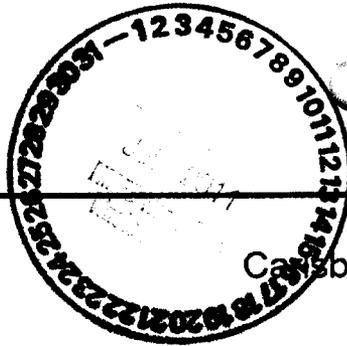


United States Government



ENTERED

Department of Energy

memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: July 7, 2011
REPLY TO
ATTN OF: CBFO:OQA:MPN:MAG:11-0618:UFC 2300.00
SUBJECT: Interim Audit Report for Recertification Audit A-11-13 of the INL/CCP Analytical Solids and Headspace Gas Laboratories
TO: Jerry L. Wells, DOE-ID

The Carlsbad Field Office (CBFO) conducted Recertification Audit A-11-13 of the Idaho National Laboratory Central Characterization Project (INL/CCP) Analytical Solids and Headspace Gas Laboratories on June 7-9, 2011. The Interim Audit Report is attached.

The audit team concluded that the INL/CCP technical and quality assurance programs for the activities evaluated were adequate in accordance with the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit, the CBFO *Quality Assurance Program Document*, and the WIPP Waste Acceptance Criteria. The audit team determined that the applicable INL/CCP procedures were satisfactorily implemented and the evaluated processes were effective.

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

Martin P. Navarrete
Senior Quality Assurance Specialist

Attachment

cc: w/attachment

- | | | | |
|-----------------------|-----|--------------------------------|----|
| R. Unger, CBFO | *ED | R. Lee, EPA | ED |
| J. R. Stroble, CBFO | ED | J. Kieling, NMED | ED |
| N. Castaneda, CBFO | ED | S. Holmes, NMED | ED |
| D. Miehl, CBFO | ED | T. Hall, NMED | ED |
| W. Lattin, DOE-ID | ED | T. Kesterson, DOE OB WIPP NMED | ED |
| D. Ploetz, WTS/CCP | ED | D. Winters, DNFSB | ED |
| V. Cannon, WTS/CCP | ED | P. Gilbert, LANL-CO | ED |
| A. J. Fisher, WTS/CCP | ED | G. Lyshik, LANL-CO | ED |
| C. Turner, WTS/CCP | ED | P. Y. Martinez, CTAC | ED |
| I. Quintana, WTS/CCP | ED | K. D. Martin, CTAC | ED |
| M. Walker, WTS/CCP | ED | WWIS Database Administrators | ED |
| Y. Salmon, WTS/CCP | ED | WIPP Operating Record | ED |
| M. Eagle, EPA | ED | CBFO QA File | |
| S. Ghose, EPA | ED | CBFO M&RC | |

*ED denotes electronic distribution



U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

INTERIM AUDIT REPORT

OF THE

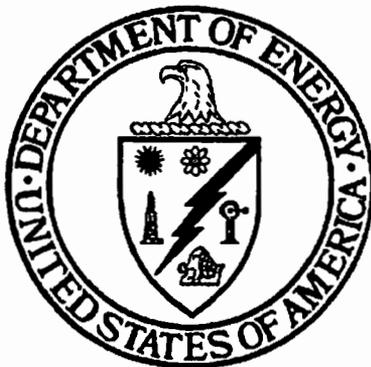
IDAHO NATIONAL LABORATORY (INL)
ANALYTICAL LABORATORIES
UTILIZING THE
CENTRAL CHARACTERIZATION PROJECT (CCP)

IDAHO FALLS, IDAHO

AUDIT NUMBER A-11-13

June 7 – 9, 2011

INTERIM AUDIT REPORT OF WASTE CHARACTERIZATION IN
ACCORDANCE WITH THE HAZARDOUS WASTE FACILITY PERMIT



Prepared by: *Priscilla Y. Martinez*
Priscilla Y. Martinez, CTAC
Audit Team Leader

Date: 7/7/11

Approved by: *Randy Unger*
Randy Unger, CFO
Director, Office of Quality Assurance

Date: 7 Jul 11

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Recertification Audit A-11-13 was conducted to evaluate the continued adequacy, implementation, and effectiveness of Idaho National Laboratory (INL) Analytical Solids and Headspace Gas Laboratories transuranic (TRU) waste characterization activities performed under the Central Characterization Project (CCP) (hereafter referred to as INL/CCP).

