

**MONTHLY PROGRESS REPORT #231
FOR JUNE 2016**

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 June to 30 June 2016.

1. SUMMARY OF REMEDIATION ACTIONS

The following is a description of Remediation Actions (RA) underway at Camp Edwards as of June 2016. Remediation Actions may include Rapid Response Actions (RRA). An RRA 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.

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, and the Base Boundary 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 250 gpm, with over 2.376 billion gallons of water treated and re-injected as of 1 July 2016. The following Frank Perkins Road facility shut down occurred in June:

- Shut down on 17 June 2016 at 0740 for system maintenance and was restarted at 17 June 2016 at 0818.

The Pew Road Mobile Treatment Unit (MTU) continues to operate at a flow rate of 105 gpm with over 473.2 million gallons of water treated and re-injected as of 1 July 2016. The following Pew Road MTU shut downs occurred in June:

- Shut down on 2 June 2016 at 0810 due to a system alarm and was restarted on 2 June 2016;
- Shut down on 14 June 2016 at 1617 due to a system alarm and was restarted at 15 June 2016 at 0711; and
- Shut down on 27 June 2016 at 1346 due to a system alarm and was restarted at 27 June 2016 at 1443.

The Base Boundary RA was shut down on 3 April 2016 and is offline awaiting extraction well motor replacement, with over 147.6 million gallons of water treated and re-injected as of 1 July 2016.

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 1 July 2016, over 350 million gallons of water have been treated and re-injected. The following J-1 Range Southern system shut downs occurred in June:

- Shut down on 23 June 2016 at 0734 for telemetry pole installation and was restarted at 23 June 2016 at 0748.

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 will continue to operate at a total system flow rate of 250 gpm. As of 1 July 2016, over 312 million gallons of water have been treated and re-injected. No J-1 Range Northern MTU shut downs occurred in June.

J-3 Range Groundwater RRA

The J-3 Range Groundwater RRA consists of removal and treatment of contaminated groundwater to control further migration of explosives compounds and perchlorate. The ETR system includes three 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 continues to operate at a flow rate of 195 gpm. As of 1 July 2016, over 915.7 million gallons of water have been treated and re-injected. No J-3 Range system shut downs occurred in June.

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 1 July 2016, over 771.5 million gallons of water have been treated and re-injected. The following Northern Treatment Building shut down occurred in June:

- Shut down on 14 June 2016 at 1619 due to a system alarm and was restarted at 15 June 2016 at 0817.

The Northern MTUs E and F continue to operate at a flow rate of 250 gpm. As of 1 July 2016, over 1.241 billion gallons of water have been treated and re-injected. The following J-2 Range Northern MTU shut downs occurred in June:

- MTU E shut down on 21 June 2016 at 2113 due to a system alarm and was restarted at 22 June 2016 at 0734; and
- MTU F shut down on 21 June 2016 at 2101 due to a system alarm and was restarted at 22 June 2016 at 0730.

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 1 July 2016, over 850.5 million gallons of water have been treated and re-injected. The following MTU H and I shut downs occurred in June:

- MTUs H and I were shut down on 23 June 2016 at 0944 for telemetry pole installation and were restarted at 23 June 2016 at 0955.

MTU J continues to operate at a flow rate of 120 gpm. As of 1 July 2016, over 380 million gallons of water have been treated and re-injected. No shut downs of MTU J occurred in June.

MTU K continues to operate at a flow rate of 125 gpm. As of 1 July 2016, over 485 million gallons of water have been treated and re-injected. The following MTU K shut downs occurred in June:

- MTU K shut down on 24 June 2016 at 1214 for system maintenance and was restarted at 24 June 2016 at 1240; and
- MTU K shut down on 28 June 2016 at 0812 for system maintenance and was restarted at 28 June 2016 at 1043.

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: two 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 two infiltration galleries to return treated water to the aquifer. The CIA systems 1 and 2 continue to run at a combined total flow rate of 500 gpm. As of 1 July 2016, over 634 million gallons of water have been treated and re-injected. No CIA treatment facility shut downs occurred in June.

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, 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 Demolition Area 1, J-1 Range Southern, Former A Range, Western Boundary, and Northwest Corner.

Collected surface water samples at Demolition Area 1 (Opening Pond).

Collected soil samples at Former B Range and the CIA.

Completed off-site transport and disposal of remaining soil from 1st lifts at C Range.

Completed soil excavation (1st lift) and stockpiling and collected 1st lift post-excavation soil sampling at Former B Range.

Began soil excavation (2nd lift) and stockpiling at Former D Range.

Continued site restoration and testing of the new in-plume extraction well at J-3 Range.

Began MEC investigation in Barrage Rocket Area at J-3 Range.

Repaired the floor in the MTU at J-1 Range Southern.

Installed telephone poles and electrical to support telemetry at all treatment systems.

Continued site restoration and testing of new extraction well, and completed electrical hook-up for leading edge system at Demolition Area 1.

Installed security cameras and restarted the CIA-3 system at the CIA.

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

Continued metalmapper collection of cued data in Phase II area 2, and continued intrusive investigation of anomalies in Phase II areas 1 and 2 at the CIA.

JBCC IAGWSP Tech Update Meeting Minutes 9 June 2016

Project and Field Work Update

There is no change in project status since the last tech meeting on CIA-EW-3. The only item left is for Eversource to install the meter. The team is awaiting word from the Monument Beach Sportsman's Club (MBSC) on a request for a cease fire during the hours of 7:00 am and 10:00 am. The MBSC Board of Directors met last night and IAGWSP put a call into Camp Edwards to see what the outcome of the meeting was. As soon as approval on a cease fire is received from MBSC, Tantera will coordinate with Eversource to schedule the remaining work.

