MONTHLY PROGRESS REPORT #239
FOR MARCH 2017

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

JOINT BASE CAPE COD (JBCC)
TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period from 1 March to 31 March 2017.

1. SUMMARY OF REMEDIATION ACTIONS

The following is a description of Remediation Actions (RA) underway at Camp Edwards as of March 2017.

Demolition Area 1 Comprehensive Groundwater RA

The Demolition Area 1 Comprehensive Groundwater RA consists of the removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. Extraction, treatment, and recharge (ETR) systems at Frank Perkins Road, Pew Road, Base Boundary, and the Leading Edge include extraction wells, ex-situ treatment processes to remove explosives compounds and perchlorate from the groundwater, and injection wells to return treated water to the aquifer.

The Frank Perkins Road Treatment Facility has been optimized as part of the Environmental and System Performance Monitoring (ESPM) program at Demolition Area 1. The treatment facility continues to operate at a flow rate of 175 gpm, with over 2.474 billion gallons of water treated and re-injected as of 31 March 2017. The following Frank Perkins Road facility shut down occurred in March:

- Shut down at 1615 on 14 March 2017 due to a power outage and was restarted at 0730 on 15 March 2017; and
- Shut down at 1250 on 15 March 2017 due to a power outage and was restarted at 1340 on 15 March 2017.

The Pew Road Mobile Treatment Unit (MTU) continues to operate at a flow rate of 103 gpm with over 513.3 million gallons of water treated and re-injected as of 31 March 2017. No Pew Road MTU shut downs occurred in March.

The Base Boundary RA is operating at a flow rate of 65 gpm with over 159.5 million gallons of water treated and re-injected as of 31 March 2017. The following Base Boundary MTU shut down occurred in March:

- Shut down at 0750 on 27 March 2017 to wire a new PLC panel and was restarted at 0910 on 27 March 2017.

The Leading Edge system continues to operate at a flow rate of 100 gpm with over 37.7 million gallons of water treated and re-injected as of 31 March 2017. No Leading Edge system shut downs occurred in March.

J-1 Range Groundwater RA

Southern Plant

The J-1 Range Southern Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds. The ETR system includes two extraction wells, ex-situ treatment process to remove explosives compounds from the groundwater, and an infiltration trench to return treated water to the aquifer.

The Southern MTU continues to operate at a flow rate of 125 gpm. As of 31 March 2017, over 391.3 million gallons of water have been treated and re-injected. No J-1 Range Southern system shut downs occurred in March.

Northern Plant

The J-1 Range Northern Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The ETR system includes two extraction wells, ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, and an infiltration trench to return treated water to the aquifer.

The Northern MTU continues to operate at a total system flow rate of 250 gpm. As of 31 March 2017, over 387.9 million gallons of water have been treated and re-injected. The following J-1 Range Northern MTU shut down occurred in March:

- Shut down at 0451 on 1 March 2017 due to a power outage and was restarted at 0931 on 1 March 2017.

J-3 Range Groundwater RA

The J-3 Range Groundwater RA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The ETR system includes four extraction wells, ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater and use of the existing Fuel Spill-12 (FS-12) infiltration gallery to return treated water to the aquifer.

The J-3 system was operating continues to operate at a flow rate of 255 gpm. As of 31 March 2017, over 993.1 million gallons of water have been treated and re-injected. The following J-3 Range system shut downs occurred in March:

- J3EWIP2 shut down at 1500 on 8 February 2017 due to FS-12 being turned off prior to the snow storm on 9 February 2017. The extraction well was damaged due to a power surge during the storm. BETCO was onsite on 2 March 2017 to address the electrical issues with J3EWIP2. It was determined that one of the motor starter coils in the well vault VFD panel had been damaged during the power outage. A new motor starter coil was installed, and J3EWIP2 was restarted on 0802 on 2 March 2017;
- Shut down at 0838 on 11 March 2017 due to an alarm and was restarted at 1019 on 13 March 2017; and
- Shut down at 1824 on 14 March 2017 due to an alarm and was restarted at 1008 on 15 March 2017.

J-2 Range Groundwater RA

Northern Plant

The J-2 Range Northern Treatment facility consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The Extraction, Treatment, and Re-infiltration system includes three extraction wells, ex-situ treatment process to remove explosives compounds and perchlorate from the groundwater, and an infiltration basin to return treated water to the aquifer.

The Northern Treatment Building continues to operate at a flow rate of 225 gpm. As of 31 March 2017, over 851.9 million gallons of water have been treated and re-injected. The following Northern Treatment Building shut down occurred in March:

- Shut down at 0440 on 1 March 2017 due to power outage and was restarted at 0856 on 1 March 2017.

The Northern MTUs E and F continue to operate at a flow rate of 250 gpm. As of 31 March 2017, over 1.343 billion gallons of water have been treated and re-injected. The following J-2 Range Northern MTU shut downs occurred in March:

- MTUs E and F were shut down at 0614 on 1 March 2017 due to a power outage and were restarted at 0824 on 1 March 2017;
- MTUs E and F were shut down at 0430 on 12 March 2017 due to a power outage and were restarted at 0935 on 13 March 2017; and
- MTUs E and F were shut down at 2220 on 14 March 2017 due to a power outage and were restarted at 0927 on 15 March 2017.

Eastern Plant

The J-2 Range Eastern Treatment facility consists of removal and treatment of groundwater to minimize downgradient migration of explosives compounds and perchlorate. The ETI system includes the following components: three extraction wells in an axial array, an ex-situ treatment process consisting of an ion exchange (IX) resin and granular activated carbon (GAC) media to treat perchlorate and explosives compounds and three infiltration trenches located along the lateral boundaries of the plume where treated water will enter the vadose zone and infiltrate into the aquifer. The J-2 Range Eastern system is running at a combined total flow rate of 495 gpm.

The MTUs H and I continue to operate at a flow rate of 250 gpm. As of 31 March 2017, over 931.3 million gallons of water have been treated and re-injected. The following MTUs H and I shut down occurred in March:

- MTUs H and I shut down at 1913 on 14 March 2017 due to a power outage and were restarted at 0814 on 16 March 2017.

MTU J continues to operate at a flow rate of 120 gpm. As of 31 March 2017, over 420.8 million gallons of water have been treated and re-injected. No shut downs of MTU J occurred in March.

