
APPENDIX B – FIELD VARIANCE FORMS



FIELD VARIANCE FORM

DATE:	04-27-10	PROJECT NAME:	RI for Ricochet MRS	PROJECT LOCATION:	State Game Lands 211, Pennsylvania
APPLICABLE DOCUMENT/SECTION:	Final Work Plan, Remedial Investigation for the Ricochet Munitions Response Area (MRA), Fort Indiantown Gap, dated March, 2010 (Section 2.5 Overall RI Approach)/Subsections 2.5.1, 2.7.1, and Section 3 Field Investigation Plan/Subsections 3.3, 3.6, 3.6.1 and 3.6.3)				
SUBJECT:	Revisions to re-allocate the entire 6.2 acres of proposed DGM transects to Analog transect acres. (Note: This amendment applies only to DGM <i>Transects</i> and has no impact on the DGM <i>Grids</i> .)				

FIELD CHANGE CONDITION:

During our weekly conference call (4/12/10) regarding project field work status for the Fort Indiantown Gap (FIG) Ricochet Area MRS, the project team PAARNG (Jo Anderson), USACE (Emily Schiffmacher and Tom Colozza) and WESTON (John Gerhard, John Williams, and Brian Junck) discussed the feasibility of implementing a field variance (modification in technical approach) to the Work Plan regarding the use of the DGM transects. Based on the data acquired to date and existing field conditions, WESTON requested re-allocation of the acreage proposed for DGM transects to Analog transects. This variance would be in keeping with the project objectives and would provide a more complete characterization. This variance is requested based on the following field conditions:

- The Analog Instrument Assisted Visual Surveys transects are exceeding our expectations, providing the quality of data we need to make the accurate MEC density estimates necessary to determine DGM grid placement for the next project phase.
- With over 4 dozen MD and UXO items found to date (04/13/10) and almost 40% of the area completed, including the majority of suspected high density areas, all items have been found at depths of less than 6 inches. The crews are finding that rock (where not exposed) occurs at very shallow depths and is overlain with a thin veneer of soil. As a result there is little depth penetration of the items being recovered. This is further evidenced by the discovery of several practice mortars (from high angle direct fire) penetrating the soil less than 6 inches.
- Based on experience, unlike traversing less challenging terrains, negotiating transects with the more sensitive digital sensors in the rough rocky terrain and scattered dead-fall will likely introduce a higher degree of system noise from jolts and shocks to the sensors and risks to the operator. The quality of single profile data in this terrain will be marginal at best. Analog instruments will not be as susceptible to interference from the rough conditions. (Note: The WESTON Geophysical crew was able to perform a 9-mile DGM transect along the Appalachian Trail where the trail is more established and the aforementioned conditions were not as much a factor).
- Global Positioning System (GPS) PDOP (satellite coverage) has been diminished due to heavy blossoming and leaf out resulting from the recent high temperatures.



RECOMMENDED APPROACH / CHANGE:

The recommended approach is to re-allocate the entire 6.2 acres of proposed DGM transects to Analog transect acres.

- As an added benefit, converting the DGM transect to Analog transects will enable us to provide several (approximately 4) additional acres of characterization coverage and data due to the increase in the width of the swaths from 3 feet (with DGM transects) to 10 feet (with Analog transects).
- This modification will allow our DGM crews to more rapidly transition into the DGM grid surveys while the UXO crews continue to cover the additional areas, facilitating closer adherence to the critical project schedule.

After discussing the site specific pros and cons of DGM transects versus Analog transects, the project team agreed to re-allocate the entire 6.2 acres of proposed DGM transects to Analog transect acres and implement this variance. This Field Variance Form (FVF No. RAMRA-001) documents the approved change to be amended to the Final Work Plan, Remedial Investigation for the Ricochet Munitions Response Area (MRA), Fort Indiantown Gap, dated March 2010.

IMPACT ON PRESENT AND COMPLETED WORK:

There will be no impacts to present or completed work, or to the process. The proposed amendment applies only to the DGM *Transects* and has no impact on the DGM *Grids*.

REQUESTED BY: John A. Williams, Jr., P.G., Prin. Tech. Manager/Geophysics Group and John Gerhard, Project Manager

CLARIFICATION/FOR INFORMATION ONLY

MINOR CHANGE

MAJOR CHANGE

NGB AND PAARNG TEAM APPROVALS:

COMMENTS

NATIONAL GUARD BUREAU AND
PA ARMY NATIONAL GUARD
DEPT OF MILITARY AND VETERANS
AFFAIRS



APPROVED BY: M. Brian Junck *M. Brian Junck* DATE May 4, 2010
GEOPHYSICIST SIGNATURE

ACKNOWLEDGED BY: John A. Williams, Jr. *John A. Williams Jr* DATE May 4, 2010
TECHNICAL PROJECT MANAGER, P.G. SIGNATURE

ACKNOWLEDGED BY: John P. Gerhard *John P. Gerhard* DATE May 4, 2010
PROJECT MANAGER SIGNATURE

