

Westinghouse Electric Company Nuclear Fuel Columbia Fuel Fabrication Facility 5801 Bluff Road Hopkins, South Carolina 29061 USA

SCDHEC, BLWM Kim Kuhn 2600 Bull Street Columbia, SC 29201 Direct tel: 803.647.1920 Direct fax: 803.695.3964 e-mail: joynerdp@westinghouse.com Your ref: Our ref: LTR-RAC-20-68

August 12, 2020

Subject: July 2020 CA Progress Report

Ms. Kuhn:

In accordance with Item 19 of Consent Agreement (CA) 19-02-HW, this progress report is being submitted to you, including the following requested information:

- (a) a brief description of the actions which Westinghouse has taken toward achieving compliance with the Consent Agreement during the previous month;
- (b) results of sampling and tests, in tabular summary format received by Westinghouse during the reporting period;
- (c) a brief description of all actions which are scheduled for the next month to achieve compliance with the Consent Agreement, and other information relating to the progress of the work as deemed necessary or requested by the Department; and
- (d) information regarding the percentage of work completed and any delays encountered or anticipated that may affect the approved schedule for implementation of the terms of the Consent Agreement, and a description of efforts made to mitigate delays or avoid anticipated delays.

In response to the above requirements, the following is being reported to the Department since the last progress report on **July 8, 2020**:

- (a) Actions during the previous month:
   Westinghouse began implementation of the Final Remedial Investigation (RI) Work Plan on 6/10/19. To comply with Item 4 of the CA, the following actions were completed this month.
  - Submitted a response to SCDHEC's comments (May 4, 2020 letter) on the *Interim* RI Data Summary Report. The Westinghouse response to SCDHEC comments was submitted on July 15, 2020 in LTR-RAC-20-62 and also included:
    - o CFFF Soil Baseline Activity Statistical Analysis (CN-MC-19-005, Rev 0)
    - Geologic cross sections and boring logs for the four Black Mingo Aquifer wells

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- o *Final* Interim RI Data Summary Report
- Submitted the Technetium-99 Source Investigation Report for Phases I and II in LTR-RAC-20-64 dated July 30, 2020
- Submitted the HFSS#1 Soil Sampling Assessment Report in LTR-20-65 dated July 30, 2020
- Hosted a webinar to discuss the proposed scope for the RI Phase II Work Plan on July 30, 2020
- Completed the following activities to support the Southern Storage Area (SSA) Operable Unit (OU) Work Plan:
  - Continued wet combustible material (WCM) drum removal from 3 intermodal containers (C-37, C-62, and C-34) that have been on hold. Drums potentially containing perchloroethylene were segregated and stored.
    - Intermodal container C-37 was safely emptied of its contents on 7/10/2020.
      - Health physics radiological surveys of the pallets and the intermodal container flooring indicated no environmental impact.
    - Intermodal container C-62 was safely emptied of its contents on 7/16/2020.
      - Health physics radiological surveys of the pallets and the intermodal container flooring indicated no environmental impact.
    - Intermodal container C-34 was safely emptied of its contents on 8/10/2020.
      - Health physics surveys of the secondary container flooring indicated two small areas of impact, both less than 1-foot in diameter, and a 4 ft x 1.5 ft section of the right-side wall. The impacted areas were painted over to ensure the material could not be transferred to other locations. While there was no evidence of environmental impact, bias soil sampling will be performed in these areas once the container is removed.
  - Ten (10) of the original eleven (11) intermodal containers with drums potentially containing perchloroethylene have been emptied since April 14, 2020.
- (b) Results of sampling and tests:
  - On June 29, 2020, soil sampling was conducted under a group of intermodal containers (C-41, C-56, C-60) removed from the SSAOU on June 23, 2020. Tabulated analytical results of the soil sampling, along with a graphic are included as **Attachment A**. The associated laboratory reports are included as **Attachment B**.
    - Systematic and bias soil sampling was conducted in accordance with the approved SSAOU Soil Sampling Work Plan.
    - o All results were below the residential screening levels
    - The VOC results were non-detectable for tetrachloroethylene and its daughter products (trichloroethylene, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, and vinyl chloride) for this round of soil sampling in the SSAOU.
- (c) Brief description of all actions which are scheduled for the next month:
  - In accordance with **Item 4** of the CA, Westinghouse will continue to implement the Work Plan to include the following actions:
    - Continue WCM drum removal from the 1 remaining intermodal container; segregate and store drums potentially containing perchloroethylene

- Host a follow-up webinar with DHEC to further discuss the proposed scope of Tc-99 sampling within the RI Phase II Work Plan
- Continue to work on the RI Phase II Work Plan for submission to DHEC on or before September 15, 2020
- o Begin development of the sanitary lagoon sludge characterization work plan

(d) Percentage of work completed and any delays encountered or anticipated:

• Assessment activities identified in the Final Remedial Investigation Work Plan and associated addendums have been completed, with a summary report submitted.

Respectfully,

Diana P. Joyner Principal Environmental Engineer Westinghouse Electric Company, CFFF 803.497.7062 (m)

Cc: N. Parr, Environmental Manager J. Ferguson, EH&S Manager J. Grant, AECOM Project Manager ENOVIA Records

#### Attachment A

#### Southern Storage Area Operable Unit Soil Sampling Results

Tabulated Soil Sampling Results for the following Intermodal Containers/Sealands:

C-41	C-56	C-60
0 11	0.50	0.00

Drawing with Soil Sampling Results

				An	alyte (pCi/	g)				SOF	SOF		mg/kg
Sample ID	U-234		U-235 DL	U-235	U-238	Sum U		Tc-99 DL	Tc-99	Resid.	Ind.		Fluoride
C-41-1	1.33	<	0.173	0.136	0.679	2.15	<	0.751	0	0.17	0.01		1.31
C-41-2	1.73	<	0.116	0.0773	0.868	2.68	<	0.791	0	0.20	0.01		1.17
C-41-3	0.899	<	0.280	0	0.577	1.48	<	0.759	0	0.11	0.00		1.03
C-41-4	0.886	<	0.258	0	1.06	1.95	<	0.762	0	0.14	0.01	<	0.378
C-45-5	1.16	<	0.207	0.0329	1.20	2.39	<	0.708	0	0.18	0.01		1.190
C-56-1	0.994	<	0.261	0.0717	0.870	1.94	<	0.725	0	0.15	0.01	<	0.362
C-56-2	1.07	<	0.259	0.0712	1.01	2.15	<	0.708	0	0.16	0.01		0.443
C-56-3	1.07	<	0.242	0	1.56	2.63	<	0.786	0	0.19	0.01		1.91
C-56-4	1.35	<	0.236	0.0108	0.890	2.25	<	0.759	0	0.17	0.01		1.69
C-56-5	1.51	<	0.263	0.127	1.15	2.79	<	0.759	0	0.21	0.01		3.43
C-60-1	1.34	<	0.249	0.216	1.47	3.03	<	0.751	0	0.24	0.01	<	0.383
C-60-2	1.29	<	0.395	0.0299	1.18	2.50	<	0.768	0	0.19	0.01	<	0.369
C-60-3	0.957	<	0.227	0.0622	1.14	2.16	<	0.749	0	0.16	0.01		0.957
C-60-4	1.12	<	0.246	0.0113	0.685	1.82	<	0.761	0	0.14	0.00		0.753
C-60-5	0.851			0.150	1.02	2.02	<	0.754	0	0.16	0.01		1.68

#### Notes:

Negative values reflected as zero

Residential Limits in Soil (per RA-433)									
U234	13 pCi/g								
U235	8 pCi/g								
U238	14 pCi/g								
Tc-99	19 pCi/g								
Fluoride	600 mg/kg								
PCE	0.0023 mg/kg								

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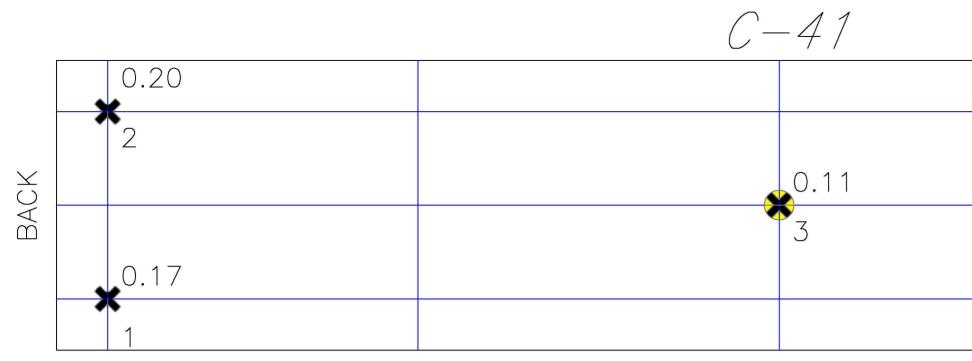
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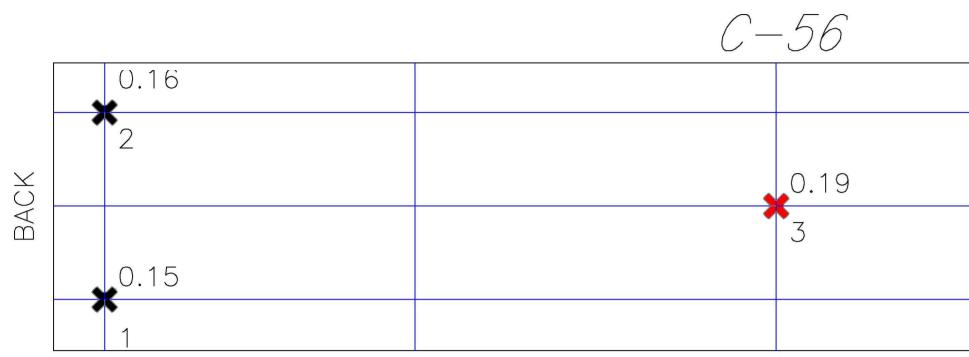
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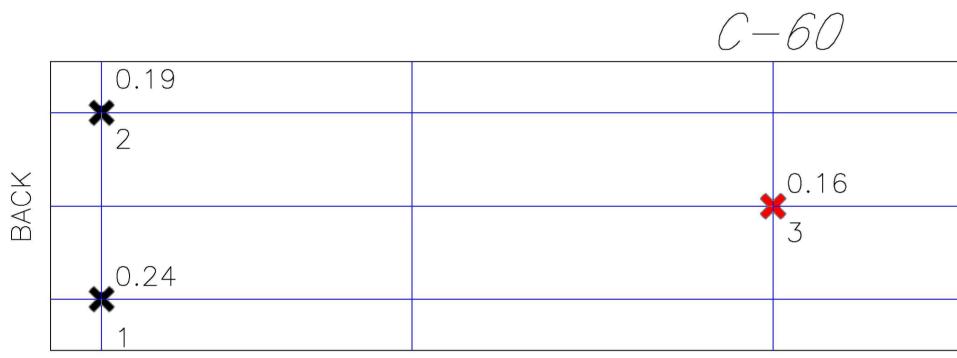
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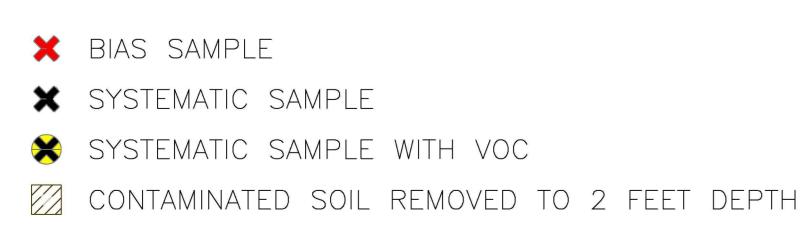
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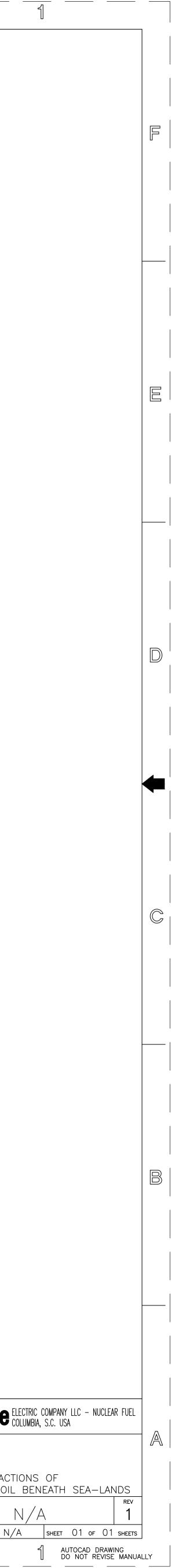
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		PROPRIETARY CLASS 2	DFTM W.D. HERLONG CHKD	01/28 2020		) <b>Westi</b> i	nghouse	
		NS INFORMATION PROPRIETARY TO COMPANY LLC - NUCLEAR FUEL;	APPD		AREA /	PROCESS	<u> </u>	
	IT IS SUBMITTED IN C	ONFIDENCE AND IS TO BE USED	APPD					
		DSE FOR WHICH IT IS FURNISHED,	APPD		TITLE			
	SUCH INFORMATION	APPD		ISC	SUM OF ISOTOPIC URANIUM ININ			
		OR USED OTHERWISE IN WHOLE OR	APPD			REQN NO	DWG NO	
		R WRITTEN AUTHORIZATION OF THE	APPD					
			APPD		SCALE	N/A	DWG TYPE N	
3			2					

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## Attachment B

Southern Storage Area Operable Unit Soil Sampling- GEL Analytical Results

C-41 C-56 C-60

GEL Analytical Results Sampling conducted: June 29, 2020 GEL Work Order: 514924 Report Date: July 8, 2020



a member of The GEL Group INC



PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178

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July 08, 2020

Ms. Cynthia Logsdon Westinghouse Electric Company, LLC PO Drawer R Columbia, South Carolina 29205

Re: ENV-CONSENTA-4500778461 Work Order: 514924

Dear Ms. Logsdon:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on July 01, 2020. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4443.

Sincerely,

Ludy Fabra

Lindsay Fabra Project Manager

Purchase Order: 4500778461, Ln 1 Enclosures

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#### Certificate of Analysis Report for

WNUC009 Westinghouse Electric Co, LLC

Client SDG: 514924 GEL Work Order: 514924

#### The Qualifiers in this report are defined as follows:

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Lindsay Fabra.