MTU K continues to operate at a flow rate of 125 gpm. As of 31 March 2017, over 536.1 million gallons of water have been treated and re-injected. The following shut down of MTU K occurred in March:

- MTU K shut down at 0833 on 11 March 2017 due to an alarm and was restarted at 0835 on 13 March 2017.

Central Impact Area RA

The Central Impact Area (CIA) Groundwater treatment facility consists of removal and treatment of groundwater to minimize downgradient migration of explosives compounds and perchlorate. The ETR system includes the following components: three extraction wells, an ex-situ treatment process consisting of an ion exchange (IX) resin and granular activated carbon (GAC) media to treat explosives compounds and three infiltration galleries to return treated water to the aquifer. The CIA systems 1, 2, and 3 continue to run at a combined total flow rate of 750 gpm. As of 31 March 2017, over 893.2 million gallons of water have been treated and re-injected. The following CIA treatment facility shut downs occurred in March:

- System 2 shut down at 0414 on 9 March 2017 due to an alarm and was restarted at 0830 on 11 March 2017;
- System 2 shut down at 1632 on 14 March 2017 due to an alarm and was restarted at 1053 on 15 March 2017;
- System 2 shut down at 1246 on 15 March 2017 due to an alarm and was restarted at 1537 on 15 March 2017;
- System 2 shut down at 1040 on 17 March 2017 due to an alarm and was restarted at 1144 on 17 March 2017;
- System 2 shut down at 0931 on 18 March 2017 due to an alarm and was restarted at 0823 on 20 March 2017;
- System 2 shut down at 1032 on 21 March 2017 due to an alarm and was restarted at 1810 on 22 March 2017;
- System 2 shut down at 1000 on 23 March 2017 due to an alarm and was restarted at 0820 on 24 March 2017;
- System 2 shut down at 1005 on 26 March 2017 due to an alarm and was restarted at 0907 on 27 March 2017; and
- System 2 shut down at 1037 on 27 March 2017 due to an alarm and was restarted at 1154 on 27 March 2017. On 27 March 2017, the communication issue was assessed and determined to be one of the wires in the well pump panel, which has been repaired.

SUMMARY OF ACTIONS TAKEN

Samples collected during the reporting period are summarized in Table 1.

Process water samples were collected at Frank Perkins Road, Pew Road, Base Boundary, Leading Edge, J-1 Range Southern, J-1 Range Northern, J-2 Range Northern, J-2 Range Eastern, J-3 Range, and Central Impact Area (CIA).

Environmental and system performance monitoring groundwater samples were collected at Northwest Corner, J-1 Range Northern, CIA, and CS-19 (ARNG).

Drilled and collected groundwater profile samples at CIA (BH-687) and at J-1 Range Northern (BH-668).

Soil samples were collected at Former B Range, B Range, C Range, D Range, and G Range.

Performed daily inspection of BEM cover at the CIA to ensure cover is secure and intact.

Completed scrap management at the CIA.

Collected cued Metalmapper data in PhII Area 3 at the CIA.

Continued transportation and disposal of soil from Small Arms Ranges.

Completed excavation and staging of previously stockpiled soil at D Range.

Collected post-excavation samples (6th lift) at three C Range grids.

Completed excavation of 1st lift and post-excavation sampling at D Range Stockpile Area grid.

Completed excavation of 7th lifts and post-excavation sampling at three C Range grids.

Completed excavation of 6th lift and post-excavation sampling at one G Range grid.

Completed excavation and post-excavation sampling of the 5th lifts at three Former B Range grids.

Completed excavation and post-excavation sampling of the 7th lift at one B Range grid.

Continued drilling at J-1 Range Northern and CIA.

Performed J3EWIP2 hydraulic monitoring at the startup well network.

Satuit Automation continued programming treatment systems into the computer at Frank Perkins Road and Bet Co evaluated the wiring at the Base Boundary for telemetry.

JBCC IAGWSP Tech Update Meeting Minutes 9 March 2017

Project and Fieldwork Update

The drill rig is installingMW-686 in the Central Impact Area (CIA). They completed MW-688 (in J-1 North) data came in just before the meeting and all intervals were clean. A screen setting call will be held early next week. The rig will stay in CIA after installing MW-686 and then drill MW-687 located about halfway between MW-686 and MW-203. The rig will move to the second J-1 North location and install the water table well at GA/GB as part of this mobilization. Sampling crews were moving to the CIA but will hold off on wells in the vicinity of the Monument Beach Sportsman's Club. The treatment systems are up and running and operating as designed.

In the CIA, teams are processing scrap in the area across from the BEM. The metal mapper team re-mobbed to the site this week and are in the process of getting their equipment set up. They will resume in Area 3 which will be completed this field season. The USACE UXO team is scheduled to return in July to resume work at the J-2 Range. Soil results were received for samples taken from the BEM. Levels of RDX are still relatively low however IAGWSP has decided to change out the sand at the BEM in the near future.

At the Small Arms Ranges, all soil that failed the TCLP test for lead has been shipped off-site. Teams are continuing to work on the non-hazardous stockpile. Soil removals continue at five ranges. Post excavation results are pending at B, Former B and G Ranges.

A site visit to several training ranges was planned for after the tech meeting. MassDEP noted that they may have a better idea as to how some of their remaining comments should be resolved based on the site visit.

Action Items

The action items were discussed and updated.

CIA Source Report

Discussion was held on the CIA Source report. IAGWSP noted that they would like to decide where the next 10 acres will be. Figures displaying the spatial distribution of all items found by type were displayed and discussed. EPA and MassDEP will review the figures and by the end of next week provide feedback on the recommendations for the next areas.

J-3 Range Startup Report

Discussion was held on the J-3 Range Startup Report. It was explained that the testing done was to evaluate the aquifer in the vicinity of the new extraction well which was installed upgradient and deeper than EW-1. The first test was performed in July of 2016 using the new well and four nearby extraction wells with long term transducers installed in them. During the test there was a problem with the transducers in the four monitoring wells and they were unable to correlate manual measurements with those from the transducers. The test was redone in October of 2016 and there were three shutdowns at the FS-12 treatment plant during the testing period. However, USACE doesn't think it is necessary to perform the test again. They are preparing responses to agency comments on the report. After they are distributed, the group can reconvene as necessary and determine next steps.

