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

JUN 8 2011

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

Subject: Transmittal of Audit Report A-11-17, WTS Monitoring Programs

Dear Mr. Hoff:

The Carlsbad Field Office performed Audit A-11-17 of the Washington TRU Solutions (WTS) Monitoring Programs on May 10-12, 2011. The audit team concluded that, overall, the WTS Monitoring Programs are adequate, satisfactorily implemented, and effective. Details of the audit and conclusions of the audit team are provided in the enclosed audit report.

If you have any questions or comments, please contact me at (575) 234-7442.

Sincerely,

Martin P. Navarrete for

M. Lea Chism
Quality Assurance Specialist

Enclosure

cc: w/enclosure

R. Unger, 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
R. Lee, EPA	ED
J. Kieling, NMED	ED
T. Hall, NMED	ED
S. Holmes, NMED	ED
T. Kesterson, DOE OB WIPP NMED	ED
D. Winters, DNFSB	ED
K. D. Martin, CTAC	ED
P. Y. Martinez, CTAC	ED
WIPP Operating Record	ED
CBFO QA File	
CBFO M&RC	

*ED denotes electronic distribution

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U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

AUDIT REPORT

OF

WASHINGTON TRU SOLUTIONS LLC (WTS)

CARLSBAD, NEW MEXICO

AUDIT NUMBER A-11-17

May 10 – 12, 2011

WTS MONITORING PROGRAMS

Prepared by: Priscilla Y Martinez Date: 6-2-11
Priscilla Y. Martinez, CTAC
Audit Team Leader

Approved by: R. Unger Date: 8 Jun 11
Randy Unger, CBFO
Director, Office of Quality Assurance

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Audit A-11-17 was conducted to evaluate the continued adequacy, implementation, and effectiveness of the Washington TRU Solutions, LLC (WTS) Quality Assurance (QA) Program as related to the WTS Monitoring Programs.

The purpose of the evaluation was to verify the flow-down of upper-tier requirements through the CBFO *Quality Assurance Program Document* (QAPD) and the WTS *Quality Assurance Program Description* (WTS QAPD) into applicable WTS procedures, and to determine if the procedures were effectively implemented. The audit was conducted at WTS facilities at the Waste Isolation Pilot Plant (WIPP), May 10 – 12, 2011.

The audit team concluded that overall, the WTS Monitoring Programs and implementing procedures are adequate relative to the flow-down of requirements from upper-tier documents. The audit team also concluded that the WTS procedures evaluated are satisfactorily implemented and effective in achieving the desired results.

2.0 SCOPE AND PURPOSE

2.1 Scope

The audit team evaluated the adequacy, implementation, and effectiveness of selected monitoring processes related to the WTS QA Program. The following criteria were evaluated:

Organization
Quality Assurance Program
Training
Records
Volatile Organic Compound/Hydrogen/Methane Monitoring
Delaware Basin
DP-831
Groundwater Monitoring
Biotic/Vegetation/Surface Water-Sediment-Soil Sampling/Water Quality Monitoring and Environmental Monitoring and Hydrology Field Work

3.0 AUDIT TEAM AND OBSERVERS

Lea Chism	CBFO QA Management Representative
Priscilla Y. Martinez	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Cindi Castillo	Auditor, CTAC
Rick Castillo	Auditor, CTAC
Katie Martin	Auditor, CTAC
Porf Martinez	Auditor, CTAC
Paul Gomez	Technical Specialist, CTAC
BJ Verret	Technical Specialist, CTAC

Mavis Lin	Technical Specialist, CTAC
Tom Kesterson	Observer, New Mexico Environment Department (NMED)
Susan McCauslin	Observer, CBFO

4.0 AUDIT PARTICIPANTS

Individuals contacted during the audit are identified in Attachment 1. A pre-audit conference was held at the WIPP site in the WTS Support Building large conference room on May 10, 2011. The audit was concluded with a post-audit conference at the WIPP site in the WTS Support Building large conference room on May 12, 2011.