Ludy Fabra Reviewed by



a member of The GEL Group INC



PO Box 30712 Charleston, SC 29417

2040 Savage Road Charleston, SC 29407 P 843.556.8171 **F** 843.766.1178

#### **Analytical Detections Summary**

<b>SDG/Report#</b> 514924			Client		Westinghouse Ele	ctric Co, LLC	
Project ID	ENV-CO	NSENTA-4500778461					
GEL ID Client	Sample ID	Method	CAS	Analy	rte	Result	Q
514924001 C-41-1		DOE EML HASL-300, U-02-RC	7440-61-1	Uraniu	um-238	0.679 pCi/g	
		Modified	13968-55-3/1 3966-29-5	Uraniu	um-233/234	1.33 pCi/g	
		SW846 3050B/6020B	7440-61-1		um-238	1170 ug/kg	
		SW846 9056A	16984-48-8	Fluorio	de	1.31 mg/kg	
514924002 C-41-2		DOE EML HASL-300, U-02-RC	7440-61-1	Uraniu	um-238	0.868 pCi/g	
		Modified	13968-55-3/1 3966-29-5	Uraniu	um-233/234	1.73 pCi/g	
		SW846 9056A	16984-48-8	Fluorio	de	1.17 mg/kg	
514924003 C-41-3		DOE EML HASL-300, U-02-RC	7440-61-1	Uraniu	um-238	0.577 pCi/g	
		Modified	13968-55-3/1	Uraniu	um-233/234	0.899 pCi/g	
			3966-29-5				
		SW846 8260D	67-64-1	Aceto	ne	4.6 ug/kg	
514924004 C-41-4		DOE EML HASL-300, U-02-RC	7440-61-1	Uraniu	um-238	1.06 pCi/g	
		Modified	13968-55-3/1 3966-29-5	Uraniu	um-233/234	0.886 pCi/g	
514924005 C-41-5		DOE EML HASL-300, U-02-RC	7440-61-1	Uraniu	um-238	1.2 pCi/g	
		Modified	13968-55-3/1 3966-29-5	Uraniu	um-233/234	1.16 pCi/g	
		SW846 9056A	16984-48-8	Fluorio	de	1.19 mg/kg	
514924006 C-56-1		DOE EML HASL-300, U-02-RC	7440-61-1	Uraniu	um-238	0.87 pCi/g	
		Modified	13968-55-3/1 3966-29-5	Uraniu	um-233/234	0.994 pCi/g	
		SW846 3050B/6020B	7440-61-1	Uraniu	um-238	887 ug/kg	
514924007 C-56-2		DOE EML HASL-300, U-02-RC	7440-61-1	Uraniu	um-238	1.01 pCi/g	
		Modified	13968-55-3/1 3966-29-5	Uraniu	um-233/234	1.07 pCi/g	
514924008 C-56-3		DOE EML HASL-300, U-02-RC	7440-61-1	Uraniu	um-238	1.56 pCi/g	
		Modified	13968-55-3/1 3966-29-5	Uraniu	um-233/234	1.07 pCi/g	
		SW846 8260D	67-64-1	Aceto	ne	5.04 ug/kg	
		SW846 9056A	16984-48-8	Fluorio	de	1.91 mg/kg	
514924009 C-56-4		DOE EML HASL-300, U-02-RC	7440-61-1	Uraniu	um-238	0.89 pCi/g	
		Modified	13968-55-3/1 3966-29-5		um-233/234	1.35 pCi/g	
		SW846 8260D	67-64-1	Aceto	ne	5.46 ug/kg	
		SW846 9056A	16984-48-8	Fluorio	de	1.69 mg/kg	
514924010 C-56-5		DOE EML HASL-300, U-02-RC	7440-61-1	Uraniu	um-238	1.15 pCi/g	
		Modified	13968-55-3/1 3966-29-5	Uraniı	um-233/234	1.51 pCi/g	
		SW846 9056A	16984-48-8	Fluorio	de	3.43 mg/kg	
514924011 C-60-1		DOE EML HASL-300, U-02-RC	7440-61-1	Uraniu	um-238	1.47 pCi/g	
		Modified	13968-55-3/1 3966-29-5	Uraniı	um-233/234	1.34 pCi/g	





## **Analytical Detections Summary**

	924 /-CONSENTA-4500778461	Client	Westinghouse Ele	Westinghouse Electric Co, LLC				
GEL ID Client Samp	le ID Method	CAS	Analyte	Result	Q			
514924012 C-60-2	DOE EML HASL-300, U-02-RC Modified	7440-61-1 13968-55-3/1 3966-29-5	Uranium-238 Uranium-233/234	1.18 pCi/g 1.29 pCi/g				
514924013 C-60-3	DOE EML HASL-300, U-02-RC Modified	7440-61-1 13968-55-3/1 3966-29-5	Uranium-238 Uranium-233/234	1.14 pCi/g 0.957 pCi/g				
	SW846 8260D	67-64-1	Acetone	7.99 ug/kg				
514924014 C-60-4	DOE EML HASL-300, U-02-RC Modified	7440-61-1 13968-55-3/1 3966-29-5	Uranium-238 Uranium-233/234	0.685 pCi/g 1.12 pCi/g				
514924015 C-60-5	DOE EML HASL-300, U-02-RC Modified	7440-61-1 13968-55-3/1 3966-29-5	Uranium-238 Uranium-233/234	1.02 pCi/g 0.851 pCi/g				
	SW846 9056A	15117-96-1/1 3982-70-2 16984-48-8	Uranium-235/236 Fluoride	0.15 pCi/g 1.68 mg/kg				

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## **Certificate of Analysis**

			<u> </u>			a1 y 515			R	eport Dat	te:	July 8,	2020
	Company : Address :		stinghouse Electric Co Drawer R	ompany, LLC									
		Col	umbia, South Carolina	a 29205									
	Contact: Project:		Cynthia Logsdon V-CONSENTA-4500	778461									
	Client Sample ID	: C-4	1-1			Pro	oject:		WNU	C00901			
	Sample ID:	514	924001			Cli	ent ID	:	WNU	C009			
	Matrix:	Soi	l										
	Collect Date:	29-	JUN-20 09:18										
	Receive Date:	01-	JUL-20										
	Collector:	Clie	ent										
	Moisture:	11.0	5%										
Parameter	Qua	ifier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Ion Chroma	atography												
SW846 905	56A Fluoride "Dry	Weigh	t Corrected"										
Fluoride	·	U	1.31	0.383	1.13	mg/kg	9.95	1	LXA2	07/02/20	1244	2016999	1
Metals Ana	alysis-ICP-MS												
	50B/6020B Isotopic	: Uran	ium-234/235/238 "Dr										
Uranium-235		J	10.3	2.07	14.5	ug/kg	91.4		PRB	07/07/20	1808	2016943	2
Uranium-238 Uranium-234		U	1170 ND	13.6 2.07	41.3 10.3	ug/kg ug/kg	91.4 91.4		PRB	07/07/20	2312	2016943	3
	ing Prep Methods v			2.07	10.5	u <sub>5</sub> / K5	71.4	2	IKD	01/01/20	2312	2010745	5
Method	• •	criptio			Analyst	Date	,	Time	- Pr	ep Batch			
SW846 3050E			BS PREP		HH1	07/06/20		1724		16942			
SW846 90564			A Total Anions in Soil		LXA2	07/02/20		0926		16998			
The follow	ving Analytical Me	hods v	were performed:										
Method	Desc	ription	l			A	Analyst	Coi	nments	S			
1		6 90564											
2			3/6020B										
3	SW84	6 30501	3/6020B										
Notes:													

#### Notes:

Column headers are defined as follows:	
DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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## **Certificate of Analysis**

		-			u19515		Report Da	te: July 8,	2020
	Company :	Westinghouse Electric C	Company, LLC	2					
	Address :	PO Drawer R							
		Columbia, South Carolir	na 29205						
	Contact:	Ms. Cynthia Logsdon							
	Project:	ENV-CONSENTA-4500	0778461						
	Client Sample ID:	C-41-2			Pro	ject:	WNUC00901		
	Sample ID:	514924002				ent ID:	WNUC009		
	Matrix:	Soil							
	Collect Date:	29-JUN-20 09:22							
	Receive Date:	01-JUL-20							
	Collector:	Client							
	Moisture:	11.5%							
Parameter	Quali	fier Result	DL	RL	Units	PF D	OF Analyst Date	Time Batch	Method
Ion Chroma	atography								
	66A Fluoride "Dry W	Veight Corrected"							
Fluoride		1.17	0.381	1.12	mg/kg	9.90	1 LXA2 07/02/20	1405 2016999	1
The followi	ing Prep Methods we	ere performed:							
Method	Descr	ription		Analyst	Date	Ti	me Prep Batch		
SW846 9056A	SW846	5 9056A Total Anions in Soil		LXA2	07/02/20	09	26 2016998		
The follow	ing Analytical Meth	ods were performed:							
Method	Descri	ption			A	Analyst C	Comments		
1	SW846	9056A							

#### Notes:

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				ertificate	oi Ana	arysis						
									Report Dat	te:	July 8,	2020
	Company :		stinghouse Electric Con	mpany, LLC								
	Address :	PO I	Drawer R									
		Colı	umbia, South Carolina	29205								
	Contact:		Cynthia Logsdon									
	Project:		V-CONSENTA-45007	78461								
	Client Sample ID:	C-41	1-3			Pro	oject:		WNUC00901			
	Sample ID:		924003				ient ID		WNUC009			
	Matrix:	Soil				Ch		•	WIN0C007			
	Collect Date:		UN-20 09:26									
	Receive Date:		UL-20									
	Collector:	Clie	nt									
	Moisture:	12.3	9%									
Parameter	Qual	ifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
Ion Chroma		-							j			
	56A Fluoride "Dry '	Weight	t Corrected"									
Fluoride	or i nonde Diy	J	1.03	0.368	1.08	mg/kg	9.50	1	LXA2 07/02/20	1432	2016999	1
Volatile Org	oganics	5	1.05	0.500	1.00	ing/kg	2.50		Linit2 01/02/20	1102	2010///	1
	50D Volatiles, Solid	l "Drv	Weight Corrected"									
1,1,1-Trichloro		U	ND	0.268	0.805	ug/kg	0.706	1	MXL2 07/07/20	1841	2017923	2
1,1,2,2-Tetrach		U	ND	0.268	0.805	ug/kg	0.706	1	WINE2 0//0//20	1041	2017725	2
1,1,2-Trichloro		Ŭ	ND	0.268	0.805	ug/kg	0.706					
1,1-Dichloroet		U	ND	0.268	0.805	ug/kg	0.706					
1,1-Dichloroet		U	ND	0.268	0.805	ug/kg	0.706					
1,2,3-Trichloro	obenzene	U	ND	0.268	0.805	ug/kg	0.706	1				
1,2,4-Trichloro	obenzene	U	ND	0.268	0.805	ug/kg	0.706					
	3-chloropropane	U	ND	0.403	0.805	ug/kg	0.706					
1,2-Dibromoet		U	ND	0.268	0.805	ug/kg	0.706					
1,2-Dichlorobe		U	ND	0.268	0.805	ug/kg	0.706					
1,2-Dichloroet		U	ND	0.268	0.805	ug/kg	0.706					
1,2-Dichloropu 1,3-Dichlorobe	•	U U	ND ND	0.268 0.268	0.805 0.805	ug/kg ug/kg	0.706 0.706					
1,3-Dichlorobe		U	ND	0.268	0.805	ug/kg ug/kg	0.700					
1,4-Dioxane	enzene	U	ND	13.4	40.3	ug/kg	0.706					
2-Butanone		U	ND	1.34	4.03	ug/kg	0.706					
2-Hexanone		U	ND	1.34	4.03	ug/kg	0.706					
4-Methyl-2-pe	entanone	U	ND	1.34	4.03	ug/kg	0.706	1				
Acetone			4.60	1.34	4.03	ug/kg	0.706	1				
Benzene		U	ND	0.268	0.805	ug/kg	0.706					
Bromochloron		U	ND	0.268	0.805	ug/kg	0.706					
Bromodichloro	omethane	U	ND	0.268	0.805	ug/kg	0.706					
Bromoform		U	ND	0.268	0.805	ug/kg	0.706					
Bromomethane		U	ND	0.268	0.805	ug/kg	0.706					
Carbon disulfie Carbon tetrach		U U	ND ND	1.34 0.268	4.03 0.805	ug/kg ug/kg	0.706 0.706					
Chlorobenzene		U	ND ND	0.268	0.805	ug/kg ug/kg	0.706					
Chloroethane		U					0.700					
		U	ND	0.268	0.805							
Chloroform		U U	ND ND	0.268 0.268	$0.805 \\ 0.805$	ug/kg ug/kg						
	e	U U U	ND ND ND	0.268 0.268 0.268	0.805 0.805 0.805	ug/kg	0.706 0.706 0.706	1				
Chloroform	e	U	ND	0.268	0.805		0.706	1 1				
Chloroform Chloromethane		U U	ND ND	0.268 0.268	0.805 0.805	ug/kg ug/kg	0.706 0.706	1 1 1				

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#### **Certificate of Analysis**

Report Date: July 8, 2020 Company : Westinghouse Electric Company, LLC Address : PO Drawer R Columbia, South Carolina 29205 Contact: Ms. Cynthia Logsdon Project: ENV-CONSENTA-4500778461 Client Sample ID: C-41-3 Project: WNUC00901 Sample ID: 514924003 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time Batch	Method
Volatile Organics										
SW846 8260D Volatiles	s, Solid "Dry	Weight Correct	ed"							
Ethylbenzene	U	ND	0.268	0.805	ug/k	g 0.706	1			
Isopropylbenzene	U	ND	0.268	0.805		-	1			
Methyl acetate	U	ND	1.34	4.03	ug/kg	g 0.706	1			
Methylcyclohexane	U	ND	0.268	0.805	ug/kg	g 0.706	1			
Methylene chloride	U	ND	1.34	4.03			1			
Styrene	U	ND	0.268	0.805	ug/kg	g 0.706	1			
Tetrachloroethylene	U	ND	0.268	0.805	i ug/kg	g 0.706	1			
Toluene	U	ND	0.268	0.805	ug/kg	g 0.706	1			
Trichloroethylene	U	ND	0.268	0.805	ug/kg	g 0.706	1			
Trichlorofluoromethane	U	ND	0.268	0.805	ug/kg	g 0.706	1			
Trichlorotrifluoroethane	U	ND	1.34	4.03	ug/kg	g 0.706	1			
Vinyl chloride	U	ND	0.268	0.805	ug/kg	g 0.706	1			
cis-1,2-Dichloroethylene	U	ND	0.268	0.805	ug/kg	g 0.706	1			
cis-1,3-Dichloropropylene	U	ND	0.268	0.805	ug/kg	g 0.706	1			
m,p-Xylenes	U	ND	0.537	1.61	ug/kg	g 0.706	1			
o-Xylene	U	ND	0.268	0.805	i ug/kg	g 0.706	1			
tert-Butyl methyl ether	U	ND	0.268	0.805	i ug/kg	g 0.706	1			
trans-1,2-Dichloroethylene	U	ND	0.268	0.805	i ug/kg	g 0.706	1			
trans-1,3-Dichloropropylene	U	ND	0.268	0.805	ug/kg	g 0.706	1			
The following Prep Met	hods were pe	rformed:								
Method	Description	l		Analyst	Date		Time	Prep Batch	1	
SW846 5035	5035 Prep			MXL2	07/07/2	20	1155	2017922		
SW846 9056A	SW846 9056A	Total Anions in So	il	LXA2	07/02/2	20	0926	2016998		
The following Analytic	al Methods w	vere performed:								
Method	Description					Analys	t Con	nments		
1	SW846 9056A									
2	SW846 8260D									
Surrogate/Tracer Recov	ery Test				Result	Nomin	al	Recovery%	Acceptable L	imits
1,2-Dichloroethane-d4	SW846 Correcte	8260D Volatiles, So	lid "Dry Weight		38.0 ug/kg	50	0.0	94	(81%-124%)	)
Bromofluorobenzene		8260D Volatiles, So	lid "Dry Weight		42.9 ug/kg	50	0.0	107	(70%-130%)	)
Toluene-d8		8260D Volatiles, So	lid "Dry Weight		40.5 ug/kg	50	0.0	101	(81%-120%)	)

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			Report Date:	July 8, 2020
Company : Address :	Westinghouse Electric Company, LLC PO Drawer R			
Contact: Project:	Columbia, South Carolina 29205 Ms. Cynthia Logsdon ENV-CONSENTA-4500778461			
Client Sample ID:	C-41-3	Project:	WNUC00901	
Sample ID:	514924003	Client ID:	WNUC009	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
Notes:									
Column headers are d DF: Dilution Factor DL: Detection Limit MDA: Minimum Dete MDC: Minimum Dete	ectable Activit	у	Lc/LC: Critical Level PF: Prep Factor RL: Reporting Limit SQL: Sample Quantitat	ion Limit					

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## **Certificate of Analysis**

						ary 515			Report Dat	te: July 8,	2020
	Company :	Wes	tinghouse Electric (	Company, LLC	2						
	Address :	PO I	Drawer R								
		Colu	ımbia, South Caroli	na 29205							
	Contact:		Cynthia Logsdon	nu 29200							
	Project:		-CONSENTA-450	0778461							
	Client Sample ID:	C-41	-4			Pro	oject:		WNUC00901		
	Sample ID:		024004				ent ID	:	WNUC009		
	Matrix:	Soil									
	Collect Date:	29-J	UN-20 09:31								
	Receive Date:	01-J	UL-20								
	Collector:	Clie	nt								
	Moisture:	12%									
Parameter	Quali	fier	Result	DL	RL	Units	PF	DF	Analyst Date	Time Batch	Method
Ion Chroma	atography										
	66A Fluoride "Dry V	Veight	Corrected"								
Fluoride	2	U	ND	0.378	1.11	mg/kg	9.78	1	LXA2 07/02/20	1459 2016999	1
The followi	ing Prep Methods w	ere pe	rformed:								
Method	Desci	ription			Analyst	Date	,	Time	e Prep Batch		
SW846 9056A	SW840	6 9056A	Total Anions in Soil		LXA2	07/02/20		0926	2016998		
The follow	ing Analytical Meth	nods w	ere performed:								
Method	Descr	iption				A	Analyst	t Cor	nments		
1	SW846	9056A									

#### Notes:

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## **Certificate of Analysis**