JBCC Cleanup Team Meeting

The next meeting of the JBCC Cleanup Team (JBCCCT), formerly the MMR Cleanup Team (MMRCT) is scheduled for April 12, 2017. The Cleanup Team meeting discusses late breaking news and responses to action items, as well as updates from the IAGWSP and the Installation Restoration Program (IRP). The JBCCCT meetings provide a forum for community input regarding issues related to both the IRP and the IAGWSP.

SUMMARY OF DATA RECEIVED

Table 2 summarizes the validated detections of explosives compounds and perchlorate for all groundwater results received from 1 March to 31 March 2017. These results are compared to the Maximum Contaminant Levels/Health Advisory (MCL/HA) values for respective analytes. Explosives and perchlorate are the primary contaminants of concern (COC) at Camp Edwards.

There are currently twelve operable units (OU) under investigation and cleanup at Camp Edwards. The OUs include: Central Impact Area, Demolition Area 1, Demolition Area 2, Former A Range, J-1 Range, J-2 Range, J-3 Range, L Range, Northwest Corner, Small Arms Ranges, Training Areas, and Western

Boundary. Environmental monitoring reports for each OU are generated each year to evaluate the current year groundwater results. These reports are available on the site Environmental Data Management System (EDMS) and at the project document repositories (IAGWSP office and Jonathan Bourne Library).

2. DELIVERABLES SUBMITTED

Deliverables submitted during the reporting period include the following:

- Monthly Progress Report No. 239 for February 2017 3/10/2017
- Central Impact Area Optimized Hydraulic and Chemical Monitoring Network Project Note 3/01/2017
- Draft Central Impact Area Extraction Well EW-3 System Startup Report 3/03/2017
- Final Northwest Corner 2016 Annual Environmental Monitoring Report 3/09/2017
- Final Central Impact Area 2016 Annual Environmental Monitoring Report 3/20/2017
- J-1 Range Confirmation Soil Investigation Findings – Project Note 3/21/2017
- Final Demolition Area 1 Leading Edge Off-Base System Startup Report and Trailing Edge On-Base System Startup Report 3/28/2017

3. SCHEDULED ACTIONS

The following documents are being prepared or revised during April 2017:

- Training Areas Draft Investigation Report;
- Training Areas Draft Remedy Selection Plan;
- CIA Draft Startup Report;
- 2016 CIA Source Removal Annual Report;
- Draft 2015 BIP Report;
- J-3 Range 2016 Interim Environmental Monitoring Report;
- J-3 Range Startup Report;
- J-2 Range Eastern and J-2 Range Northern 2016 Environmental Monitoring Report;
- J-1 Range Northern and J-1 Range Southern 2017 Annual Environmental Monitoring Report;
- L Range 2017 Annual Environmental Monitoring Report;
- Small Arms Ranges Environmental Monitoring Work Plan;
- Land Use Control Monitoring Report;
- Five Year Review Report; and
- Former A Range Demonstration of Compliance Report.

TABLE 1

Sampling Progress: 28 February to 31 March 2017

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Former B Range	SSFBR03A	FBR03A_D	N	03/30/2017	Soil	0	0.25
Former B Range	SSFBR140QRA	FBR140QRA_D	N	03/30/2017	Soil	0	0.25
Former B Range	SSFBR140LA	FBR140LA_J	N	03/30/2017	Soil	0	0.25
Former B Range	SSFBR140LA	FBR140LA_L	FR	03/30/2017	Soil	0	0.25
B Range	SSBRNGSW02	BRNGSW02_P	FR	03/30/2017	Soil	0	0.25
B Range	SSBRNGSW02	BRNGSW02_N	FR	03/30/2017	Soil	0	0.25
Former B Range	SSFBR140LA	FBR140LA_K	FR	03/30/2017	Soil	0	0.25
B Range	SSBRNGSW02	BRNGSW02_M	N	03/30/2017	Soil	0	0.25
CS-19 (ARNG)	MW-52S	MW-52S_S17F	N	03/30/2017	Ground Water	150	160
CS-19 (ARNG)	MW-52S	MW-52S_S17	N	03/30/2017	Ground Water	150	160
Central Impact Area	MW-614M2	MW-614M2_S17	N	03/29/2017	Ground Water	215	225
Central Impact Area	MW-614M1	MW-614M1_S17	N	03/29/2017	Ground Water	275	285
Central Impact Area	MW-25	MW-25_S17	N	03/29/2017	Ground Water	108	118
Central Impact Area	OW-1	OW-1_S17	N	03/29/2017	Ground Water	126	136
Central Impact Area	MW-178M1	MW-178M1_S17	N	03/28/2017	Ground Water	257	267
Central Impact Area	MW-102M2	MW-102M2_S17	N	03/28/2017	Ground Water	237	247
Central Impact Area	MW-102M1	MW-102M1_S17	N	03/28/2017	Ground Water	267	277
Central Impact Area	MW-103M2	MW-103M2_S17	N	03/28/2017	Ground Water	282	292
Central Impact Area	MW-103M1	MW-103M1_S17	N	03/28/2017	Ground Water	298	308
Central Impact Area	MW-123M2	MW-123M2_S17	N	03/27/2017	Ground Water	236	246
Central Impact Area	MW-123M1	MW-123M1_S17	N	03/27/2017	Ground Water	291	301
Central Impact Area	MW-124M1	MW-124M1_S17	N	03/27/2017	Ground Water	234	244
Central Impact Area	BH-687	BH-687-GW-281-286	N	03/24/2017	GW Profile	281	286
Central Impact Area	BH-687	BH-687-GW-271-276	N	03/23/2017	GW Profile	271	276
Central Impact Area	MW-202M1	MW-202M1_S17	N	03/23/2017	Ground Water	264	274
Central Impact Area	MW-615M2	MW-615M2_S17	N	03/23/2017	Ground Water	200	210
Central Impact Area	MW-615M1	MW-615M1_S17	N	03/23/2017	Ground Water	260	270
Central Impact Area	MW-615M1	MW-615M1_S17D	FD	03/23/2017	Ground Water	260	270
Central Impact Area	MW-51M2	MW-51M2_S17	N	03/23/2017	Ground Water	203	213
Central Impact Area	BH-687	BH-687-GW-261-266	N	03/23/2017	GW Profile	261	266
Central Impact Area	MW-51M1	MW-51M1_S17	N	03/23/2017	Ground Water	234	244
Central Impact Area	MW-51D	MW-51D_S17	N	03/23/2017	Ground Water	264	274
G Range	SSGR01A	GR01A_P	FR	03/22/2017	Soil	0	0.25
G Range	SSGR01A	GR01A_N	FR	03/22/2017	Soil	0	0.25
Central Impact Area	MW-50M1	MW-50M1_S17	N	03/22/2017	Ground Water	207	217
G Range	SSGR01A	GR01A_M	N	03/22/2017	Soil	0	0.25
Central Impact Area	MW-249M2	MW-249M2_S17	N	03/22/2017	Ground Water	174	184
Central Impact Area	MW-633M2	MW-633M2_S17	N	03/22/2017	Ground Water	197	207
Central Impact Area	MW-633M1	MW-633M1_S17	N	03/22/2017	Ground Water	282	292
Central Impact Area	MW-23M1	MW-23M1_S17	N	03/22/2017	Ground Water	225	235
Central Impact Area	MW-23D	MW-23D_S17	N	03/22/2017	Ground Water	272	282
Central Impact Area	MW-623M3	MW-623M3_S17	N	03/21/2017	Ground Water	275	285
Central Impact Area	MW-623M3	MW-623M3_S17D	FD	03/21/2017	Ground Water	275	285
Central Impact Area	MW-623M2	MW-623M2_S17	N	03/21/2017	Ground Water	291.8	301.8
C Range	SSDR158	DR158_C	FR	03/21/2017	Soil	0	0.25
C Range	SSDR158	DR158_B	FR	03/21/2017	Soil	0	0.25
Central Impact Area	MW-623M1	MW-623M1_S17	N	03/21/2017	Ground Water	340	350
C Range	SSDR158	DR158_A	N	03/21/2017	Soil	0	0.25
C Range	SSCRNGBR5-6A	CRNGBR5-6A_P	FR	03/21/2017	Soil	0	0.25
C Range	SSCRNGBR5-6A	CRNGBR5-6A_N	FR	03/21/2017	Soil	0	0.25
C Range	SSCRNGBR5-6A	CRNGBR5-6A_M	N	03/21/2017	Soil	0	0.25
C Range	SSCRNGMID02	CRNGMID02_E	N	03/21/2017	Soil	0	0.25
C Range	SSCRNGS02	CRNGS02_E	N	03/21/2017	Soil	0	0.25
Central Impact Area	MW-209M2	MW-209M2_S17	N	03/21/2017	Ground Water	220	230
Central Impact Area	MW-209M1	MW-209M1_S17	N	03/21/2017	Ground Water	240	250
Central Impact Area	MW-212M1	MW-212M1_S17	N	03/20/2017	Ground Water	333	343
Northwest Corner	MW-338S	MW-338S_S17	N	03/20/2017	Ground Water	72	82