5.0 AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

The audit team concluded that the WTS Monitoring Programs evaluated were adequate, satisfactorily implemented, and effective for the areas audited.

5.2 Quality Assurance Program Activities

WTS implementing procedures included in the audit are identified in Attachment 2. Details of the audit are contained in the following sections.

5.2.1 Organization

The audit team interviewed Monitoring Programs management and QA management personnel and reviewed documentation, including organizational flow charts. The WTS QA Manager reports directly to the General Manager. The audit team concluded that the QA organization has the required authority, independence, access to work areas, and organizational freedom necessary to perform assigned responsibilities. Organizational flow charts illustrating relationships between contracted organizations and WTS management indicated adequate structuring for operations personnel to perform assigned responsibilities. The requirements of WP 13-QA.04, *Quality Assurance Department Administrative Program*, were satisfactorily administered.

One change in key personnel has occurred since the last audit: Rick Salness has been designated Environmental Monitoring and Hydrology (EM&H) Manager. Also, an organizational name change took place at the beginning of February 2011: the Monitoring Programs are now operating under the name of URS Regulatory and Environmental Services (RES). No concerns were identified during this portion of the audit.

The audit team concluded that Organization continues to be adequate, satisfactorily implemented, and effective.

5.2.2 Quality Assurance Program

The audit team interviewed personnel and reviewed documentation to verify the implementation and effectiveness of the QA Program. QA review of logbooks and data sheets was verified to be in accordance with WP 02-EM3001, Rev. 13, *Administrative Processes for Environmental Monitoring and Hydrology Programs*.

The CBFO QAPD requires that QA programs address and establish controls for surveillances. These include the WTS Monitoring Programs and those vendors from the Qualified Suppliers List (QSL) currently involved with the Monitoring Programs. The audit team interviewed the QA Manager responsible for surveillances and reviewed associated records, and determined that sufficient and timely surveillances are performed, documented, and reported as required.

Based on personnel interviews and review of associated documentation and records, the audit team concluded that the WTS QA Program for performing surveillances adequately addresses CBFO QAPD requirements and is satisfactorily implemented and effective.

5.2.3 Training

The audit team interviewed responsible personnel and reviewed implementing Procedure 14-TR.04, Rev. 10, *WIPP Training Program*, relative to the training and qualification of personnel to determine the degree to which the procedure adequately addresses QAPD requirements. Personnel training records associated with Groundwater, Land Management/Biota, Volatile Organic Compound-Hydrogen and Methane, and Delaware Basin monitoring were examined to verify implementation of associated requirements. These records were examined to verify that personnel (samplers, scientists, field staff, records coordinators, validators, etc.) performing these program activities are appropriately qualified. Records reviews included qualification plans, qualification cards, transcripts, exams, and required reading documentation.

The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for personnel training and qualification for the WTS Monitoring Programs evaluated are adequately established for compliance with the QAPD requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.2.4 Records

The audit team conducted personnel interviews and reviewed implementing procedures relative to the control and administration of QA records to determine the degree to which the procedures adequately address the QAPD requirements. The procedures reviewed included 15-RM, Rev. 3, *WIPP Records Management Program*, and 15-RM 3002, Rev. 3, *Records Filing, Inventory, Scheduling, and Dispositioning*. Control of QA records was verified through review of the following Records Inventory and Disposition Schedules (RIDS):

- Environmental Monitoring and Hydrology/Groundwater Surveillance, dated 1/5/2011
- Environmental Monitoring and Hydrology, dated 7/12/2010
- Volatile Organic Compound – Hydrogen and Methane Monitoring, dated 5/6/2010 (a draft revision was submitted to the WIPP Records Archive for review on 4/27/2011)

Records storage requirements were evaluated by physical walk-downs and observance of QA records stored in fire-proof cabinets in Trailer 918B and on the second floor of the Safety Building. QA records were found to be properly located in records storage areas, where they were reviewed, approved, and maintained legibly and accurately per procedural requirements.