The INL/CCP analytical laboratories consist of two separate facilities: the Environmental Chemistry Laboratory (ECL), located at the INL Idaho Research Center (IRC) and managed by Battelle Energy Alliance (BEA), and the Analytical Chemistry Laboratory (ACL), located at the Radioactive Waste Management Complex (RWMC) and managed by Bechtel BWXT Idaho, LLC (BBWI). The ACL was formerly the Analytical Laboratories Department (ALD) and was managed by CH2M•WG Idaho, LLC (CWI).

The INL/CCP activities evaluated included the ECL headspace gas (HSG) analysis of Summary Category Group (SCG) S5000 debris wastes; ACL solids analysis of S3000 homogeneous solids and S4000 soils/gravel wastes; generation-level data validation and verification (V&V); and SUMMA[®] canister preparation and certification for use by the generator sites.

The audit was conducted in Idaho Falls, Idaho, June 7 through 9, 2011. The audit team concluded that overall, the INL/CCP technical procedures are adequate relative to the flow-down of requirements from the *CBFO Quality Assurance Program Document* (QAPD), the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP), and DOE/WIPP 02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant* (WAC). The audit team concluded that the INL/CCP technical areas evaluated continue to be satisfactorily implemented and effective.

The audit team identified one concern during the audit, which resulted in an Observation (see section 6.3). There were no conditions adverse to quality (CAQs) or concerns corrected during the audit (CDA) and no Recommendations were offered for management consideration as a result of this audit.

2.0 SCOPE AND PURPOSE

2.1 Scope

The audit team evaluated the continued adequacy, implementation, and effectiveness of the INL/CCP Analytical Laboratories TRU waste characterization activities for HSG analysis of SCG S5000 debris wastes; solids analysis of S3000 homogeneous solids and S4000 soils/gravel wastes; generation-level data V&V; and SUMMA[®] canister preparation and certification for use by the generator sites.

The following elements were evaluated:

Quality Assurance

- Personnel Qualification and Training
- Nonconformances
- Records
- Sample Control

Technical

- Generation-Level Data Validation and Verification
- Performance Demonstration Program
- Solids and Soils/Gravel
- Headspace Gas

General

- Results of Previous Audit
- Changes in Programs or Operations
- New Programs or Activities Being Implemented
- Changes in Key Personnel

The Quality Assurance (QA) Technical, and General Program elements listed above were evaluated to confirm compliance with requirements specified in both the WIPP HWFP and the CBFO QAPD. The program elements for measuring and test equipment (M&TE) were included to further confirm implementation at the laboratories since the implementation of requirements associated with this element cannot be fully verified during the annual CCP QA Program Audit. All other program elements are evaluated at the Carlsbad Field Office during the annual CCP QA Program Audit.

The evaluation of the INL/CCP TRU waste activities and documents was based on current revisions of the following documents:

Hazardous Waste Facility Permit, Waste Isolation Pilot Plant EPA No. NM4890139088-TSDF, New Mexico Environment Department

DOE/WIPP 02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*

CBFO Quality Assurance Program Document, DOE/CBFO 94-1012

CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan (QAPjP)*

CCP-PO-002, *CCP TRU Waste Certification Plan*

CCP-PO-030, *CCP/Battelle Energy Alliance Analytical Chemistry & Instrument Department Interface Document*

CCP-PO-031, *CCP/Idaho Cleanup Project Analytical Laboratories Department Interface Document*

Related technical and QA implementing procedures

2.2 Purpose

Audit A-11-13 was conducted to assess the INL/CCP Analytical Laboratories TRU waste characterization activities for HSG analysis of SCG S5000 debris wastes; solids analysis of S3000 homogeneous solids and S4000 soils/gravel wastes; generation-level data V&V; and SUMMA[®] canister preparation and certification for use by generator sites for compliance with the requirements of the HWFP and QAPD.

