



Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221
October 2, 2008

ENTERED



Mr. John E. Hoff, Quality Assurance Manager
Washington TRU Solutions
P.O. Box 2078
Carlsbad, NM 88221-2078

Subject: Surveillance S-08-18 Report, WTS Ground Control and Geotechnical Engineering

Dear Mr. Hoff:

The Carlsbad Field Office (CBFO) conducted a surveillance of Washington TRU Solutions (WTS) Ground Control and Geotechnical Engineering activities during the period of September 22-25, 2008. The CBFO surveillance report is enclosed.

The surveillance team concluded the Ground Control and Geotechnical Engineering activities are adequate, satisfactorily implemented, and effective. No CBFO corrective action reports (CARs) were issued as a result of the surveillance. One recommendation was provided for management consideration.

If you have any questions or comments concerning the surveillance, please contact me at (575) 234-7483.

Sincerely,

Martin P. Navarrete, Acting Manager
Office of Quality Assurance


Enclosure



Mr. Jon E. Hoff

-2-

October 2, 2008



cc: w/enclosure
L. Chism, CBFO * ED
D. Miehl, CBFO ED
G. Basabilvazo, CBFO ED
F. Sharif, WTS ED
M. A. Mullins, WTS ED
M. Eagle, EPA ED
E. Feltcorn, EPA ED
R. Joglekar, EPA ED
S. Ghose, EPA ED
S. Zappe, NMED ED
S. Holmes, NMED ED
T. Kesterson, DOE OB WIPP NMED ED
C. Timm, Pecos Management Services ED
D. Winters, DNFSB ED
R. Garcia, CTAC ED
A. Pangle, CTAC ED
N. Frank, CTAC ED

WIPP Operating Record, MS: 452-09

CBFO QA File

CBFO M&RC

*ED denotes electronic distribution.

CBFO SURVEILLANCE REPORT

Surveillance Number: S-08-18 **Date of Surveillance:** September 22 – 25, 2008

Surveillance Title: Ground Control and Geotechnical Engineering

Organization: Washington TRU Solutions, LLC (WTS)

Surveillance Team:

Carlsbad Field Office (CBFO)
Management Representative

Martin Navarrete, CBFO
Quality Assurance (QA)

Team Leader:

Norman Frank, CBFO Technical
Assistance Contractor (CTAC)

Team Members:

Jon Ousley, CTAC
Mark Von Weber, CTAC
Paul Gomez, CTAC

Surveillance Scope: The surveillance evaluated the adequacy, implementation, and effectiveness of WTS Ground Control and Geotechnical Engineering processes.

Surveillance Results: The surveillance team determined that the WTS Ground Control and Geotechnical Engineering processes and associated activities were satisfactorily implemented and effective.

Activities Evaluated:

The surveillance was based on the following documents:

Ground Control

- WP 10-2 Revision 26, *Maintenance Operation Instructions Manual*
- MWI 00034 Revision 4, *Ground Control Support*
- MWI 00065 Revision 1, *Ground Control Maintenance*

Geotechnical Engineering

- WP 07-EU1001 Revision 2, *Geologic and Fracture Mapping of Facility Horizon Drifts*
- WP 07-EU1301 Revision 6, *Manually Acquired Geomechanical Instrument Data*
- WP 07-EU1303 Revision 3, *Geomechanical Instrument Data Processing*
- WP 07-EU1304 Revision 4, *Installing Convergence Reference Points*

- WP 07-EU1306 Revision 3, *Installing Rock Bolt Load Cells*
- WP 07-EU1308 Revision 1, *Installing Wire Extensometers*
- WP 07-EU3504 Revision 3, *WIPP Core Storage Handling & Distribution*

The following QA activities were evaluated in accordance with the CBFO Quality Assurance Program Document (QAPD) as related to the observed activities.

- Logbook entries
- Lockout-tag out records
- Work control practices
- Personnel qualification and training
- Documents and records

The surveillance team verified the Waste Isolation Pilot Plant (WIPP) Underground Ground Control program to be adequate, effective, and satisfactorily implemented. The audit team verified records and observed field personnel performing tasks. The records examined were found to be in accordance with procedural requirements. The tasks were performed in accordance with procedural requirements and in a safe and satisfactory manner.

The audit team also verified the WIPP Geotechnical Engineering program to be adequate, effective, and implemented.

Ground Control

No work orders (WOs) were in effect for WMI 00034, *Ground Control Support*. Work orders for previous work were reviewed and the packages were found to be complete.