NGB AND PAARNG APPROVAL:

COMMENTS

APPROVED REJECTED Joan Anderson *Joan Anderson* DATE 6/2/10
PAARNG SIGNATURE
PROJECT MANAGER

APPROVED REJECTED J. Kimberly Harniz *J. Kimberly Harniz* DATE 6/02/10
NGB COR SIGNATURE



FIELD VARIANCE FORM

DATE: <u>05-17-10</u>	PROJECT NAME: <u>RI for Ricochet MRS</u>	PROJECT LOCATION: <u>State Game Lands 211, Pennsylvania</u>
APPLICABLE DOCUMENT/SECTION:	<u>Final Work Plan, Remedial Investigation for the Ricochet Munitions Response Area (MRA), Fort Indiantown Gap, dated March, 2010 (Section 2.5 Overall RI Approach)/Subsections 2.5.1, 2.5.1.3, and Section 3 Field Investigation Plan/Subsections 3.3, 3.5, 3.6, 3.6.2 and 3.6.3)</u>	
SUBJECT:	<u>Revisions to re-allocate the acreage proposed for eight remaining DGM grids to Analog transects and additional of Analog transect.</u>	

FIELD CHANGE CONDITION:

During our weekly conference call (on Friday 5/7 and Tuesday 5/11/10) regarding project field work status for the Fort Indiantown Gap (FIG) Ricochet Area MRS, the project team NGB (Kim Harriz), PAARNG (Jo Anderson), USACE (Emily Schiffmacher) and WESTON (John Gerhard, John Williams, Marty Holmes and Brian Junck) discussed the feasibility of implementing a field variance (modification in technical approach) to the Work Plan regarding re-allocating the remaining seven (100-ft x 100-ft) DGM grids to Analog instrument transects.

Based on the data acquired to date and existing field conditions, WESTON requested re-allocation of the coverage proposed for remaining seven DGM grids to Analog transects. In addition WESTON proposed expanding infill coverage by approximately 20 additional miles, over and above the 6.9 miles a re-allocation would provide. This variance would be in keeping with the project objectives and would provide a more complete characterization. This variance is requested based on the following field conditions:

- The Analog transects are exceeding our expectations, providing the quality of data we need to make the accurate MEC density estimates.
- In this setting the Analog transects have been most productive over DGM Grids, generating 7 of the 8 MEC finds and 99% of the MD. DGM Grids have the potential to miss items as these are randomly placed with VSP software.
- This modification will generate 35,700- linear feet, (or 6.9 miles) to be applied to Analog Transect surveys.



RECOMMENDED APPROACH / CHANGE:

The recommended approach is to re-allocate the remaining seven DGM grids to Analog transect as follows:

- In place of the seven (100-ft x 100-ft) DGM grids, Weston proposes to take the total 35,800 linear feet (6.9 miles) of DGM Grid coverage, and apply it towards Analog transects. In addition, approximately 106,000-linear feet, (or 20.1 miles) will be added.
- The additional Analog Transects (shown in the attachment) will be performed across those areas possessing the highest number of targets based on the data and digs acquired to date.
- Three Analog Transects will be performed across the northern portion of Area E (see attachment) to address and bound the area north of an MD find.
- Two Analog Transects will be performed to address the northern portion of the Area west of Area E (see attachment).
- Together, this modification will equate to approximately 27 miles of additional infill. It will allow our crews to provide more comprehensive coverage across the Ricochet Munitions Response Site (MRS) and provide NGB and PAARNG a more complete Remedial Investigation.

After discussing the site specific pros and cons, the project team agreed to the above recommended approach. This Field Variance Form (FVF No. RAMRA-002) documents the approved change to be amended to the Final Work Plan, Remedial Investigation for the Ricochet Munitions Response Area (MRA), Fort Indiantown Gap, dated March 2010.

IMPACT ON PRESENT AND COMPLETED WORK:

There will be no impacts to present or completed work, or to the process.

REQUESTED BY: John A. Williams, Jr., P.G., Prin. Tech. Manager/Geophysics Group and John Gerhard, Project Manager

CLARIFICATION/FOR INFORMATION ONLY

MINOR CHANGE

MAJOR CHANGE

NGB AND PAARNG TEAM APPROVALS:

COMMENTS

NATIONAL GUARD BUREAU AND
PA ARMY NATIONAL GUARD
DEPT OF MILITARY AND VETERANS
AFFAIRS



FVF No. [RAMRA-002](#)

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APPROVED BY: M. Brian Junck *M. Brian Junck* DATE May 17, 2010
GEOPHYSICIST SIGNATURE

ACKNOWLEDGED BY: John A. Williams, Jr. *John A. Williams Jr* DATE May 17, 2010
TECHNICAL PROJECT MANAGER, P.G. SIGNATURE

ACKNOWLEDGED BY: John P. Gerhard *John P. Gerhard* DATE May 17, 2010
PROJECT MANAGER SIGNATURE

