agreeing that two additional borings were sufficient to complete the characterization of the perchlorate plume. Ms. Moyer requested the following additions/corrections:
    - Add MW-91 on the plan view map.
    - Change colors for two different particle tracks at same well so that they can be more easily differentiated.
    - Model and present forward particle tracks with time markers from all wells with perchlorate detects to aid in determining if downgradient screens are placed appropriately and from non detects to determine if these screens are placed

appropriately to monitor projected paths of perchlorate containing groundwater from upgradient wells where detections are documented. Display tracks with time markers.
  - Provide forward particle tracks and back tracks from detections at MW-42 and MW-223.
  - Provide information on whether MW-249 and MW-233 were profiled for perchlorate.
  - Add RDX detections to perchlorate cross sections, if possible.
- Based on the Corps UXO research, the source of perchlorate in the Central Impact Area was most likely from spotting charges contained in LTR rounds that were used beginning around 1984. EPA to provide information they have uncovered that shows that some early mortar rounds contained perchlorate, for the Corps to determine if these rounds were used at MMR.
- Marc Grant (AMEC) noted that any further EPA comments/requests were needed expeditiously to keep the investigation and remediation work on schedule and meet existing report deadlines.
- Gina Kaso (ACE) requested that Ms. Moyer compile any specific munitions questions, such as whether M804A1 LTR rounds were used at MMR, to be addressed with Nick Iaiennaro (ACE).
- Ed Wise (ACE) to forward a signed copy of the HUTA2 Project note to Ms. Moyer.

Bourne Update

Bill Gallagher (IAGWSPO) summarized new information available regarding the Bourne investigation.

- Weekly and monthly groundwater sampling continues. There was a first time detection of perchlorate in a sample collected from M-3. The data validators are looking more closely at this unvalidated detection as it is anomalous and there was no detection of perchlorate in the duplicate sample from the same well.
- The MOR for the Bourne Perchlorate Response Plan was sent out last week.
- A letter requesting the elimination of explosives/VOCs from several Bourne-area monitoring wells was sent out last week. Concurrence for the proposal was received from Terry Martin (MADEP Water Supply). Mr. Martin expressed the opinion of both the Division of Water Supply and the Federal Facilities group with whom he conferred. The IAGWSPO is waiting for EPA 's and the Bourne Water District's response.
- The MADEP Wall Experiment Station had requested that a MDL study for perchlorate be completed using groundwater from the Bourne-area. Ceimic Laboratory will be starting the MDL study following collection of a Bourne groundwater sample early next week.

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Documents and Schedules

Marc Grant (AMEC) reviewed the following priorities for the agencies' review schedule, distributing a one-page table that highlighted scheduling issues:
Priorities are the same as last week.

1. HUTA2 EPA Comments. Desiree Moyer indicated maybe next Friday for comments.
2. Gun & Mortar Letter Report EPA/MADEP Comments. DEP comments maybe next week. Questions from Henry Cui/Desiree Moyer could be addressed in a conference call if MADEP/EPA so request.

8. LTGM Supplement for Dec 2002 DEP MOR approval has been received.

Central Impact Area Soil Ecological Risk Workplan comments are due today. This document is a critical path document for moving forward with the Central Impact Area Soil Operable Unit.

Demo 1 Soil RRA/RAM Workplan. Comments due on 3/12. This is a critical path document for maintaining the soil remediation on schedule.

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:

Bourne Area

- Groundwater samples from 00-1; 1-88A; 02-05M1, M2; 02-13M1, M2; and MW-233M3 had detections of perchlorate. The results were similar to the previous sampling rounds.

- Groundwater samples from 00-2D had a detection of acetone. Acetone has never been a validated detection in this well.

- Influent samples from a pump test at MW-80M1 had detections of perchlorate that were similar to the previous sampling rounds at this well.

Central Impact Area and Downgradient

- Groundwater samples from MW-216S and MW-226M2 had detections of perchlorate. The results were similar to the previous sampling rounds.

Demo Area 1

- Groundwater samples from MW-211M2 had detections of perchlorate. The results were similar to the previous sampling rounds.

Other Areas

- Groundwater samples from HW-1 and duplicate (Northwest corner) had detections of perchlorate. This is the first sampling event for this well.

DELIVERABLES SUBMITTED

Draft L Range Supplemental Groundwater Workplan	03/07/2003
Weekly Progress Update for February 24 – February 28, 2003	03/07/2003
Monthly Progress Report for February 2003	03/07/2003
MSP3 N Range Draft Letter Report	03/07/2003
MSP3 Water Bodies Draft Letter Report	03/07/2003

3. SCHEDULED ACTIONS

Scheduled actions for the week of March 10 include complete well installation of MW-262 (D2P-2), complete drilling of MW-263 (J2P-17) and MW-264 (J3P-35), and commence drilling of J1P-16. Groundwater sampling of the Bourne water supply and monitoring wells, and of the newly installed wells will continue. Site-Wide Perchlorate groundwater sampling will begin this week.