The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for QA records are adequately established for compliance with the QAPD requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.2.5 Volatile Organic Carbon /Hydrogen/Methane Monitoring

The audit team evaluated the adequacy, implementation, and effectiveness of the activities associated with Volatile Organic Carbon (VOC)/Hydrogen/Methane Sampling and Reporting at the WIPP. Evaluation of these activities was performed based on review of implementing procedures and objective evidence (i.e., review of operating records, observations, and interviews of VOC/Hydrogen/Methane Monitoring personnel) in accordance with checklists developed from applicable WTS implementing procedures. The audit team observed performance of sampling at VOC A station by VOC Monitoring personnel on 5/11/2011. An underground tour of all sampling locations and examination of sampling equipment was performed during the audit. Chain of custody, sampler, and sample shipping operations were verified to be satisfactory.

The review of implementing procedures and evaluation of the objective evidence provided by VOC/Hydrogen/Methane Monitoring personnel in accordance with the audit checklist provided evidence that WTS activities associated with VOC/Hydrogen/ Methane Sampling and Reporting at the WIPP adequately address upper-tier program document requirements. The audit team determined that WTS VOC/Hydrogen/Methane Monitoring plans and procedures are satisfactorily implemented and effective.

5.2.6 Delaware Basin

The audit team evaluated the adequacy, implementation, and effectiveness of activities associated with Delaware Basin drilling through review of implementing procedures and objective evidence. The monitoring activities tracked include drilling, well injections (including water injections into oil wells and mining activation in the Delaware Basin),

general and borehole activities in the Castile brine reservoirs, and identification of any borehole plugging that occurs, for example, when drilling is discontinued. These data are compiled for both New Mexico and Texas, since the Delaware Basin extends into both states. Wells and new drillings are tracked on a geographic information system (GIS) and input to a database. Activities are documented in a Weekly Activity Report.

The team verified objective evidence from the construction of the potentiometric surface map for the Annual Site Environmental Report (ASER) and for shallow subsurface water. The surface maps are produced using Golden Software, version 9, which uses latitude and longitude data to locate wells, as documented in the Annual Surveys Field Report. The audit team verified objective evidence for the Delaware Basin Monitoring Annual Report, dated September 2010. The report included information about new boreholes, borehole plugging, Castile formation, drilling techniques, and mining activities, and provided confirmation of these activities as performed in the Delaware Basin. The audit team verified plugged well information, which included Sundry notices and reports on wells in Phantom Draw Federal Unit #003. The continuous processing of information in weekly, monthly, quarterly, semi-annual, and annual activities were produced and provided as evidence.

The review of implementing procedures and evaluation of the objective evidence provided by drilling personnel in accordance with the audit checklist provided evidence that WTS Delaware Basin drilling activities adequately address upper-tier program document requirements, and Delaware Basin drilling plans and procedures are fully implemented and technically effective.

5.2.7 DP-831

The audit team evaluated the adequacy, implementation, and effectiveness of the activities associated with the DP-831 Salt Storage Evaporation Pond. Implementing procedures and objective evidence were reviewed. The audit team evaluated monitoring wells in contract DE-AC2901AL66444 from the Semi-Annual Discharge Monitoring Report for July 1, 2010, through December 31, 2010. Data provided during the audit included the Summary of Water Level Measurements data for March 2011 and the associated data report. Low-flow groundwater purging and sampling had not been performed since the previous audit. Audit personnel verified sample data worksheets and inspection worksheets from the salt storage pond, treatment lagoon, and the storm drainage pond areas. The audit team inspected the pond areas and found no abnormalities. The ponds were found to be properly lined, and each had sand blow-over so that the liners were properly anchored on windy days. The Semi-Annual Report included groundwater monitoring test results for Cl-, total dissolved solids, NO3-, SO4-, Cr+, Se, pH, conductivity, and temperature. The audit team determined that the inspections are effective, and the procedure and processes are satisfactorily implemented.

