WEEKLY PROGRESS UPDATE
FOR JULY 24 – JULY 28, 2000

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

The following summary of progress is for the period from July 24 to July 28, 2000.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of July 28 is summarized in Table 1.

Table 1. Drilling progress as of July 28, 2000

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-108b	Impact Area Response Well (P-22)	330	163	240-250 262-272 317-327
MW-111	Impact Area Response Well (P-26)	240	103	165-175 182-192 224-234
MW-112	Impact Area Response Well (P-24)	92		
MW-113	Impact Area Response Well (P-25)	92		

bgs = below ground surface
bwt = below water table

Completed drilling and well installation on MW-108b (P-22) and on MW-111 (P-26). UXO clearance of the J-2 Range drill pads and access roads continued. Detonated 120 UXO items located on the J-2 Range. Development of newly installed wells continued.

Samples collected during the reporting period are summarized in Table 2. Soil from the crater of the UXO detonated on the J-2 Range was sampled. Deep soil samples were collected during the drilling of MW-112 and MW-113.

The Guard, EPA, and MADEP had a meeting on July 27 to discuss technical issues, including the following:

- Tetra Tech provided an update of the Munitions Survey. The aerial geophysical survey preliminary data set from the subcontractor is completed. The final data set is being prepared. The data will be ready for a presentation in two weeks and will need to be presented outside the Tech Meeting. Awaiting agency comments on the HUTA Workplan. The land survey of the J-1 Range will begin next week. The brush cutting and UXO surface clearance of the J-2 range will continue next week after the UXO is detonated. EPA asked if the aerial geophysical survey included the J Ranges. Tetra Tech indicated that the J-2 Range is covered but unsure if the J1 Range is included. EPA asked if the preliminary data showed an anomaly where the pits of UXO on J-2 were located. Tetra Tech indicated that there were anomalies on J-2 that may be associated with the pits. EPA requested that Ogden and Tetra Tech review the anomalies on J-2 with the additional well locations requiring UXO clearance. Gun Positions 10 and 11 will be used for the validation study, excavating all anomalies above the 45-mV threshold. The Demo 1 validation study will excavate selected anomalies above the

45-mV threshold. Ogden will send a map to Tetra Tech showing the soil boring locations that encountered a magnetic anomaly. Tetra Tech provided a presentation of the Slit Trench geophysical survey.

- Ogden provided an update of the Rapid Response Action. The final workplan is ready but needs agency comments on the responsiveness survey and the FEC comments. The DEP RAM Plan version of the RRA needs to be submitted next week. Waiting for the results of the third round of delineation sampling in the KD Range. Working on the treatability study soil washing report, which should be distributed to the technical team next week. Continue to work on the biotreatment study. The containment pad design will be ready next week. In August the following are scheduled to be completed: contracting, containment pad construction, UXO clearance, order of conditions for J-3 Wetland, and revised Health and Safety Plan. EPA indicated that the RRA is on the 7/28 IART agenda and Ogden should be prepared to give a brief summary.
- Ogden provided an update of the Groundwater Investigation. Well installation at MW-108b (P-22) and MW-111 (P-26) were completed. Commenced drilling on MW-112 (P-24) and MW-113 (P-25) this week. No groundwater sampling this week. The August round of the Long Term Monitoring and the third round of the Demo 1 Response well will start next week. Will attempt to redevelop well MW-23S by bailer or by adding water and using an air-lift pump. Continue to develop the newly installed wells. The detonation of the UXO located on J-2 will be completed today. The soil samples from the craters will be collected today or tomorrow. Continue to clear the drill pads on the J-2 Range. Commence the UXO avoidance marking on the Turpentine Road and Tank Alley Targets and the grids in the L Range. Air Samples were collected from the M-16 firing at the C Range on 7/21/00. Twenty people fired approximately 200 rounds for about 2.5 hours. The firing on 7/22/00 used squad assault weapons and used approximately 5,000 rounds. The Guard indicated that they would review the results of this air sampling round and determine if additional air monitoring is warranted. The Guard asked what the turn around time was for these samples. Ogden was not sure but would find out what the turn around time was.
- The document status was discussed. The FS Workplan will be addressed in a separate meeting. Continued the preparation of the Phase IIb FSPs. EPA indicated that they would have one letter with comments for all the Phase IIb FSPs. The Guard asked if there was a deadline for the submittal of these FSPs. EPA indicated that there are dates in the comments to the workplan.
- A review of the Phase IIb reconnaissance and sampling programs was discussed.
  - The Gravity Anti Tank Range and Inactive Demo areas already have FSP into the agencies.
  - BA-1 soil sampling on hold until the new archive search is completed. The FSP will have one well profiled below the particle track from 27MW0007.
  - The Grenade Court GN-2 will have four soil grids staggered in a W shape which were marked during the reconnaissance. Samples will be collected from 0"-3", 3"-6", and 6"-12" and analyzed for explosives, metals, and SVOC's.
  - Demo 2 will have 2 water table wells installed 300 to 400 feet downgradient of MW-16 and the detonation craters. One soil grid at the locations of the C-4 residuals. EPA indicated that they would require more grids in their comments.
  - Mock Village will require more information to focus the investigation. A FSP will be submitted stating that future investigations are on hold until more information is obtained.
  - The K Range will have 10 grids at the firing line, 4 grids at Target B, 3 grids at Target C, 1 grid at the southern berm, 7 grids at Target E, and 6 grids at the Target F.
  - EPA indicated that there are 3 concrete slabs so there should be six composite samples and 18 discretes. The FSP will have the contingency for the installation of a new well if the existing wells are not suitable.
  - The former SAR will have 7 grids at the former C Range, and 5 grids at the former D range. The former B Range has samples collected in this area as part of a former Mortar Position investigation and would have to look at the data before determining the grid locations.
  - Former E Range will have 2 grids at the firing position and 1 grid at the target position. EPA suggested that additional information needed to be obtained to locate the additional target locations. It

