



ANALYTICAL REPORT

PROJECT NO. RFP-CBA-022

HEM SAHEM00297

Lot #: F9A150281

Gerry Rood

Westinghouse Electric Company
3300 State Road P
Festus, MO 63028

TESTAMERICA LABORATORIES, INC.

Jerry Everett
Project Manager

February 9, 2009

Case Narrative
LOT NUMBER: F9A150281

This report contains the analytical results for the six samples received under chain of custody by TestAmerica St. Louis on January 15, 2009. These samples are associated with your HEM SAHEM00297 project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Isotopic Uranium Method EML A-01-R MOD

The samples require an additional dilution due to high activity. The Blank and LCS samples are contaminated with Uranium. Samples were sent back for re-extraction. The re-extracted sample results are acceptable and will be reported.

Affected Samples:

F9A150281 (1): S0027	F9A150281 (4): S0030
F9A150281 (2): S0028	F9A150281 (5): S0031
F9A150281 (3): S0029	F9A150281 (6): S0032

Technetium-99 Method EML TC-02-RC MOD

The LCS recovery is outside the upper QC limits, indicating a potential positive bias for the analyte. The sample duplicate %RPD was > 40% and RER was >1.0. Samples were sent back for re-extraction.

The re-extracted results yielded an acceptable LCS recovery. The sample and duplicate reanalysis yielded similar results indicating a matrix effect. The sample matrix is heterogeneous. The re-extracted results are reported.

Affected Samples:

F9A150281 (1): S0027	F9A150281 (4): S0030
F9A150281 (2): S0028	F9A150281 (5): S0031
F9A150281 (3): S0029	F9A150281 (6): S0032

METHODS SUMMARY**F9A150281**

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Percent Moisture	MCAWW 160.3 MOD	MCAWW 160.3 MOD
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

F9A150281

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
K5WC9	001	S0027	01/07/09	
K5WDA	002	S0028	01/07/09	
K5WDC	003	S0029	01/07/09	
K5WDD	004	S0030	01/07/09	
K5WDE	005	S0031	01/07/09	
K5WDF	006	S0032	01/07/09	

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Westinghouse Electric Company LLC

Client Sample ID: S0027

General Chemistry

Lot-Sample #...: F9A150281-001
Date Sampled...: 01/07/09
% Moisture.....: 19

Work Order #...: K5WC9
Date Received...: 01/15/09

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	18.6	0.10	%	MCAWW 160.3 MOD	01/16-01/17/09	9016231
		Dilution Factor: 1		Analysis Time...: 00:00	MDL.....:	

Westinghouse Electric Company LLC

Client Sample ID: S0028

General Chemistry

Lot-Sample #....: F9A150281-002 Work Order #....: K5WDA Matrix.....: SOLID
 Date Sampled....: 01/07/09 Date Received...: 01/15/09
 % Moisture.....: 18

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Percent Moisture	18.0	0.10	%	MCAWW 160.3 MOD	01/16-01/17/09	9016231
Dilution Factor: 1				Analysis Time...: 00:00	MDL.....:	

Westinghouse Electric Company LLC

Client Sample ID: S0029

General Chemistry

Lot-Sample #...: F9A150281-003
Date Sampled...: 01/07/09
% Moisture.....: 17

Work Order #...: K5WDC
Date Received...: 01/15/09

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	16.7	0.10	%	MCAWW 160.3 MOD	01/16-01/17/09	9016231
		Dilution Factor: 1		Analysis Time...: 00:00	MDL.....:	

Westinghouse Electric Company LLC

Client Sample ID: S0030

General Chemistry

Lot-Sample #...: F9A150281-004 Work Order #...: K5WDD Matrix.....: SOLID
Date Sampled...: 01/07/09 Date Received...: 01/15/09
% Moisture.....: 23

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	22.6	0.10	%	MCAWW 160.3 MOD	01/16-01/17/09	9016231
		Dilution Factor: 1		Analysis Time...: 00:00	MDL.....:	

Westinghouse Electric Company LLC

Client Sample ID: S0031

General Chemistry

Lot-Sample #...: F9A150281-005 Work Order #...: K5WDE Matrix.....: SOLID
Date Sampled...: 01/07/09 Date Received...: 01/15/09
% Moisture.....: 16