						<b>ii</b> y 515			Report Dat	e: July 8,	2020
	Company :	Westinghouse	Electric Company, I	LC							
	Address :	PO Drawer R									
		Columbia. So	uth Carolina 29205								
	Contact:	Ms. Cynthia I									
	Project:		NTA-4500778461								
	Client Sample ID:	C-41-5				Pro	ject:		WNUC00901		
	Sample ID:	514924005				Cli	ent ID	:	WNUC009		
	Matrix:	Soil									
	Collect Date:	29-JUN-20 09	9:40								
	Receive Date:	01-JUL-20									
	Collector:	Client									
	Moisture:	10.5%									
Parameter	Quali	fier Result	Γ	DL	RL	Units	PF	DF	Analyst Date	Time Batch	Method
Ion Chroma	atography										
	66A Fluoride "Dry W	Veight Correcte	d"								
Fluoride	2	1.19	0.3	73	1.10	mg/kg	9.83	1	LXA2 07/02/20	1527 2016999	1
The followi	ing Prep Methods w	ere performed:									
Method	Descr	iption			Analyst	Date	1	Time	Prep Batch		
SW846 9056A	SW846	9056A Total Anic	ns in Soil		LXA2	07/02/20		0926	2016998		
The follow	ing Analytical Meth	ods were perfor	rmed:								
Method	Descri	ption				A	nalys	t Cor	nments		
1	SW846	9056A									

#### Notes:

Column headers are defined as follows:DF: Dilution FactorLc/LC: Critical LevelDL: Detection LimitPF: Prep FactorMDA: Minimum Detectable ActivityRL: Reporting LimitMDC: Minimum Detectable ConcentrationSQL: Sample Quantitation Limit

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## **Certificate of Analysis**

			<u> </u>			a1 y 515			R	eport Dat	te:	July 8,	2020
	Company : Address :		stinghouse Electric Co Drawer R	ompany, LLO	2								
		Colu	umbia, South Carolina	a 29205									
	Contact: Project:		Cynthia Logsdon V-CONSENTA-45007	778461									
	Client Sample I			770401		Pro	ject:		WNU	C00901			
	Sample ID:		924006				ent ID		WNU				
	Matrix:	Soil				Cli		•		000			
	Collect Date:		UN-20 09:50										
	Receive Date:		UL-20										
	Collector:	Clie											
	Moisture:	10%											
Parameter	 	ualifier	Result	DL	RL	Units	PF	DF	Analy	vst Date	Tim	e Batch	Method
Ion Chroma			Rebuit			emis		<i>D</i> 1	1 mary	St Duto		e Buten	incuiou
	56A Fluoride "Di	w Weigh	t Corrected"										
Fluoride	JOA Pluonae Di	y weigh U	ND	0.362	1.07	mg/kg	9.59	1	LXA2	07/02/20	1554	2016999	1
	alysis-ICP-MS	U				8		-					-
	•	pic Urani	um-234/235/238 "Dry	w Weight Co	rrected"								
Uranium-235	· · · · · · · · · · · · · · · · · · ·	J	6.79	2.05	14.4	ug/kg	92.3	2	PRB	07/07/20	1816	2016943	2
Uranium-238			887	13.5	41.0	ug/kg	92.3	2					
Uranium-234		U	ND	2.05	10.3	ug/kg	92.3	2	PRB	07/07/20	2319	2016943	3
	ing Prep Method												
Method		escriptior			Analyst	Date		Time		ep Batch			
SW846 3050E SW846 9056A		P-MS 3050	BS PREP A Total Anions in Soil		HH1 LXA2	07/06/20 07/02/20		1724 0926		16942 16998			
	ving Analytical M				LAAZ	07/02/20		0920	20	10998			
Method		scription					nalvet	Cor	nment	e			
1		846 9056A				Γ	marys		innent.	3			
2		/846 3050B											
3	SW	7846 3050B	/6020B										
Notor													

#### Notes:

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## **Certificate of Analysis**

						ui y 515			Report Dat	e: July 8,	, 2020
	Company :	Wes	tinghouse Electric (	Company, LLC	2						
	Address :	PO I	Drawer R								
		Colu	mbia, South Caroli	na 29205							
	Contact:		Cynthia Logsdon								
	Project:		-CONSENTA-450	0778461							
	Client Sample ID:	C-56	-2			Pro	ject:		WNUC00901		
	Sample ID:	5149	24007			Cli	ent ID	:	WNUC009		
	Matrix:	Soil									
	Collect Date:	29-J	UN-20 09:54								
	Receive Date:	01-J	UL-20								
	Collector:	Clier	nt								
	Moisture:	9.24	%								
Parameter	Quali	fier	Result	DL	RL	Units	PF	DF	Analyst Date	Time Batch	Method
Ion Chroma	atography										
	66A Fluoride "Dry V	Veight	Corrected"								
Fluoride		J	0.443	0.358	1.05	mg/kg	9.55	1	LXA2 07/02/20	1715 2016999	) 1
The follow	ing Prep Methods w	ere per	rformed:								
Method	Descr	ription			Analyst	Date		Time	Prep Batch		
SW846 9056A	SW846	5 9056A	Total Anions in Soil		LXA2	07/02/20		0926	2016998		
The follow	ing Analytical Meth	nods w	ere performed:								
Method	Descri	iption				A	Analys	t Cor	nments		
1	SW846	9056A									

#### Notes:

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			<u> </u>	ertificate	OI Ana	arysis						
									Report Dat	te:	July 8,	2020
	mpany :		tinghouse Electric Co	ompany, LLC								
Ad	dress :	POI	Drawer R									
		Colı	umbia, South Carolina	a 29205								
Со	ntact:		Cynthia Logsdon									
	oject:		V-CONSENTA-45007	778461								
	ent Sample ID:					Dr	oject:		WNUC00901			
	-						ient ID					
	nple ID:		924008			Cl	lent ID	:	WNUC009			
	trix:	Soil										
Col	llect Date:		UN-20 09:58									
Red	ceive Date:	01-J	UL-20									
Col	llector:	Clie	nt									
Мо	isture:	10.3	%									
Parameter	Quali	fier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
Ion Chromatogr	aphy											
SW846 9056A	Fluoride "Dry V	Veight	t Corrected"									
Fluoride			1.91	0.372	1.09	mg/kg	9.80	1	LXA2 07/02/20	1742	2016999	1
Volatile Organi	cs											
SW846 8260D	Volatiles, Solid	"Dry	Weight Corrected"									
1,1,1-Trichloroetha		U	ND	0.291	0.874	ug/kg	0.784	1	MXL2 07/07/20	1908	2017923	2
1,1,2,2-Tetrachloroe	ethane	U	ND	0.291	0.874	ug/kg	0.784	1				
1,1,2-Trichloroethan	ne	U	ND	0.291	0.874	ug/kg	0.784	1				
1,1-Dichloroethane		U	ND	0.291	0.874	ug/kg	0.784	1				
1,1-Dichloroethyler	ie	U	ND	0.291	0.874	ug/kg	0.784					
1,2,3-Trichlorobenz		U	ND	0.291	0.874	ug/kg	0.784					
1,2,4-Trichlorobenz		U	ND	0.291	0.874	ug/kg	0.784					
1,2-Dibromo-3-chlo	propropane	U	ND	0.437	0.874	ug/kg	0.784	1				
1,2-Dibromoethane		U U	ND ND	0.291 0.291	0.874 0.874	ug/kg	0.784 0.784					
1,2-Dichlorobenzen 1,2-Dichloroethane	e	U U	ND ND	0.291	0.874	ug/kg ug/kg	0.784					
1,2-Dichloropropan	0	U	ND	0.291	0.874	ug/kg ug/kg	0.784					
1,3-Dichlorobenzen		U	ND	0.291	0.874	ug/kg	0.784					
1,4-Dichlorobenzen		Ū	ND	0.291	0.874	ug/kg	0.784					
1,4-Dioxane		U	ND	14.6	43.7	ug/kg	0.784					
2-Butanone		U	ND	1.46	4.37	ug/kg	0.784	1				
2-Hexanone		U	ND	1.46	4.37	ug/kg	0.784					
4-Methyl-2-pentance	one	U	ND	1.46	4.37	ug/kg	0.784					
Acetone			5.04	1.46	4.37	ug/kg	0.784					
Benzene		U	ND	0.291	0.874	ug/kg	0.784	1				
Bromochlorometha		U	ND	0.291	0.874	ug/kg	0.784					
Bromodichlorometh	ane	U	ND	0.291	0.874	ug/kg	0.784					
Bromoform Bromomethane		U U	ND ND	0.291 0.291	0.874 0.874	ug/kg	0.784 0.784	1 1				
Carbon disulfide		U U	ND	1.46	4.37	ug/kg ug/kg	0.784					
Carbon tetrachloride	e	U	ND	0.291	0.874	ug/kg ug/kg	0.784					
Chlorobenzene	-	U	ND	0.291	0.874	ug/kg	0.784					
Chloroethane		U	ND	0.291	0.874	ug/kg	0.784					
Chloroform		U	ND	0.291	0.874	ug/kg	0.784					
Chloromethane		U	ND	0.291	0.874	ug/kg	0.784					
Cyclohexane		U	ND	0.291	0.874	ug/kg	0.784	1				
Dibromochlorometh	nane	U	ND	0.291	0.874	ug/kg	0.784					
Dichlorodifluorome	thane	U	ND	0.291	0.874	ug/kg	0.784	1				

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#### **Certificate of Analysis**

Report Date: July 8, 2020 Company : Westinghouse Electric Company, LLC Address : PO Drawer R Columbia, South Carolina 29205 Contact: Ms. Cynthia Logsdon Project: ENV-CONSENTA-4500778461 Client Sample ID: C-56-3 Project: WNUC00901 Sample ID: 514924008 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time Batch	Method
Volatile Organics										
SW846 8260D Volatile	s, Solid "Dry	Weight Corrected"								
Ethylbenzene	U	ND	0.291	0.874	l ug/kg	0.784	1			
Isopropylbenzene	U	ND	0.291	0.874			1			
Methyl acetate	U	ND	1.46	4.37	/ ug/kg	0.784	1			
Methylcyclohexane	U	ND	0.291	0.874			1			
Methylene chloride	U	ND	1.46	4.37	/ ug/kg	0.784	1			
Styrene	U	ND	0.291	0.874	l ug/kg	0.784	1			
Tetrachloroethylene	U	ND	0.291	0.874	l ug/kg	0.784	1			
Toluene	U	ND	0.291	0.874	l ug/kg	0.784	1			
Trichloroethylene	U	ND	0.291	0.874	l ug/kg	0.784	1			
Trichlorofluoromethane	U	ND	0.291	0.874	l ug/kg	0.784	1			
Trichlorotrifluoroethane	U	ND	1.46	4.37	/ ug/kg	0.784	1			
Vinyl chloride	U	ND	0.291	0.874	l ug/kg	0.784	1			
cis-1,2-Dichloroethylene	U	ND	0.291	0.874	l ug/kg	0.784	1			
cis-1,3-Dichloropropylene	U	ND	0.291	0.874						
m,p-Xylenes	U	ND	0.583	1.75	5 ug/kg					
o-Xylene	U	ND	0.291	0.874	l ug/kg	0.784	1			
tert-Butyl methyl ether	U	ND	0.291	0.874	l ug/kg	0.784	1			
trans-1,2-Dichloroethylene	U	ND	0.291	0.874	000					
trans-1,3-Dichloropropylene	U	ND	0.291	0.874	ug/kg	0.784	1			
The following Prep Met	thods were pe	rformed:								
Method	Description	l		Analyst	Date		Time	Prep Batch	1	
SW846 5035	5035 Prep			MXL2	07/07/2	0	1155	2017922		
SW846 9056A	SW846 9056A	Total Anions in Soil		LXA2	07/02/2	0	0926	2016998		
The following Analytic	al Methods w	vere performed:								
Method	Description					Analys	t Con	nments		
1	SW846 9056A									
2	SW846 8260D									
Surrogate/Tracer Recov	ery Test				Result	Nomin	al	Recovery%	Acceptable L	imits
1,2-Dichloroethane-d4	SW846 8 Correcte	8260D Volatiles, Solid	"Dry Weight		42.8 ug/kg	50	0.0	98	(81%-124%)	)
Bromofluorobenzene		8260D Volatiles, Solid	"Dry Weight		45.2 ug/kg	50	0.0	103	(70%-130%)	)
Toluene-d8		8260D Volatiles, Solid	"Dry Weight		42.0 ug/kg	50	0.0	96	(81%-120%)	)

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		•/	Report Date:	July 8, 2020	
Company : Address :	Westinghouse Electric Company, LLC PO Drawer R				
Contact: Project:	Columbia, South Carolina 29205 Ms. Cynthia Logsdon ENV-CONSENTA-4500778461				
Client Sample ID:	C-56-3	Project:	WNUC00901		
Sample ID:	514924008	Client ID:	WNUC009		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
Notes:									
Column headers are DF: Dilution Facto DL: Detection Lim MDA: Minimum D MDC: Minimum D	r it etectable Activity	у	Lc/LC: Critical Level PF: Prep Factor RL: Reporting Limit SQL: Sample Quantitati	on Limit					

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			<u> </u>		OI Ana	alysis						
									Report Dat	te:	July 8,	2020
	ipany :		tinghouse Electric Co	ompany, LLC								
Addi	ress :	POI	Drawer R									
		Colu	umbia, South Carolina	a 29205								
Cont	act:		Cynthia Logsdon									
Proje	ect:		-CONSENTA-4500	778461								
	nt Sample ID:	C-56	5-4			Pro	oject:		WNUC00901			
	ple ID:		924009				ient ID		WNUC009			
Matr	-	Soil	24007			CI		•	WINCCOD			
			UNI 00 10 00									
	ect Date:		UN-20 10:03									
	ive Date:		UL-20									
Colle	ector:	Clie	nt									
Mois	sture:	7.91	%									
Parameter	Quali	fier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
Ion Chromatogra										-		
SW846 9056A FI		Veight	Corrected"									
Fluoride	uonde Dry (	vergin	1.69	0.366	1.08	mg/kg	9.90	1	LXA2 07/02/20	1809	2016999	1
Volatile Organics	1		1.07	0.500	1.00	mg/kg	2.20		Entre 01/02/20	1007	2010///	1
U		"Deu	Weight Corrected"									
1,1,1-Trichloroethane		U	ND	0.271	0.815	ug/kg	0.751	1	MXL2 07/07/20	1035	2017923	2
1,1,2,2-Tetrachloroeth		U	ND	0.271	0.815	ug/kg ug/kg	0.751	-	WIXL2 07/07/20	1935	2017923	2
1,1,2-Trichloroethane		U	ND	0.271	0.815	ug/kg	0.751					
1,1-Dichloroethane		Ŭ	ND	0.271	0.815	ug/kg	0.751					
1,1-Dichloroethylene		U	ND	0.271	0.815	ug/kg	0.751					
1,2,3-Trichlorobenzer	ne	U	ND	0.271	0.815	ug/kg	0.751	1				
1,2,4-Trichlorobenzer	ne	U	ND	0.271	0.815	ug/kg	0.751	1				
1,2-Dibromo-3-chloro	propane	U	ND	0.408	0.815	ug/kg	0.751	1				
1,2-Dibromoethane		U	ND	0.271	0.815	ug/kg	0.751	1				
1,2-Dichlorobenzene		U	ND	0.271	0.815	ug/kg	0.751					
1,2-Dichloroethane		U	ND	0.271	0.815	ug/kg	0.751	1				
1,2-Dichloropropane 1,3-Dichlorobenzene		U U	ND ND	0.271 0.271	0.815 0.815	ug/kg ug/kg	0.751 0.751					
1,4-Dichlorobenzene		U	ND	0.271	0.815	ug/kg ug/kg	0.751	1				
1,4-Dioxane		U	ND	13.6	40.8	ug/kg	0.751	1				
2-Butanone		Ū	ND	1.36	4.08	ug/kg	0.751					
2-Hexanone		U	ND	1.36	4.08	ug/kg	0.751	1				
4-Methyl-2-pentanone	e	U	ND	1.36	4.08	ug/kg	0.751	1				
Acetone			5.46	1.36	4.08	ug/kg	0.751	1				
Benzene		U	ND	0.271	0.815	ug/kg	0.751	1				
Bromochloromethane		U	ND	0.271	0.815	ug/kg	0.751					
Bromodichlorometha	ne	U	ND	0.271	0.815	ug/kg	0.751					
Bromoform		U	ND	0.271	0.815	ug/kg	0.751	1				
Bromomethane Carbon disulfide		U U	ND ND	0.271 1.36	0.815 4.08	ug/kg ug/kg	0.751 0.751	1 1				
Carbon tetrachloride		U	ND	0.271	4.08 0.815	ug/kg ug/kg	0.751	1				
Chlorobenzene		U	ND	0.271	0.815	ug/kg	0.751	1				
Chloroethane		U	ND	0.271	0.815	ug/kg	0.751					
Chloroform		U	ND	0.271	0.815	ug/kg	0.751					
Chloromethane		U	ND	0.271	0.815	ug/kg	0.751	1				
Cyclohexane		U	ND	0.271	0.815	ug/kg	0.751	1				
Dibromochlorometha		U	ND	0.271	0.815	ug/kg	0.751					
Dichlorodifluorometh	ane	U	ND	0.271	0.815	ug/kg	0.751	1				