The audit team observed the mobile laboratory facility at well WQSP-5. The well was purged at 4,500 feet. The chain-of-custody forms were verified for final sampling for

Round 32. Microsoft Excel Spreadsheets were used to record Eh, pH, temperature, specific gravity, specific conductivity, alkalinity, anions, and cations. Documented evidence included the completion of serial sampling reports and associated attachments 1 through 10. The WQSP-1 data package, which included results of WQSP-1, Round 31, was inspected at the lab. The data package included spreadsheets comparing HACH-DR-2000 anion and cations. Certificates of Analysis for acids used, statistic reports, pressure printouts, and comment reports were also examined. Further, the audit team verified paperwork regarding cation and anion analyses. The spectrophotometer instrument used was verified to be properly calibrated and personnel were verified to be appropriately trained. The audit team verified equipment checks for the ONAN 25 DKAF Generator. Logbooks were found to be appropriately completed for sampling Rounds 31 and 32.

The review of implementing procedures and evaluation of the objective evidence provided by DP-831 personnel in accordance with the audit checklist provided evidence that WTS DP-831 Salt Storage Evaporation Pond activities adequately address upper-tier program document requirements. The audit team found that DP-831 Salt Storage Evaporation Pond plans and procedures are fully implemented and technically effective.

5.2.8 Groundwater Monitoring

The audit team evaluated the adequacy, implementation, and effectiveness of the activities associated with Groundwater Monitoring by reviewing implementing procedures and objective evidence. The team verified surface discharge and pressure monitoring system installation for WQSP-5. The team verified GW-WQ1-C-R31-N1 filtered and unfiltered sample collection information, and verified that the proper preservation technique was used at the time of sample collection.

The audit team confirmed that Hall Environmental Analysis Laboratory is used for reporting Level IV data packages containing Environmental Protection Agency (EPA) and Standard Method (SM) Analysis results for the following:

- Nitrogen, chloride, sulfate, and nitrate analysis by EPA 300.0
- Total Kjeldahl nitrogen by SM 4500
- Total dissolved solids by SM 2540C with quality control sample results
- Sample receipt checklists
- Chain-of-custody forms

The following measuring and test equipment (M&TE) was determined to be properly calibrated and labeled according to procedural requirements:

- VWR Digital Temperature Gauge ZEO123, calibration due 7/9/11
- Orion ZEO153, calibration due 7/28/11
- Hydrometer ZEO149, calibration due 8/20/11
- Water-level Probe ZEO126, calibration due 5/3/12

The following completed attachments, located in the 2010 Rounds 30 and 31 Generator Logbook, were examined and determined to be in compliance with procedural requirements:

- Attachment 1, Equipment Checks for WQSP-1, dated 5/10/10
- Attachment 2, Generator Set Operational Check Data Sheet for WQSP-1 for Generator 75-Q-009, dated 5/13/10
- Attachment 1, Equipment Checks for WQSP-6a, dated 3/1/10
- Attachment 2, Generator Set Operational Check Data Sheet for Generator 75-Q-009, dated 3/1/10

The review of implementing procedures and evaluation of the objective evidence provided by Groundwater Monitoring personnel in accordance with the audit checklist indicated that WTS Groundwater Monitoring activities adequately address upper-tier program document requirements. Groundwater Monitoring plans and procedures are fully implemented and technically effective.