N = Normal Sample
FD = Field Duplicate

TABLE 1

Sampling Progress: 28 February to 31 March 2017

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Northwest Corner	MW-338M2	MW-338M2_S17	N	03/20/2017	Ground Water	119	129
Central Impact Area	BH-687	BH-687-GW-241-246	N	03/20/2017	GW Profile	241	246
Northwest Corner	MW-338M1	MW-338M1_S17	N	03/20/2017	Ground Water	189	199
Central Impact Area	MW-176M2	MW-176M2_S17	N	03/20/2017	Ground Water	229	239
Central Impact Area	MW-176M1	MW-176M1_S17	N	03/20/2017	Ground Water	270	280
Central Impact Area	BH-687	BH-687-GW-231-236	N	03/17/2017	GW Profile	231	236
Central Impact Area	BH-687	BH-687-GW-221-226	N	03/17/2017	GW Profile	221	226
Central Impact Area	BH-687	BH-687-GW-211-216	N	03/17/2017	GW Profile	211	216
Central Impact Area	BH-687	BH-687-GW-201-206	N	03/16/2017	GW Profile	201	206
Central Impact Area	MW-88M2	MW-88M2_S17	N	03/16/2017	Ground Water	213	223
Central Impact Area	MW-88M2	MW-88M2_S17D	FD	03/16/2017	Ground Water	213	223
Central Impact Area	BH-687	BH-687-GW-191-196	N	03/16/2017	GW Profile	191	196
Central Impact Area	MW-88M1	MW-88M1_S17	N	03/16/2017	Ground Water	233	243
Central Impact Area	MW-184M1	MW-184M1_S17	N	03/16/2017	Ground Water	186	196
Central Impact Area	MW-184M1	MW-184M1_S17D	FD	03/16/2017	Ground Water	186	196
Central Impact Area	BH-687	BH-687-GW-181-186D	FD	03/16/2017	GW Profile	181	186
Central Impact Area	BH-687	BH-687-GW-181-186	N	03/16/2017	GW Profile	181	186
Central Impact Area	MW-03M2	MW-03M2_S17	N	03/16/2017	Ground Water	180	185
Central Impact Area	BH-687	BH-687-GW-171-176	N	03/16/2017	GW Profile	171	176
Central Impact Area	MW-204M2	MW-204M2_S17	N	03/16/2017	Ground Water	76	86
Central Impact Area	MW-204M1	MW-204M1_S17	N	03/16/2017	Ground Water	141	151
Northwest Corner	MW-350M2	MW-350M2_S17	N	03/15/2017	Ground Water	126	136
Northwest Corner	MW-323M2	MW-323M2_S17	N	03/15/2017	Ground Water	120	130
Northwest Corner	MW-323M1	MW-323M1_S17	N	03/15/2017	Ground Water	195	205
Central Impact Area	MW-628M2	MW-628M2_S17	N	03/15/2017	Ground Water	120.8	130.8
Central Impact Area	MW-628M1	MW-628M1_S17	N	03/15/2017	Ground Water	230.8	240.8
Central Impact Area	MW-625M2	MW-625M2_S17	N	03/15/2017	Ground Water	230	240
Central Impact Area	MW-625M1	MW-625M1_S17	N	03/15/2017	Ground Water	260	270
Central Impact Area	MW-207M1	MW-207M1_S17	N	03/15/2017	Ground Water	254	264
Central Impact Area	MW-180M3	MW-180M3_S17	N	03/13/2017	Ground Water	171	181
Central Impact Area	MW-624M2	MW-624M2_S17	N	03/13/2017	Ground Water	254	264
Central Impact Area	MW-624M1	MW-624M1_S17	N	03/13/2017	Ground Water	284	294
Central Impact Area	MW-10M	MW-10M_S17	N	03/13/2017	Ground Water	280	285
Central Impact Area	MW-149M1	MW-149M1_S17	N	03/13/2017	Ground Water	237.5	247.5
Central Impact Area	MW-38M4	MW-38M4_S17	N	03/09/2017	Ground Water	132	142
Central Impact Area	MW-38M3	MW-38M3_S17	N	03/09/2017	Ground Water	170	180
Central Impact Area	MW-27	MW-27_S17	N	03/09/2017	Ground Water	117	127
Demolition Area 1	PR-EFF	PR-EFF-132A	N	03/09/2017	Process Water	0	0
Demolition Area 1	PR-MID-2	PR-MID-2-132A	N	03/09/2017	Process Water	0	0
Demolition Area 1	PR-MID-1	PR-MID-1-132A	N	03/09/2017	Process Water	0	0
Demolition Area 1	PR-INF	PR-INF-132A	N	03/09/2017	Process Water	0	0
Demolition Area 1	FPR-2-EFF-A	FPR-2-EFF-A-132A	N	03/09/2017	Process Water	0	0
Demolition Area 1	FPR-2-GAC-MID1A	FPR-2-GAC-MID1A-132A	N	03/09/2017	Process Water	0	0
Demolition Area 1	FPR2-POST-IX-A	FPR2-POST-IX-A-132A	N	03/09/2017	Process Water	0	0
Demolition Area 1	FPR-2-INF	FPR-2-INF-132A	N	03/09/2017	Process Water	0	0
Demolition Area 1	D1LE-EFF	D1LE-EFF-08A	N	03/09/2017	Process Water	0	0
Demolition Area 1	D1LE-MID2	D1LE-MID2-08A	N	03/09/2017	Process Water	0	0
Demolition Area 1	D1LE-MID1	D1LE-MID1-08A	N	03/09/2017	Process Water	0	0
Demolition Area 1	D1LE-INF	D1LE-INF-08A	N	03/09/2017	Process Water	0	0
Central Impact Area	MW-477M2	MW-477M2_S17	N	03/09/2017	Ground Water	145.6	155.6
Central Impact Area	MW-477M2	MW-477M2_S17D	FD	03/09/2017	Ground Water	145.6	155.6
Central Impact Area	MW-477M1	MW-477M1_S17	N	03/09/2017	Ground Water	187.5	197.5
Demolition Area 1	D1-EFF	D1-EFF-80A	N	03/09/2017	Process Water	0	0
Demolition Area 1	D1-MID-2	D1-MID-2-80A	N	03/09/2017	Process Water	0	0
Demolition Area 1	D1-MID-1	D1-MID-1-80A	N	03/09/2017	Process Water	0	0
Demolition Area 1	D1-INF	D1-INF-80A	N	03/09/2017	Process Water	0	0
Central Impact Area	MW-486M1	MW-486M1_S17	N	03/08/2017	Ground Water	185.7	195.7