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#### **Certificate of Analysis**

Report Date: July 8, 2020 Company : Westinghouse Electric Company, LLC Address : PO Drawer R Columbia, South Carolina 29205 Contact: Ms. Cynthia Logsdon Project: ENV-CONSENTA-4500778461 Client Sample ID: C-56-4 Project: WNUC00901 Sample ID: 514924009 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time Batch	Method
Volatile Organics										
SW846 8260D Volatiles	s, Solid "Dry '	Weight Corrected	d"							
Ethylbenzene	U	ND	0.271	0.815	ug/kg	0.751	1			
Isopropylbenzene	U	ND	0.271	0.815	ug/kg	0.751	1			
Methyl acetate	U	ND	1.36	4.08	ug/kg	0.751	1			
Methylcyclohexane	U	ND	0.271	0.815	ug/kg	0.751	1			
Methylene chloride	U	ND	1.36	4.08	ug/kg	0.751	1			
Styrene	U	ND	0.271	0.815	ug/kg	0.751	1			
Tetrachloroethylene	J	0.277	0.271	0.815	ug/kg	0.751	1			
Toluene	U	ND	0.271	0.815	ug/kg	0.751	1			
Trichloroethylene	U	ND	0.271	0.815	ug/kg	0.751	1			
Trichlorofluoromethane	U	ND	0.271	0.815	ug/kg	0.751	1			
Trichlorotrifluoroethane	U	ND	1.36	4.08	ug/kg	0.751	1			
Vinyl chloride	U	ND	0.271	0.815	00					
cis-1,2-Dichloroethylene	U	ND	0.271	0.815	ug/kg					
cis-1,3-Dichloropropylene	U	ND	0.271	0.815	00					
m,p-Xylenes	U	ND	0.544	1.63	ug/kg					
o-Xylene	U	ND	0.271	0.815	ug/kg	0.751	1			
tert-Butyl methyl ether	U	ND	0.271	0.815	ug/kg	0.751	1			
trans-1,2-Dichloroethylene	U	ND	0.271	0.815	00					
trans-1,3-Dichloropropylene	U	ND	0.271	0.815	ug/kg	0.751	1			
The following Prep Met	thods were per	rformed:								
Method	Description			Analyst	Date		Time	Prep Batch	1	
SW846 5035	5035 Prep			MXL2	07/07/2	C	1156	2017922		
SW846 9056A	SW846 9056A	Total Anions in Soil	l	LXA2	07/02/2	C	0926	2016998		
The following Analytic	al Methods w	ere performed:								
Method	Description					Analys	t Con	nments		
1	SW846 9056A					-				
2	SW846 8260D									
Surrogate/Tracer Recov	ery Test				Result	Nomin	al	Recovery%	Acceptable L	imits
1,2-Dichloroethane-d4		3260D Volatiles, Soli	d "Dry Weight		41.1 ug/kg	50	0.0	101	(81%-124%)	)
Bromofluorobenzene	Corrected SW846 8 Corrected	3260D Volatiles, Soli	d "Dry Weight		43.1 ug/kg	50	0.0	106	(70%-130%)	)
Toluene-d8		3260D Volatiles, Soli	d "Dry Weight		40.2 ug/kg	50	0.0	99	(81%-120%)	)

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	•/	_	Report Date:	July 8, 2020	
Company : Address :	Westinghouse Electric Company, LLC PO Drawer R				
	Columbia, South Carolina 29205				
Contact:	Ms. Cynthia Logsdon				
Project:	ENV-CONSENTA-4500778461				
Client Sample ID:	C-56-4	Project:	WNUC00901		
Sample ID:	514924009	Client ID:	WNUC009		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
Notes:									
Column headers are DF: Dilution Facto DL: Detection Lim MDA: Minimum D MDC: Minimum D	r it Detectable Activity	у	Lc/LC: Critical Level PF: Prep Factor RL: Reporting Limit SQL: Sample Quantitatio	n Limit					

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## **Certificate of Analysis**

			<u>Certifica</u>		ui y 515			Report Dat	e: July 8,	2020
	Company :	Westinghouse	Electric Company, LL	2						
	Address :	PO Drawer R								
		Columbia. Sou	th Carolina 29205							
	Contact:	Ms. Cynthia L								
	Project:		NTA-4500778461							
	Client Sample ID:	C-56-5			Pro	oject:	V	WNUC00901		
	Sample ID:	514924010			Cli	ent ID:	V	VNUC009		
	Matrix:	Soil								
	Collect Date:	29-JUN-20 10	:11							
	Receive Date:	01-JUL-20								
	Collector:	Client								
	Moisture:	9.97%								
Parameter	Quali	fier Result	DL	RL	Units	PF I	DF A	Analyst Date	Time Batch	Method
Ion Chroma	atography									
	66A Fluoride "Dry W	Veight Corrected	l''							
Fluoride		3.43	0.376	1.11	mg/kg	9.95	1 I	LXA2 07/02/20	1836 2016999	1
The followi	ing Prep Methods w	ere performed:								
Method	Descr	ription		Analyst	Date	Ti	me	Prep Batch		
SW846 9056A	SW846	9056A Total Anior	ns in Soil	LXA2	07/02/20	09	26	2016998		
The follow	ing Analytical Meth	ods were perfor	med:							
Method	Descri	ption			A	Analyst (	Com	ments		
1	SW846	9056A								

#### Notes:

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## **Certificate of Analysis**

				mu		JUDIO			Report Da	te: July	8, 2020
Con	npany :	Westingho	use Electric Compa	ny, LLC	2						
Add	lress :	PO Drawer	R								
		Columbia.	South Carolina 292	205							
Con	tact:	,	ia Logsdon								
Proj	ject:		SENTA-45007784	51							
Clie	ent Sample ID:	C-60-1				Pro	oject:		WNUC00901		
Sam	ple ID:	514924011				Cli	ent ID	:	WNUC009		
Mat	rix:	Soil									
Coll	lect Date:	29-JUN-20	10:18								
Rece	eive Date:	01-JUL-20									
Coll	lector:	Client									
Moi	sture:	12.4%									
Parameter	Qualit	fier Resu	lt	DL	RL	Units	PF	DF	Analyst Date	Time Bate	h Method
Ion Chromatogra	aphy										
SW846 9056A F		Veight Corre	cted"								
Fluoride	5		ND	0.383	1.13	mg/kg	9.88	1	CH5 07/03/20	2214 20170	34 1
The following Pr	rep Methods we	ere performe	ed:								
Method	Descr	iption			Analyst	Date	,	Time	e Prep Batch		
SW846 9056A	SW846	5 9056A Total A	Anions in Soil		CH5	07/03/20		1717	2017032		
The following A	analytical Meth	ods were pe	rformed:								
Method	Descri	ption				Ā	Analyst	t Cor	nments		
1	SW846	9056A									

#### Notes:

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## **Certificate of Analysis**

	<u> </u>	<u>ei viireu</u>				F	Report Dat	te: July 8,	2020
Company :	Westinghouse Electric Cor	mpany, LLC							
Address :	PO Drawer R								
	Columbia, South Carolina	29205							
Contact:	Ms. Cynthia Logsdon								
Project:	ENV-CONSENTA-45007	78461							
Client Sample ID:	C-60-2			Pro	ject:	WNU	JC00901		
Sample ID:	514924012			Cli	ent ID:	WNU	JC009		
Matrix:	Soil								
Collect Date:	29-JUN-20 10:21								
Receive Date:	01-JUL-20								
Collector:	Client								
Moisture:	11.5%								
Parameter Quali	ifier Result	DL	RL	Units	PF D	F Anal	yst Date	Time Batch	Method
Ion Chromatography									
SW846 9056A Fluoride "Dry V	Weight Corrected"								
Fluoride	U ND	0.369	1.08	mg/kg	9.59	CH5	07/04/20	0034 2017034	1
The following Prep Methods w	vere performed:								
Method Desc	ription		Analyst	Date	Ti	ne P	rep Batch		
SW846 9056A SW84	6 9056A Total Anions in Soil		CH5	07/03/20	171	7 20	017032		
The following Analytical Metl	nods were performed:								
Method Descr	iption			A	Analyst C	ommen	ts		
1 SW846	5 9056A								

Notes:

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				Certificate	oi Ana	aiysis			_	_			
									R	eport Dat	te:	July 8,	2020
Compar	•		stinghouse Electric C	Company, LLC									
Address	:	PO	Drawer R										
		Colı	umbia, South Carolii	na 29205									
Contact		Ms.	Cynthia Logsdon										
Project:			V-CONSENTA-450	0778461									
Client S	ample ID:	C-6	0-3			Pro	oject:		WNU	C00901			
Sample	-		924013				ient ID		WNU				
Matrix:	ID.	Soil				Ch		•	WINO	000			
Collect			UN-20 10:24										
Receive	Date:		UL-20										
Collecto	r:	Clie	nt										
Moistur	e:	7.97	%										
Parameter	Quali	fier	Result	DL	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Ion Chromatography	<u> </u>												
SW846 9056A Fluor		Veigh	t Corrected"										
Fluoride	lue Diy v	J	0.957	0.372	1.09	mg/kg	10.1	1	CH5	07/04/20	0102	2017034	1
Volatile Organics		J	0.937	0.372	1.09	mg/kg	10.1	1	СПЈ	07/04/20	0102	2017034	1
•	1 <b>C</b> .1.1	"D	Weisler Commenter III										
SW846 8260D Vola	illes, Solid	•	-	0.077	0.021		0.765	1	MVI 2	07/07/20	2001	2017022	2
1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane		U U	ND ND	0.277 0.277	0.831 0.831	ug/kg ug/kg	0.765 0.765	1 1	MXL2	07/07/20	2001	2017923	2
1,1,2-Trichloroethane		U	ND ND	0.277	0.831	ug/kg ug/kg	0.765						
1,1-Dichloroethane		U	ND	0.277	0.831	ug/kg ug/kg	0.765						
1,1-Dichloroethylene		U	ND	0.277	0.831	ug/kg ug/kg	0.765						
1,2,3-Trichlorobenzene		U	ND	0.277	0.831	ug/kg	0.765						
1,2,4-Trichlorobenzene		U	ND	0.277	0.831	ug/kg	0.765						
1,2-Dibromo-3-chloropro	oane	U	ND	0.415	0.831	ug/kg	0.765	1					
1,2-Dibromoethane		U	ND	0.277	0.831	ug/kg	0.765	1					
1,2-Dichlorobenzene		U	ND	0.277	0.831	ug/kg	0.765						
1,2-Dichloroethane		U	ND	0.277	0.831	ug/kg	0.765						
1,2-Dichloropropane		U	ND	0.277	0.831	ug/kg	0.765						
1,3-Dichlorobenzene		U	ND	0.277	0.831	ug/kg	0.765						
1,4-Dichlorobenzene 1,4-Dioxane		U U	ND ND	0.277 13.8	0.831 41.5	ug/kg	0.765						
2-Butanone		U	ND	1.38	41.5	ug/kg ug/kg	0.765 0.765						
2-Hexanone		U	ND	1.38	4.15	ug/kg	0.765						
4-Methyl-2-pentanone		Ŭ	ND	1.38	4.15	ug/kg	0.765						
Acetone			7.99	1.38	4.15	ug/kg	0.765						
Benzene		U	ND	0.277	0.831	ug/kg	0.765	1					
Bromochloromethane		U	ND	0.277	0.831	ug/kg	0.765	1					
Bromodichloromethane		U	ND	0.277	0.831	ug/kg	0.765						
Bromoform		U	ND	0.277	0.831	ug/kg	0.765						
Bromomethane		U	ND	0.277	0.831	ug/kg	0.765						
Carbon disulfide		U	ND	1.38	4.15	ug/kg	0.765						
Carbon tetrachloride Chlorobenzene		U	ND ND	0.277 0.277	0.831 0.831	ug/kg	0.765 0.765						
Chloroethane		U U	ND ND	0.277	0.831	ug/kg ug/kg	0.765						
Chloroform		U	ND	0.277	0.831	ug/kg ug/kg	0.765						
Chloromethane		U	ND	0.277	0.831	ug/kg	0.765						
Cyclohexane		U	ND	0.277	0.831	ug/kg	0.765						
Dibromochloromethane		Ū	ND	0.277	0.831	ug/kg	0.765						
		U	ND	0.277	0.831	ug/kg	0.765						

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#### **Certificate of Analysis**

Report Date: July 8, 2020 Company : Westinghouse Electric Company, LLC Address : PO Drawer R Columbia, South Carolina 29205 Contact: Ms. Cynthia Logsdon ENV-CONSENTA-4500778461 Project: Client Sample ID: C-60-3 Project: WNUC00901 Sample ID: 514924013 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF A	Analyst Date	Time Batch	Method
Volatile Organics										
SW846 8260D Volatiles	s, Solid "Dry	Weight Corrected"								
Ethylbenzene	U	ND	0.277	0.831	ug/kg	0.765	1			
Isopropylbenzene	U	ND	0.277	0.831	ug/kg	0.765	1			
Methyl acetate	U	ND	1.38	4.15	i ug/kg	0.765	1			
Methylcyclohexane	U	ND	0.277	0.831	ug/kg	0.765	1			
Methylene chloride	U	ND	1.38	4.15	i ug/kg	0.765	1			
Styrene	U	ND	0.277	0.831	ug/kg	0.765	1			
Tetrachloroethylene	U	ND	0.277	0.831	ug/kg	0.765	1			
Toluene	U	ND	0.277	0.831	ug/kg	0.765	1			
Trichloroethylene	U	ND	0.277	0.831	ug/kg	0.765	1			
Trichlorofluoromethane	U	ND	0.277	0.831	ug/kg	0.765	1			
Trichlorotrifluoroethane	U	ND	1.38	4.15	00	0.765	1			
Vinyl chloride	U	ND	0.277	0.831	ug/kg	0.765	1			
cis-1,2-Dichloroethylene	U	ND	0.277	0.831	00	0.765	1			
cis-1,3-Dichloropropylene	U	ND	0.277	0.831	ug/kg	0.765	1			
m,p-Xylenes	U	ND	0.554	1.66	i ug/kg	0.765	1			
o-Xylene	U	ND	0.277	0.831	ug/kg	0.765	1			
tert-Butyl methyl ether	U	ND	0.277	0.831	ug/kg	0.765	1			
trans-1,2-Dichloroethylene	U	ND	0.277	0.831	00		1			
trans-1,3-Dichloropropylene	U	ND	0.277	0.831	ug/kg	0.765	1			
The following Prep Met	thods were per	rformed:								
Method	Description			Analyst	Date		Time	Prep Batch	1	
SW846 5035	5035 Prep			MXL2	07/07/20	) 1	156	2017922		
SW846 9056A	SW846 9056A	Total Anions in Soil		CH5	07/03/20	) 1	717	2017032		
The following Analytic	al Methods w	ere performed:								
Method	Description					Analyst	Com	ments		
1	SW846 9056A					-				
2	SW846 8260D									
Surrogate/Tracer Recov	ery Test				Result	Nomina	l I	Recovery%	Acceptable L	imits
1,2-Dichloroethane-d4	SW846 8 Correcte	8260D Volatiles, Solid "	Dry Weight		42.6 ug/kg	50.	0	103	(81%-124%)	)
Bromofluorobenzene	SW846 8	3260D Volatiles, Solid "	Dry Weight		43.3 ug/kg	50.	0	104	(70%-130%)	)
Toluene-d8	Correcte SW846 8 Correcte	8260D Volatiles, Solid "	Dry Weight		40.2 ug/kg	50.0	0	97	(81%-120%)	)