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	15.5	0.10	%	MCAWW 160.3 MOD	01/16-01/17/09	9016231
		Dilution Factor: 1		Analysis Time...: 00:00	MDL.....:	

Westinghouse Electric Company LLC

Client Sample ID: S0032

General Chemistry

Lot-Sample #...: F9A150281-006
Date Sampled...: 01/07/09
% Moisture.....: 20

Work Order #...: K5WDF
Date Received...: 01/15/09

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Percent Moisture	19.6	0.10	%	MCAWW 160.3 MOD	01/16-01/17/09	9016231
		Dilution Factor: 1		Analysis Time...: 00:00	MDL.....:	

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F9A150281

Work Order #...: K5WDF-SMP
K5WDF-DUP

Matrix.....: SOLID

Date Sampled...: 01/07/09

Date Received...: 01/15/09

% Moisture.....: 20

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD</u>	<u>LIMIT</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
		<u>RESULT</u>						<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Percent Moisture							SD Lot-Sample #:	F9A150281-006	
	19.6	21.4	%	8.8	(0-30)	MCAWW 160.3 MOD		01/16-01/17/09	9016231
			Dilution Factor: 1			Analysis Time...: 00:00			

Westinghouse Electric Company LLC

Client Sample ID: S0027

Radiochemistry

Lab Sample ID: F9A150281-001
 Work Order: K5WC9
 Matrix: SOLID

Date Collected: 01/07/09 0000
 Date Received: 01/15/09 1600

Parameter	Result	Qual	Count Uncert.	Total Uncert.			Prep Date	Analysis Date
			(2 σ +/-)		RL	MDC		
Iso URANIUM (LONG CT) DOE A-01-R MOD					pCi/g	Batch # 9026147	Yld % 82	
Uranium 234	1160		130	30	10	01/26/09	01/26/09	
Uranium 235/236	67		25	30	9	01/26/09	01/26/09	
Uranium 238	129		32	30	10	01/26/09	01/26/09	
TC-99 by LSC by DOE TC-02-RC Mod.					pCi/g	Batch # 9034160	Yld % 107	
Technetium 99	34.4		3.1	1.0	0.3	02/03/09	02/06/09	

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Westinghouse Electric Company LLC

Client Sample ID: S0027 DUP

Radiochemistry

Lab Sample ID: F9A150281-001X
 Work Order: K5WC9
 Matrix: SOLID

Date Collected: 01/07/09 0000
 Date Received: 01/15/09 1600

Parameter	Result	Qual	Count Uncert.	Total Uncert.	(2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso URANIUM (LONG CT) DOE A-01-R MOD						pCi/g		Batch # 9026147	Yld % 80
Uranium 234	930			110		30	9	01/26/09	01/26/09
Uranium 235/236	88			28		30	9	01/26/09	01/26/09
Uranium 238	135			32		30	4	01/26/09	01/26/09
TC-99 by LSC by DOE TC-02-RC Mod.						pCi/g		Batch # 9034160	Yld % 88
Technetium 99	54.4			4.8		1.0	0.4	02/03/09	02/06/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Westinghouse Electric Company LLC

Client Sample ID: S0028

Radiochemistry

Lab Sample ID: F9A150281-002
 Work Order: K5WDA
 Matrix: SOLID

Date Collected: 01/07/09 0000
 Date Received: 01/15/09 1600

Parameter	Result	Qual	Count Uncert.	Total Uncert.	(2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso URANIUM (LONG CT) DOE A-01-R MOD						pCi/g		Batch # 9026147	Yld % 66
Uranium 234	465			62		18	7	01/26/09	01/26/09
Uranium 235/236	52			19		18	9	01/26/09	01/26/09
Uranium 238	81			21		18	3	01/26/09	01/26/09
TC-99 by LSC by DOE TC-02-RC Mod.						pCi/g		Batch # 9034160	Yld % 104
Technetium 99	70.6			6.1		1.0	0.3	02/03/09	02/06/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Westinghouse Electric Company LLC

