



Shaw Environmental, Inc.

Field Work Variance No. KAFB-FWV-3

Page 1 of 2

FIELD WORK VARIANCE

Project Name/Number 140705
Contract No. USACE Contract No. W912DY-10-D-0014 Delivery Order 0002
Applicable Document(s) KAFB Vadose Zone Investigation Work Plan Part 1: Field Investigation Activities Bulk Fuels Facility Spill Solid Waste Management Units ST-106 and SS-111 Date 01/31/2011

Problem Description:

The current WP does not state a definitive performance metric for the distance errors that accumulate during the logging sequence.

Recommended solution:

Change WP to account for an acceptable depth error during a logging run that is a function of the borehole depth and the total distance that the logging tool travels.

Impact on present and completed work:

No affect on cost, schedule, or quality of work is anticipated for any of these changes. The work that has been completed and the future work that is planned are not affected.

Requested by:

Recommended solution/disposition:

Clarification [x] Minor Change [] Major Change []

Signature [Signature] Date 01/31/2011
Technical Reviewer

Shaw Environmental Inc, Approvals: If Major Change:

Signature [Signature] Date 01/31/2011 Project/Task Manager
Signature [Signature] Date 3/3/11 Sr. Project Manager

Signature [Signature] Date 1/31/2011 Project QC System Manager

USACE Approval: If Major Change:

Approved [x] Rejected [] Signature _____ Date 3/4/2011
USACE PM or COR

Final Description

Signature _____ Date _____



Field Work Variance No. KAFB-FWV-3

Page 2 of 2

FIELD WORK VARIANCE CONTINUATION SHEET

Continue FWV discussions below by noting section title(s) to be continued (i.e., Problem Description, Solution/disposition, Final Disposition, etc). Use additional continuation sheets as needed.

PROBLEM DESCRIPTION:

The Groundwater Investigation Work Plan (WP) contains the following statement in Section 5.2.6.3:

“Depth control must be used on each run. For multiple (i.e., successively deeper) logging runs in the same borehole, the later (deeper) run should be tied into the previous run. Accuracy should be within 1 foot.”

Additionally, Table 4-1, *Data Quality Objectives (DQO)*, contains the following as a limit on decision errors (second column, DQO Step 6):

“Borehole geophysics measurements obtained less than 1 ft.”

The 1 ft accuracy stated in the WP is for a borehole depth of 250 ft and does not take into account longer distances that may be traveled by the logging tool for wells that exceed 250 ft in depth.

RECOMMENDED SOLUTION:

The WP will be modified to clearly state the performance metric for the depth error as follows:

“The after survey depth error (ASDE) metric for the project will be 0.2 % of the total distance the logging tool travels between the start and end of a logging run where the tool is referenced to a zero depth at a pre-defined point prior to and at the end of the logging sequence. The proposed ASDE is consistent with industry standards and will ensure the logging data are of sufficient quality to meet the project objectives.”

Attachments:

None

References:

Shaw Environmental, Inc. (Shaw), 2010. Final Work Plan, Groundwater Investigation Work Plan, Part I: Field Investigation Activities, Bulk Fuels Facility Spill, Solid Waste Management Units ST-106 and SS-111; November.