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		<b>v</b>	Report Date:	July 8, 2020	
Company : Address :	Westinghouse Electric Company, LLC PO Drawer R				
Contact: Project:	Columbia, South Carolina 29205 Ms. Cynthia Logsdon ENV-CONSENTA-4500778461				
Client Sample ID:	C-60-3	Project:	WNUC00901		
Sample ID:	514924013	Client ID:	WNUC009		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF Analyst Date	Time Batch	Method
Notes:									
Column headers are DF: Dilution Factor DL: Detection Limit MDA: Minimum De MDC: Minimum De	tectable Activit	y	Lc/LC: Critical Level PF: Prep Factor RL: Reporting Limit SQL: Sample Quantitation	n Limit					

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## **Certificate of Analysis**

Company :       Westinghouse Electric Company, LLC         Address :       PO Drawer R         Columbia, South Carolina 29205         Contact:       Ms. Cynthia Logsdon         Project:       ENV-CONSENTA-4500778461         Client Sample ID:       C-60-4       Project:       WNUC00901         Sample ID:       S14924014       Client ID:       WNUC009         Matrix:       Soil       Collect Date:       29-JUN-20 10:31         Receive Date:       01-JUL-20       Collector:       Client         Moisture:       8.44%       DL       RL       Units       PF       DF       Analyst       Date       Time Batch       Method         Ionoratography       SW846 9056A       SW846 9056A Total Anions in Soil       CH5       07/03/20       17.17       2017032       1         Method       Description       Analyst       Date       Time       Prep Batch         Wethod       Description       Analyst       Date       Time       Prep Batch         Without       Description       Analyst       Date       Time       Prep Batch         Method       Description       Analyst       Date       Time       Prep Batch       Contacth         With 9056A							ary 515			Repor	rt Dat	te: July 8,	2020
Columbia, South Carolina 29205         Contact:       Ms. Cynthia Logsdon         Project:       ENV-CONSENTA-4500778461         Client Sample ID:       514924014         Sample ID:       514924014         Collect Date:       29-JUN-20 10:31         Receive Date:       01-JUL-20         Collector:       Client         Moisture:       8.44%         Parameter       Qualifier         Result       DL       RL       Units       PF       DF       Analyst Date       Time Batch       Method         Ion Chromatography       Sw846 9056A       Fluoride       J       0.753       0.390       1.15       mg/kg       10.5       1       CH5       07/04/20       0130       2017034       1         The following Prep Methods were performed:       Method       Description       Analyst       Date       Time       Prep Batch         Sw846 9056A       Sw846 9056A       Sw846 9056A       Total Anions in Soil       CH5       07/03/20       1717       2017032         The following Analytical Methods were performed:       Method       Description       Analyst Comments       E		Company :	West	inghouse Electric	Company, LLC	2							
Contact:       Ms. Cynthia Logsdon         Project:       ENV-CONSENTA-4500778461         Client Sample ID:       C-60-4         Sample ID:       514924014         Collect Date:       29-JUN-20 10:31         Receive Date:       01-JUL-20         Collector:       Client ID:         Workstore:       8.44%         Parameter       Qualifier         Result       DL       RL         Units       PF       DF         Analyst Op56A       Fluoride         Sw846 9056A       Sw846 9056A         Version       Analyst         Date       Time         Project:       V1702         Version       Analyst         Date       Time         Project:       Norkal moins in Soil         CH5       07/03/20       1717         2017032       The following Analytical Methods were performed:         Method       Description       Analyst         Method       Description       Analyst Comments		Address :	PO D	Drawer R									
Contact:       Ms. Cynthia Logsdon         Project:       ENV-CONSENTA-4500778461         Client Sample ID:       C-60-4         Sample ID:       514924014         Collect Date:       29-JUN-20 10:31         Receive Date:       01-JUL-20         Collector:       Client ID:         Workstore:       8.44%         Parameter       Qualifier         Result       DL       RL         Units       PF       DF         Analyst Op56A       Fluoride         Sw846 9056A       Sw846 9056A         Version       Analyst         Date       Time         Project:       V1702         Version       Analyst         Date       Time         Project:       Norkal moins in Soil         CH5       07/03/20       1717         2017032       The following Analytical Methods were performed:         Method       Description       Analyst         Method       Description       Analyst Comments			Colu	mbia. South Caroli	ina 29205								
Project:ENV-CONSENTA-4500778461Client Sample ID:C-60-4Project:WNUC00901Sample ID:514924014Client ID:WNUC009Matrix:SoilClient ID:WNUC009Collect Date:29-JUN-20 10:31Receive Date:01-JUL-20Collector:ClientClientKatherMoisture:8.44%Normal StateTime BatchMethodIon ChromatographySW846 9056A Fluoride "Dry Weight Corrected"FluorideJ0.7530.3901.15mg/kg10.51CH507/04/20013020170341The following Prep Methods were performed:MethodDateTimePrep BatchSW846 9056ASW846 9056A Total Anions in SoilCH507/03/20171720170321The following Analytical Methods were performed:MethodDescriptionAnalyst CommentsAnalyst CommentsMethod		Contact:		,									
Sample ID:514924014Client ID:WNUC009Matrix:SoilCollect Date:29-JUN-20 10:31Receive Date:01-JUL-20Collector:ClientMoisture:8.44%Noisture:8.44%ParameterQualifierResultDLRLUnitsUnitsPFDFAnalystDateJ0.7530.3901.15mg/kg10.51CH5Offlowing Prep Methods were performed:MethodDescriptionAnalystDateTimePrep BatchSW846 9056ASW846 9056A Total Anions in SoilCH5Offlowing Analytical Methods were performed:TimeMethodDescriptionAnalystCH5Offlowing Comments		Project:			0778461								
Matrix:SoilCollect Date:29-JUN-20 10:31Receive Date:01-JUL-20Collector:ClientMoisture:8.44%ParameterQualifierResultDLRLUnitsPFDFAnalystDateTime BatchMethodIon ChromatographySW846 9056A Fluoride "Dry Weight Corrected"FluorideJ0.7530.3901.15mg/kg10.51CH507/04/20013020170341The following Prep Methods were performed:MethodDescriptionAnalystDateTimePrep BatchSW846 9056ASW846 9056ATotal Anions in SoilCH507/03/2017172017032The following Analytical Methods were performed:Analyst Comments		Client Sample ID:	C-60	-4			Pro	oject:		WNUC00	901		
Collect Date:29-JUN-20 10:31 Receive Date:01-JUL-20 Collector:Client Moisture:8.44%ParameterQualifierResultDLRLUnitsPFDFAnalystDateTime BatchMethodIon Chromatography SW846 9056A Fluoride "Dry Weight Corrected" FluorideJ0.7530.3901.15mg/kg10.51CH507/04/20013020170341The following Prep Methods were performed:Image: CH507/03/201717201703211WethodDescriptionAnalystDateTimePrep Batch11SW846 9056ASW846 9056A Total Anions in SoilCH507/03/20171720170321The following Analytical Methods were performed:Image: ChromentsImage: ChromentsImage: Chroments		Sample ID:	5149	24014			Cli	ent ID:		WNUC00	9		
Receive Date:       01-JUL-20         Collector:       Client         Moisture:       8.44%         Parameter       Qualifier       Result       DL       RL       Units       PF       DF       Analyst       Date       Time       Batch       Method         Ion Chromatography       SW846 9056A Fluoride "Dry Weight Corrected"       Fluoride       J       0.753       0.390       1.15       mg/kg       10.5       1       CH5       07/04/20       0130       2017034       1         The following Prep Methods were performed:       Method       Date       Time       Prep Batch       SW846 9056A       SW846 9056A Total Anions in Soil       CH5       07/03/20       1717       2017032         The following Analytical Methods were performed:       Method       Description       Analyst Comments       Analyst Comments		Matrix:	Soil										
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Collect Date:	29-Л	JN-20 10:31									
Moisture: $8.44\%$ ParameterQualifierResultDLRLUnitsPFDFAnalystDateTimeBatchMethodIon ChromatographySW846 9056A Fluoride "Dry Weight Corrected" FluorideJ $0.753$ $0.390$ $1.15$ $mg/kg$ $10.5$ $1$ $CH5$ $07/04/20$ $0130$ $2017034$ $1$ The following Prep Methods were performed:MethodDescriptionAnalystDateTimePrep BatchSW846 9056ASW846 9056ATotal Anions in SoilCH5 $07/03/20$ $1717$ $2017032$ The following Analytical Methods were performed:MethodDescriptionAnalyst Comments		Receive Date:	01-Л	JL-20									
ParameterQualifierResultDLRLUnitsPFDFAnalystDateTimeBatchMethodIon ChromatographySW846 9056A Fluoride "Dry Weight Corrected"FluorideJ0.7530.3901.15mg/kg10.51CH507/04/20013020170341The following Prep Methods were performed:MethodDescriptionAnalystDateTimePrep BatchSW846 9056ASW846 9056A Total Anions in SoilCH507/03/2017172017032The following Analytical Methods were performed:MethodDescriptionAnalyst Comments		Collector:	Clien	nt									
Ion Chromatography         SW846 9056A Fluoride "Dry Weight Corrected"         Fluoride       J       0.753       0.390       1.15       mg/kg       10.5       1       CH5       07/04/20       0130       2017034       1         The following Prep Methods were performed:         Method       Description       Analyst       Date       Time       Prep Batch         SW846 9056A       SW846 9056A       Total Anions in Soil       CH5       07/03/20       1717       2017032         The following Analytical Methods were performed:         Method       Description         Analyst Comments		Moisture:	8.449	%									
SW846 9056A Fluoride "Dry Weight Corrected"         Fluoride       J       0.753       0.390       1.15       mg/kg       10.5       1       CH5       07/04/20       0130       2017034       1         The following Prep Methods were performed:	Parameter	Quali	fier	Result	DL	RL	Units	PF	DF	Analyst E	Date	Time Batch	Method
SW846 9056A Fluoride "Dry Weight Corrected"         Fluoride       J       0.753       0.390       1.15       mg/kg       10.5       1       CH5       07/04/20       0130       2017034       1         The following Prep Methods were performed:	Ion Chroma	atography											
Fluoride       J       0.753       0.390       1.15       mg/kg       10.5       1       CH5       07/04/20       0130       2017034       1         The following Prep Methods were performed:         Method       Description       Analyst       Date       Time       Prep Batch         SW846 9056A       SW846 9056A Total Anions in Soil       CH5       07/03/20       1717       2017032         The following Analytical Methods were performed:       Method       Description       Analyst Comments			Veight	Corrected"									
MethodDescriptionAnalystDateTimePrep BatchSW846 9056ASW846 9056A Total Anions in SoilCH507/03/2017172017032The following Analytical Methods were performed:Analyst CommentsMethodDescriptionAnalyst Comments		5	J		0.390	1.15	mg/kg	10.5	1	CH5 07/	04/20	0130 2017034	1
SW846 9056A       SW846 9056A Total Anions in Soil       CH5       07/03/20       1717       2017032         The following Analytical Methods were performed:       Analyst Comments         Method       Description	The follow	ing Prep Methods w	ere per	formed:									
The following Analytical Methods were performed:       Method     Description	Method	Desci	iption			Analyst	Date	5	Гime	Prep E	Batch		
Method Description Analyst Comments	SW846 9056A	A SW846	5 9056A	Total Anions in Soil		CH5	07/03/20	1	1717	201703	2		
	The follow	ving Analytical Meth	ods we	ere performed:									
1 SW846 9056A	Method	Descr	ption				A	Analyst	Con	nments			
	1	SW846	9056A										

#### Notes:

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## **Certificate of Analysis**

					uly bib		F	Report Dat	te: July 8,	2020
Compan	iy: V	Westinghouse Electric	c Company, LLC	2						
Address	: I	PO Drawer R								
	(	Columbia, South Caro	olina 29205							
Contact:		Ms. Cynthia Logsdon								
Project:		ENV-CONSENTA-4								
Client S	ample ID: 0	C-60-5	Pro	Project:		JC00901				
Sample	ID: 5	514924015			Cli	ent ID:	WNU	JC009		
Matrix:	S	Soil	il							
Collect I	Date: 2	29-JUN-20 10:35								
Receive	Date: (	)1-JUL-20								
Collecto	r: (	Client								
Moisture	e: 1	13.8%								
Parameter	Qualifie	er Result	DL	RL	Units	PF D	F Anal	yst Date	Time Batch	Method
Ion Chromatography										
SW846 9056A Fluor		ight Corrected"								
Fluoride	5	1.68	0.399	1.17	mg/kg	10.1 1	CH5	07/04/20	0158 2017034	- 1
The following Prep N	Aethods were	e performed:								
Method	Description			Analyst	Date	Tir	ne P	rep Batch		
SW846 9056A	56A SW846 9056A Total Anions in Soil			CH5	07/03/20	171	7 20	017032		
The following Analy	tical Method	ls were performed:								
Method	ion			A	Analyst C	omment	ts			
1	SW846 90	056A								

Notes:

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## **Certificate of Analysis**

				CE	linca	te of Al	1a1 y 515					
	Company :		stinghouse Drawer R	e Electric Comp	pany, LL(	C				Report Da	te: July 8,	2020
	Address :	PO	Drawer R									
		Col	lumbia, Sc	outh Carolina 2	9205							
	Contact:		. Cynthia l									
	Project:			ENTA-4500778	3461							
	Client Sample ID									VNUC00901 VNUC009		
	Sample ID:		514924001 Client ID:									
	Matrix:	Soi										
	Collect Date:		JUN-20 09	9:18								
	Receive Date:		JUL-20									
	Collector:	Cli										
	Moisture:	11.	6%									
Parameter	Qua	lifier	Result	Uncertainty	MDC	RL	Units	PF	DF A	Analyst Date	Time Batch	Method
Rad Alpha	Spec Analysis			· · ·								
-	U, Soil/Veg "Dry '	Weight	t Corrected	1"								
Uranium-233/			1.33		0.282	0.500	pCi/g		H	HAKB 07/06/20	2357 2017171	1
Uranium-235/ Uranium-238	/236	U	0.136 0.679	+/-0.160 +/-0.287	0.173 0.178	0.500 0.500	pCi/g					
	Scintillation Anal	vsis	0.079	+/-0.287	0.178	0.300	pCi/g					
-	nt Tc99, Soil "As F	•	ed"									
Technetium-9		U	-0.396	+/-0.407	0.751	1.00	pCi/g		J	J3 07/07/20	0602 2017085	2
The follow	ing Prep Methods	were p	erformed:									
Method	Des	criptio	n			Analyst	Date	Т	ime	Prep Batch		
Dry Soil Prep	Dry	Soil Prep	p GL-RAD-A	A-021		LYT1	07/01/20	) 1'	717	2016895		
The follow	ving Analytical Me	thods	were perfo	rmed:								
Method		cription						Analyst	Com	ments		
1				02-RC Modified								
2		EML H	ASL-300, To	e-02-RC Modified								
	Fracer Recovery	Test					Result	Nomina	l I	2	Acceptable L	
Uranium-232 Technetium-9				/eg "Dry Weight C						97 90.9	(15%-125%	<i>,</i>
	in Tracer	Liquid	Senit 1099, S	Soil "As Received"						90.9	(15%-125%	)
Notes:	Incertainty is calcu	lated a	t the Q5%	confidence lov	al (1.06 s	iama)						
•	-			confidence leve	ci (1.90-S	igilia).						
	eaders are defined a	as folle	ows:	لمراحد حسنا	ol Lovol							
DF: Dilution DL: Detect				Lc/LC: Critic PF: Prep Fact								
	ion Linni imum Dataatabla	Activit	• •	PI · Pepertin								

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

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## **Certificate of Analysis**