Client Sample ID: S0029

Radiochemistry

Lab Sample ID: F9A150281-003
 Work Order: K5WDC
 Matrix: SOLID

Date Collected: 01/07/09 0000
 Date Received: 01/15/09 1600

Parameter	Result	Qual	Count Uncert.	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso URANIUM (LONG CT) DOE A-01-R MOD					pCi/g		Batch # 9026147	Yld % 77
Uranium 234	763		99	30	12	01/26/09	01/26/09	
Uranium 235/236	51		23	30	10	01/26/09	01/26/09	
Uranium 238	102		29	30	8	01/26/09	01/26/09	
TC-99 by LSC by DOE TC-02-RC Mod.					pCi/g		Batch # 9034160	Yld % 99
Technetium 99	40.9		3.6	1.0	0.4	02/03/09	02/06/09	

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Westinghouse Electric Company LLC

Client Sample ID: S0030

Radiochemistry

Lab Sample ID: F9A150281-004
 Work Order: K5WDD
 Matrix: SOLID

Date Collected: 01/07/09 0000
 Date Received: 01/15/09 1600

Parameter	Result	Qual	Count Uncert.	Total Uncert.	(2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso URANIUM (LONG CT) DOE A-01-R MOD						pCi/g		Batch # 9026147	Yld % 76
Uranium 234	621			71		15	6	01/26/09	01/26/09
Uranium 235/236	57			17		15	5	01/26/09	01/26/09
Uranium 238	197			32		15	4	01/26/09	01/26/09
TC-99 by LSC by DOE TC-02-RC Mod.						pCi/g		Batch # 9034160	Yld % 93
Technetium 99	46.6			4.1		1.0	0.4	02/03/09	02/06/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Westinghouse Electric Company LLC

Client Sample ID: S0031

Radiochemistry

Lab Sample ID: F9A150281-005
 Work Order: K5WDE
 Matrix: SOLID

Date Collected: 01/07/09 0000
 Date Received: 01/15/09 1600

Parameter	Result	Qual	Count Uncert.	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso URANIUM (LONG CT) DOE A-01-R MOD					pCi/g	Batch # 9026147	Yld % 86	
Uranium 234	980			120	40	10	01/26/09	01/26/09
Uranium 235/236	70			28	40	14	01/26/09	01/26/09
Uranium 238	113			33	40	11	01/26/09	01/26/09
TC-99 by LSC by DOE TC-02-RC Mod.					pCi/g	Batch # 9034160	Yld % 98	
Technetium 99	41.0			3.7	1.0	0.4	02/03/09	02/06/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Westinghouse Electric Company LLC

Client Sample ID: S0032

Radiochemistry

Lab Sample ID: F9A150281-006
 Work Order: K5WDF
 Matrix: SOLID

Date Collected: 01/07/09 0000
 Date Received: 01/15/09 1600

Parameter	Result	Qual	Count Uncert.	Total Uncert.	(2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Isotopes	URANIUM (LONG CT)	DOE A-01-R MOD				pCi/g		Batch # 9026147	Yld % 88
Uranium 234	18000			1600		90	50	01/26/09	01/26/09
Uranium 235/236	950			170		90	40	01/26/09	01/26/09
Uranium 238	1540			220		90	30	01/26/09	01/26/09
TC-99 by LSC by DOE TC-02-RC Mod.						pCi/g		Batch # 9034160	Yld % 96
Technetium 99	245			21		1	0.4	02/03/09	02/06/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F9A150281
 Matrix: SOLID

Parameter	Result	Qual	Count Uncert.	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Iso URANIUM (LONG CT) DOE A-01-R MOD				pCi/g	Batch #	9026147	Yld % 66	F9A260000-147B
Uranium 234	0.067	J		0.046	0.100	0.042	01/26/09	01/26/09
Uranium 235/236	0.036	J		0.036	0.100	0.024	01/26/09	01/26/09
Uranium 238	0.028	U		0.029	0.100	0.031	01/26/09	01/26/09
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g	Batch #	9034160	Yld % 104	F9B030000-160B
Technetium 99	-0.04	U		0.20	1.00	0.35	02/03/09	02/06/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F9A150281
 Matrix: SOLID