3.0 AUDIT TEAM AND OBSERVERS

AUDIT TEAM, TECHNICAL SPECIALISTS, AND OBSERVERS

Martin Navarrete	Audit Team Management Representative, CBFO
Priscilla Y. Martinez	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Earl Bradford	Auditor, CTAC
Charlie Riggs	Auditor, CTAC
Margie Martinez	Auditor-in-Training, CTAC
Mavis Lin	Technical Specialist, CTAC
Paul Gomez	Technical Specialist, CTAC

OBSERVERS

Norma Castaneda	CBFO Office of the National TRU Program (NTP)
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4.0 AUDIT PARTICIPANTS

The individuals who were contacted during the audit are identified in Attachment 1. A pre-audit meeting was held at the INL Idaho Research Center (IRC) in Idaho Falls, Idaho, on June 7, 2011. The audit was concluded with a post-audit meeting held at the INL IRC in Idaho Falls, Idaho, on June 9, 2011.

Attachment 2 is summary table of audit results. Attachment 3 lists the INL/CCP documents audited. Attachment 4 lists the processes and equipment evaluated during the audit. Audit activities, including objective evidence reviewed, are described below.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

The audit was performed to assess the INL/CCP Analytical Laboratories TRU waste characterization activities for HSG analysis of SCG S5000 debris wastes; solids analysis of S3000 homogeneous solids and S4000 soils/gravel waste; data generation-level V&V; and SUMMA[®] canister preparation and certification for use by generator sites for compliance with the requirements of the HWFP and QAPD.

The audit team concluded that the INL/CCP Analytical Laboratories program is adequate, satisfactorily implemented, and effective, as described in Attachment 2, Summary Table of Audit Results. This conclusion was summarized using procedures provided in Attachment 3, Table of Audited Documents, for the list of processes and equipment provided in Attachment 4. The audit activities are described below.

5.2 Quality Assurance Activities

5.2.1 Personnel Qualification and Training

The audit team interviewed personnel and reviewed implementing procedure CCP-QP-002, Rev. 31, *CCP Training and Qualification Plan*, to determine the degree to which the procedure adequately addresses upper-tier requirements. Personnel training records associated with HSG and solids analysis were examined to verify implementation of associated requirements and to verify that personnel performing characterization activities are appropriately qualified.

No concerns were identified during the audit. The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for personnel qualification and training are adequately established for compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.2.2 Nonconformances

The audit team interviewed personnel and randomly selected a sampling of nonconformance reports (NCRs) to confirm that deficiencies are being appropriately documented and tracked through resolution as required per procedure CCP-QP-005, Rev. 20, *CCP TRU Nonconforming Item Reporting and Control*. The audit team reviewed NCR-ALD-0004-10, NCR-ALD-0005-10, and NCR-ECL-2840-11. All NCRs were verified as being managed and tracked in the CCP data center and on the CCP NCR Logs.

No concerns were identified during the audit. The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for control of nonconformances are adequately established for

compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.2.3 Records

The audit team conducted interviews and reviewed implementing procedures relative to the control and administration of QA records to determine the degree to which the procedures adequately address upper-tier requirements. CCP-QP-008, Rev. 18, *CCP Records Management* was reviewed, and the audit team verified that the records were appropriately completed, stored, maintained and transferred in accordance with the procedure. ACL and ECL personnel transmit records generated during the performance of the waste characterization scope to CCP Records. All records are controlled by CCP. ACL and ECL personnel have access to CCP records in the event corrections to QA records are needed.

No concerns were identified during the audit. 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 upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.2.4 Sample Control

The process for sample handling and control was evaluated and verified through review of chain-of-custody forms. The samples are documented from the point of origin to the reporting of final analysis results including final disposition. The laboratories' ability to maintain temperature control was evaluated and determined to be acceptable. The audit team conducted interviews and reviewed implementing procedure CCP-TP-177, Rev. 0, *CCP Sample Receipt, Custody and Storage* to verify that INL/CCP analytical laboratories comply with the sample control requirements for HSG and solids analysis requirements of the WAP.