				Cer	funca	te of Al	1219515							
	Company :		Westinghouse Electric Company, LLC PO Drawer R							Report Date:			July 8,	2020
	Address :	PO	Drawer R											
		Col	umbia. So	uth Carolina 2	9205									
	Contact:		Ms. Cynthia Logsdon											
	Project:	EN	V-CONSE	ENTA-4500778										
	Client Sample II	D: C-4	C-41-2 Proje							WNUC00901				
	Sample ID:		514924002 Client ID:							WNUC009				
	Matrix:	Soil	Soil 29-JUN-20 09:22 01-JUL-20 Client											
	Collect Date:	29-												
	Receive Date:	01-												
	Collector:	Clie												
	Moisture:	11.5	5%											
Parameter	Qua	alifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst Da	ite	Time	Batch	Method
Rad Alpha	Spec Analysis									•				
-	U, Soil/Veg "Dry	Weight	Corrected	1''										
Uranium-233/		0	1.73	+/-0.468	0.237	0.500	pCi/g			HAKB 07/06	5/20	2357	2017171	1
Uranium-235/	236	U	0.0773	+/-0.132	0.116	0.500	pCi/g							
Uranium-238	Saintillation Anal		0.868	+/-0.331	0.150	0.500	pCi/g							
-	Scintillation Anal nt Tc99, Soil "As F	•	.d"											
Technetium-9	,	U	-0.150	+/-0.443	0.791	1.00	pCi/g			JJ3 07/07	/20	0640	2017085	2
	ing Prep Methods			.,	01771		F 8					0010		_
Method		cription				Analyst	Date	r.	Time	Prep Ba	tch			
Dry Soil Prep	Dry	Soil Prep	GL-RAD-A	-021		LYT1	07/01/20	)	1717	2016895				
The follow	ving Analytical Me	thods v	were perfo	rmed:										
Method		cription						Analyst	Com	ments				
1				02-RC Modified										
2			ASL-300, Tc	-02-RC Modified										
	Fracer Recovery	Test					Result	Nomina	al	Recovery%	) /	-	table L	
Uranium-232 Technetium-9				/eg "Dry Weight Co Soil "As Received"	orrected"					109 89.8			%-125%) %-125%)	
	) III 110001	Liquid	50m 1099, 3	Join As Received						07.0		(15	/0-12370)	
Notes: Counting U	Incertainty is calcu	ilated a	t the 95%	confidence leve	el (1.96-s	igma).								
Column he	aders are defined	as follo	ws:											
DF: Diluti	on Factor			Lc/LC: Critic										
DL: Detect	tion Limit			PF: Prep Fact										

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

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# **Certificate of Analysis**

					<u>unca</u>	te of Al	1a1y818							
	Company : Address :		stinghouse Drawer R	e Electric Comp	pany, LLC	2				R	eport Dat	:e:	July 8,	2020
		Col	umbia So	uth Carolina 2	9205									
	Contact:		Cynthia I		9203									
	Project:			ENTA-4500778	461									
	Client Sample	e ID: C-4	1-3				P	roject:		WNU	C00901			
	Sample ID:		924003				C	lient II	D:	WNU	C009			
	Matrix:	Soil	l											
	Collect Date:	29-	JUN-20 09	9:26										
	Receive Date	: 01	JUL-20											
	Collector:	Clie	ent											
	Moisture:	12.3	3%											
Parameter		Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Alpha	Spec Analysis													
-	U, Soil/Veg "D	Dry Weight	Corrected	1''										
Uranium-233/			0.899	+/-0.397	0.369	0.500	pCi/g			HAKB	07/06/20	2357	2017171	1
Uranium-235/	236	U	-0.0330	+/-0.0997	0.280	0.500	pCi/g							
Uranium-238 Rad Liquid	Scintillation A	nalveie	0.577	+/-0.312	0.274	0.500	pCi/g							
-	t Tc99, Soil "A	•	d"											
Technetium-9	,	U U	-0.115	+/-0.426	0.759	1.00	pCi/g			JJ3	07/07/20	0717	2017085	2
The follow	ing Prep Metho	ods were pe	erformed:				1 0							
Method		Description				Analyst	Date		Time	Pr	ep Batch			
Dry Soil Prep		Dry Soil Prep	GL-RAD-A	-021		LYT1	07/01/20	)	1717	20	16895			
The follow	ving Analytical	Methods w	vere perfo	rmed:										
Method		Description						Analys	st Con	nment	s			
1				02-RC Modified										
2			ASL-300, Tc	-02-RC Modified										
	Tracer Recover	•					Result	Nomi	nal			-	otable L	
Uranium-232 Technetium-9				/eg "Dry Weight C Soil "As Received"	orrected"						89.7 95.9		5%-125%) 5%-125%)	
Notes:		-		confidence leve	el (1.96-s	igma).					,,,,	(15	//0-125/0)	)
U	aders are defin				、									
DF: Dilutio		icu as 10110	w 5.	Lc/LC: Critic	al Level									
DL: Detect				PF: Prep Fact										
	imum Dotocto	bla Activit	. 7	DI · Doportin										

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

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# **Certificate of Analysis**

				Cel	linca	te of Al	1a1 y 515						
	Company :		-	e Electric Com	pany, LL(	C				Report I	Date:	July 8,	2020
	Address :	PO	Drawer R										
		Col	umbia, Sc	outh Carolina 2	9205								
	Contact:		. Cynthia										
	Project:	EN	V-CONSI	ENTA-4500778	3461								
	Client Sample	ID: C-4	1-4				P	roject:	,	WNUC0090	1		
	Sample ID:	514	924004				C	lient ID:	,	WNUC009			
	Matrix:	Soi	1										
	Collect Date:	29	JUN-20 0	9:31									
	Receive Date:	01	JUL-20										
	Collector:	Clie	ent										
	Moisture:	12%	6										
Parameter	(	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF .	Analyst Dat	e T	ime Batch	Method
Rad Alpha	Spec Analysis	<u> </u>											
-	U, Soil/Veg "D	rv Weight	Corrected	1"									
Uranium-233/		<i>j</i> ~ <i>0</i>	0.886		0.287	0.500	pCi/g			HAKB 07/06/2	20 2	357 2017171	1
Uranium-235/	236	U	-0.0375	+/-0.0869	0.258	0.500	pCi/g						
Uranium-238	Saintillation A	nolucia	1.06	+/-0.380	0.274	0.500	pCi/g						
-	Scintillation A nt Tc99, Soil "A	•	d"										
Technetium-9		U U	-0.171	+/-0.425	0.762	1.00	pCi/g			JJ3 07/07/2	20 0	755 2017085	2
	ing Prep Metho			., 0.120	0.702	1.00	Perg				_0 0	,55 201,000	-
Method	<u> </u>	Description				Analyst	Date	Г	Time	Prep Bat	ch		
Dry Soil Prep			GL-RAD-A	A-021		LYT1	07/01/20		717	2016895			
The follow	ving Analytical	Methods v	were perfo	ormed:									
Method	D	escription	1					Analyst	Com	ments			
1				-02-RC Modified									
2	D	OE EML H.	ASL-300, To	c-02-RC Modified									
Surrogate/7	Fracer Recovery						Result	Nomina	1	Recovery%	Ac	cceptable L	imits
Uranium-232				/eg "Dry Weight C						101		(15%-125%	
Technetium-9	9m Tracer	Liquid	Scint Tc99, S	Soil "As Received"						93		(15%-125%)	)
Notes: Counting U	Incertainty is ca	lculated a	t the 95%	confidence leve	el (1.96-s	igma).							
•	aders are define					- /							
DF: Dilutio		<i>a</i> us 10110		Lc/LC: Critic	cal Level								
DL: Detec				PF: Prep Fact									
	imum Dataatak	la Activit	<b>x</b> 7	DI · Doportin									

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

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# **Certificate of Analysis**

				Cel	runca	te of Al	lalysis							
	Company :			Electric Comp	pany, LLO	C				R	eport Da	te:	July 8,	2020
	Address :	PO	Drawer R											
		Col	umbia, So	uth Carolina 2	9205									
	Contact:		Cynthia I											
	Project:	EN	V-CONSE	ENTA-4500778	3461									
	Client Sample I	D: C-4	1-5				P	roject:		WNU	C00901			
	Sample ID:	514	924005				C	lient II	):	WNU	C009			
	Matrix:	Soil	1											
	Collect Date:	29-	JUN-20 09	9:40										
	Receive Date:	01-	JUL-20											
	Collector:	Clie	ent											
	Moisture:	10.5	5%											
Parameter	Qı	alifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Rad Alpha	Spec Analysis													
Alphaspec	U, Soil/Veg "Dry	Weight	Corrected	["										
Uranium-233/			1.16	+/-0.420	0.315	0.500	pCi/g			HAKB	07/06/20	2357	2017171	1
Uranium-235/ Uranium-238	236	U	0.0329	+/-0.123	0.207 0.313	0.500 0.500	pCi/g							
	Scintillation Ana	alveis	1.20	+/-0.427	0.515	0.300	pCi/g							
-	nt Tc99, Soil "As	•	d"											
Technetium-9		U	-0.170	+/-0.394	0.708	1.00	pCi/g			JJ3	07/07/20	0832	2017085	2
The follow	ing Prep Methods	s were pe	erformed:											
Method	De	escription	n			Analyst	Date		Time	Pr	ep Batch			
Dry Soil Prep	Dr	y Soil Prep	GL-RAD-A	-021		LYT1	07/01/20	)	1717	20	16895			
The follow	ving Analytical M	lethods v	were perfor	rmed:										
Method	De	scription	1					Analys	st Con	nments	S			
1				02-RC Modified										
2	DO	E EML H	ASL-300, Tc	-02-RC Modified										
	Tracer Recovery	Test					Result	Nomir	nal	Recov		-	ptable L	
Uranium-232				eg "Dry Weight C							81.2		5%-125%	
Technetium-9	9m Tracer	Liquid	Scint 1799, S	Soil "As Received"							92.1	(15	5%-125%)	)
Notes: Counting U	Incertainty is calc	culated a	t the 95%	confidence leve	el (1.96-s	igma).								
Column he	aders are defined	as follo	ws:											
DF: Dilutio				Lc/LC: Critic	al Level									
DL: Detect				PF: Prep Fact										
MDA.Min	imum Datactabl	Activit	<b>x</b> 7	<b>DI</b> · Doportin	a Limit									

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

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# **Certificate of Analysis**

					unca	le of A	11a1 y 515							
	Company : Address :		stinghous Drawer R	e Electric Comp	oany, LLO	C				R	eport Dat	te: .	July 8,	2020
	Address :	PU	Drawer R											
				outh Carolina 2	9205									
	Contact:		Cynthia											
	Project:			ENTA-4500778	461									
	Client Sample ID						P	roject:			C00901			
	Sample ID:	514	924006				C	lient II	D:	WNU	C009			
	Matrix:	Soil												
	Collect Date:	29-J	UN-20 0	9:50										
	Receive Date:	01-J	UL-20											
	Collector:	Clie	ent											
	Moisture:	10%	)											
Parameter	Qua	alifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Alpha	Spec Analysis													
-	U, Soil/Veg "Dry	Weight	Corrected	1"										
Uranium-233/		U	0.994		0.420	0.500	pCi/g			HAKB	07/06/20	2357 2	2017171	1
Uranium-235/	236	U	0.0717	+/-0.165	0.261	0.500	1 0							
Uranium-238			0.870	+/-0.376	0.268	0.500	pCi/g							
-	Scintillation Anal	•	111											
Technetium-9	nt Tc99, Soil "As F 9	Veceived U	-0.0110	+/-0.412	0.725	1.00	pCi/g			JJ3	07/07/20	0010 7	2017085	2
	ing Prep Methods			17 0.412	0.725	1.00	peng			33.5	0//0//20	0,10 2	2017005	2
Method	• •	cription				Analyst	Date		Time	e Pr	ep Batch			
Dry Soil Prep			GL-RAD-A	A-021		LYT1	07/01/20	)	1717		16895			
The follow	ving Analytical Me	thods w	vere perfo	ormed:										
Method		cription						Analy	st Cor	nment	S			
1				-02-RC Modified										
2	DOE	EML HA	ASL-300, To	e-02-RC Modified										
Surrogate/7	Fracer Recovery	Test					Result	Nomi	nal	Reco	very%	Accept	able Li	mits
Uranium-232				eg "Dry Weight Co	orrected"						90.3	· ·	%-125%)	
Technetium-9	9m Tracer	Liquid S	Scint Tc99, S	Soil "As Received"							95.8	(15%	%-125%)	
Notes: Counting U	Incertainty is calcu	ilated at	t the 95%	confidence leve	el (1.96-s	igma).								
•	aders are defined a				•	- /								
DF: Dilutio		up 10110		Lc/LC: Critic	al Level									
DL: Detect				PF: Prep Fact										
	imum Dataatabla	Activity		DI Demontin										

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

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# **Certificate of Analysis**

				Cel	linca	te of Al	1a1 y 515							
	Company :		-	e Electric Com	pany, LLO	C				Re	eport Dat	e:	July 8,	2020
	Address :	PO	Drawer R											
		Col	umbia, Sc	outh Carolina 2	9205									
	Contact:		. Cynthia											
	Project:	EN	V-CONSI	ENTA-4500778	3461									
	Client Sample I							roject:			200901			
	Sample ID:	514	924007				C	lient ID	<b>)</b> :	WNU	2009			
	Matrix:	Soi	1											
	Collect Date:		JUN-20 0	9:54										
	Receive Date:	01-	JUL-20											
	Collector:	Clie	ent											
	Moisture:	9.24	4%											
Parameter	Qu	alifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analys	st Date	Time	Batch	Method
Rad Alpha	Spec Analysis													
-	U, Soil/Veg "Dry	Weight	Corrected	d"										
Uranium-233/		U	1.07		0.292	0.500	pCi/g			HAKB	07/06/20	2357	2017171	1
Uranium-235/	/236	U	0.0712		0.259	0.500	pCi/g							
Uranium-238 Rad Liquid	Scintillation Ana	lucie	1.01	+/-0.394	0.182	0.500	pCi/g							
-	nt Tc99, Soil "As	•	d"											
Technetium-9		U	-0.176	+/-0.394	0.708	1.00	pCi/g			JJ3	07/07/20	0947	2017085	2
The follow	ing Prep Methods	were p	erformed:				1 0							
Method	• •	scriptio				Analyst	Date		Time	Pre	p Batch			
Dry Soil Prep	Dry	/ Soil Prep	GL-RAD-A	A-021		LYT1	07/01/20	)	1717	201	6895			
The follow	ing Analytical M	ethods v	were perfo	ormed:										
Method		scription						Analys	st Con	nments				
1				-02-RC Modified										
2		E EML H.	ASL-300, To	c-02-RC Modified										
Surrogate/7	Fracer Recovery	Test					Result	Nomir	nal	Recov	ery%	Accer	ptable L	imits
Uranium-232				/eg "Dry Weight C							91.1	· ·	5%-125%	
Technetium-9	9m Tracer	Liquid	Scint Tc99,	Soil "As Received"						9	95.3	(15	5%-125%)	)
Notes: Counting U	Incertainty is calc	ulated a	t the 95%	confidence leve	el (1.96-s	igma).								
•	aders are defined				× ··· · ·									
DF: Dilutio		us 10110		Lc/LC: Critic	al Level									
DL: Detect				PF: Prep Fact										
	imum Dataatable	Activit	<b>x</b> 7	DI · Doportin										

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

# **Certificate of Analysis**

					<u>unca</u>	ie of Al	11 <u>11 y 515</u>							
	Company : Address :		stinghouse Drawer R	e Electric Comp	oany, LLC	2				R	eport Dat	te:	July 8,	2020
	Address .	10												
				uth Carolina 2	9205									
	Contact:		Cynthia I		4.61									
	Project:			ENTA-4500778	461									
	Client Sample I							roject:			C00901			
	Sample ID:		924008				C	lient II	):	WNU	C009			
	Matrix:	Soil												
	Collect Date:		UN-20 09	9:58										
	Receive Date:		UL-20											
	Collector:	Clie												
	Moisture:	10.3	<b>%</b>											
Parameter	Qu	alifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	vst Date	Time	Batch	Method
Rad Alpha	Spec Analysis													
-	U, Soil/Veg "Dry	Weight	Corrected	1''										
Uranium-233/		U	1.07	+/-0.391	0.315	0.500	pCi/g			HAKB	07/06/20	2357	2017171	1
Uranium-235/	236	U	-0.0285	+/-0.0862	0.242	0.500	pCi/g							
Uranium-238 Red Liquid	Saintillation And	lucio	1.56	+/-0.445	0.154	0.500	pCi/g							
-	Scintillation Ana at Tc99, Soil "As	•	4"											
Technetium-9		U	-0.227	+/-0.436	0.786	1.00	pCi/g			JJ3	07/07/20	1025	2017085	2
The follow	ing Prep Methods						r · · ð							
Method	De	escription	1			Analyst	Date		Time	Pr	ep Batch			
Dry Soil Prep	Dr	y Soil Prep	GL-RAD-A	-021		LYT1	07/01/20	)	1717	20	16895			
The follow	ving Analytical M	lethods v	vere perfo	rmed:										
Method		scription						Analy	st Cor	nment	s			
1				02-RC Modified										
2		E EML HA	ASL-300, Tc	-02-RC Modified										
	Fracer Recovery	Test					Result	Nomi	nal			-	table Li	
Uranium-232 Technetium-9				eg "Dry Weight Co	orrected"						90.8 92.5	· · ·	%-125%)	
	9m Tracer		5cm 1099, S	Soil "As Received"							92.3	(15)	%-125%)	
Notes:	Incertainty is calc	ulated a	t the 95%	confidence leve	el (1 96-s	ioma)								
•	-				CI (1170-5	-5 <sup>1110</sup> ).								
DF: Dilutio	aders are defined	as rollo	ws:	Lc/LC: Critic	al Level									
DL: Detect				PF: Prep Fact										
	imum Datactabl	Activit	.7	DI · Doportin										