Parameter	Spike Amount	Result	Count Uncert. (2 σ +/-)	Total Uncert.	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Iso URANIUM (LONG CT) DOE A-01-R MOD			pCi/g	A-01-R MOD				F9A260000-147C
Uranium 234	19.6	16.9		2.8	0.5	81	86	(69 - 125)
Uranium 238	19.6	17.3		2.8	0.4	81	89	(68 - 121)
Batch #:	9026147				Analysis Date:	01/26/09		
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	TC-02-RC MOD				F9B030000-160C
Technetium 99	33.3	26.5		2.4	0.3	105	80	(57 - 111)
Batch #:	9034160				Analysis Date:	02/06/09		

NOTE(S)

MDC is determined by instrument performance only
 Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F9A150281
 Matrix: SOLID

Date Sampled: 01/07/09
 Date Received: 01/15/09

Parameter	SAMPLE Result	Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ +/-)	% Yld	QC Sample ID Precision
Iso URANIUM (LONG CT) DOE A-01-R MOD			pCi/g	A-01-R MOD			F9A150281-001
Uranium 234	1160	130	82	930	110	80	22 %RPD
Uranium 235/236	67	25	82	88	28	80	27 %RPD
Uranium 238	129	32	82	135	32	80	5 %RPD
	Batch #:	9026147	(Sample)	9026147	(Duplicate)		
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	TC-02-RC MOD			F9A150281-001
Technetium 99	34.4	3.1	107	54.4	4.8	88	45 %RPD
	Batch #:	9034160	(Sample)	9034160	(Duplicate)		

NOTE(S)

Data are incomplete without the case narrative.
 Calculations are performed before rounding to avoid round-off error in calculated results

F9A150281**CLIENT ANALYSIS SUMMARY**

Storage Loc:

RAD

Project Manager: JAE

Quote #: 79676

SDG:

Date Received:

2009-01-15

Project: RFP-CBA-022

HEM SAHEM00297

Analytical Due Date:

2009-02-02

PO#: SAHEM00297

Report to: Gerry Rood

Report Due Date:

2009-02-05

Client: 1422664 Westinghouse Electric Company LLC

Report Type: X

#SMPS in LOT: 6

EDD Code: 00

Sample Control- Please log in each COC line item and associated bag sample as a separate sample. If a bag is marked for QC enter it as a separate sample. All bags must be trackable for sample return purposes. Bags marked as QC represent a DUP of the parent sample for RAD parameter. Please use a 0.6L Marinelli geometry use

Try to reach 1.0 pCi/g on Th-234 for clean samples. These sample are DOD-QSM therefore follow Memo # 4.

These samples are to be considered high rad levels until RAD Screening.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
1	S0027			2009-01-07 / 0	K5WC9	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	SOLID, RAD SCREEN, RAD SCREEN, Special L	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2M	EML A-01-R MOD	SOLID, A-01-R MOD, Iso URANIUM (LONG CT)	J2	Extraction Chromatography - Sequential Actinides	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	SOLID, TC-02-RC MOD, TC-99 by LSC by DOE	IM	TC-99 by Extraction Chromatography Resin	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX WM	MCAW W 160.3 MOD	SOLID, 160.3 MOD, Percent Moisture	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: Z	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
2	S0028			2009-01-07 / 0	K5WDA	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	SOLID, RAD SCREEN, RAD SCREEN, Special L	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2M	EML A-01-R MOD	SOLID, A-01-R MOD, Iso URANIUM (LONG CT)	J2	Extraction Chromatography - Sequential Actinides	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	SOLID, TC-02-RC MOD, TC-99 by LSC by DOE	IM	TC-99 by Extraction Chromatography Resin	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX WM	MCAW W 160.3 MOD	SOLID, 160.3 MOD, Percent Moisture	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: Z	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
3	S0029			2009-01-07 / 0	K5WDC	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	SOLID, RAD SCREEN, RAD SCREEN, Special L	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2M	EML A-01-R MOD	SOLID, A-01-R MOD, Iso URANIUM (LONG CT)	J2	Extraction Chromatography - Sequential Actinides	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	SOLID, TC-02-RC MOD, TC-99 by LSC by DOE	IM	TC-99 by Extraction Chromatography Resin	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX WM	MCAW W 160.3 MOD	SOLID, 160.3 MOD, Percent Moisture	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: Z	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
4	S0030			2009-01-07 / 0	K5WDD	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	SOLID, RAD SCREEN, RAD SCREEN, Special L	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2M	EML A-01-R MOD	SOLID, A-01-R MOD, Iso URANIUM (LONG CT)	J2	Extraction Chromatography - Sequential Actinides	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	SOLID, TC-02-RC MOD, TC-99 by LSC by DOE	IM	TC-99 by Extraction Chromatography Resin	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX WM	MCAW W 160.3 MOD	SOLID, 160.3 MOD, Percent Moisture	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: Z	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
5	S0031			2009-01-07 / 0	K5WDE	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	SOLID, RAD SCREEN, RAD SCREEN, Special L	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2M	EML A-01-R MOD	SOLID, A-01-R MOD, Iso URANIUM (LONG CT)	J2	Extraction Chromatography - Sequential Actinides	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	SOLID, TC-02-RC MOD, TC-99 by LSC by DOE	IM	TC-99 by Extraction Chromatography Resin	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX WM	MCAW W 160.3 MOD	SOLID, 160.3 MOD, Percent Moisture	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: Z	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
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TestAmerica - St. Louis