5.2.9 Biotic/Vegetation/Surface Water-Sediment-Soil Sampling/Water Quality Monitoring and EM&H Field Work

The audit team evaluated the adequacy, implementation, and effectiveness of the activities associated with the Biotic/Vegetation/Surface Water-Sediment-Soil Sampling/Water Quality Monitoring and EM&H Field Work activities. The team reviewed implementing procedures and objective evidence and examined data sheets for biotic sampling, vegetation sampling, surface water and sediment sampling, soil sampling, EM&H field work (oil and gas surveillance), and data package validation. The chain of custody and request for analysis to the analytical laboratory were reviewed and found to be compliant. M&TE certifications were audited and found to be acceptable. Training and qualification of sampling personnel were confirmed to be compliant with WTS Training Program requirements. Recommendations suggested during the previous audit, A-10-17, had been incorporated in revised WTS procedures. The updated procedures were found to be adequate in addressing upper-tier requirements.

Biotic tissue, vegetation, surface water and sediment, and soil sampling were not performed during the audit. Instead, the audit team verified sampling activities through field demonstrations of air monitoring/sampling processes. These demonstrations were conducted at three field locations: Far Field, WIPP East, and WIPP South.

The audit team concluded that Biotic/Vegetation/Surface Water-Sediment-Soil Sampling/Water Quality Monitoring and EM&H Field Work processes adequately address upper-tier program document requirements, and plans and procedures are fully implemented and technically effective.

6.0 CARs, CDAs, Observations, and Recommendations

6.1 CARs

During the audit, the audit team may identify CAQs and document such conditions on CARs.

Condition Adverse to Quality (CAQ) – Term used in reference to failures, malfunctions, deficiencies, defective items, and nonconformances.

Significant Condition Adverse to Quality – A condition which, if uncorrected, could have a serious effect on safety, operability, waste confinement, transuranic (TRU) waste site certification, compliance demonstration, or the effective implementation of the QA program.

No CAQs requiring the generation of a CAR were identified during the audit.

6.2 Deficiencies Corrected During the Audit (CDAs)

During the audit, the audit team may identify CAQs. The audit team members and the Audit Team Leader (ATL) evaluate the CAQs to determine if they are significant.

Once a determination is made that the CAQ is not significant, the audit team members, in conjunction with the ATL, determine if the CAQ is an isolated case requiring only remedial action and therefore can be a CDA. Upon determination that the CAQ is isolated, the audit team members, in conjunction with the ATL, evaluate/verify any objective evidence/actions submitted or taken by the audited organization and determine if the condition was corrected in an acceptable manner. Once it has been determined that the CAQ has been corrected, the ATL categorizes the condition as a CDA according to the following definition.

Corrected During the Audit (CDA) – Isolated deficiencies that do not require a root cause determination or actions to preclude recurrence, and where correction of the deficiency can be verified prior to the end of the audit. Examples include one or two minor changes required to correct a procedure (isolated), one or two forms not signed or dated (isolated), and one or two individuals who have not completed a reading assignment.

No concerns were identified or corrected during the audit.

6.3 OBSERVATIONS

During the audit, the audit team may identify conditions that warrant input by the audit team to the audited organization regarding potential problems or suggestions for program improvement. The audit team members, in conjunction with the ATL, evaluate these conditions and classify them as observations or recommendations (using the

following definitions). Once a determination is made, the audit team members, in conjunction with the ATL, categorize the conditions appropriately.

Observation – A condition that is determined not to be a violation of procedure or requirement at the time but, if not controlled or addressed, may result in a CAQ during future activities.

Recommendation – Suggestion that is directed toward identifying opportunities for improvement and enhancing methods of implementing requirements.

No Observations were noted during the audit.

6.4 Recommendations

No Recommendations were offered during the audit.