At the Demolition Area 1 off-site system, Eversource has installed the electrical poles however there are no connecting wires. Beginning Friday, our contractors can run our wires to the pole so that all that will be left is for Eversource to finish the connection.

There is no change in status to the Demolition Area 1 base boundary system. USACE has submitted a work order and are waiting for a cost estimate from Eversource.

It was noted that at the Environmental Management Commission meeting earlier in the week, the Commissioners were briefed on the difficulties that IAGWSP and other base entities have had in working with Eversource.

At the Central Impact Area, Metal Mapper continues to work in Phase II Area 2. One unit is on site the other is being repaired. Dawson continues to dig in Phase II Area 1. The projects are on schedule and going well. EPA asked how many UXO were in the holding area and if they could periodically receive a MEC tracking log.

At the Small Arms Ranges, they are excavating the first lift at the Former B Range and completing the T&D of the remaining first lift soils at the C Range. They will move to Former D then G and D Ranges. Results of post excavation samples for B, C and Former C Ranges were discussed. At B Range, 1 of 3 grids had exceedance for lead. At C Range, 3 of the 4 grids had lead exceedances and at Former C Range, the one grid excavated had an exceedance. It was noted that for the most part, the exceedances were at grids where prior sample concentrations were relatively high and those concentration appear to be decreasing with depth. All of the results will be combined with results from previous and future lifts in a report at the completion of all work.

The drill rig will mobilize to the site on or around June 20th. All environmental approvals have been received. They will start with the four Demolition Area 1 wells and then move to the five J-2 East wells in this mob. Brush and UXO clearance has been completed at the J-2 east locations; some tree cutting needs to be completed. At Demo 1, they need to improve three existing well pads and build an approximately 400 foot road.

A project note proposing additional wells for J-1 south was submitted earlier this week. After the locations are approved, USACE can start the real estate paperwork and if completed in time, they could be added to this mob.

Action Items

The action items were discussed and updated.

J-1 Range Northern Annual Environmental Monitoring Report Presentation

A presentation was provided on the J-1 Range Northern Annual Environmental Monitoring Report. During the reporting period (January 2015 to December 2015), no new field work was conducted however it was noted that two wells were installed along the eastern boundary of the plume in February 2016.

The J-1 Range Northern groundwater treatment system performance statistics were reviewed and discussed. During the reporting period, 126 million gallons of groundwater were treated, 0.66 pounds of perchlorate and 0.08 pounds of RDX were removed.

Sampling locations, groundwater monitoring results, and trends were reviewed and discussed. Perchlorate concentrations ranged from non-detect to 72.2 µg/L (MW-245M2). RDX concentrations ranged from non-

detect to 88.1 µg/L (MW-245M2). For both perchlorate and RDX, there continues to be a decreasing trend in the trailing edge well and an increasing trend in the mid-plume area. An overview of the hydraulic monitoring and capture zone analysis was presented. It was noted that there were two synoptic water level rounds (in May and October 2015) and hydraulic measurements were consistent with past results. For the capture zone analysis, capture zones were developed manually and by the model. Both the model predicted and observed capture zones include entire plumes. The observed capture zone appears to be slightly larger than the model predicted one.

Decision Document cleanup timelines were discussed. Based on the 2012 plume shell it is estimated that RDX cleanup (< 0.6 µg/L) will occur in 2046, perchlorate in 2038 (< 2.0 µg/L). At this time, the observed data does not indicate any obvious delays in cleanup timeline however, perchlorate detections in MW-370M1 above 2.0 µg/L, if sustained, could impact cleanup timelines.

IAGWSP recommends making no modifications to plant operations or extraction rates and no changes to the hydraulic or chemical monitoring programs. A new monitoring well downgradient of J1NEW00001 to confirm the extent of the capture zone is being considered.

J-1 Range Southern Annual Environmental Monitoring Report Presentation

A presentation was provided on the J-1 Range Southern Annual Environmental Monitoring Report. During the reporting period (January 2015 to December 2015), three monitoring wells were installed on-base at the reinfiltration trench for hydraulic monitoring, three groundwater profile borings with six new monitoring wells were completed off-base for chemical and hydraulic monitoring and a plume shell update was completed.

The J-1 Range Southern groundwater treatment system performance statistics were reviewed and discussed. During the reporting period, 55.8 million gallons of groundwater were treated and 0.06 pounds of RDX were removed.

The 2015 plume shell update was displayed and discussed. It was explained that for the update, historical data was contoured in 2-D than the new plume shell was interpolated in 3-D. The 3-D plume shell was mapped into the transport model. The updated plume shell more accurately predicts the capture zone and time to cleanup.

Sampling locations, groundwater monitoring results, and trends were reviewed and discussed. In Zone 1 (source area) the maximum RDX concentration was 10.1 µg/L (MW-360M2) which was similar to the previous peak in 2015. In Zone 2, MW-524M1 has been less than 6 µg/L since October 2013. It was noted that at the leading edge, MW-647M1 increased to 9.1 µg/L (outside of the reporting period) and that wells MW-401M1/2, MW-102M1/M2 and MW-403M1/M2 were all non-detect. An overview of the aquifer hydraulic monitoring and capture zone analysis was presented. It was noted that there was one synoptic water level rounds (September 2015) and hydraulic measurements were generally consistent with past results. Nine new well screens were installed in 2015. For the capture zone analysis, capture zones were developed manually and by the model. While the capture zone was confirmed on the eastern boundary, there is uncertainty in the capture zone extent both horizontally and vertically downgradient of J1SEW0002 (based on MW-647M1 data).