No concerns were identified during the audit. 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 upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.3 Technical Activities

Each technical area audited is discussed in the following sections. Objective evidence to evaluate the implementation of the associated characterization activities was selected and reviewed. Batch data reports (BDRs), sampling records, generation-level data V&V documentation, and training documentation for INL/CCP personnel were included in the evaluation. The audit included a walk-through of waste characterization activities (such as HSG and solids analysis). Each characterization process involves:

- Sample receipt
- Sample custody
- Sample preparation and analysis
- Reporting of final waste characterization information to WIPP

The INL/CCP provided the following BDRs:

- HSG Analytical BDRs: ECL10044G, ECL10044M, ECL11001G, ECL11001M; ECL10005G, and ECL10005M
- Solids Sample Analysis BDRs: ALD10025V, ALD10025N, ALD10025S, ALD10025M, ALD10051V, ALD10051N, ALD10051S, ALD10051M, ALD10060V, ALD10060S, ALD10060N, and ALD10060M

The BDRs examined were determined to be acceptable.

5.3.1 Generation-Level Data V&V

Objective evidence was reviewed to ensure generation-level activities were adequately performed to support waste characterization. BDRs, sampling records, and generation-level documentation were evaluated based on generation-level data requirements for HSG analysis and solids and soils/gravel analysis. No concerns were identified.

Overall, the audit team concluded that the generation-level data V&V activities were adequately addressed, satisfactorily implemented, and effective.

5.3.2 Performance Demonstration Program (PDP)

The audit team examined the PDP documentation relative to HSG (Cycle 25A) and solids analysis (Cycle 18A) and interviewed responsible INL/CCP personnel to verify that PDP activities were performed as required and that the results were determined to be acceptable and approved by the CBFO.

Overall, the audit team concluded that the PDP activities were adequate, satisfactorily implemented, and effective.

5.3.3 Solids and Soils/Gravel

This audit was performed to assess the capability of ACL to analyze samples of SCG S3000 and S4000 waste streams for compliance with the HWFP.

Solid analysis activities performed by the INL/CCP included sample receipt, sample custody, sample preparation and analysis for Volatile Organic Compounds (VOCs), Non-Halogenated Volatile Organic Compounds (NHVOCs), Semi-Volatile Organic Compounds (SVOCs), metals, and mercury. Successful participation in the latest Resource Conservation and Recovery Act (RCRA) Solids PDP Cycle 18A was verified. Determination of detection limits, method detection limits (MDLs) and instrument detection limits (IDLs), performance and accuracy (P&A) studies, laboratory notebooks,

standard certification and material, and the current WIPP-approved processes and equipment were evaluated and determined to be compliant. The audit team verified the control of M&TE. The audit team toured the laboratory and observed instruments appropriately labeled with the status of calibration. Instrument numbers were noted and then verified against the CCP M&TE listing. The audit team examined BDRs ALD10025V, ALD10025N, ALD10025S, ALD10025M; ALD10051V, ALD10051N, ALD10051S, ALD10051M; ALD10060V, ALD10060N, ALD10060S, and ALD10060M. Sample preparation activities were verified and determined to be compliant.

The audit team did not identify any conditions adverse to quality and concluded that the solids and soils/gravel analysis operations and generation-level data V&V continue to be adequate, satisfactorily implemented, and effective.

5.3.4 Headspace Gas (HSG)

This audit was performed to assess the capability of the ECL to characterize SCG S5000 waste stream for compliance with the HWFP.

The audit team evaluated the ECL facility for HSG analytical operations and SUMMA[®] passivated canister cleaning, handling, and shipment. HSG analysis operations performed included sample receipt, sample custody, and sample analysis for gas volatile compounds and methanol.

SUMMA[®] passivated canister cleaning processes were verified for procedural completeness and maintenance of pressurization for gas sampling. The laboratory maintains excellent air temperatures (22 °C temperature recorder 718187) in the facility to optimize analysis of the gas samples. Logbooks and canister tags are properly filled in and maintained by the laboratory. The team observed the latest sample group received during the audit.