Replacement of rock bolts in E140, per WO #0809308, was in process. The surveillance team observed the process from issuance of the WO package through the pre-job safety briefing to the completion of the installation of the first rock bolt. All steps in the procedure were completed and signed by the appropriate personnel (crafts and engineering). No facility support actions or lockout-tag out actions were required for this work. In addition WOs for previous work were also reviewed and the packages found to be complete. One Recommendation was presented for management consideration.

Geotechnical Engineering

The surveillance team observed WTS personnel performing geologic and fracture mapping at the WIPP. The steps in Procedure WP 07-EU1001 were followed satisfactorily. The crew performed the mapping with meticulous detail.

The surveillance team observed WTS personnel manually acquiring geomechanical instrument data at the WIPP. The team observed the acquisition of the field data through measurements and entry of data into the Geomechanical Instrumentation System (GIS) using AUTOCAD™. The records are stored at the WIPP in locked Fire-

King file cabinets. The data are maintained for two years at the WIPP facility and then sent to records. Back-up files of the AUTOCAD™ output are done in triplicate at the site (hard copy), and stored electronically at both the WIPP site and the Skeen-Whitlock Building.

The surveillance team observed WTS geomechanical instrument data processing at the WIPP. The team evaluated the records stored at the WIPP and observed the acquisition of data in the field.

The surveillance team observed WTS personnel installing convergence reference points at the WIPP. The performance of the procedure and the processing of data were monitored in Panel 6 in a newly mined room, with the specific detector located at W390-S2833. The location and installation used calibrated instrumentation within the current calibration requirements.

The surveillance team observed a dry run of the procedure for installation of rock bolt load cells at the WIPP with the geotechnical team. The team acquired data for another site that had already been established and evaluated the processed information from Panel 5, Room 7, and load cell E51X-GE-00395.

The surveillance team performed a walk-down and evaluation of WTS personnel installing wire extensometers. The team verified the proper use of tools and proper installation processes.

The surveillance team evaluated WIPP core storage, handling, and distribution at the core storage facility; the logbook listing authorized individuals; proper chain of custody; and the core librarian's responsibilities. Core storage is a function controlled by WIPP Mining Operations and performed in a secure area known as the "Grout Area." The Grout Area, approximately a half-mile south of the WIPP Property Protection Area (PPA), is a controlled lock and key, limited access area. The core sample CONEX boxes have commonly keyed security locks on both ends. All security locks were found to be in place and locked. When a randomly selected sample CONEX was opened, the contents were found to be in clean and orderly condition, with core samples properly stored in boxes lined up on the south wall of the CONEX. Unique identifiers were visible on each core sample box examined.

The surveillance team also assessed portions of the *Maintenance Operations Instruction Manual* (MOIM), WP-10-2, Revision 26. Management and operational personnel, working both above ground and in the underground, were contacted and interviewed. Associated documentation resulting from the implementation of the documents included in the scope of the surveillance were requested, reviewed, and verified for procedural compliance. The documents included, but were not limited to: Work Packages/Work Instructions/Work Orders, and Job Hazard Analysis Checklists. Personnel qualification and training records for personnel associated with the work were examined and verified to be compliant with procedures. The surveillance team

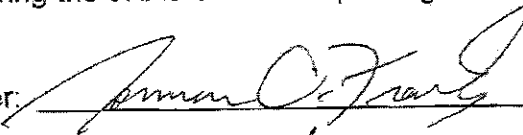
concluded that the portions of the MOIM evaluated were adequate, satisfactorily implemented, and effective.

In all cases examined, the surveillance team found that the procedures were adequate and satisfactorily.

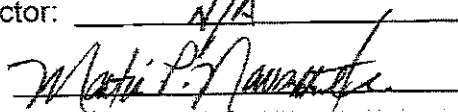
Overall, the Ground Control and Geotechnical Engineering procedures were determined to be adequate, satisfactorily implemented, and effective.

Corrective Actions: The Surveillance Team identified no conditions adverse to quality as a result of the surveillance.

Recommendation: The surveillance team recommends that the WOs follow a similar approach during preparation. The MWI for Work Order (WO) #0809308 to replace rock bolts states in the Reference section that Job Hazard Analyses (JHAs) are "Required and On Hand". However, the JHAs are not included in the WO. In practice, JHAs are in a blue book kept by the Mine Operations Manager, available on line, and covered in the pre-job safety briefing. JHAs are also included in the MWI as precautions, warnings, etc. Having the JHAs in the WO package is not a current requirement.

Surveillance Team Leader:  Date: 9/26/08

Assistant Manager/Office Director: N/A Date: _____

CBFO QA Manager Approval:  Date: 10-1-08