was agreed to have two FSPs for this area.
- The IBC range will be investigated as part of the Training Areas Investigation.
- The Engineering Training Areas are in hold pending further information.
- The Cleared Areas work is postponed until the fall but will probably require 4 to 5 grids.
- EPA indicated that Ogden was going to provide distances on the GAGB Range. Ogden indicated that the locations have been plotted and need to have EPA review the figure.

- DEP asked the status of the ASR. The Guard indicated that the contracting will be completed this week or next week. Need agency comments.
- A table of the complete Burn Kettle (popper kettle) results was distributed for review. The pesticide data showed large intercolumn discrepancy and are awaiting validation.
- Ogden e-mailed the ricochet trough data to EPA. Textron also reported data for metals above the RSC-1.
- The plan view of the Central Impact Area explosive detection area was distributed.
- There was a discussion of the J1/J3 well locations. Ogden will provide the USGS the J1/J3 well location table and figure. USGS will attend next weeks IART meeting and discuss the changes to the model and will discuss the proposed well locations with EPA.
- EPA indicated that there will be a copy of the RCRA 3007 response from Textron at the IAGS meeting for review.
- EPA raised concern on how Contaminants of Potential Concern (COPCs) and Contaminants of Concern (COCs) are being identified in reports to the agencies. EPA believes that contaminates are being recommended for elimination prematurely in some cases and inconsistently in other cases. EPA requests that Ogden and the Guard review IRP procedures for developing COPCs and COCs as well as Region 1 Risk Assessment Procedures. All agreed that future review and discussion on this issue was necessary, particularly for future feasibility study reports.
- EPA requested an update on the 8321 and CHPPM results. Ogden indicated that the lab is having problems with the 8321 analysis but should be ready soon. The CHPPM results are ready.
- It was agreed that the IART facilitator discussion will be postponed until the September IART meeting.

EPA convened a meeting of the Impact Area Review Team (IART) on July 27. Topics for the meeting included updates on the groundwater investigation and the munition survey. The next IART meeting is scheduled for September 7.

2. SUMMARY OF DATA RECEIVED

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

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

- The soil sample from the location of a broken 30mm projectile at the J-2 Range had a detection of 2-amino-4,6-dinitrotoluene, which was not verified by PDA spectra.

3. DELIVERABLES SUBMITTED

The following deliverables were submitted during the reporting period.

Weekly Progress Update (July 10 - 14)	07/24/00
Draft Summary Report – 28 December 1999 UXO Detonation	07/24/00
Draft Summary Report – 18 January 2000 UXO Detonation	07/24/00
Draft Phase II (b) FSP for Demolition Area 2	07/27/00
Weekly Progress Update (July 17 - 21)	07/28/00

4. SCHEDULED ACTIONS

Scheduled actions for the week of July 31 include the continued drilling at MW-112 (P-24) and MW-113 (P-25); the continued UXO clearance of the drilling pads and soil grids in the J-2 Range; commence soil sampling at grids in the L Range; commence soil sampling at the Tank Alley and Turpentine Road Targets; and development of newly installed wells.

5. SUMMARY OF ACTIVITIES FOR DEMO 1

EPA provided comments on the draft FS Workplan for AO3 (including Demo 1). The regulatory agencies and other stakeholders are reviewing the draft technical memorandum for the Demo 1 response actions submitted 6/8/00. The Guard is awaiting the results of the soil sampling of the nine additional deep soil borings.