The INL/CCP ECL successfully participated in the performance of the latest HSG PDP Cycle 25A administered by the CBFO NTP. Instrumentation evaluated during this audit included gas chromatography units GC-2 for methanol in HSG, and GCMS-H for volatiles in HSG. The audit team verified the control of M&TE. The following laboratory instruments laboratory and their corresponding certificates of calibration were examined:

- SUMMA[®] canister pressure gauges 717888, 718815, and 719482
- Temperature probes XC0553 and XC0689
- Temperature (chart) recorder 718187
- Thermometer 719796
- Flow Controllers 719836 and 719837

The audit team toured the laboratory and observed instruments appropriately labeled with the status of calibration and carrier gas and standards gas cylinder tags in place. BDRs including tentatively identified compounds (TICs) were evaluated and determined

to be acceptable. Initial calibration, determination of MDLs, laboratory notebooks, and standard certification were evaluated and determined to be acceptable. Six BDRs were examined: ECL10044M, ECL10044G, ECL11001M, ECL11001G, ECL11005M, and ECL11005G. Laboratory sample preparation and sample dilutions were verified as compliant. The audit team determined that the laboratory properly utilizes samples and expends or dispositions the samples appropriately.

The audit team verified the qualification and training of the laboratory analysts by examining the CCP List of Qualified Individuals (LOQI) as well as the individual qualification cards for each discipline.

Document control was verified by examining the BDRs listed above and verifying that the correct version of the corresponding procedure was utilized at the time the analysis was conducted.

Overall, the team identified no CAQs and concluded the INL/CCP ECL HSG analysis operations and generation-level data V&V operations and procedures continue to be adequate, satisfactorily implemented, and effective.

5.4 General

5.4.1 Results of Previous Audits

The audit team identified no CAQs resulting in the issuance of Corrective Action Reports (CARs) and no Observations or Recommendations were identified as a result of last year's audit.

5.4.2 Changes in Program or Operations

Effective May 1, 2011, operation of the ICP Analytical Laboratory at the RWMC was transferred from ICP (CH2M♦WG Idaho, LLC) (CWI), to the Advance Mixed Waste Treatment Project (AMWTP), BBWI. The ALD is now called the ACL. Operations management has changed for the ACL, but there are no changes in the program.

5.4.3 New Programs or Activities Being Implemented

ECL instruments GC-1 (12HE5) and GC-7 (12HE9) will be placed in the Deactivated Section of the Processes and Equipment Evaluated During the Audit (see Attachment 4).

5.4.4 Changes in Key Personnel

There was one change in key personnel since the last audit (A-10-17): a new individual assumed the position of ACL and Offsite Waste Manager. BBWI is coordinating a smooth and effective transition without interruption to the ongoing ACL operations due to the transition described in section 5.4.2.

6.0 CORRECTIVE ACTIONS, OBSERVATIONS, AND RECOMMENDATIONS

6.1 Corrective Action Reports

During the audit, the audit team may identify CAQs and document them on corrective action reports (CARs).

Condition Adverse to Quality – 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, TRU waste site certification, regulatory compliance demonstration, or the effective implementation of the QA program.

No CAQs were issued as a result of this audit.

6.2 Deficiencies Corrected During the Audit

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 member, in conjunction with the ATL, determines if the CAQ is an isolated case requiring only remedial action and can, therefore, be a CDA. Upon determination that the CAQ is isolated, the audit team member, in conjunction with the ATL, evaluates/verifies any objective evidence/actions submitted or taken by the audited organization and determines 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 CDA according to the definition below.

CDAs – Isolated deficiencies that do not require a root cause determination or actions to preclude recurrence. 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 not dated (isolated), and one or two individuals that have not completed a reading assignment.

No CDAs were identified during this audit.

6.3 Observations

During the audit, the audit team may identify potential problems that should be communicated to the audited organization. The audit team members, in conjunction with the ATL, evaluate these conditions and classify them as Observations using the following definition:

Observation – A condition that, if not controlled, could result in a CAQ.

The following Observation was issued as a result of this audit.

Observation 1

The objective evidence reviewed did not clearly state the responsibilities and authority between BBWI and CCP in establishing, defining, and documenting work activities.

The audit team did verify a Memorandum of Agreement (MOA) was in place between CWI and BBWI for the transition of the INL ACL.

CCP is in the process of incorporating responsibilities and authority into procedure CCP-PO-024, Rev. 11, *CCP/INL Interface Document* for the INL ACL. This document defines the interfaces between the CCP and the host site organization(s) necessary to perform this work.