N = Normal Sample
FD = Field Duplicate

TABLE 1

Sampling Progress: 28 February to 31 March 2017

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Central Impact Area	MW-485M1	MW-485M1_S17	N	03/08/2017	Ground Water	125.3	135.3
Central Impact Area	MW-485M1	MW-485M1_S17D	FD	03/08/2017	Ground Water	125.3	135.3
J1 Range Southern	J1S-EFF	J1S-EFF-112A	N	03/08/2017	Process Water	0	0
J1 Range Southern	J1S-MID-2	J1S-MID-2-112A	N	03/08/2017	Process Water	0	0
J1 Range Southern	J1S-INF-2	J1S-INF-2-112A	N	03/08/2017	Process Water	0	0
J3 Range	J3-EFF	J3-EFF-126A	N	03/08/2017	Process Water	0	0
J3 Range	J3-MID-2	J3-MID-2-126A	N	03/08/2017	Process Water	0	0
J3 Range	J3-MID-1	J3-MID-1-126A	N	03/08/2017	Process Water	0	0
J3 Range	J3-INF	J3-INF-126A	N	03/08/2017	Process Water	0	0
Central Impact Area	MW-115S	MW-115S_S17	N	03/08/2017	Ground Water	116	126
Central Impact Area	MW-115M1	MW-115M1_S17	N	03/08/2017	Ground Water	138	148
Central Impact Area	MW-101S	MW-101S_S17	N	03/07/2017	Ground Water	131	141
Central Impact Area	MW-98S	MW-98S_S17	N	03/07/2017	Ground Water	137	147
Central Impact Area	MW-92S	MW-92S_S17	N	03/07/2017	Ground Water	139	149
J2 Range Northern	J2N-EFF-G	J2N-EFF-G-126A	N	03/07/2017	Process Water	0	0
J2 Range Northern	J2N-MID-2G	J2N-MID-2G-126A	N	03/07/2017	Process Water	0	0
Central Impact Area	MW-107M2	MW-107M2_S17	N	03/07/2017	Ground Water	125	135
J2 Range Northern	J2N-MID-1G	J2N-MID-1G-126A	N	03/07/2017	Process Water	0	0
J2 Range Northern	J2N-INF-G	J2N-INF-G-126A	N	03/07/2017	Process Water	0	0
Central Impact Area	MW-40S	MW-40S_S17	N	03/07/2017	Ground Water	115.5	126
J2 Range Northern	J2N-EFF-EF	J2N-EFF-EF-126A	N	03/07/2017	Process Water	0	0
J2 Range Northern	J2N-MID-2F	J2N-MID-2F-126A	N	03/07/2017	Process Water	0	0
J2 Range Northern	J2N-MID-1F	J2N-MID-1F-126A	N	03/07/2017	Process Water	0	0
J2 Range Northern	J2N-INF-EF	J2N-INF-EF-126A	N	03/07/2017	Process Water	0	0
J2 Range Northern	J2N-MID-2E	J2N-MID-2E-126A	N	03/07/2017	Process Water	0	0
J2 Range Northern	J2N-MID-1E	J2N-MID-1E-126A	N	03/07/2017	Process Water	0	0
J1 Range Northern	J1N-EFF	J1N-EFF-41A	N	03/07/2017	Process Water	0	0
J1 Range Northern	J1N-MID2	J1N-MID2-41A	N	03/07/2017	Process Water	0	0
Central Impact Area	MW-40M1	MW-40M1_S17	N	03/07/2017	Ground Water	132.5	142.5
J1 Range Northern	J1N-MID1	J1N-MID1-41A	N	03/07/2017	Process Water	0	0
J1 Range Northern	J1N-INF2	J1N-INF2-41A	N	03/07/2017	Process Water	0	0
Central Impact Area	BH-688	BH-688-GW-286-291	N	03/06/2017	GW Profile	286	291
J1 Range Northern	BH-688	BH-688-GW-286-291	N	03/06/2017	GW Profile	286	291
Central Impact Area	MW-37M2	MW-37M2_S17	N	03/06/2017	Ground Water	145	155
Central Impact Area	MW-85S	MW-85S_S17	N	03/06/2017	Ground Water	116	126
Central Impact Area	BH-688	BH-688-GW-276-281	N	03/06/2017	GW Profile	276	281
J1 Range Northern	BH-688	BH-688-GW-276-281	N	03/06/2017	GW Profile	276	281
Central Impact Area	CIA2-EFF	CIA2-EFF-38A	N	03/06/2017	Process Water	0	0
Central Impact Area	CIA2-MID2	CIA2-MID2-38A	N	03/06/2017	Process Water	0	0
Central Impact Area	CIA2-MID1	CIA2-MID1-38A	N	03/06/2017	Process Water	0	0
Central Impact Area	MW-01S	MW-01S_S17	N	03/06/2017	Ground Water	114	124
Central Impact Area	MW-01S	MW-01S_S17D	FD	03/06/2017	Ground Water	114	124
Central Impact Area	BH-688	BH-688-GW-266-271	N	03/06/2017	GW Profile	266	271
Central Impact Area	CIA2-INF	CIA2-INF-38A	N	03/06/2017	Process Water	0	0
J1 Range Northern	BH-688	BH-688-GW-266-271	N	03/06/2017	GW Profile	266	271
Central Impact Area	CIA1-EFF	CIA1-EFF-38A	N	03/06/2017	Process Water	0	0
Central Impact Area	MW-01M2	MW-01M2_S17	N	03/06/2017	Ground Water	160	165
Central Impact Area	CIA1-MID2	CIA1-MID2-38A	N	03/06/2017	Process Water	0	0
Central Impact Area	CIA1-MID1	CIA1-MID1-38A	N	03/06/2017	Process Water	0	0
Central Impact Area	CIA1-INF	CIA1-INF-38A	N	03/06/2017	Process Water	0	0
Central Impact Area	MW-90S	MW-90S_S17	N	03/06/2017	Ground Water	118	128
Central Impact Area	MW-90S	MW-90S_S17D	FD	03/06/2017	Ground Water	118	128
Central Impact Area	CIA3-EFF	CIA3-EFF-09A	N	03/06/2017	Process Water	0	0
Central Impact Area	CIA3-MID2	CIA3-MID2-09A	N	03/06/2017	Process Water	0	0
Central Impact Area	CIA3-MID1	CIA3-MID1-09A	N	03/06/2017	Process Water	0	0
Central Impact Area	CIA3-INF	CIA3-INF-09A	N	03/06/2017	Process Water	0	0
Central Impact Area	BH-688	BH-688-GW-256-261	N	03/03/2017	GW Profile	256	261