Logged in by:

WILSONS

2009-01-16

7:54:17

printed on: Friday, January 16, 2009 09:43 AM

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LOT# F9A150281

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F9A150281**CLIENT ANALYSIS SUMMARY**

Storage Loc:

RAD

Project Manager: JAE

Quote #: 79676

SDG:

Date Received:

2009-01-15

Project: RFP-CBA-022

HEM SAHEM00297

Analytical Due Date:

2009-02-02

PO#: SAHEM00297

Report to: Gerry Rood

Report Due Date:

2009-02-05

Client: 1422664 Westinghouse Electric Company LLC

Report Type: X

#SMPS in LOT: 6

EDD Code: 00

Sample Control- Please log in each COC line item and associated bag sample as a separate sample. If a bag is marked for QC enter it as a separate sample. All bags must be trackable for sample return purposes. Bags marked as QC represent a DUP of the parent sample for RAD parameter. Please use a 0.6L Marinelli geometry use

Try to reach 1.0 pCi/g on Th-234 for clean samples. These sample are DOD-QSM therefore follow Memo # 4.

These samples are to be considered high rad levels until RAD Screening.

6 S0032 2009-01-07 / 0 K5WDF SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	SOLID, RAD SCREEN, RAD SCREEN, Special L	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2M EML	A-01-R MOD	SOLID, A-01-R MOD, Iso URANIUM (LONG CT)	J2	Extraction Chromatography - Sequential Actinides	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX 2Q EML	TC-02-RC MOD	SOLID, TC-02-RC MOD, TC-99 by LSC by DOE	JM	TC-99 by Extraction Chromatography Resin	DQ	DOD QSM V3	PROT: A	WRK LOC	06
XX WM	MCAW W MOD	SOLID, 160.3 MOD, Percent Moisture	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: Z	WRK LOC	06



Westinghouse

COR 142

CHAIN OF CUSTODY RECORD

Project Name: Westinghouse Electric Company				Comp (C) or Grab (G)	Requested Analysis										Total Containers	Laboratory Name: Test America Laboratory				
Contact Person: Gerry Rood					VOC's	Tc-99	Isotopic Uranium	Gamma Spec.	Gross Alpha/Beta	Oil and Grease	Total Suspended Solids	Fluoride	Contact T. Vitkus						Laboratory Address: 13715 Rider Trail North Barth City, MO. 63045	
Phone Number: 314-810-3382																			Phone No: Lab 314-298-8566 Fax 314-298-8757	
Sampler (Signature): See "ORISE" chain of custody Printed Name: T. Vitkus/ M. Jadick																			Laboratory Contact Person: Jerry Everett	
																			Turn Around Time (circle) <i>See Remarks</i> Normal Rush	
Sample ID	Date Collected	Time Collected	Matrix															Remarks		
S0027	1/7/09	A.M.	Soil	G								X						Contact T. Vitkus for turn around time		
S0028	1/7/09	A.M.	Soil	G								X								
S0029	1/7/09	A.M.	Soil	G								X								
S0030	1/7/09	A.M.	Soil	G								X								
S0031	1/7/09	A.M.	Soil	G								X								
S0032	1/7/09	A.M.	Soil	G								X								
Relinquished by: <i>Tommy Moad</i>		Date/Time 01/12/09	Received by: <i>Sherrill</i>		Date/Time 11/12/09	Total Number of Containers: 6		Cooler Temperature: N/A												
Company Name: WEC		1100	Company Name: Test America		1100	Cooler ID: 0112-01		Shipper and Number: N/A												
Relinquished by: <i>Sherrill</i>		Date/Time 1/12/09	Received by: <i>S. M.</i>		Date/Time 1/12/09	Comments: COC# 011209-01 Sample provided to W. E. C. by "ORISE" For transfer to Test America														
Company Name: Test America		12:30	Company Name: TA		1230															
Relinquished by:		Date/Time	Received by:		Date/Time	Verified by: <i>[Signature]</i> 1/12/09														
Company Name:			Company Name:																	