6.4 Recommendations

During the audit, the audit team may offer suggestions for improvement that should be communicated to the audited organization. The audit team members, in conjunction with the ATL, evaluate these conditions and classify them as Recommendations, using the following definition:

Recommendations – Suggestions that are directed toward identifying opportunities for improvement and enhancing methods of implementing requirements.

No Recommendations were offered as a result of this audit.

7.0 LIST OF ATTACHMENTS

Attachment 1: Personnel Contacted During the Audit

Attachment 2: Summary Table of Audit Results

Attachment 3: Listing of Audited Documents

Attachment 4: Processes and Equipment Evaluated During the Audit

PERSONNEL CONTACTED DURING THE AUDIT				
NAME	TITLE/ORG	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Castaneda, Norma	CBFO/NTP/ Observer	X	X	
Crowder, Catherine	ECL Tech Leader/INL BEA	X	X	X
Dunhour, Fred	ACL Analytical Labs/QA Specialist/ AMWTP	X	X	X
Jeter, Jeff	ACL Lab Analyst/ AMWTP		X	
Laug, Jeff	ACL Lab Manager/ AMWTP	X	X	X
Nicklas, John	ACL/Off-Site Waste Manager/ AMWTP	X		X
Sailer, Shelly	ACL Analytical Labs QA Officer/ AMWTP	X	X	X
Turner, Charles	Site Project Manager/WTS/ CCP	X	X	X

SUMMARY TABLE OF AUDIT RESULTS

Activity	QA Evaluation			Technical			
	CARs	CDAs	Obs	Rec	Adequacy	Implementation	Effectiveness
Organization			1		A	S	E
Personnel Qualification and Training					A	S	E
Nonconformances					A	S	E
Records					A	S	E
Sample Control					A	S	E
Solids/Soils/Gravel Analysis					A	S	E
Headspace Gas Analysis					A	S	E
Data Generation-level Validation and Verification					A	S	E
Summa Canister Preparation					A	S	E
TOTALS	0	0	1	0	A	S	E

A = Adequate
S = Satisfactory
E = Effective

LISTING OF AUDITED DOCUMENTS		
	Document No.	Document Title
1.	CCP-PO-001, Rev. 19	CCP Transuranic Waste Characterization Quality Assurance Project Plan
2.	CCP-PO-002, Rev. 25	CCP Transuranic Waste Certification Plan
3.	CCP-PO-030, Rev. 1	CCP/Battelle Energy Alliance Analytical Chemistry & Instrument Department Interface Document
4.	CCP-PO-031, Rev. 1	CCP/Idaho Cleanup Project Analytical Laboratories Department Interface Document
5.	CCP-QP-002, Rev. 31	CCP Training and Qualification Plan
6.	CCP-QP-005, Rev. 20	CCP TRU Nonconforming Item Reporting and Control
7.	CCP-QP-008, Rev. 18	CCP Records Management
8.	CCP-QP-010, Rev. 22	CCP Document Preparation, Approval, and Control
9.	CCP-QP-011, Rev. 10	CCP Laboratory Logbooks
10.	CCP-QP-016, Rev. 15	CCP Control of Measuring, Testing, and Data Collection Equipment
11.	CCP-TP-056, Rev. 4	CCP HSG Performance Demonstration Plan
12.	CCP-TP-173, Rev. 1	CCP Analysis of Gas Samples for VOCs by GC/FID
13.	CCP-TP-175, Rev. 2	CCP Analysis of Gas Samples for VOCs by GC/MS
14.	CCP-TP-176, Rev. 0	CCP Determination of Method Detection Limits for Gas Analysis
15.	CCP-TP-177, Rev. 0	CCP Sample Receipt, Custody, and Storage
16.	CCP-TP-178, Rev. 0	CCP SUMMA Canister Cleaning
17.	CCP-TP-179, Rev. 0	CCP Gas Transfer Manifold Systems and Sample Compositing
18.	CCP-TP-180, Rev. 2	CCP Analytical Sample Management
19.	CCP-TP-181, Rev. 0	CCP Determination of Mercury by CVAA for TRU Waste Characterization
20.	CCP-TP-182, Rev. 1	CCP Determination of Metals of ICP-AES for TRU Waste Characterization
21.	CCP-TP-183, Rev. 0	CCP Microwave Assisted Digestion of Homogeneous Solids and Soil/Gravel
22.	CCP-TP-184, Rev. 0	CCP Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry
23.	CCP-TP-185, Rev. 1	CCP Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry
24.	CCP-TP-186, Rev. 1	CCP Determination of Nonhalogenated Volatile Organics by Gas Chromatography
25.	CCP-TP-187, Rev. 1	CCP Sample Preparation for Semivolatile Organic Compounds
26.	CCP-TP-188, Rev. 2	CCP Analytical Recording, Review, and Reporting