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

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# **Certificate of Analysis**

					unca	te of Al	11a1 y 515							
	Company : Address :		stinghouse Drawer R	e Electric Comp	oany, LLO	2				R	eport Dat	te:	July 8,	2020
	Address .	10	Diawei K											
	~			outh Carolina 2	9205									
	Contact:		Cynthia l		461									
	Project:			ENTA-4500778	461			•		** / ** **	G00001			
	Client Sample							roject:			C00901			
	Sample ID:		924009				C	lient II	D:	WNU	C009			
	Matrix:	Soil		0.02										
	Collect Date:		JUN-20 10	0:03										
	Receive Date:		JUL-20											
	Collector:	Clie												
	Moisture:	7.91	1%											
Parameter	Qı	ualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	vst Date	Time	Batch	Method
Rad Alpha	Spec Analysis													
-	U, Soil/Veg "Dry	Weight	Corrected	1"										
Uranium-233/		U	1.35		0.236	0.500	pCi/g			HAKB	07/06/20	2357	2017171	1
Uranium-235/	236	U	0.0108	+/-0.113	0.236	0.500	pCi/g							
Uranium-238	Saintillation An	altraia	0.890	+/-0.336	0.173	0.500	pCi/g							
-	Scintillation An	•	a''											
Technetium-9	nt Tc99, Soil "As 9	U	-0.00393	+/-0.432	0.759	1.00	pCi/g			JJ3	07/07/20	1102	2017085	2
	ing Prep Method			.,	0.759	1100	Pers			555	01101120	1102	2017000	_
Method	• •	escription				Analyst	Date		Time	Pr	ep Batch			
Dry Soil Prep			GL-RAD-A	A-021		LYT1	07/01/20	0	1717		16895			
The follow	ving Analytical N	lethods w	were perfo	rmed:										
Method		scription						Analy	st Cor	nment	s			
1				02-RC Modified										
2		E EML HA	ASL-300, To	e-02-RC Modified										
	Fracer Recovery	Test					Result	Nomi	nal			-	table L	
Uranium-232				/eg "Dry Weight Co	orrected"						91.1	· ·	%-125%)	
Technetium-9	9111 I racer	Liquid	Scint 1099, 3	Soil "As Received"							94.1	(15	%-125%)	)
Notes:	Incertainty is cal	rulated a	t the 95%	confidence leve	-1 (1 96-s	ioma)								
•	•					-Biina).								
DF: Dilutio	aders are defined on Factor	i as follo	ws:	Lc/LC: Critic	al Level									
DL: Detect				PF: Prep Fact										
	imum Dataatabl	· A ativit		DI · Doportin										

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

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# **Certificate of Analysis**

				CE.	i unca	le of Al	11a1 y 515							
	Company :	Wes	stinghouse	Electric Com	nany LL(	7				R	eport Dat	ie:	July 8,	2020
	Address :		Drawer R	Lieetile comj	pully, EE	<u> </u>								
				uth Carolina 2	29205									
	Contact:		Cynthia L											
	Project:			NTA-4500778	3461									
	Client Sample ID:							oject:			C00901			
	Sample ID:		924010				C	lient II	D:	WNU	C009			
	Matrix:	Soil												
	Collect Date:	29-J	UN-20 10	:11										
	Receive Date:	01-J	UL-20											
	Collector:	Clie	nt											
	Moisture:	9.97	'%											
Parameter	Qual	ifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Alpha	Spec Analysis													
Alphaspec	U, Soil/Veg "Dry V	Veight	Corrected	"										
Uranium-233/		-	1.51	+/-0.428	0.279	0.500	pCi/g			HAKB	07/06/20	2357	2017171	1
Uranium-235/	236	U	0.127	+/-0.176	0.263	0.500	pCi/g							
Uranium-238 Pad Liquid	Scintillation Analy		1.15	+/-0.372	0.241	0.500	pCi/g							
-	nt Tc99, Soil "As Re		4"											
Technetium-9		U	-0.298	+/-0.417	0.759	1.00	pCi/g			JJ3	07/07/20	1140	2017085	2
	ing Prep Methods v	-			01703		r 8							_
Method	• •	riptior				Analyst	Date		Time	- Pr	ep Batch			
Dry Soil Prep			GL-RAD-A	-021		LYT1	07/01/20	)	1717		16895			
The follow	ving Analytical Met	-												
Method	Desci	ription						Analy	st Coi	nment	8			
1	DOE I	EML HA	ASL-300, U-0	02-RC Modified										
2	DOE I	EML HA	ASL-300, Tc-	-02-RC Modified										
Surrogate/7	Fracer Recovery	Test					Result	Nomi	nal	Recov	very%	Accer	otable L	imits
Uranium-232 Technetium-9				eg "Dry Weight C oil "As Received"							106 93.4		5%-125%) 5%-125%)	
Notes: Counting U	Incertainty is calcul	ated at	t the 95% of	confidence lev	el (1.96-s	igma).								
Column he	aders are defined a	s follo	ws:											
DF: Dilutio				Lc/LC: Critic	cal Level									
DI · Dataat	tion Limit			DE: Drop Eag	tor									

DF: Dilution FactorLc/LC: Critical LevelDL: Detection LimitPF: Prep FactorMDA: Minimum Detectable ActivityRL: Reporting LimitMDC: Minimum Detectable ConcentrationSQL: Sample Quantitation Limit

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# **Certificate of Analysis**

				UE	unca	te of Al	1a1y515							
	Company : Address :		stinghouse Drawer R	e Electric Comp	oany, LLO	C				Re	port Dat	e:	July 8,	2020
	Address :	PO	Drawer K											
		Col	umbia, So	uth Carolina 2	9205									
	Contact:		Cynthia I											
	Project:			ENTA-4500778	461									
	Client Sample						P	roject:			200901			
	Sample ID:	514	924011				C	lient ID:	: `	WNUC	2009			
	Matrix:	Soil												
	Collect Date:		UN-2010	):18										
	Receive Date:	01	TUL-20											
	Collector:	Clie	ent											
	Moisture:	12.4	4%											
Parameter	Q	ualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analys	st Date	Time	Batch	Method
Rad Alpha	Spec Analysis													
-	U, Soil/Veg "Dr	Weight	Corrected	l''										
Uranium-233/		U	1.34	+/-0.437	0.315	0.500	pCi/g			HAKB	07/06/20	2357	2017171	1
Uranium-235/	236	U	0.216	+/-0.215	0.249	0.500	pCi/g							
Uranium-238	Saintillation An	alvaia	1.47	+/-0.446	0.244	0.500	pCi/g							
-	Scintillation An	•												
Technetium-9	nt Tc99, Soil "As 9	U	u -0.0837	+/-0.423	0.751	1.00	pCi/g			JJ3	07/07/20	1217	2017085	2
	ing Prep Method				0.751	1.00	Perg			555	01101120	1217	2017000	_
Method	• •	escription				Analyst	Date		Time	Pre	p Batch			
Dry Soil Prep	Dr	y Soil Prep	GL-RAD-A	-021		LYT1	07/01/20	)	1717	201	6895			
The follow	ving Analytical M	lethods v	vere perfo	rmed:										
Method		scription						Analyst	Com	ments				
1				02-RC Modified										
2		E EML HA	ASL-300, Tc	-02-RC Modified										
	Fracer Recovery	Test					Result	Nomina	al	Recov	•	-	otable L	
Uranium-232				eg "Dry Weight C	orrected"						8.6	```	5%-125%	
Technetium-9	9m Tracer	Liquid	Scint 1099, S	Soil "As Received"						9	2.7	(15	5%-125%)	)
Notes: Counting U	Incertainty is cal	culated a	t the 95%	confidence leve	el (1.96-s	igma).								
•	aders are defined													
DF: Dilutio		10110		Lc/LC: Critic	al Level									
DL: Detect	tion Limit			PF: Prep Fact										
MDA.Mir	imum Dataatabl	A Activit	. 7	<b>DI</b> · Doportin	a Limit									

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

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# **Certificate of Analysis**

				Cel	runca	te of Al	liarysis							
	Company :		-	e Electric Comp	oany, LLO	C				R	eport Dat	te:	July 8,	2020
	Address :	PO	Drawer R											
		Col	umbia, So	uth Carolina 2	9205									
	Contact:		Cynthia I											
	Project:			ENTA-4500778	461									
	Client Sample I	D: C-6	0-2					roject:			C00901			
	Sample ID:	514	924012				C	lient ID	:	WNU	C009			
	Matrix:	Soil	l											
	Collect Date:		JUN-20 10	):21										
	Receive Date:		JUL-20											
	Collector:	Clie	ent											
	Moisture:	11.5	5%											
Parameter	Qu	alifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Rad Alpha	Spec Analysis													
Alphaspec	U, Soil/Veg "Dry	Weight	Corrected	["										
Uranium-233/			1.29	+/-0.516	0.481	0.500	pCi/g			HAKB	07/06/20	2357	2017171	1
Uranium-235/ Uranium-238	236	U	0.0299 1.18	+/-0.193 +/-0.467	0.395 0.335	0.500 0.500	pCi/g pCi/g							
	Scintillation Ana	lysis	1.10	+/-0.407	0.555	0.500	pci/g							
-	nt Tc99, Soil "As	•	d"											
Technetium-9	,	U	-0.315	+/-0.421	0.768	1.00	pCi/g			JJ3	07/07/20	1255	2017085	2
	ing Prep Methods	were pe	erformed:											
Method		scription				Analyst	Date		Time		ep Batch			
Dry Soil Prep	Dry	Soil Prep	GL-RAD-A	-021		LYT1	07/01/20	)	1717	201	16895			
The follow	ving Analytical M	ethods w	vere perfo	rmed:										
Method		scription						Analys	t Con	ments	8			
1 2				02-RC Modified -02-RC Modified										
			ASL-300, 10	-02-KC Modified			D 1.		1					•••
	Tracer Recovery	Test			. 10		Result	Nomin	al	Recov			ptable L	
Uranium-232 Technetium-9				eg "Dry Weight C Soil "As Received"	orrected						72 94.4		5%-125%) 5%-125%)	
Notes:	Incertainty is calc	-			el (1.96-s	igma).						(		
C	aders are defined				(	G) <b>·</b>								
DF: Dilutio		as 10110	ws.	Lc/LC: Critic	al Level									
DL: Detect				PF: Prep Fact										
	imum Datactabla	Activit		DI · Doportin										

RL: Reporting Limit

SQL: Sample Quantitation Limit

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MDA: Minimum Detectable Activity

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# **Certificate of Analysis**

				Ce	<u>i iiita</u>	te of Al	11a1 y 515			-	-			
	Company :	Wes	tinghouse	Electric Com	pany, LLC	<u> </u>				Re	eport Dat	le:	July 8,	2020
	Address :	PO I	Drawer R											
		Colu	umbia. Sou	uth Carolina 2	9205									
	Contact:		Cynthia L		19205									
	Project:			NTA-4500778	8461									
	Client Sample ID:	C-60	)-3				Pr	oject:		WNU	C00901			
	Sample ID:		024013					lient ID		WNU				
	Matrix:	Soil												
	Collect Date:	29-J	UN-20 10	:24										
	Receive Date:	01-J	UL-20											
	Collector:	Clier												
	Moisture:	7.97												
Parameter	Quali	ifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Alpha	Spec Analysis													
Alphaspec	U, Soil/Veg "Dry W	/eight	Corrected	"										
Uranium-233/	234	•	0.957	+/-0.383	0.339	0.500	pCi/g			HAKB	07/06/20	2357	2017171	1
Uranium-235/	236	U	0.0622	+/-0.143	0.227	0.500	pCi/g							
Uranium-238	Saintillation Analy		1.14	+/-0.404	0.297	0.500	pCi/g							
-	Scintillation Analys													
Technetium-9	nt Tc99, Soil "As Re	U	-0.223	+/-0.415	0.749	1.00	pCi/g			JJ3	07/07/20	1332	2017085	2
	ing Prep Methods w	-		17 0.415	0.749	1.00	pers			33.5	01101120	1552	2017005	2
Method	• •	ription				Analyst	Date		Time	Dre	ep Batch			
Dry Soil Prep			GL-RAD-A	-021		LYT1	07/01/20		1717		16895			
• •	ving Analytical Meth	-				DIII	0//01/20		1,1,	201	10075			
Method	Descr		ere perior	inica.				Analys	t Cor	nments	2			
1			SL-300, U-0	02-RC Modified				7 mary 5		miento	,			
2	DOE E	EML HA	SL-300, Tc-	02-RC Modified										
Surrogate/7	Fracer Recovery	Test					Result	Nomin	al	Recov	very%	Accer	otable Li	mits
Uranium-232	Tracer A	Alphaspe	ec U, Soil/V	eg "Dry Weight C	orrected"					8	81.6	(15	5%-125%)	
Technetium-9	9m Tracer I	Liquid S	cint Tc99, S	oil "As Received"						ç	90.8	(15	5%-125%)	
<b>Notes:</b> Counting U	Incertainty is calcula	ated at	the 95% o	confidence leve	el (1.96-s	igma).								
Column he	aders are defined as	s follov	vs:											
DF: Dilutio				Lc/LC: Critic	cal Level									
DI · Dataat	tion Limit			DE: Drop East	tor									

DF: Dilution FactorLc/LC: Critical LevelDL: Detection LimitPF: Prep FactorMDA: Minimum Detectable ActivityRL: Reporting LimitMDC: Minimum Detectable ConcentrationSQL: Sample Quantitation Limit

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# **Certificate of Analysis**

					unca	te of Al	11a1 y 515						
	Company : Address :		stinghouse Drawer R	e Electric Comp	oany, LLO	2				R	eport Dat	te: July	8, 2020
	Address :	PO	Drawer K										
		Col	umbia, So	uth Carolina 2	9205								
	Contact:		Cynthia I										
	Project:			ENTA-4500778	461								
	Client Sample						P	roject:			C00901		
	Sample ID:	514	924014				C	lient II	D:	WNU	C009		
	Matrix:	Soil											
	Collect Date:		UN-2010	):31									
	Receive Date:	01-J	TUL-20										
	Collector:	Clie	ent										
	Moisture:	8.44	4%										
Parameter	0	ualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	vst Date	Time Bat	ch Method
Rad Alpha	Spec Analysis												
-	U, Soil/Veg "Dr	v Weight	Corrected	1"									
Uranium-233/		,	1.12		0.246	0.500	pCi/g			HAKB	07/06/20	2357 2017	171 1
Uranium-235/	236	U	0.0113	+/-0.118	0.246	0.500	pCi/g						
Uranium-238	0	1 .	0.685	+/-0.308	0.215	0.500	pCi/g						
-	Scintillation An	•	1										
Liquid Scir Technetium-9	nt Tc99, Soil "As	Receive U	-0.162	+/-0.425	0.761	1.00	pCi/g			JJ3	07/07/20	1410 2017	085 2
	<sup>9</sup> ing Prep Method			+/-0.423	0.701	1.00	pCI/g			112	07/07/20	1410 2017	J85 2
Method	• •	escription				Analyst	Date		Time	Pr	ep Batch		
Dry Soil Prep		1	GL-RAD-A	-021		LYT1	07/01/20	)	1717		16895		
The follow	ving Analytical N	lethods v	vere perfo	rmed:									
Method	De	escription						Analy	st Cor	nment	s		
1				02-RC Modified									
2	DC	DE EML HA	ASL-300, Tc	-02-RC Modified									
Surrogate/7	Fracer Recovery	Test					Result	Nomi	nal	Reco	very%	Acceptable	e Limits
Uranium-232				eg "Dry Weight C	orrected"						83.5	(15%-12	,
Technetium-9	9m Tracer	Liquid S	Scint Tc99, S	Soil "As Received"							90.8	(15%-12	5%)
Notes: Counting U	Incertainty is cal	culated at	t the 95%	confidence leve	el (1.96-s	igma).							
Column he	aders are defined	t as follo	ws:										
DF: Dilutio			<u></u>	Lc/LC: Critic	al Level								
DL: Detect	tion Limit			PF: Prep Fact									
MDAM	imum Dotoctabl	a Activity	. 7	<b>DI</b> · <b>Doportin</b>	a Limit								