TABLE 2
SAMPLING PROGRESS
07/23/2000-07/29/2000

OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
HCJ2155MM01	HDJ2155MM01	7/28/00	CRATER GRAB	0.00	0.25		
HCJ2155MM02	HDJ2155MM02	7/28/00	CRATER GRAB	0.00	0.25		
HCJ2155MM03	HDJ2155MM03	7/28/00	CRATER GRAB	0.00	0.25		
HCJ281MM17	HDJ281MM17	7/28/00	CRATER GRAB	0.00	0.25		
HCJ281MM18	HDJ281MM18	7/28/00	CRATER GRAB	0.00	0.25		
HCJ281MM19	HDJ281MM19	7/28/00	CRATER GRAB	0.00	0.25		
HCJ281MM21	HDJ281MM21	7/28/00	CRATER GRAB	0.00	0.25		
HCJ281MM22	HDJ281MM22	7/28/00	CRATER GRAB	0.00	0.25		
HCJ281MM23	HCJ281MM23	7/28/00	CRATER GRAB	0.00	0.25		
HCJ281MM28	HCJ281MM28	7/28/00	CRATER GRAB	0.00	0.25		
HDJ2155MM01	HDJ2155MM01	7/28/00	CRATER GRAB	0.00	0.25		
HDJ2155MM02	HDJ2155MM02	7/28/00	CRATER GRAB	0.00	0.25		
HDJ2155MM03	HDJ2155MM03	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM08	HDJ281MM08	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM09	HDJ281MM09	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM10	HDJ281MM10	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM11	HDJ281MM11	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM12	HDJ281MM12	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM13	HDJ281MM13	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM14	HDJ281MM14	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM15	HDJ281MM15	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM16	HDJ281MM16	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM17	HDJ281MM17	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM18	HDJ281MM18	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM19	HDJ281MM19	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM20	HDJ281MM20	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM21	HDJ281MM21	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM22	HDJ281MM22	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM23	HDJ281MM23	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM24	HDJ281MM24	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM25	HDJ281MM25	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM26	HDJ281MM26	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM27	HDJ281MM27	7/28/00	CRATER GRAB	0.00	0.25		
HDJ281MM28	HDJ281MM28	7/28/00	CRATER GRAB	0.00	0.25		
ASCRANGE-BC	ASCRANGE-BC	7/24/00	FIELDQC	0.00	0.00		
ASCRANGE-BF	ASCRANGE-BF	7/24/00	FIELDQC	0.00	0.00		
HDJ2155MM-E	FIELDQC	7/28/00	FIELDQC	0.00	0.00		
HDJ2155MM-T	FIELDQC	7/28/00	FIELDQC	0.00	0.00		
S112DCE	FIELDQC	7/27/00	FIELDQC	0.00	0.00		
S112DCT	FIELDQC	7/27/00	FIELDQC	0.00	0.00		
S113DHE	FIELDQC	7/28/00	FIELDQC	0.00	0.00		
S112DCA	MW-112	7/27/00	SOIL BORING	10.00	12.00		
S112DDA	MW-112	7/27/00	SOIL BORING	20.00	22.00		