Decision Document cleanup timelines were discussed. The DD timeline of 2024 was originally based on the 2009 plume shell; however in the September 2011 project note for the leading edge well, the predicted cleanup year was 2032. Based on the new 2015 plume shell, upgradient of J1SEW0001 is predicted to clean up by 2015; upgradient of J1SEW0002 is predicted to be less than 0.6 µg/ by 2036 and downgradient of J1SEW0002 will be less than 2.0 µg/ by 2045.

IAGWSP recommends installing drivepoints both upgradient of J1SEW0001 and in the source area and installing a new monitoring well downgradient of MW-647. The investigation data will be used to inform a potential system optimization strategy which may include increasing the flow rate at J1SEW0002, temporarily shutting down J1SEW0001, a new mobile treatment unit for J1SEW0001 or an alternative treatment technology. In addition, there is an RDX attenuation rate study being considered to confirm the current attenuation factor.

L Range Annual Environmental Monitoring Report Presentation

A presentation was provided on the L Range Annual Environmental Monitoring Report. During the reporting period (February 2015 to January 2016), two new monitoring wells were installed.

Sampling locations, groundwater monitoring results, and trends were reviewed and discussed. In July 2015, RDX was detected at 2.3 µg/L (MW-242M1) and 1.9 µg/L (MW-595M1). In January 2016, RDX was detected at 2.7 µg/L (MW-242M1), 2.1 µg/L (MW-595M1), 0.69 µg/L (90MW00031) and 0.86 µg/L (90MW0034).

New plume shell development and transport modeling was reviewed and discussed. The new L Range plume shell uses groundwater data through November 2015. Forward migrated RDX data was contoured and 3-D interpolated using MODFLOW, MODPATH and GMS. The plume shell concentrations were used for transport model simulations to determine revised predicted cleanup times.

Decision Document cleanup timelines were discussed. The 2010 DD predicted RDX would be below the health advisory (2 µg/L) by 2013, below the risk-based cleanup level (0.6µg/L) by 2027 and below the reporting limit (0.25 µg/L) by 2040. Using predictions from the updated model, RDX will be below the health advisory (2 µg/L) by 2018, below the risk-based cleanup level (0.6 µg/L) by 2028 and below the reporting limit (0.25 µg/L) by 2051. The updated plume shell and transport modeling provides a more realistic prediction of cleanup timeframes.

IAGWSP recommends removing or reducing the sampling frequency in several wells that are either out of the plume boundary or have been non-detect for many years. Increasing the sampling frequency at one well and adding the two new wells into the annual sampling program is also recommended.

JBCC Cleanup Team Meeting

The JBCC Cleanup Team (JBCCCT), formerly the MMR Cleanup Team (MMRCT) was previously scheduled to meet next on May 11, 2016; this meeting has been canceled, and the next meeting date has not yet been determined. 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 June to 30 June 2016. 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:

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|---|------------|
| • Monthly Progress Report No. 230 for May 2016 | 06/10/2016 |
| • Draft J-1 Range Northern and J-1 Range Southern
2016 Annual Environmental Monitoring Report | 06/06/2016 |
| • J3EWIP2 System Startup Monitoring Plan Project Note | 06/06/2016 |
| • Final Demolition Area 1 In-Plume Extraction Well System Startup
Monitoring Plan Project Note | 06/06/2016 |

3. SCHEDULED ACTIONS

The following documents are being prepared or revised during July 2016:

- J-2 Range Project Note for Additional Wells to Evaluate Source Response;
- Training Areas Draft Investigation Report;
- Training Areas Draft Remedy Selection Plan;
- CIA Environmental Monitoring Work Plan;
- CIA Draft 2015 Source Removal Annual Report;
- Draft BIP Report;
- L Range 2016 Environmental Monitoring Report;
- J-3 Range Environmental Monitoring Work Plan;
- J-1 Range Northern and J-1 Range Southern 2016 Environmental Monitoring Report; and
- Small Arms Ranges 2016 Annual Interim Environmental Monitoring Report.