7.0 ATTACHMENTS

Attachment 1: Personnel Contacted During the Audit
Attachment 2: WTS Documents Evaluated
Attachment 3: Summary Table of Audit Results

PERSONNEL CONTACTED DURING THE AUDIT				
NAME	**ORGANIZATION / DEPARTMENT**	**PREAUDIT MEETING**	**CONTACTED DURING AUDIT**	**POSTAUDIT MEETING**
Allen, Bill	WTS/Quality Integration Manager	X	X	X
Balderrama, Mel	RES/EM&H Land Mgt	X	X	X
Boatwright, Wes	RES/EM&H/ Scientist	X	X	X
Britain, Randy	WTS/Integrated Waste Ops Mgr	X		
Bryan, Wes	WTS/Site Ops Mgr	X		
Callicoat, John	RES/Delaware Basin	X	X	
Carrasco, Rey	WTS/Geo. Eng. Mgr.	X		
Ganaway, David	RES/EM&H/Env. Specialist III	X	X	X
Garcia, Oscar	WTS/VOC/Env. Monitoring		X	
Heine, Craig	WTS/Training		X	
Hernandez, Jerome	RES/EM&H Env. Monitoring		X	
Hernandez, Lou	WTS/QA Secretary	X	X	
Hoff, Jon	WTS/Quality Assurance Manager	X		X
Holland, Ava	CBFO/Senior Tech. Advisor			X
Hughes, David	RES/Sr. Engineer	X	X	
Jimenez, Richard	RES/Scientist		X	
Jones, Stewart	RES/SEC/ Section Manager	X	X	
Jungclaus, Greg	RES/EM&H Senior Chemist	X	X	X
Keathley, Martin	WTS/QA Progs. Mgr.	X	X	
Kessler, Kendra	RES/ Excel Admin. Assistant	X	X	X
Kestersen, Thomas	NMED DOE OB/Env. Specialist	X	X	
Kouba, Steve	RES/EPA Compl. Mgr.	X		
Lichty, Tom	WTS/Technical Training		X	
McCauslin, Susan	CBFO Env. Project Specialist	X	X	
Moore, Helen	RES/SEC/EM&H	X	X	X
Mullins, Mary Ann	WTS/Quality Assurance		X	
Nance, Candace	WTS/Training		X	

PERSONNEL CONTACTED DURING THE AUDIT				
NAME	**ORGANIZATION / DEPARTMENT**	**PREAUDIT MEETING**	**CONTACTED DURING AUDIT**	**POSTAUDIT MEETING**
Neatherlin, Jimmy	RES/EM&H Env. Monitoring		X	
Pace, Berry	Navarro Research/QA Specialist			X
Parrish, Dale	WTS/Ops/Facility Operations Manager	X		
Proctor, Tricia	WTS/QA Lead Auditor	X		X
Ramirez, David	EM&H/Ops Asst. Tech		X	
Rouch, B. P.	RES/SEC		X	X
Salness, Rick	RES/EM&H Manager	X	X	X
Seal, Brett	RES/Env. Scientist	X	X	X
Spoon, Robbin	RES/EM&H/Env. Specialist III		X	X
VandeKraats, John	WTS Repository Ops, Manager	X		
Watterson, Dan	RES/Env. Specialist.	X	X	X
Unger, Randy	CBFO/Director QA			X

WTS Documents Evaluated		
Number	**Doc Number**	**Applicable WTS Document**
1	DOE/CBFO 94-1012, Rev. 11	*US Department of Energy Carlsbad Field Office Quality Assurance Program Document*
2	WP 02-1, Rev. 10	*WIPP Groundwater Monitoring Program Plan*
3	WP 02-2, Rev. 1	*WIPP Discharge Permit 831 Monitoring Plan*
4	WP 02-EC1003, Rev. 5	*Low-Flow Groundwater Purging and Sampling*
5	WP 02-EC3002, Rev. 4	*Delaware Basin Drilling Database Upgrade Process*
6	WP 02-EM.02, Rev. 2	*Integrated Sample Control Plan*
7	WP 02-EM1001, Rev. 13	*Sewage Lagoon and Infiltration Controls Sampling*
8	WP 02-EM1002, Rev. 4	*Electric Submersible Pump Monitoring System Installation and Operation*
9	WP 02-EM1005, Rev. 7	*Groundwater Serial Sample Analysis*
10	WP 02-EM1006, Rev. 8	*Serial and Final Sample Collection*
11	WP 02-EM1007, Rev. 2	*Anion and Cation Analysis*
12	WP 02-EM1009, Rev. 4 & 5	*Soil Sampling*
13	WP 02-EM1011, Revs. 5 & 6	*Biotic Sampling*
14	WP 02-EM1014, Revs. 5 & 6	*Groundwater Level Measurement*
15	WP 02-EM1017, Revs. 5 & 6	*Surface Water and Sediment Sampling*
16	WP 02-EM1018, Rev. 3	*ONAN 25DKAF Generator Set Operation*