ORISE
P.O. BOX 117
OAK RIDGE, TN 37830

CHAIN OF CUSTODY
RECORD

EMERGENCY CONTACTS
Survey Projects Manager (865) 576-5073
Laboratory Manager (865) 241-3242
FTD-TSS (865) 241-5947

Sampler (s) T. Vitkus M. Jadick

Project/Task Name 1768 Hematite Decommissioning Project

SAMPLE NUMBER	SAMPLE MATRIX	SAMPLE INFORMATION	COLLECTED		REMARKS
			DATE	TIME	
50027	Soil	Judgmental location	1/7/2009	A.M.	
50028	↓	Duplicate Samples	↓	↓	
50029		for comparative			
50030		analyses			
50031		↓			
50032		↓			
<div>DU</div> <div>1/7/2009</div>					

Relinquished By	Received By	Date	Time	Received in Good Condition?	
1. Sampler: Mark Jadick	Clark Evers	1/7/09	1330	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
2.				Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.				Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.				Yes <input type="checkbox"/>	No <input type="checkbox"/>

Shipping Instructions: Include a copy of form clearly marked "Copy" in shipping container.

If shipping samples, enter carrier name in "Received By" space.

Receiving Instructions: If receiving samples from a carrier, enter the carrier name in "Relinquished By" space.

If integrity of samples and/or sample packaging is in question, note the concern in "Remarks" and enter any further description of the condition below.

Comments: Samples transferred to WEL Chain of Custody Number: 011209-01 Cooler # 0112-01
See Attached.

APPENDIX A RADIOLOGICAL SURVEY REPORT

COPY

Purpose of Survey: Survey of Sample Cooler #0112-01 containing 6 Splits from ORISE Samples 1/12/09								Log Number		0016 C 090112	
Surveyed by: <i>[Signature]</i> 1-12-09								Reviewed By: <i>[Signature]</i> 1/12/09			
Instrument	Serial Number	Calibration Due	Probe	Probe Area (cm ²)	Alpha Bkgd	Alpha Efficiency	Alpha MDA (dpm)	Beta Bkgd	Beta Eff	Beta MDA (dpm)	Date:
Tennelec LB	1	6/11/2009	GFPC	20.3	0.73	24.1%	23.12	2.07	30.6%	24.59	Time: 8:32
Ludlum 19	218144	4/9/2009	Internal NaI	1 x 1 NaI	N/A	N/A	N/A	N/A	N/A	N/A	Smear Area ~ 100 cm ²
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Batch # 4350
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RWP: N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Misc. N/A

Remarks: N/A

#	Description	Removable Alpha		Removable Beta		Total Alpha		Total Beta		By Dose Rate		
		Net CPM	DPM / 100cm ²	Net CPM	DPM / 100cm ²	Gross CPM	DPM / 100cm ²	Gross CPM	DPM / 100cm ²	Contact μ R/hr	Gen Area μ R/hr	Limit Exceeded
1	Cooler #0112-01: Top	0.21	<MDA	4.86	<MDA	N/A	N/A	N/A	N/A	7.00	4.00	N/A N/A
2	Cooler #0112-01: Side	0.22	<MDA	3.86	<MDA	N/A	N/A	N/A	N/A	7.00	4.00	N/A N/A
3	Cooler #0112-01: End	17.71	73.5	51.25	167.7	N/A	N/A	N/A	N/A	6.00	4.00	N/A N/A
4	Cooler #0112-01: Side	-0.79	<MDA	5.19	<MDA	N/A	N/A	N/A	N/A	8.00	5.00	N/A N/A
5	Cooler #0112-01: End	2.22	<MDA	4.22	<MDA	N/A	N/A	N/A	N/A	10.00	5.00	N/A N/A
6	Cooler #0112-01: Bottom	0.24	<MDA	2.86	<MDA	N/A	N/A	N/A	N/A	15.00	8.00	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A