TABLE 1
Sampling Progress: 1 June to 30 June 2016

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	SSFBR20	FBR20_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR06	FBR06_C	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR06	FBR06_B	FR	6/27/2016	Soil	0	0.25
Former B Range	SSFBR06	FBR06_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSB-1	B-1_C	FR	6/27/2016	Soil	0	0.25
Former B Range	SSB-1	B-1_B	FR	6/27/2016	Soil	0	0.25
Former B Range	SSB-1	B-1_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR140L	FBR140L_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR18	FBR18_C	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR18	FBR18_B	FR	6/27/2016	Soil	0	0.25
Former B Range	SSFBR18	FBR18_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR17	FBR17_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR16	FBR16_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR15	FBR15_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR12	FBR12_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR14	FBR14_C	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR14	FBR14_B	FR	6/27/2016	Soil	0	0.25
Former B Range	SSFBR14	FBR14_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR13	FBR13_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR09	FBR09_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR11	FBR11_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR08	FBR08_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR03	FBR03_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR140QR	FBR140QR_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR07	FBR07_A	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR10	FBR10_C	N	6/27/2016	Soil	0	0.25
Former B Range	SSFBR10	FBR10_B	FR	6/27/2016	Soil	0	0.25
Former B Range	SSFBR10	FBR10_A	N	6/27/2016	Soil	0	0.25
Former A Range	MW-206S	MW-206S_S16	N	6/21/2016	Ground Water	156	166
Former A Range	MW-149S	MW-149S_S16	N	6/21/2016	Ground Water	105.5	115.5
Former A Range	MW-536S	MW-536S_S16	N	6/20/2016	Ground Water	158	168
Former A Range	MW-249M3	MW-249M3_S16	N	6/20/2016	Ground Water	154	164
Western Boundary	4036000-04G	4036000-04G_16Q2	N	6/16/2016	Ground Water	55	65
Western Boundary	4036000-03G	4036000-03G_16Q2	N	6/16/2016	Ground Water	50	60
Western Boundary	4036000-06G	4036000-06G_16Q2	N	6/16/2016	Ground Water	108	128
Western Boundary	4036000-01G	4036000-01G_16Q2	N	6/16/2016	Ground Water	38	70
J1 Range Southern	MW-646M2	MW-646M2_R3	N	6/16/2016	Ground Water	168	178
J1 Range Southern	MW-646M1	MW-646M1_R3	N	6/16/2016	Ground Water	198	208
Demolition Area 1	MW-648M1	MW-648M1_R3	N	6/16/2016	Ground Water	112	122
J1 Range Southern	MW-645M2	MW-645M2_R3	N	6/15/2016	Ground Water	143.5	153.5
J1 Range Southern	MW-645M1	MW-645M1_R3	N	6/15/2016	Ground Water	183.5	193.5
Northwest Corner	RSNW06	RSNW06_S16	N	6/15/2016	Ground Water	0	0
Northwest Corner	MW-301S	MW-301S_S16	N	6/15/2016	Ground Water	97	107
Northwest Corner	MW-320S	MW-320S_S16	N	6/14/2016	Ground Water	114	124
Northwest Corner	MW-344S	MW-344S_S16	N	6/14/2016	Ground Water	115.5	125.5
Northwest Corner	MW-344M2	MW-344M2_S16	N	6/14/2016	Ground Water	145	155
Northwest Corner	MW-344M2	MW-344M2_S16D	FD	6/14/2016	Ground Water	145	155
Northwest Corner	MW-277S	MW-277S_S16	N	6/14/2016	Ground Water	102	112
Northwest Corner	MW-277M1	MW-277M1_S16	N	6/14/2016	Ground Water	130	140
Northwest Corner	MW-287S	MW-287S_S16	N	6/13/2016	Ground Water	133	143
Northwest Corner	MW-279S	MW-279S_S16	N	6/13/2016	Ground Water	66	76
Northwest Corner	MW-279M2	MW-279M2_S16	N	6/13/2016	Ground Water	83	88
Northwest Corner	MW-279M2	MW-279M2_S16D	FD	6/13/2016	Ground Water	83	88
Northwest Corner	MW-279M1	MW-279M1_S16	N	6/13/2016	Ground Water	96	106
Demolition Area 1	LKOPN01	LKOPN01_S16	N	6/9/2016	Surface Water	0	0
Demolition Area 1	LKOPN01	LKOPN01_S16D	FD	6/9/2016	Surface Water	0	0
Demolition Area 1	FPR-2-EFF-A	FPR-2-EFF-A-123A	N	6/9/2016	Process Water	0	0