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
07/23/2000-07/29/2000

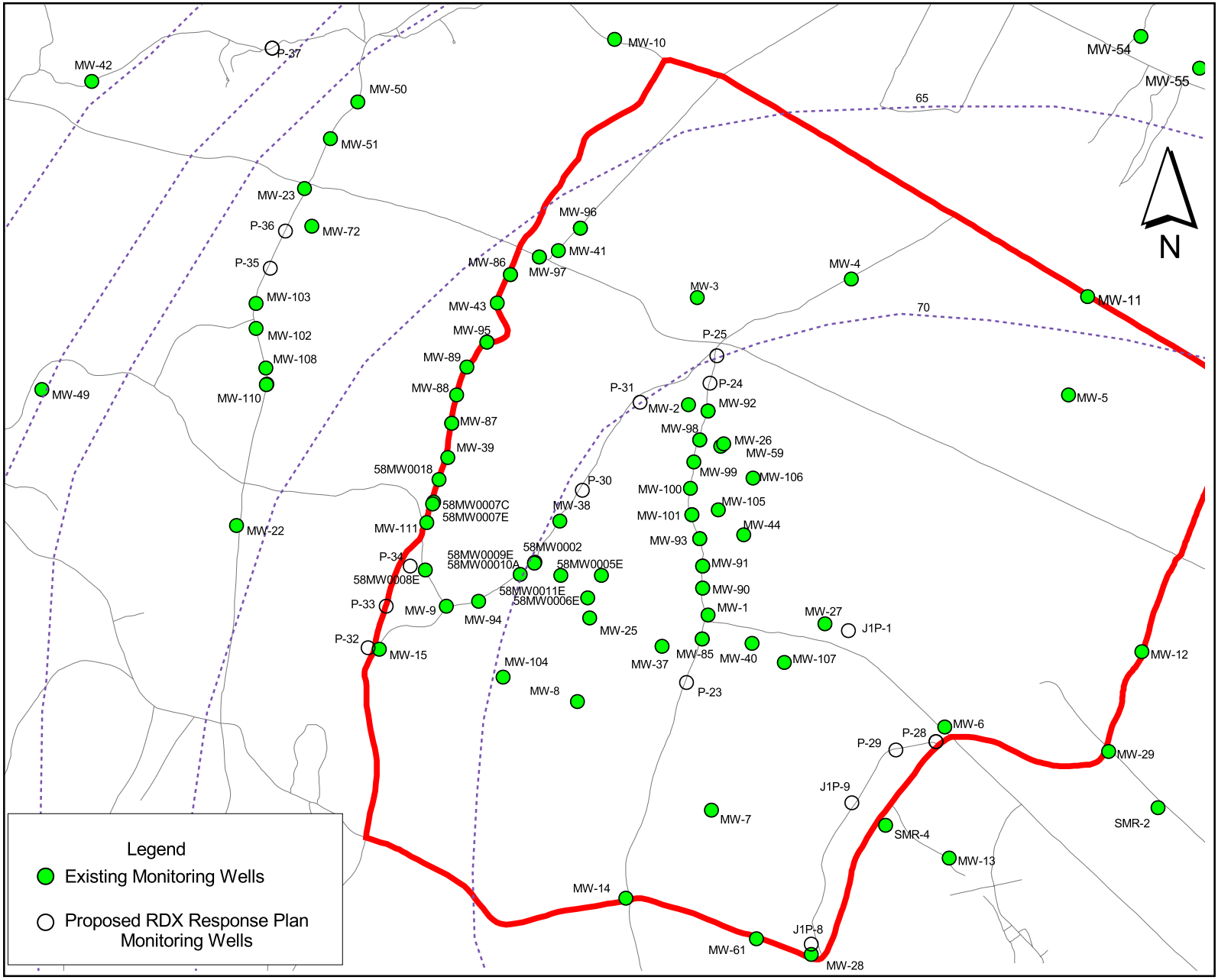
OGDEN_ID	LOCID OR WELL ID	DATE SAMPLED	SAMPLE TYPE	SBD	SED	BWTS	BWTE
S112DIA	MW-112	7/27/00	SOIL BORING	70.00	72.00		
S112DJA	MW-112	7/27/00	SOIL BORING	80.00	82.00		
S112DJD	MW-112	7/27/00	SOIL BORING	80.00	82.00		
S112DKA	MW-112	7/27/00	SOIL BORING	90.00	92.00		
S113DCA	MW-113	7/27/00	SOIL BORING	10.00	12.00		
S113DCD	MW-113	7/27/00	SOIL BORING	10.00	12.00		
S113DDA	MW-113	7/27/00	SOIL BORING	20.00	22.00		
S113DEA	MW-113	7/27/00	SOIL BORING	30.00	32.00		
S113DFA	MW-113	7/27/00	SOIL BORING	40.00	42.00		
S113DGA	MW-113	7/27/00	SOIL BORING	50.00	52.00		
S113DHA	MW-113	7/28/00	SOIL BORING	60.00	62.00		
S113DIA	MW-113	7/28/00	SOIL BORING	70.00	72.00		
S113DID	MW-113	7/28/00	SOIL BORING	70.00	72.00		
S113DJA	MW-113	7/28/00	SOIL BORING	80.00	82.00		
S113DJD	MW-113	7/28/00	SOIL BORING	80.00	82.00		
S113DKA	MW-113	7/28/00	SOIL BORING	90.00	92.00		

Profiling methods include: Volatiles and Explosives
Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry
Other Sample Types methods are variable
SBD = Sample Begin Depth, measured in feet bgs
SED = Sample End Depth, measured in feet bgs
BWTS = Depth below water table, start depth, measured in feet
BWTE = Depth below water table, end depth, measured in feet

TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 7/14/00-7/29/00

OGDEN_ID	LOCID OR WELL ID	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
HDJ230MM	HDJ230MM	7/14/00	CRATER GRAB	0.00	0.25			8330N	2-AMINO-4,6-DINITROTOLUENE	NO

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



Proposed RDX Response Plan Wells In The Impact Area

Figure 1