N = Normal Sample
FD = Field Duplicate

TABLE 1

Sampling Progress: 28 February to 31 March 2017

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
J1 Range Northern	BH-688	BH-688-GW-256-261	N	03/03/2017	GW Profile	256	261
Central Impact Area	MW-90M1	MW-90M1_S17	N	03/02/2017	Ground Water	145	155
Central Impact Area	BH-688	BH-688-GW-246-251	N	03/02/2017	GW Profile	246	251
Central Impact Area	BH-688	BH-688-GW-246-251D	FD	03/02/2017	GW Profile	246	251
J1 Range Northern	BH-688	BH-688-GW-246-251	N	03/02/2017	GW Profile	246	251
J1 Range Northern	BH-688	BH-688-GW-246-251D	FD	03/02/2017	GW Profile	246	251
Central Impact Area	MW-91S	MW-91S_S17	N	03/02/2017	Ground Water	124	134
Central Impact Area	MW-91S	MW-91S_S17D	FD	03/02/2017	Ground Water	124	134
Central Impact Area	MW-91M1	MW-91M1_S17	N	03/02/2017	Ground Water	170	180
Central Impact Area	BH-688	BH-688-GW-236-241	N	03/02/2017	GW Profile	236	241
J1 Range Northern	BH-688	BH-688-GW-236-241	N	03/02/2017	GW Profile	236	241
Central Impact Area	OW-2	OW-2_S17	N	03/02/2017	Ground Water	175	185
Central Impact Area	BH-688	BH-688-GW-226-231	N	03/01/2017	GW Profile	226	231
J1 Range Northern	BH-688	BH-688-GW-226-231	N	03/01/2017	GW Profile	226	231
Central Impact Area	BH-688	BH-688-GW-216-221	N	03/01/2017	GW Profile	216	221
J1 Range Northern	BH-688	BH-688-GW-216-221	N	03/01/2017	GW Profile	216	221
Central Impact Area	MW-235M1	MW-235M1_S17	N	03/01/2017	Ground Water	154	164
J2 Range Eastern	J2E-EFF-K	J2E-EFF-K-102A	N	03/01/2017	Process Water	0	0
J2 Range Eastern	J2E-MID-2K	J2E-MID-2K-102A	N	03/01/2017	Process Water	0	0
J2 Range Eastern	J2E-MID-1K	J2E-MID-1K-102A	N	03/01/2017	Process Water	0	0
J2 Range Eastern	J2E-INF-K	J2E-INF-K-102A	N	03/01/2017	Process Water	0	0
J2 Range Eastern	J2E-EFF-J	J2E-EFF-J-102A	N	03/01/2017	Process Water	0	0
J2 Range Eastern	J2E-MID-2J	J2E-MID-2J-102A	N	03/01/2017	Process Water	0	0
Central Impact Area	MW-93M2	MW-93M2_S17	N	03/01/2017	Ground Water	145	155
J2 Range Eastern	J2E-MID-1J	J2E-MID-1J-102A	N	03/01/2017	Process Water	0	0
J2 Range Eastern	J2E-INF-J	J2E-INF-J-102A	N	03/01/2017	Process Water	0	0
Central Impact Area	MW-93M1	MW-93M1_S17	N	03/01/2017	Ground Water	185	195
J2 Range Eastern	J2E-EFF-IH	J2E-EFF-IH-102A	N	03/01/2017	Process Water	0	0
J2 Range Eastern	J2E-MID-2H	J2E-MID-2H-102A	N	03/01/2017	Process Water	0	0
J2 Range Eastern	J2E-MID-1H	J2E-MID-1H-102A	N	03/01/2017	Process Water	0	0
J2 Range Eastern	J2E-MID-2I	J2E-MID-2I-102A	N	03/01/2017	Process Water	0	0
J2 Range Eastern	J2E-MID-1I	J2E-MID-1I-102A	N	03/01/2017	Process Water	0	0
Central Impact Area	MW-44M1	MW-44M1_S17	N	03/01/2017	Ground Water	182	192
J2 Range Eastern	J2E-INF-I	J2E-INF-I-102A	N	03/01/2017	Process Water	0	0
Central Impact Area	MW-487M2	MW-487M2_S17	N	03/01/2017	Ground Water	195.84	205.84
J1 Range Northern	MW-487M2	MW-487M2_S17	N	03/01/2017	Ground Water	195.84	205.84
Central Impact Area	MW-487M1	MW-487M1_S17	N	03/01/2017	Ground Water	240.3	250.3
J1 Range Northern	MW-487M1	MW-487M1_S17	N	03/01/2017	Ground Water	240.3	250.3
Central Impact Area	MW-105M1	MW-105M1_S17	N	02/28/2017	Ground Water	205	215
Central Impact Area	MW-101M1	MW-101M1_S17	N	02/28/2017	Ground Water	158	168
Central Impact Area	MW-100M1	MW-100M1_S17	N	02/28/2017	Ground Water	179	189
Central Impact Area	MW-99S	MW-99S_S17	N	02/28/2017	Ground Water	133	143
Central Impact Area	MW-99M1	MW-99M1_S17	N	02/28/2017	Ground Water	195	205
Central Impact Area	MW-98M1	MW-98M1_S17	N	02/28/2017	Ground Water	164	175
Central Impact Area	MW-106M1	MW-106M1_S17	N	02/28/2017	Ground Water	170.5	180.5