TABLE 1
Sampling Progress: 1 June to 30 June 2016

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
Demolition Area 1	FPR-2-GAC-MID1A	FPR-2-GAC-MID1A-123A	N	6/9/2016	Process Water	0	0
Demolition Area 1	FPR2-POST-IX-A	FPR2-POST-IX-A-123A	N	6/9/2016	Process Water	0	0
Demolition Area 1	FPR-2-INF	FPR-2-INF-123A	N	6/9/2016	Process Water	0	0
Northwest Corner	MW-297S	MW-297S_S16	N	6/9/2016	Ground Water	72	82
Northwest Corner	MW-284M2	MW-284M2_S16	N	6/9/2016	Ground Water	45	55
Demolition Area 1	PR-EFF	PR-EFF-123A	N	6/9/2016	Process Water	0	0
Demolition Area 1	PR-MID-2	PR-MID-2-123A	N	6/9/2016	Process Water	0	0
Demolition Area 1	PR-MID-1	PR-MID-1-123A	N	6/9/2016	Process Water	0	0
Demolition Area 1	PR-INF	PR-INF-123A	N	6/9/2016	Process Water	0	0
Northwest Corner	MW-284M1	MW-284M1_S16	N	6/9/2016	Ground Water	115	125
Northwest Corner	MW-270M1	MW-270M1_S16	N	6/8/2016	Ground Water	74	79
Central Impact Area	SSCIA4905	DA052516CIA05_30C	FR	6/8/2016	Soil	0	0.25
Central Impact Area	SSCIA4905	DA052516CIA05_30B	FR	6/8/2016	Soil	0	0.25
Central Impact Area	SSCIA4905	DA052516CIA05_30A	N	6/8/2016	Soil	0	0.25
Northwest Corner	MW-270D	MW-270D_S16	N	6/8/2016	Ground Water	132	137
J1 Range Southern	J1S-EFF	J1S-EFF-103A	N	6/8/2016	Process Water	0	0
J1 Range Southern	J1S-MID	J1S-MID-103A	N	6/8/2016	Process Water	0	0
J1 Range Southern	J1S-INF-2	J1S-INF-2-103A	N	6/8/2016	Process Water	0	0
J3 Range	J3-EFF	J3-EFF-117A	N	6/8/2016	Process Water	0	0
J3 Range	J3-MID-2	J3-MID-2-117A	N	6/8/2016	Process Water	0	0
J3 Range	J3-MID-1	J3-MID-1-117A	N	6/8/2016	Process Water	0	0
J3 Range	J3-INF	J3-INF-117A	N	6/8/2016	Process Water	0	0
Northwest Corner	MW-278S	MW-278S_S16	N	6/8/2016	Ground Water	80	90
Central Impact Area	CIA2-EFF	CIA2-EFF-29A	N	6/8/2016	Process Water	0	0
Central Impact Area	CIA2-MID2	CIA2-MID2-29A	N	6/8/2016	Process Water	0	0
Central Impact Area	CIA2-MID1	CIA2-MID1-29A	N	6/8/2016	Process Water	0	0
Central Impact Area	CIA2-INF	CIA2-INF-29A	N	6/8/2016	Process Water	0	0
Northwest Corner	MW-278M2	MW-278M2_S16	N	6/8/2016	Ground Water	97	102
Northwest Corner	MW-278M1	MW-278M1_S16	N	6/8/2016	Ground Water	113	123
Central Impact Area	CIA1-EFF	CIA1-EFF-29A	N	6/8/2016	Process Water	0	0
Central Impact Area	CIA1-MID2	CIA1-MID2-29A	N	6/8/2016	Process Water	0	0
Central Impact Area	CIA1-MID1	CIA1-MID1-29A	N	6/8/2016	Process Water	0	0
Central Impact Area	CIA1-INF	CIA1-INF-29A	N	6/8/2016	Process Water	0	0
Northwest Corner	MW-323S	MW-323S_S16	N	6/7/2016	Ground Water	73	83
Northwest Corner	MW-323M2	MW-323M2_S16	N	6/7/2016	Ground Water	120	130
J2 Range Eastern	J2E-EFF-K	J2E-EFF-K-93A	N	6/7/2016	Process Water	0	0
J2 Range Eastern	J2E-MID-2K	J2E-MID-2K-93A	N	6/7/2016	Process Water	0	0
J2 Range Eastern	J2E-MID-1K	J2E-MID-1K-93A	N	6/7/2016	Process Water	0	0
Northwest Corner	MW-323M1	MW-323M1_S16	N	6/7/2016	Ground Water	195	205
J2 Range Eastern	J2E-INF-K	J2E-INF-K-93A	N	6/7/2016	Process Water	0	0
J2 Range Eastern	J2E-EFF-J	J2E-EFF-J-93A	N	6/7/2016	Process Water	0	0
J2 Range Eastern	J2E-MID-2J	J2E-MID-2J-93A	N	6/7/2016	Process Water	0	0
J2 Range Eastern	J2E-MID-1J	J2E-MID-1J-93A	N	6/7/2016	Process Water	0	0