α - loose alpha
 β - loose beta



Westinghouse

COPY

CHAIN OF CUSTODY RECORD

Project Name: Westinghouse Electric Company				Comp (C) or Grab (G)	Requested Analysis														Total Containers	Laboratory Name: Test America Laboratory	
Contact Person: Gerry Rood					VOC's	Tc-99	Isotopic Uranium	Gamma Spec.	Gross Alpha/Beta	Oil and Grease	Total Suspended Solids	Fluoride	Contact T. Vitkus							Laboratory Address: 13715 Rider Trail North Earth City, MO. 63045	
Phone Number: 314-810-3382																				Phone No: Lab 314-298-8566 Fax 314-298-8757	
Sampler (Signature): See "ORISE" chain of custody Printed Name: T. Vitkus/ M. Jadick																				Laboratory Contact Person: Jerry Everett	
Sample ID	Date Collected	Time Collected	Matrix																Turn Around Time (circle) Normal Rush		
S0027	1/7/09	A.M.	Soil	G								X						1	Contact T. Vitkus for turn around time		
S0028	1/7/09	A.M.	Soil	G								X						1			
S0029	1/7/09	A.M.	Soil	G								X						1			
S0030	1/7/09	A.M.	Soil	G								X						1			
S0031	1/7/09	A.M.	Soil	G								X						1			
S0032	1/7/09	A.M.	Soil	G								X						1			
Relinquished by:	Date/Time	Received by:		Date/Time	Total Number of Containers: 6				Cooler Temperature: N/A												
Company Name:		Company Name:			Cooler ID: 0112-01				Shipper and Number: N/A												
Relinquished by:	Date/Time	Received by:		Date/Time	Comments: COC# 011209-01 Sample provided to W. E. C. by "ORISE"																
Company Name:		Company Name:			For transfer to Test America																
Relinquished by:	Date/Time	Received by:		Date/Time	Verified by:																
Company Name:		Company Name:																			

ORISE
P.O. BOX 117
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CHAIN OF CUSTODY
RECORD

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Project/Task Name 1768 Hematite Decommissioning Project

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Comments: Samples Transferred to WEL Chain of Custody Number: 011209-01 Cooler # 011201
See Attached.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F9A150281

CONDITION UPON RECEIPT FORM

Client: WestinghouseQuote No: 79676COC/RFA No: 011209-01Initiated By: BDDate: 1/12/09Time: 1230

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: NTMultiple Packages: Y ☒ N

Shipping # (s):*

Sample Temperature (s):**

1. _____	6. _____	1. <u>ambient</u>	6. _____
2. _____	7. _____	2. _____	7. _____
3. _____	8. _____	3. _____	8. _____
4. _____	9. _____	4. _____	9. _____
5. _____	10. _____	5. _____	10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on the cooler?	8. <input type="radio"/> Y <input checked="" type="radio"/> N	Are there custody seals present on bottles?
2. <input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3. <input checked="" type="radio"/> Y <input type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was sample received with proper pH? (If not, make note below)
4. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?	11. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?
5. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6. <input type="radio"/> Y <input checked="" type="radio"/> N	Was sample received broken?	13. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was Internal COC/Workshare received?
7. <input checked="" type="radio"/> Y <input type="radio"/> N	Is sample volume sufficient for analysis?	14. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was pH taken by original TestAmerica lab?

† For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes: * Sample ID's on bags all begin w/ 1768. Per JE log per COC.

Corrective Action:

☐ Client Contact Name: _____

Informed by: _____

☐ Sample(s) processed "as is"☐ Sample(s) on hold until: _____

If released, notify: _____

Project Management Review: Jerry SmithDate: 1-16-09

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

LOT# F9A150281

ADMIN-0004, REVISED 10/21/08 \SIsrv01\QA\FORMS\ST-LOUIS\ADMIN\ADMIN004 rev11.doc