4. SUMMARY OF ACTIVITIES FOR DEMO 1

Additional delineation of the downgradient portion of the groundwater plume is being conducted prior to finalizing the Feasibility Study for the Groundwater Operable Unit and as the Interim Action for groundwater remediation is being designed.

Pumping and treating groundwater 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 Groundwater RRA/RAM Plan, submitted to the agencies and the IART on January 21, 2003, is being revised in accordance with agency and public comments. The Draft RRA/RAM Plan, prepared to address soil contamination at Demo Area 1, was submitted on February 19th. The informal comment period on the Draft Soil RRA/RAM continues until March 11, 2003.

TABLE 2
SAMPLING PROGRESS
03/02/2003 - 03/08/2003

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
95-15B-E	FIELDQC	03/06/2003	FIELDQC	0	0		
97-2E-E	FIELDQC	03/03/2003	FIELDQC	0	0		
G262DAE	FIELDQC	03/06/2003	FIELDQC	0	0		
HW-1-E	FIELDQC	03/05/2003	FIELDQC	0	0		
TW00-2S-T	FIELDQC	03/06/2003	FIELDQC	0	0		
TW1-88A-E	FIELDQC	03/04/2003	FIELDQC	0	0		
W215SST	FIELDQC	03/04/2003	FIELDQC	0	0		
W239M1T	FIELDQC	03/05/2003	FIELDQC	0	0		
W239M3T	FIELDQC	03/07/2003	FIELDQC	0	0		
4036000-01G-A	4036000-01G	03/04/2003	GROUNDWATER	38	69.8	6	12
4036000-06G-A	4036000-06G	03/04/2003	GROUNDWATER	108	128	6	12
95-15B-A	95-15	03/06/2003	GROUNDWATER				
97-2E-A	97-2E	03/03/2003	GROUNDWATER	94.5	94.5	49.8	49.8
97-2E-D	97-2E	03/03/2003	GROUNDWATER	94.5	94.5	49.8	49.8
HW-1-A	HW-1	03/05/2003	GROUNDWATER	27	37	0	10
HW-1-D	HW-1	03/05/2003	GROUNDWATER	27	37	0	0
TW00-2D-A	00-2	03/04/2003	GROUNDWATER	71	77	43.95	49.95
TW00-2S-A	00-2	03/05/2003	GROUNDWATER	29	35	1.17	7.17
TW00-5-A	00-5	03/03/2003	GROUNDWATER	50	56	15.5	21.5
TW00-6-A	00-6	03/03/2003	GROUNDWATER	36	42	9.6	15.6
TW1-88A-A	1-88	03/04/2003	GROUNDWATER	102.9	102.9	67.4	67.4
TW1-88A-D	1-88	03/04/2003	GROUNDWATER	102.9	102.9	67.4	67.4
W02-12M1A	02-12	03/04/2003	GROUNDWATER	109	119	58.35	68.35
W02-12M2A	02-12	03/04/2003	GROUNDWATER	94	104	43.21	53.21
W02-12M3A	02-12	03/04/2003	GROUNDWATER	79	89	28.22	38.22
W02-13M1A	02-13	03/04/2003	GROUNDWATER	98	108	58.33	68.33
W02-13M2A	02-13	03/04/2003	GROUNDWATER	83	93	44.2	54.2
W02-13M3A	02-13	03/04/2003	GROUNDWATER	68	78	28.3	38.3
W02-13M3D	02-13	03/04/2003	GROUNDWATER	68	78	28.3	38.3
W179M1A	MW-179	03/07/2003	GROUNDWATER	187	197	46.1	56.1
W215M1A	MW-215	03/03/2003	GROUNDWATER	240	250	133.85	143.85
W215M2A	MW-215	03/03/2003	GROUNDWATER	205	215	98.9	108.9
W215SSA	MW-215	03/04/2003	GROUNDWATER	104	114	0	7.8
W224M1A	MW-224	03/03/2003	GROUNDWATER	142	152	24.71	34.71