J2 Range Eastern	J2E-INF-J	J2E-INF-J-93A	N	6/7/2016	Process Water	0	0
Northwest Corner	MW-338S	MW-338S_S16	N	6/7/2016	Ground Water	72	82
J2 Range Eastern	J2E-EFF-IH	J2E-EFF-IH-93A	N	6/7/2016	Process Water	0	0
J2 Range Eastern	J2E-MID-2H	J2E-MID-2H-93A	N	6/7/2016	Process Water	0	0
J2 Range Eastern	J2E-MID-1H	J2E-MID-1H-93A	N	6/7/2016	Process Water	0	0
Northwest Corner	MW-441M2	MW-441M2_S16	N	6/7/2016	Ground Water	109.5	119.5
Northwest Corner	MW-441M2	MW-441M2_S16D	FD	6/7/2016	Ground Water	109.5	119.5
J2 Range Eastern	J2E-MID-2I	J2E-MID-2I-93A	N	6/7/2016	Process Water	0	0
J2 Range Eastern	J2E-MID-1I	J2E-MID-1I-93A	N	6/7/2016	Process Water	0	0
J2 Range Eastern	J2E-INF-I	J2E-INF-I-93A	N	6/7/2016	Process Water	0	0
Northwest Corner	MW-441M1	MW-441M1_S16	N	6/7/2016	Ground Water	204.6	214.6
Northwest Corner	MW-350M2	MW-350M2_S16	N	6/6/2016	Ground Water	126	136
J2 Range Northern	J2N-EFF-G	J2N-EFF-G-117A	N	6/6/2016	Process Water	0	0
J2 Range Northern	J2N-MID-2G	J2N-MID-2G-117A	N	6/6/2016	Process Water	0	0

TABLE 1
Sampling Progress: 1 June to 30 June 2016

Area Of Concern	Location	Field Sample ID	Sample Type	Date Sampled	Matrix	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
J2 Range Northern	J2N-MID-1G	J2N-MID-1G-117A	N	6/6/2016	Process Water	0	0
J2 Range Northern	J2N-INF-G	J2N-INF-G-117A	N	6/6/2016	Process Water	0	0
Western Boundary	MW-233M3	MW-233M3_S16	N	6/6/2016	Ground Water	231	241
J2 Range Northern	J2N-EFF-EF	J2N-EFF-EF-117A	N	6/6/2016	Process Water	0	0
J2 Range Northern	J2N-MID-2F	J2N-MID-2F-117A	N	6/6/2016	Process Water	0	0
J2 Range Northern	J2N-MID-1F	J2N-MID-1F-117A	N	6/6/2016	Process Water	0	0
J2 Range Northern	J2N-INF-EF	J2N-INF-EF-117A	N	6/6/2016	Process Water	0	0
Western Boundary	MW-268M1	MW-268M1_S16	N	6/6/2016	Ground Water	97	107
J2 Range Northern	J2N-MID-2E	J2N-MID-2E-117A	N	6/6/2016	Process Water	0	0
J2 Range Northern	J2N-MID-1E	J2N-MID-1E-117A	N	6/6/2016	Process Water	0	0
Western Boundary	MW-80M2	MW-80M2_S16	N	6/6/2016	Ground Water	99	109
J1 Range Northern	J1N-EFF	J1N-EFF-32A	N	6/6/2016	Process Water	0	0
J1 Range Northern	J1N-MID2	J1N-MID2-32A	N	6/6/2016	Process Water	0	0
J1 Range Northern	J1N-MID1	J1N-MID1-32A	N	6/6/2016	Process Water	0	0
Western Boundary	MW-80M1	MW-80M1_S16	N	6/6/2016	Ground Water	130	140
J1 Range Northern	J1N-INF2	J1N-INF2-32A	N	6/6/2016	Process Water	0	0
Western Boundary	MW-213M3	MW-213M3_S16	N	6/2/2016	Ground Water	77	82
Western Boundary	MW-213M2	MW-213M2_S16	N	6/2/2016	Ground Water	89	99
Western Boundary	MW-213M2	MW-213M2_S16D	FD	6/2/2016	Ground Water	89	99
Western Boundary	MW-280M3	MW-280M3_S16	N	6/2/2016	Ground Water	185	195
Western Boundary	MW-280M2	MW-280M2_S16	N	6/2/2016	Ground Water	202	212
Western Boundary	MW-280M1	MW-280M1_S16	N	6/2/2016	Ground Water	255	265
Western Boundary	MW-02-09M2	MW-02-09M2_S16	N	6/1/2016	Ground Water	59	69
Western Boundary	MW-02-09M1	MW-02-09M1_S16	N	6/1/2016	Ground Water	74	84
Western Boundary	MW-02-08M3	MW-02-08M3_S16	N	6/1/2016	Ground Water	62	67
Western Boundary	MW-02-08M2	MW-02-08M2_S16	N	6/1/2016	Ground Water	82	87
Western Boundary	MW-02-07M3	MW-02-07M3_S16	N	6/1/2016	Ground Water	47	57