NGB AND PAARNG APPROVAL:

COMMENTS

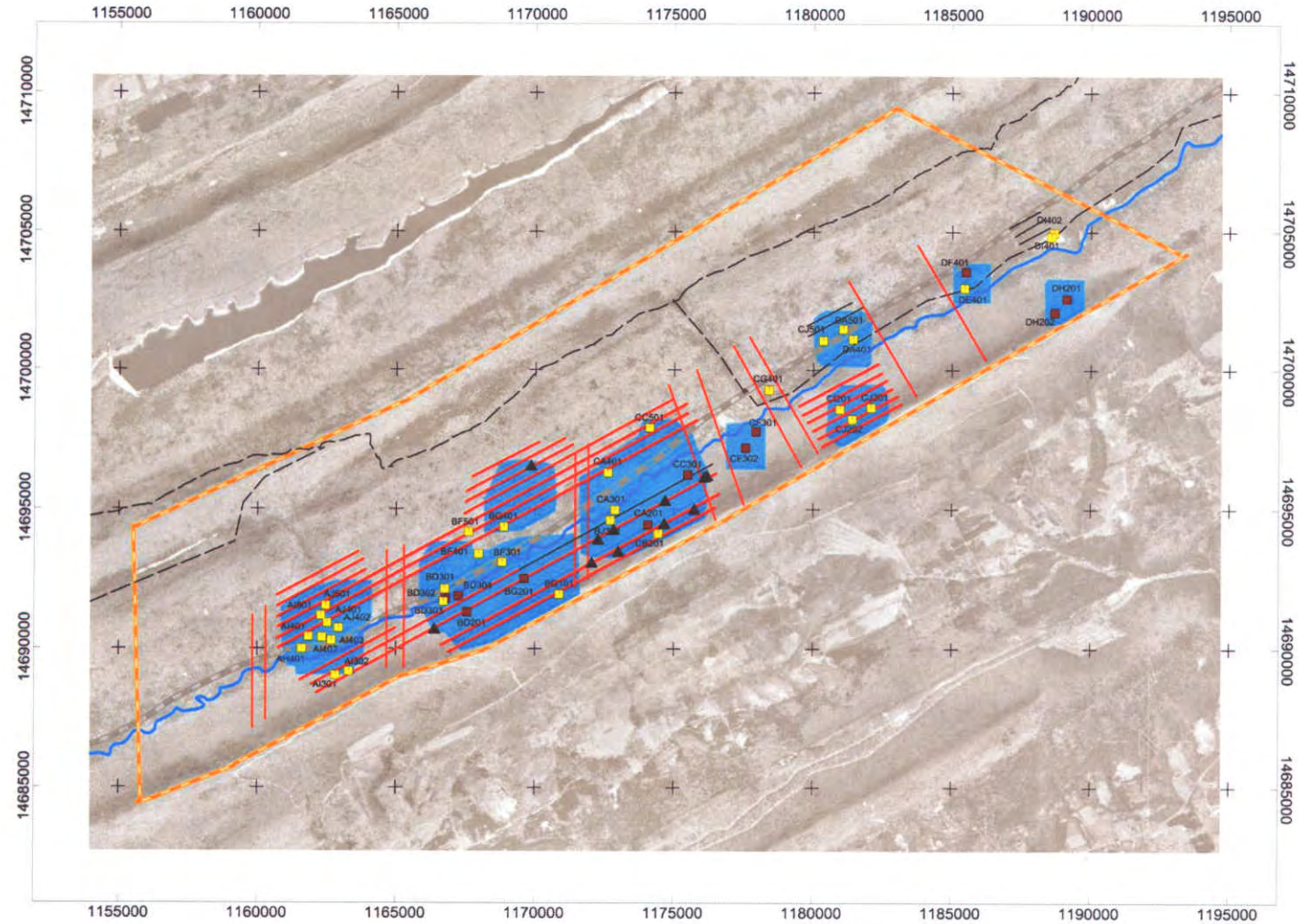
APPROVED REJECTED Joan Anderson *Joan Anderson* DATE 6/2/10
PAARNG PROJECT MANAGER SIGNATURE











APPROVED REJECTED J Kimberley Harris *J Kimberley Harris* DATE 6/02/10
NGB COR SIGNATURE

DGM Grid Progress

Ricochet Area MRS
State Game Lands 211, PA

Daily Status Report
May 17, 2010



-  Rail Trail
 -  Stony Creek
 -  Grid Investigation Area (elevated anomaly density)
 -  DGM Grid (not complete)
 -  DGM Grid Mapping Complete
 -  DGM Grid Reacquisition Complete
 -  Analog Survey Transect (complete)
 -  Analog Survey Transect (Incomplete)
 -  Munitions Debris Item
 -  UXO Item
- Scale 1:47500
- 2500 0 2500 5000 7500
- US survey foot
NAD83 / UTM zone 18N