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
03/02/2003 - 03/08/2003

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W234M1A	MW-234	03/07/2003	GROUNDWATER	130	140	25.3	35.3
W235DDA	MW-235	03/03/2003	GROUNDWATER	320	330	191.6	201.6
W235M1A	MW-235	03/04/2003	GROUNDWATER	154	164	25.3	35.3
W235SSA	MW-235	03/05/2003	GROUNDWATER	127	137	0	10
W237M1A	MW-237	03/04/2003	GROUNDWATER	80	90	28.5	38.5
W237SSA	MW-237	03/04/2003	GROUNDWATER	49	59	0	10
W238M1A	MW-238	03/03/2003	GROUNDWATER	183	193	85.46	95.46
W238M2A	MW-238	03/03/2003	GROUNDWATER	125	135	27.55	37.55
W239M1A	MW-239	03/05/2003	GROUNDWATER	180	190	159.8	169.8
W239M2A	MW-239	03/05/2003	GROUNDWATER	150	160	129.85	139.85
W239M3A	MW-239	03/07/2003	GROUNDWATER	60	70	39.85	49.85
W240M1A	MW-240	03/05/2003	GROUNDWATER	198	208	100	110
W240M2A	MW-240	03/05/2003	GROUNDWATER	125	135	26.45	36.45
W240M3A	MW-240	03/06/2003	GROUNDWATER	105	115	6.45	16.45
W240M3D	MW-240	03/06/2003	GROUNDWATER	105	115	6.45	16.45
W241M1A	MW-241	03/07/2003	GROUNDWATER	97	107	2.75	12.75
W241M1D	MW-241	03/07/2003	GROUNDWATER	97	107	2.75	12.75
W242M1A	MW-242	03/06/2003	GROUNDWATER	235	245	141.68	151.68
W242M2A	MW-242	03/05/2003	GROUNDWATER	165	175	71.75	81.75
W243M1A	MW-243	03/05/2003	GROUNDWATER	114.5	124.5	48.85	58.85
W243M2A	MW-243	03/05/2003	GROUNDWATER	84.5	94.5	15.82	25.82
W243M3A	MW-243	03/05/2003	GROUNDWATER	69.5	79.5	0.81	10.81
W254M1A	MW-254	03/04/2003	GROUNDWATER	230	240	165.75	175.75
W254M2A	MW-254	03/03/2003	GROUNDWATER	190	200	125.73	135.73
W257M2A	MW-257	03/07/2003	GROUNDWATER	195	205	51.27	61.27
W258M1A	MW-258	03/07/2003	GROUNDWATER	109	119	64.1	74.1
W258M2A	MW-258	03/07/2003	GROUNDWATER	87	92	42.2	47.2
W258M3A	MW-258	03/07/2003	GROUNDWATER	77	82	32.25	37.25
W258M3D	MW-258	03/07/2003	GROUNDWATER	77	82	32.25	37.25
G262DAA	MW-262	03/06/2003	PROFILE	230	230	9.45	9.45
G262DBA	MW-262	03/06/2003	PROFILE	240	240	19.45	19.45
G262DCA	MW-262	03/06/2003	PROFILE	250	250	29.45	29.45

Profiling methods include: Volatiles and Explosives
Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry
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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 02/07/03 - 03/08/03

OGDEN_ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
HW-1-A	HW-1	03/05/2003	GROUNDWATER	27	37	0	10	E314.0	PERCHLORATE	
HW-1-D	HW-1	03/05/2003	GROUNDWATER	27	37	0	0	E314.0	PERCHLORATE	
TW00-1-A	00-1	02/26/2003	GROUNDWATER	64	70	52.1	58.1	E314.0	PERCHLORATE	
TW00-2D-A	00-2	03/04/2003	GROUNDWATER	71	77	43.95	49.95	OC21V	ACETONE	
TW1-88A-D	1-88	03/04/2003	GROUNDWATER	102.9	102.9	67.4	67.4	E314.0	PERCHLORATE	
W02-05M1A	02-05	02/25/2003	GROUNDWATER	110	120	81.44	91.44	E314.0	PERCHLORATE	
W02-05M2A	02-05	02/25/2003	GROUNDWATER	92	102	63.41	73.41	E314.0	PERCHLORATE	
W02-13M1A	02-13	03/04/2003	GROUNDWATER	98	108	58.33	68.33	E314.0	PERCHLORATE	
W02-13M2A	02-13	03/04/2003	GROUNDWATER	83	93	44.2	54.2	E314.0	PERCHLORATE	
W211M2A	MW-211	02/28/2003	GROUNDWATER	175	185	29.7	39.7	E314.0	PERCHLORATE	
W216SSA	MW-216	02/26/2003	GROUNDWATER	199	209	0	7.13	E314.0	PERCHLORATE	
W226M2A	MW-226	02/24/2003	GROUNDWATER	175	185	61.7	71.7	E314.0	PERCHLORATE	
W233M3A	MW-233	02/26/2003	GROUNDWATER	231	241	32.8	42.8	E314.0	PERCHLORATE	
PT80M1INF11A	MW-80	02/26/2003	PUMP TEST	130	140	86	96	E314.0	PERCHLORATE	
PT80M1INF14A	MW-80	02/27/2003	PUMP TEST	130	140	86	96	E314.0	PERCHLORATE	

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