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
 Data Received June 2016

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
J1 Range Northern	MW-590M2	MW-590M2_S16	238	248	05/19/2016	SW6850	Perchlorate	2.5		UG/L	2.0	X	0.019	0.20
J1 Range Northern	MW-590M1	MW-590M1_S16	258	268	05/19/2016	SW6850	Perchlorate	0.032	J	UG/L	2.0		0.019	0.20
J1 Range Northern	MW-584M2	MW-584M2_S16	228	238	05/19/2016	SW6850	Perchlorate	0.13	J	UG/L	2.0		0.019	0.20
J1 Range Northern	MW-584M1	MW-584M1_S16	248	258	05/19/2016	SW6850	Perchlorate	4.9		UG/L	2.0	X	0.019	0.20
J1 Range Northern	MW-303M3	MW-303M3_S16	139.7	149.7	05/18/2016	SW6850	Perchlorate	0.040	J	UG/L	2.0		0.019	0.20
J1 Range Northern	MW-303M3	MW-303M3_S16	139.7	149.7	05/18/2016	SW8330	4-Amino-2,6-dinitrotoluene	0.37		UG/L	7.3		0.023	0.20
J1 Range Northern	MW-303M2	MW-303M2_S16	235.1	245.1	05/18/2016	SW6850	Perchlorate	0.86		UG/L	2.0		0.019	0.20
J1 Range Northern	MW-303M2	MW-303M2_S16	235.1	245.1	05/18/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	10.4		UG/L	0.60	X	0.025	0.20
J1 Range Northern	MW-303M2	MW-303M2_S16	235.1	245.1	05/18/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	3.7		UG/L	400		0.019	0.20
J1 Range Northern	MW-245M2	MW-245M2_S16	204	214	05/18/2016	SW6850	Perchlorate	63.0		UG/L	2.0	X	0.095	1.0
J1 Range Northern	MW-245M2	MW-245M2_S16	204	214	05/18/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	74.4		UG/L	0.60	X	0.13	1.0
J1 Range Northern	MW-245M2	MW-245M2_S16	204	214	05/18/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	8.9		UG/L	400		0.019	0.20
J1 Range Northern	MW-245M2	MW-245M2_S16D	204	214	05/18/2016	SW6850	Perchlorate	61.3		UG/L	2.0	X	0.095	1.0
J1 Range Northern	MW-245M2	MW-245M2_S16D	204	214	05/18/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	70.9		UG/L	0.60	X	0.13	1.0
J1 Range Northern	MW-245M2	MW-245M2_S16D	204	214	05/18/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	8.7		UG/L	400		0.019	0.20
J1 Range Southern	MW-524M1	MW-524M1_S16	148	158	05/18/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.87		UG/L	0.60	X	0.025	0.20
J1 Range Southern	MW-524M1	MW-524M1_S16D	148	158	05/18/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.94		UG/L	0.60	X	0.025	0.20
J1 Range Northern	MW-401M3	MW-401M3_S16	228.5	238.5	05/17/2016	SW6850	Perchlorate	0.081	J	UG/L	2.0		0.019	0.20
J1 Range Northern	MW-606M2	MW-606M2_S16	193.2	203.2	05/17/2016	SW6850	Perchlorate	0.026	J	UG/L	2.0		0.019	0.20
J1 Range Northern	MW-430M2	MW-430M2_S16	188.4	198.4	05/16/2016	SW6850	Perchlorate	0.14	J	UG/L	2.0		0.019	0.20
J1 Range Northern	MW-567M1	MW-567M1_S16	215.5	225.5	05/16/2016	SW6850	Perchlorate	10.0		UG/L	2.0	X	0.019	0.20
J1 Range Northern	MW-567M1	MW-567M1_S16	215.5	225.5	05/16/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.8		UG/L	0.60	X	0.025	0.20
J1 Range Northern	MW-567M1	MW-567M1_S16D	215.5	225.5	05/16/2016	SW6850	Perchlorate	9.7		UG/L	2.0	X	0.019	0.20
J1 Range Northern	MW-605M2	MW-605M2_S16	182.2	192.2	05/16/2016	SW6850	Perchlorate	0.031	J	UG/L	2.0		0.019	0.20
J1 Range Northern	MW-605M1	MW-605M1_S16	220.2	230.2	05/16/2016	SW6850	Perchlorate	0.020	J	UG/L	2.0		0.019	0.20
J1 Range Northern	MW-370M2	MW-370M2_S16	215.5	225.5	05/12/2016	SW6850	Perchlorate	0.035	J	UG/L	2.0		0.019	0.20
J1 Range Northern	MW-370M1	MW-370M1_S16	245	255	05/12/2016	SW6850	Perchlorate	4.0		UG/L	2.0	X	0.019	0.20
J1 Range Northern	MW-564M1	MW-564M1_S16	227	237	05/12/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.33		UG/L	400		0.019	0.20
J1 Range Northern	MW-564M1	MW-564M1_S16	227	237	05/12/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	2.8		UG/L	0.60	X	0.025	0.20
J1 Range Northern	MW-564M1	MW-564M1_S16	227	237	05/12/2016	SW6850	Perchlorate	33.8		UG/L	2.0	X	0.057	0.60
J1 Range Northern	MW-564M1	MW-564M1_S16D	227	237	05/12/2016	SW6850	Perchlorate	35.2		UG/L	2.0	X	0.057	0.60
J1 Range Northern	MW-549M2	MW-549M2_S16	187.3	197.3	05/12/2016	SW6850	Perchlorate	0.037	J	UG/L	2.0		0.019	0.20
J1 Range Northern	MW-549M1	MW-549M1_S16	227.4	237.4	05/12/2016	SW6850	Perchlorate	1.5		UG/L	2.0		0.019	0.20
J1 Range Northern	MW-566M1	MW-566M1_S16	232	242	05/12/2016	SW6850	Perchlorate	2.4		UG/L	2.0	X	0.019	0.20
J1 Range Southern	MW-647M1	MW-647M1_S16	211.3	221.3	05/11/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	6.3		UG/L	0.60	X	0.025	0.20
J1 Range Southern	MW-647M1	MW-647M1_S16D	211.3	221.3	05/11/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	7.3		UG/L	0.60	X	0.025	0.20
J1 Range Southern	MW-592M1	MW-592M1_S16	201	211	05/11/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.93		UG/L	0.60	X	0.025	0.20
Demolition Area 1	MW-432	MW-432_S16	88	188	05/09/2016	SW6850	Perchlorate	0.34		UG/L	2.0		0.019	0.20
Demolition Area 1	MW-431	MW-431_S16	88	188	05/09/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.23		UG/L	0.60		0.025	0.20
Demolition Area 1	MW-73S	MW-73S_S16	52.2	61.7	05/09/2016	SW6850	Perchlorate	0.26		UG/L	2.0		0.019	0.20
Demolition Area 1	MW-73S	MW-73S_S16	52.2	61.7	05/09/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.32		UG/L	0.60		0.025	0.20