N = Normal Sample
FD = Field Duplicate

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received March 2017

Area of Concern	Location ID	Field Sample ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Date Sampled	Test Method	Analyte	Result Value	Qualifier	Units	MCL/HA	> MCL/HA	MDL	RL
Central Impact Area	MW-105M1	MW-105M1_S17	205	215	02/28/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.24		ug/L	0.60		0.025	0.20
Central Impact Area	MW-101M1	MW-101M1_S17	158	168	02/28/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.9		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-100M1	MW-100M1_S17	179	189	02/28/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.3		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-98M1	MW-98M1_S17	164	175	02/28/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.64		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-112M1	MW-112M1_S17	195	205	02/27/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.62		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-113M2	MW-113M2_S17	190	200	02/27/2017	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.97		ug/L	400		0.019	0.20
Central Impact Area	MW-113M2	MW-113M2_S17	190	200	02/27/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	12.6		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-113M2	MW-113M2_S17D	190	200	02/27/2017	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	1.0		ug/L	400		0.019	0.20
Central Impact Area	MW-113M2	MW-113M2_S17D	190	200	02/27/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	12.7		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-616M1	MW-616M1_S17	217.1	227.1	02/23/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.5		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-617M1	MW-617M1_S17	175.8	185.8	02/23/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.68		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-208M1	MW-208M1_S17	195	205	02/22/2017	SW6850	Perchlorate	0.052	J	ug/L	2.0		0.019	0.20
Central Impact Area	MW-39M1	MW-39M1_S17	220	230	02/21/2017	SW6850	Perchlorate	0.37		ug/L	2.0		0.019	0.20
Central Impact Area	MW-39M1	MW-39M1_S17	220	230	02/21/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.2		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-95M2	MW-95M2_S17	167	177	02/21/2017	SW6850	Perchlorate	0.047	J	ug/L	2.0		0.019	0.20
Central Impact Area	MW-95M1	MW-95M1_S17	202	212	02/21/2017	SW6850	Perchlorate	0.79		ug/L	2.0		0.019	0.20
Central Impact Area	MW-95M1	MW-95M1_S17	202	212	02/21/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.0		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-43M1	MW-43M1_S17	223	233	02/21/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.1		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-86S	MW-86S_S17	143	153	02/16/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.68		ug/L	0.60	X	0.025	0.20
Central Impact Area	MW-86M2	MW-86M2_S17	158	168	02/16/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.60		ug/L	0.60		0.025	0.20
Central Impact Area	MW-87M2	MW-87M2_S17	169	179	02/15/2017	SW6850	Perchlorate	0.033	J	ug/L	2.0		0.019	0.20
Central Impact Area	MW-87M1	MW-87M1_S17	194	204	02/15/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.40		ug/L	0.60		0.025	0.20
Central Impact Area	MW-87M1	MW-87M1_S17	194	204	02/15/2017	SW6850	Perchlorate	2.2		ug/L	2.0	X	0.019	0.20
Central Impact Area	MW-87M1	MW-87M1_S17D	194	204	02/15/2017	SW6850	Perchlorate	2.2		ug/L	2.0	X	0.019	0.20
Central Impact Area	MW-203M2	MW-203M2_S17	176	186	02/15/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.36		ug/L	0.60		0.025	0.20
J2 Range Eastern	J2MW-04M2	J2MW-04M2_S17	210	220	02/15/2017	SW6850	Perchlorate	0.023	J	ug/L	2.0		0.019	0.20
J2 Range Eastern	J2MW-04M1	J2MW-04M1_S17	257	267	02/15/2017	SW6850	Perchlorate	0.071	J	ug/L	2.0		0.019	0.20
J2 Range Eastern	J2MW-04M1	J2MW-04M1_S17	257	267	02/15/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.21		ug/L	0.60		0.025	0.20
J2 Range Eastern	J2MW-04M1	J2MW-04M1_S17	257	267	02/15/2017	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.57		ug/L	400		0.019	0.20
J2 Range Eastern	MW-339M1	MW-339M1_S17	233	243	02/14/2017	SW6850	Perchlorate	0.62		ug/L	2.0		0.019	0.20
J2 Range Eastern	MW-368M2	MW-368M2_S17	202.7	212.7	02/14/2017	SW6850	Perchlorate	25.7		ug/L	2.0	X	0.038	0.40
J2 Range Eastern	MW-368M2	MW-368M2_S17	202.7	212.7	02/14/2017	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	5.2		ug/L	400		0.019	0.20
J2 Range Eastern	MW-368M2	MW-368M2_S17	202.7	212.7	02/14/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	7.9		ug/L	0.60	X	0.025	0.20
J2 Range Eastern	MW-368M2	MW-368M2_S17D	202.7	212.7	02/14/2017	SW6850	Perchlorate	26.6		ug/L	2.0	X	0.038	0.40
J2 Range Eastern	MW-368M2	MW-368M2_S17D	202.7	212.7	02/14/2017	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	4.9		ug/L	400		0.019	0.20
J2 Range Eastern	MW-368M2	MW-368M2_S17D	202.7	212.7	02/14/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	7.8		ug/L	0.60	X	0.025	0.20
J2 Range Eastern	MW-324M2	MW-324M2_S17	203.7	214.7	02/14/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.44		ug/L	0.60		0.025	0.20
J2 Range Eastern	MW-324M2	MW-324M2_S17	203.7	214.7	02/14/2017	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	1.8		ug/L	400		0.019	0.20
J2 Range Eastern	MW-324M2	MW-324M2_S17	203.7	214.7	02/14/2017	SW6850	Perchlorate	6.2		ug/L	2.0	X	0.019	0.20
J2 Range Eastern	MW-324M1	MW-324M1_S17	234.9	244.9	02/14/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.39		ug/L	0.60		0.025	0.20
J2 Range Eastern	MW-324M1	MW-324M1_S17	234.9	244.9	02/14/2017	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	1.7		ug/L	400		0.019	0.20
J2 Range Eastern	MW-324M1	MW-324M1_S17	234.9	244.9	02/14/2017	SW6850	Perchlorate	4.9		ug/L	2.0	X	0.019	0.20
J2 Range Northern	J2EW0001	J2EW0001_S17	179	234	02/02/2017	SW6850	Perchlorate	2.2		ug/L	2.0	X	0.019	0.20