PROCESSES AND EQUIPMENT EVALUATED DURING THE AUDIT

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
NEW PROCESSES OR EQUIPMENT				
	N/A			
PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT				
Headspace Gas				
12HE4	Environmental Chemistry Lab – Headspace gas volatile organic compounds specified in Procedure ACMM-9930 and CCP-TP-175 Equipment = GC/MS-H (Cycle 25A)	DEBRIS (S5000)	Yes	N/A
12HE6	Environmental Chemistry Lab – Headspace gas volatile organic compounds specified in Procedure CCP-TP-173 Equipment = GC-2 (Cycle 25A)	DEBRIS (S5000)	Yes	N/A
Solids				
12HA8	Analytical Chemistry Laboratory (ACL) – Total purgable volatile organic compound analysis specified in Procedure CCP-TP-184 Equipment – VOA-4 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A
12HA3	Analytical Chemistry Laboratory (ACL) -Total non-halogenated volatile organic compounds specified in Procedure CCP-TP-186 Equipment –GC-1 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
12HA14	Analytical Chemistry Laboratory (ACL) – Total non-halogenated volatile organic compounds specified in Procedure CCP-TP-186 Equipment – GC-6 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A
12HA10	Analytical Chemistry Laboratory (ACL) – Total semi-volatile organic compounds specified in Procedure CCP-TP-185 Equipment – SV-6 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A
12HA12	Analytical Chemistry Laboratory (ACL) – Total semi-volatile organic compounds specified in Procedure CCP-TP-185 Equipment – SV-8 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A
12HA13	Analytical Chemistry Laboratory Department (ACL) – Total purgable volatile organic compounds specified in Procedure CCP-TP-184 Equipment – VOA-5 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A
12HM11	Analytical Chemistry Laboratory (ACL) – Total metals analysis specified in Procedure CCP-TP-182 Equipment – ICP-7 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A
12HM13	Analytical Chemistry Laboratory Department (ACL) – Total metals analysis specified in Procedure CCP-TP-182 Equipment – ICP-8 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
12HM8	Analytical Chemistry Laboratory Department (ACL) – Total metals (Hg) analysis specified in Procedure CCP-TP-181 Equipment – CVHG-2 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A
12HM12	Analytical Chemistry Laboratory Department (ACL) – Total metals (Hg) analysis specified in Procedure CCP-TP-181 Equipment – CVHG-3 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A
12HM9	Analytical Chemistry Laboratory Department (ACL) – Total metals digestion specified in Procedure CCP-TP-183 Equipment – MW-3 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A
12HM10	Analytical Chemistry Laboratory Department (ACL) – Total metals digestion specified in Procedure CCP-TP-183 Equipment – MW-4 (Cycle 18A)	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A
Processes				
N/A	Generation-Level Data Validation and Verification	DEBRIS (S5000) SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	Yes
N/A	Sample Management as described in Procedure CCP-TP-180	SOILS/GRAVEL (S4000) HOMOGENEOUS SOLIDS (S3000)	Yes	N/A

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
N/A	SUMMA Canister Cleaning for generator/storage sites HSG sample collection, as described in Procedure CCP-TP-178	DEBRIS (S5000)	Yes	N/A
N/A	Quality Assurance Program	N/A	Yes	Yes
Deactivated Equipment				
WIPP#	Site Equipment #	Site Description	Date Deactivated	
12HE2	GC/MS-F	ECL – Headspace gas volatile organic compounds specified in Procedure CCP-TP-175	May 2010	
12HE5	GC-1	ECL – Headspace gas volatile organic compounds specified in Procedure CCP-TP-173	May 2011	
12HE9	GC-7	Environmental Chemistry Lab – Headspace gas volatile organic compounds specified in Procedure CCP-TP-173	May 2011	