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

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
 Data Received June 2016

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
Demolition Area 1	MW-31S	MW-31S_S16	98	103	05/09/2016	SW8330	4-Amino-2,6-dinitrotoluene	0.36		UG/L	7.3		0.023	0.20
Demolition Area 1	MW-31S	MW-31S_S16	98	103	05/09/2016	SW8330	2-Amino-4,6-dinitrotoluene	0.42		UG/L	7.3		0.023	0.20
Demolition Area 1	MW-31S	MW-31S_S16	98	103	05/09/2016	SW8330	2,4,6-Trinitrotoluene	0.70		UG/L	2.0		0.028	0.20
Demolition Area 1	MW-31S	MW-31S_S16	98	103	05/09/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	1.1		UG/L	400		0.019	0.20
Demolition Area 1	MW-31S	MW-31S_S16	98	103	05/09/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.2		UG/L	0.60	X	0.025	0.20
Demolition Area 1	MW-31S	MW-31S_S16D	98	103	05/09/2016	SW8330	4-Amino-2,6-dinitrotoluene	0.36		UG/L	7.3		0.023	0.20
Demolition Area 1	MW-31S	MW-31S_S16D	98	103	05/09/2016	SW8330	2-Amino-4,6-dinitrotoluene	0.42		UG/L	7.3		0.023	0.20
Demolition Area 1	MW-31S	MW-31S_S16D	98	103	05/09/2016	SW8330	2,4,6-Trinitrotoluene	0.70		UG/L	2.0		0.028	0.20
Demolition Area 1	MW-31S	MW-31S_S16D	98	103	05/09/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	1.1		UG/L	400		0.019	0.20
Demolition Area 1	MW-31S	MW-31S_S16D	98	103	05/09/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.2		UG/L	0.60	X	0.025	0.20
Demolition Area 1	MW-31M	MW-31M_S16	113	123	05/09/2016	SW8330	4-Amino-2,6-dinitrotoluene	0.19	J	UG/L	7.3		0.023	0.20
Demolition Area 1	MW-31M	MW-31M_S16	113	123	05/09/2016	SW8330	2-Amino-4,6-dinitrotoluene	0.20		UG/L	7.3		0.023	0.20
Demolition Area 1	MW-31M	MW-31M_S16	113	123	05/09/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	1.3		UG/L	400		0.019	0.20
Demolition Area 1	MW-31M	MW-31M_S16	113	123	05/09/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.1		UG/L	0.60	X	0.025	0.20
Demolition Area 1	MW-31M	MW-31M_S16D	113	123	05/09/2016	SW8330	4-Amino-2,6-dinitrotoluene	0.20		UG/L	7.3		0.023	0.20
Demolition Area 1	MW-31M	MW-31M_S16D	113	123	05/09/2016	SW8330	2-Amino-4,6-dinitrotoluene	0.21		UG/L	7.3		0.023	0.20
Demolition Area 1	MW-31M	MW-31M_S16D	113	123	05/09/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	1.3		UG/L	400		0.019	0.20
Demolition Area 1	MW-31M	MW-31M_S16D	113	123	05/09/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.1		UG/L	0.60	X	0.025	0.20
Demolition Area 1	MW-19S	MW-19S_S16	52.7	62.7	05/04/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.54	J	UG/L	400		0.019	0.20
Demolition Area 1	MW-19S	MW-19S_S16	52.7	62.7	05/04/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.5	J	UG/L	0.60	X	0.025	0.20
Demolition Area 1	MW-19S	MW-19S_S16D	52.7	62.7	05/04/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.50	J	UG/L	400		0.019	0.20
Demolition Area 1	MW-19S	MW-19S_S16D	52.7	62.7	05/04/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.4	J	UG/L	0.60	X	0.025	0.20
Demolition Area 1	MW-274	MW-274_S16	109	199	05/04/2016	SW6850	Perchlorate	0.16	J	UG/L	2.0		0.019	0.20
Demolition Area 1	XX9514	XX9514_S16	102	112	05/04/2016	SW6850	Perchlorate	1.9		UG/L	2.0		0.019	0.20
Demolition Area 1	XX9514	XX9514_S16D	102	112	05/04/2016	SW6850	Perchlorate	2.0		UG/L	2.0		0.019	0.20
Demolition Area 1	MW-139M2	MW-139M2_S16	154	164	05/03/2016	SW6850	Perchlorate	0.11	J	UG/L	2.0		0.019	0.20
Demolition Area 1	MW-165M2	MW-165M2_S16	124.5	134.5	05/03/2016	SW6850	Perchlorate	0.46		UG/L	2.0		0.019	0.20
Demolition Area 1	MW-165M2	MW-165M2_S16	124.5	134.5	05/03/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.50		UG/L	0.60		0.025	0.20
Demolition Area 1	MW-165M1	MW-165M1_S16	184.5	194.5	05/03/2016	SW6850	Perchlorate	0.035	J	UG/L	2.0		0.019	0.20
Demolition Area 1	MW-34M2	MW-34M2_S16	131	141	05/02/2016	SW6850	Perchlorate	0.099	J	UG/L	2.0		0.019	0.20
Demolition Area 1	MW-34M1	MW-34M1_S16	151	161	05/02/2016	SW6850	Perchlorate	0.22		UG/L	2.0		0.019	0.20
Demolition Area 1	MW-211M2	MW-211M2_S16	175	185	05/02/2016	SW6850	Perchlorate	0.075	J	UG/L	2.0		0.019	0.20
Demolition Area 1	MW-211M1	MW-211M1_S16	200	210	05/02/2016	SW6850	Perchlorate	0.28		UG/L	2.0		0.019	0.20
J3 Range	MW-653M2	MW-653M2_R1	59.3	69.3	04/19/2016	SW6850	Perchlorate	0.43		UG/L	2.0		0.019	0.20
J3 Range	MW-653M2	MW-653M2_R1	59.3	69.3	04/19/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.70		UG/L	400		0.019	0.20
J3 Range	MW-653M2	MW-653M2_R1D	59.3	69.3	04/19/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	4.9	J	UG/L	0.60	X	0.025	0.20
J3 Range	MW-653M2	MW-653M2_R1D	59.3	69.3	04/19/2016	SW8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	0.69		UG/L	400		0.019	0.20
J3 Range	MW-653M2	MW-653M2_R1D	59.3	69.3	04/19/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	4.9	J	UG/L	0.60	X	0.025	0.20
J3 Range	MW-653M1	MW-653M1_R1	147.5	157.5	04/19/2016	SW6850	Perchlorate	1.8		UG/L	2.0		0.019	0.20
J3 Range	MW-653M1	MW-653M1_R1D	147.5	157.5	04/19/2016	SW6850	Perchlorate	1.6		UG/L	2.0		0.019	0.20
J1 Range Northern	MW-657M2	MW-657M2_R1	208.3	218.3	04/18/2016	SW6850	Perchlorate	0.094	J	UG/L	2.0		0.019	0.20

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

TABLE 2
VALIDATED EXPLOSIVE AND PERCHLORATE RESULTS
Data Received June 2016

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
J1 Range Northern	MW-657M1	MW-657M1_R1	240.3	250.3	04/18/2016	SW6850	Perchlorate	0.039	J	UG/L	2.0		0.019	0.20
J1 Range Northern	MW-656M2	MW-656M2_R1	222.1	232.1	04/18/2016	SW6850	Perchlorate	0.73		UG/L	2.0		0.019	0.20
J1 Range Northern	MW-656M1	MW-656M1_R1	244.1	254.1	04/18/2016	SW6850	Perchlorate	0.042	J	UG/L	2.0		0.019	0.20
Central Impact Area	CIAEW3-INF	CIAEW3-INF_041516	0	0	04/15/2016	SW6850	Perchlorate	0.14	J	UG/L	2.0		0.019	0.20
Central Impact Area	CIAEW3-INF	CIAEW3-INF_041516	0	0	04/15/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.7		UG/L	0.60	X	0.025	0.20
Central Impact Area	CIAEW3-INF	CIAEW3-INF_041416	0	0	04/14/2016	SW6850	Perchlorate	0.21		UG/L	2.0		0.019	0.20
Central Impact Area	CIAEW3-INF	CIAEW3-INF_041416	0	0	04/14/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.6		UG/L	0.60	X	0.025	0.20
Central Impact Area	CIAEW3-INF	CIAEW3-INF_041316	0	0	04/13/2016	SW6850	Perchlorate	0.15	J	UG/L	2.0		0.019	0.20
Central Impact Area	CIAEW3-INF	CIAEW3-INF_041316	0	0	04/13/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.7		UG/L	0.60	X	0.025	0.20
Central Impact Area	CIAEW3-INF	CIAEW3-INF_041216	0	0	04/12/2016	SW6850	Perchlorate	0.13	J	UG/L	2.0		0.019	0.20
Central Impact Area	CIAEW3-INF	CIAEW3-INF_041216	0	0	04/12/2016	SW8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1.6		UG/L	0.60	X	0.025	0.20

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