WTS Documents Evaluated		
Number	**Doc Number**	**Applicable WTS Document**
17	WP 02-EM1019, Revs. 4 & 5	*Vegetation Sampling*
18	WP 02-EM1021, Rev. 7	*Pressure Density Survey*
19	WP 02-EM1022, Revs. 5 & 6	*Site Discharge Area Inspections*
20	WP 02-EM1024, Revs. 4 & 5	*EM&H Field Work and Implementation of the Land Use Request*
21	WP 02-EM1025, Rev. 2	*Construction of the Potentiometric Surface Map for the Annual Site Environmental Report and Shallow Subsurface Water*
22	WP 02-EM1026, Rev. 3	*Water Level Data Handling and Reporting*
23	WP 02-EM3001, Revs. 12 & 13	*Administrative Processes for Environmental Monitoring and Hydrology Programs*
24	WP 02-EM3003, Rev. 7	*Data Validation and Verification of RCRA Constituents*
25	WP 02-EM3004, Rev. 5	*Radiological Data Verification and Validation*
26	WP 02-PC.02, Rev. 3	*Delaware Basin Drilling Surveillance Plan*
27	WP 07-EU1305, Rev. 2	*Installing Multiposition Borehole Rod Extensometers*
28	WP 12-VC.01, Rev. 10	*Volatile Organic Compound Monitoring Plan*
29	WP 12-VC.02, Rev. 11	*Quality Assurance Project Plan for VOC Monitoring*
30	WP 12-VC.03, Rev. 1	*Hydrogen and Methane Monitoring Plan*
31	WP 12-VC1684, Rev. 7	*VOC Monitoring Program-Air Sampling Equipment Operations*

WTS Documents Evaluated		
Number	**Doc Number**	**Applicable WTS Document**
32	WP 12-VC3209, Rev. 13	*VOC Monitoring and Hydrogen/Methane Process Evaluation, Validation, and Notification*
33	WP 12-VC3210, Rev. 2	*VOC Database Operations*
34	WP 13-1, Rev. 30	*Washington TRU Solutions LLC Quality Assurance Program Description*
35	WP 13-QA.04, Rev. 17	*Quality Assurance Department Administrative Program*
36	WP 14-TR.01, Rev. 10	*WIPP Training Program*
37	WP 15-RM, Rev.3	*WIPP Records Management Program*
38	WP 15-RM3002, Rev. 3	*Records, Filing, Inventory, Scheduling, and Disposition*

Summary Table of Audit Results

Audit Elements	Concern Classification				QA Evaluation		
	CARs	CDAs	Obs	Rec	Adequacy	Implementation	Effectiveness
Organization Program					A	S	E
Quality Assurance Program					A	S	E
Training					A	S	E
Records					A	S	E
VOC/Hydrogen/Methane Monitoring					A	S	E
Delaware Basin					A	S	E
DP-831					A	S	E
Groundwater Monitoring					A	S	E
Biotic/Vegetation/ Surface Water-Sediment- Soil Sampling/ Water Quality Monitoring/EM&H Field Work					A	S	E
TOTALS	0	0	0	0	A	S	E

Definitions

E = Effective
CDA = Corrected During Audit
CAR = Corrective Action Report
A = Adequate
Rec = Recommendation
S = Satisfactory
Obs = Observation
M = Marginal