J = Estimated Result
MDL = Method Detection Limit
RL = Reporting LImit

MCL/HA= Either the MCL or Lowest Health Advisory Limit
April 06, 2017

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received March 2017

Area of Concern	Location ID	Field Sample ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Date Sampled	Test Method	Analyte	Result Value	Qualifier	Units	MCL/HA	> MCL/HA	MDL	RL
J2 Range Northern	J2EW0002	J2EW0002_S17	198	233	02/02/2017	SW6850	Perchlorate	4.6		ug/L	2.0	X	0.019	0.20
J2 Range Northern	J2EW0002	J2EW0002_S17D	198	233	02/02/2017	SW6850	Perchlorate	4.5		ug/L	2.0	X	0.019	0.20
J2 Range Northern	J2EW0003	J2EW0003_S17	202	232	02/02/2017	SW6850	Perchlorate	0.65		ug/L	2.0		0.019	0.20
J2 Range Northern	J2EW1-MW1-C	J2EW1-MW1-C_S17	240.8	250.8	02/01/2017	SW6850	Perchlorate	3.0		ug/L	2.0	X	0.019	0.20
J2 Range Northern	MW-313M2	MW-313M2_S17	215.5	225.5	01/31/2017	SW6850	Perchlorate	0.29		ug/L	2.0		0.019	0.20
J2 Range Northern	MW-313M1	MW-313M1_S17	255.4	265.4	01/31/2017	SW6850	Perchlorate	10.6		ug/L	2.0	X	0.019	0.20
J2 Range Northern	MW-313M1	MW-313M1_S17D	255.4	265.4	01/31/2017	SW6850	Perchlorate	10.3		ug/L	2.0	X	0.019	0.20
J2 Range Northern	MW-630M1	MW-630M1_S17	217	227	01/26/2017	SW6850	Perchlorate	0.040	J	ug/L	2.0		0.019	0.20
J2 Range Northern	MW-612M2	MW-612M2_S17	267	277	01/26/2017	SW6850	Perchlorate	0.022	J	ug/L	2.0		0.019	0.20
J2 Range Northern	MW-612M1	MW-612M1_S17	297	307	01/26/2017	SW6850	Perchlorate	0.039	J	ug/L	2.0		0.019	0.20
J2 Range Northern	MW-327M3	MW-327M3_S17	220.2	230.2	01/26/2017	SW6850	Perchlorate	0.023	J	ug/L	2.0		0.019	0.20
J2 Range Northern	MW-635M1	MW-635M1_S17	265.4	275.4	01/26/2017	SW6850	Perchlorate	0.049	J	ug/L	2.0		0.019	0.20
J2 Range Eastern	MW-666M3	MW-666M3_R1	199.8	209.8	01/25/2017	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.22		ug/L	400		0.019	0.20
J2 Range Eastern	MW-666M3	MW-666M3_R1	199.8	209.8	01/25/2017	SW6850	Perchlorate	2.5		ug/L	2.0	X	0.019	0.20
J2 Range Eastern	MW-666M2	MW-666M2_R1	219.8	229.8	01/25/2017	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.35		ug/L	400		0.019	0.20
J2 Range Eastern	MW-666M2	MW-666M2_R1	219.8	229.8	01/25/2017	SW6850	Perchlorate	2.7		ug/L	2.0	X	0.019	0.20
J2 Range Eastern	MW-666M1	MW-666M1_R1	244.8	254.8	01/25/2017	SW6850	Perchlorate	5.5		ug/L	2.0	X	0.019	0.20
J2 Range Eastern	MW-665M3	MW-665M3_R1	175.2	185.2	01/25/2017	SW6850	Perchlorate	3.0		ug/L	2.0	X	0.019	0.20
J2 Range Eastern	MW-665M2	MW-665M2_R1	205.2	215.2	01/25/2017	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.9		ug/L	0.60	X	0.025	0.20
J2 Range Eastern	MW-665M2	MW-665M2_R1	205.2	215.2	01/25/2017	SW6850	Perchlorate	5.2		ug/L	2.0	X	0.019	0.20
J2 Range Eastern	MW-665M1	MW-665M1_R1	225.2	235.2	01/25/2017	SW6850	Perchlorate	0.12	J	ug/L	2.0		0.019	0.20

J = Estimated Result
MDL = Method Detection Limit
RL = Reporting LImit

MCL/HA= Either the MCL or Lowest Health Advisory Limit