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

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# **Certificate of Analysis**

				UEI	unca	le of A	11a1 y 515							
	Company : Address :		stinghous Drawer R	e Electric Comp	oany, LLO	C				Report Date		te:	July 8,	2020
	Address :	PO	Drawer R	L										
				outh Carolina 2	9205									
	Contact:		Cynthia											
	Project:			ENTA-4500778	461									
	Client Sample ID							roject:			C00901			
	Sample ID:		924015				C	lient Il	D:	WNU	C009			
	Matrix:	Soil	l											
	Collect Date:		JUN-20 1	0:35										
	Receive Date:	01	JUL-20											
	Collector:	Clie	ent											
	Moisture:	13.8	3%											
Parameter	Qua	lifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	vst Date	Time	Batch	Method
Rad Alpha	Spec Analysis									-				
-	U, Soil/Veg "Dry V	Veight	Corrected	d"										
Uranium-233/		0	0.851		0.242	0.500	pCi/g			HAKB	07/06/20	2357	2017171	1
Uranium-235/	/236		0.150		0.113	0.500	1 0							
Uranium-238			1.02	+/-0.354	0.168	0.500	pCi/g							
-	Scintillation Analy		10											
Technetium-9	nt Tc99, Soil "As R	eceive U	-0.0162	+/-0.428	0.754	1.00	pCi/g			JJ3	07/07/20	1447	2017085	2
	ing Prep Methods v			+/-0.428	0.754	1.00	pen/g			112	07/07/20	1447	2017085	2
Method	• •	cription				Analyst	Date		Time	Pr	ep Batch			
Dry Soil Prep			GL-RAD-A	A-021		LYT1	07/01/20	)	1717		16895			
The follow	ving Analytical Me	thods v	were perfo	ormed:										
Method	Desc	ription	l					Analy	st Cor	nment	s			
1				-02-RC Modified										
2	DOE	EML H	ASL-300, To	e-02-RC Modified										
Surrogate/7	Fracer Recovery	Test					Result	Nomi	nal	Reco	very%	Accep	otable L	imits
Uranium-232				Veg "Dry Weight Co	orrected"						92	· ·	5%-125%)	
Technetium-9	9m Tracer	Liquid	Scint Tc99,	Soil "As Received"							92.7	(15	5%-125%)	)
Notes: Counting U	Incertainty is calcu	lated a	t the 95%	confidence leve	el (1.96-s	igma).								
•	aders are defined a					5 /								
DF: Diluti		.5 10110	w5.	Lc/LC: Critic	al Level									
DL: Detec				PF: Prep Fact										
	imum Dataatabla	Activit		DI . Demontin										

RL: Reporting Limit

SQL: Sample Quantitation Limit

MDA: Minimum Detectable Activity

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Report Date: July 8, 2020

Page 1 of 15

Westinghouse Electric Company, LLC PO Drawer R Columbia, South Carolina Ms. Cynthia Logsdon

Workorder: 514924

**Contact:** 

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Ion ChromatographyBatch2016999									
QC1204590228 514924001 DUP Fluoride		1.31	J	1.02	mg/kg	25.2 ^		(+/-1.13) LXA2	07/02/20 13:11
QC1204590227 LCS Fluoride	24.6			24.9	mg/kg		101	(90%-110%)	07/02/20 12:17
QC1204590226 MB Fluoride			U	ND	mg/kg				07/02/20 11:48
QC1204590229 514924001 MS Fluoride	27.9	1.31		9.35	mg/kg		28.9*	(75%-125%)	07/02/20 13:38
Batch 2017034									
QC1204590309 514924011 DUP Fluoride	U	ND	U	ND	mg/kg	N/A		CH5	07/03/20 22:42
QC1204590308 LCS Fluoride	24.6			24.6	mg/kg		100	(90%-110%)	07/03/20 21:46
QC1204590307 MB Fluoride			U	ND	mg/kg				07/03/20 21:18
QC1204590310 514924011 MS Fluoride	26.7 U	ND		7.30	mg/kg		27.3*	(75%-125%)	07/03/20 23:10
Metals Analysis - ICPMS Batch 2016943									
QC1204590120 LCS Uranium-235	33.0			31.7	ug/kg		96.1	(80%-120%) PRB	07/07/20 18:06
Uranium-238	4550			4480	ug/kg		98.4	(80%-120%)	

Workordor: 5	14024				2	<u> </u>		<u></u>						
	514924				~ .							<u> </u>	Page 2 of	
Parmname			NON	M	Sample	Qual	QC	Units	RPD%	REC%	Range A	Anlst	Date Tim	<u>ie</u>
Metals Analysis - ICBatch201	CPMS 16943													
QC1204590168 Uranium-234	LCS		54.5				60.0	ug/kg		110	(80%-120%)	PRB	07/07/20 23	:10
QC1204590119 Uranium-234	MB					U	ND	ug/kg					07/07/20 23	:08
Uranium-235						U	ND	ug/kg					07/07/20 18	:04
Uranium-238						U	ND	ug/kg						
QC1204590121 Uranium-235	514924001	MS	37.8	J	10.3		54.9	ug/kg		118	(75%-125%)		07/07/20 18	:10
Uranium-238			5210		1170		6560	ug/kg		103	(75%-125%)			
QC1204590169 Uranium-234	514924001	MS	59.6	U	ND		61.7	ug/kg		103	(75%-125%)		07/07/20 23	:14
QC1204590122 Uranium-235	514924001	MSD	39.4	J	10.3		91.6	ug/kg	50.1*	206*	(0%-20%)		07/07/20 18	:11
Uranium-238			5440		1170		8340	ug/kg	23.9*	132*	(0%-20%)			
QC1204590170 Uranium-234	514924001	MSD	58.3	U	ND		63.6	ug/kg	3.04	109	(0%-20%)		07/07/20 23	:15
QC1204592690 Uranium-235	514924001		0.180	J	0.0497		0.232	ug/L		102	(75%-125%)		07/07/20 18	:13
Uranium-238			24.8		5.65		31.0	ug/L		102	(75%-125%)			
QC1204590123 Uranium-234	514924001	SDILT		U	ND	U	ND	ug/L	N/A		(0%-20%)		07/07/20 23	:17

Workorder: 514924		$\mathbf{X} \in \mathcal{S} \mathbf{X}$		<u></u>				D 2 . C 15
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Page 3 of 15 Date Time
Metals Analysis - ICPMS       Batch     2016943		Зашріс Диаі	<u></u> v		<u> </u>	<u></u>	Kalige Anise	
Uranium-235	1	0.0497 U	ND	ug/L	N/A		(0%-20%) PRE	B 07/07/20 18:15
Uranium-238		5.65	1.08	ug/L	4.25		(0%-20%)	
Volatile-GC/MS Batch 2017923 —								
QC1204592433 LCS 1,1,1-Trichloroethane	50.0		44.9	ug/kg		90	(70%-130%) MXL2	2 07/07/20 10:13
1,1,2,2-Tetrachloroethane	50.0		50.8	ug/kg		102	(70%-130%)	
1,1,2-Trichloroethane	50.0		48.4	ug/kg		97	(70%-130%)	
1,1-Dichloroethane	50.0		48.2	ug/kg		96	(70%-130%)	
1,1-Dichloroethylene	50.0		46.3	ug/kg		93	(70%-130%)	
1,2,3-Trichlorobenzene	50.0		50.0	ug/kg		100	(70%-130%)	
1,2,4-Trichlorobenzene	50.0		49.7	ug/kg		99	(70%-130%)	
1,2-Dibromo-3-chloropropane	50.0		50.3	ug/kg		101	(70%-130%)	
1,2-Dibromoethane	50.0		48.2	ug/kg		96	(70%-130%)	
1,2-Dichlorobenzene	50.0		51.5	ug/kg		103	(70%-130%)	
1,2-Dichloroethane	50.0		44.5	ug/kg		89	(70%-130%)	
1,2-Dichloropropane	50.0		51.8	ug/kg		104	(70%-130%)	

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Workorder: 514924								Page 4 of 15
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Volatile-GC/MS Batch 2017923								
1,3-Dichlorobenzene	50.0		49.6	ug/kg		99	(70%-130%) MXL2	2 07/07/20 10:13
1,4-Dichlorobenzene	50.0		50.0	ug/kg		100	(70%-130%)	
2-Butanone	250		198	ug/kg		79	(70%-130%)	
2-Hexanone	250		210	ug/kg		84	(70%-130%)	
4-Methyl-2-pentanone	250		227	ug/kg		91	(70%-130%)	
Acetone	250		186	ug/kg		74	(70%-130%)	
Benzene	50.0		49.5	ug/kg		99	(70%-130%)	
Bromochloromethane	50.0		48.3	ug/kg		97	(70%-130%)	
Bromodichloromethane	50.0		49.3	ug/kg		99	(70%-130%)	
Bromoform	50.0		54.2	ug/kg		108	(70%-130%)	
Bromomethane	50.0		47.1	ug/kg		94	(70%-130%)	
Carbon disulfide	250		226	ug/kg		90	(70%-130%)	
Carbon tetrachloride	50.0		46.0	ug/kg		92	(70%-130%)	
Chlorobenzene	50.0		49.6	ug/kg		99	(70%-130%)	
Chloroethane	50.0		51.1	ug/kg		102	(70%-130%)	

Workorder: 514924				<u>.</u>				Page 5 of 15
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Volatile-GC/MS Batch 2017923								
Chloroform	50.0		47.1	ug/kg		94	(70%-130%) MXL2	07/07/20 10:13
Chloromethane	50.0		40.7	ug/kg		81	(70%-130%)	
Cyclohexane	50.0		45.5	ug/kg		91	(70%-130%)	
Dibromochloromethane	50.0		49.7	ug/kg		99	(70%-130%)	
Dichlorodifluoromethane	50.0		47.4	ug/kg		95	(70%-130%)	
Ethylbenzene	50.0		45.4	ug/kg		91	(70%-130%)	
Isopropylbenzene	50.0		47.8	ug/kg		96	(70%-130%)	
Methyl acetate	250		216	ug/kg		87	(70%-130%)	
Methylcyclohexane	50.0		46.9	ug/kg		94	(70%-130%)	
Methylene chloride	50.0		42.7	ug/kg		85	(70%-130%)	
Styrene	50.0		47.6	ug/kg		95	(70%-130%)	
Tetrachloroethylene	50.0		47.0	ug/kg		94	(70%-130%)	
Toluene	50.0		45.7	ug/kg		91	(70%-130%)	
Trichloroethylene	50.0		48.2	ug/kg		96	(70%-130%)	
Trichlorofluoromethane	50.0		41.7	ug/kg		83	(70%-130%)	

# **QC Summary**

Washandan 514004											
Workorder: 514924			0.0	<b>T</b> T <b>1</b> /		DEGN		Page 6 of 15			
Parmname Volatile-GC/MS	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time			
Batch 2017923											
Vinyl chloride	50.0		47.9	ug/kg		96	(70%-130%) MXL2	07/07/20 10:13			
cis-1,2-Dichloroethylene	50.0		45.8	ug/kg		92	(70%-130%)				
cis-1,3-Dichloropropylene	50.0		51.7	ug/kg		103	(70%-130%)				
CIS-1,5-Dichloropropyrene	50.0		51.7	ug/rg		105	(/0%-130%)				
m,p-Xylenes	100		92.3	ug/kg		92	(70%-130%)				
′ <b>⊥</b> -							× .				
o-Xylene	50.0		44.8	ug/kg		90	(70%-130%)				
tert-Butyl methyl ether	50.0		44.0	ug/kg		88	(70%-130%)				
trans-1,2-Dichloroethylene	50.0		44.8	ug/kg		90	(70%-130%)				
trans-1,3-Dichloropropylene	50.0		47.9	ug/kg		96	(70%-130%)				
	20.0			-00		2-	(10/0 100/0)				
**1,2-Dichloroethane-d4	50.0		44.7	ug/L		89	(81%-124%)				
**Bromofluorobenzene	50.0		50.0	ug/L		100	(70%-130%)				
**Toluene-d8	50.0		47.3	ug/L		95	(81%-120%)				
QC1204592434 LCSD											
1,1,1-Trichloroethane	50.0		45.5	ug/kg	1	91	(0%-20%)	07/07/20 10:40			
1,1,2,2-Tetrachloroethane	50.0		50.2	ug/kg	1	100	(0%-20%)				
	50.0		40.2	Л	0	07	(00/ 000/)				
1,1,2-Trichloroethane	50.0		48.3	ug/kg	0	97	(0%-20%)				
1,1-Dichloroethane	50.0		49.3	ug/kg	2	99	(0%-20%)				
,	2 310				-		(*** =***)				

Workorder: 514924								Page 7 of 15
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Volatile-GC/MSBatch2017923								
1,1-Dichloroethylene	50.0		49.4	ug/kg	7	99	(0%-20%) MXL2	07/07/20 10:40
1,2,3-Trichlorobenzene	50.0		50.1	ug/kg	0	100	(0%-20%)	
1,2,4-Trichlorobenzene	50.0		48.1	ug/kg	3	96	(0%-20%)	
1,2-Dibromo-3-chloropropane	50.0		49.4	ug/kg	2	99	(0%-20%)	
1,2-Dibromoethane	50.0		47.5	ug/kg	2	95	(0%-20%)	
1,2-Dichlorobenzene	50.0		50.0	ug/kg	3	100	(0%-20%)	
1,2-Dichloroethane	50.0		44.0	ug/kg	1	88	(0%-20%)	
1,2-Dichloropropane	50.0		49.9	ug/kg	4	100	(0%-20%)	
1,3-Dichlorobenzene	50.0		47.3	ug/kg	5	95	(0%-20%)	
1,4-Dichlorobenzene	50.0		47.1	ug/kg	6	94	(0%-20%)	
2-Butanone	250		206	ug/kg	4	83	(0%-20%)	
2-Hexanone	250		203	ug/kg	3	81	(0%-20%)	
4-Methyl-2-pentanone	250		218	ug/kg	4	87	(0%-20%)	
Acetone	250		200	ug/kg	7	80	(0%-20%)	
Benzene	50.0		48.7	ug/kg	2	97	(0%-20%)	

Workorder: 514924								Page 8 of 15
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Volatile-GC/MS Batch 2017923			<u> </u>					
Bromochloromethane	50.0		52.7	ug/kg	9	105	(0%-20%) MXL2	07/07/20 10:40
Bromodichloromethane	50.0		48.7	ug/kg	1	97	(0%-20%)	
Bromoform	50.0		53.1	ug/kg	2	106	(0%-20%)	
Bromomethane	50.0		49.7	ug/kg	5	99	(0%-20%)	
Carbon disulfide	250		236	ug/kg	4	94	(0%-20%)	
Carbon tetrachloride	50.0		46.3	ug/kg	1	93	(0%-20%)	
Chlorobenzene	50.0		47.4	ug/kg	5	95	(0%-20%)	
Chloroethane	50.0		52.8	ug/kg	3	106	(0%-20%)	
Chloroform	50.0		49.8	ug/kg	6	100	(0%-20%)	
Chloromethane	50.0		42.6	ug/kg	5	85	(0%-20%)	
Cyclohexane	50.0		48.9	ug/kg	7	98	(0%-20%)	
Dibromochloromethane	50.0		47.9	ug/kg	4	96	(0%-20%)	
Dichlorodifluoromethane	50.0		48.1	ug/kg	1	96	(0%-20%)	
Ethylbenzene	50.0		43.7	ug/kg	4	87	(0%-20%)	
Isopropylbenzene	50.0		47.3	ug/kg	1	95	(0%-20%)	

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Workorder: 514924								Page 9 of 15
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Volatile-GC/MSBatch2017923								
Methyl acetate	250		224	ug/kg	4	90	(0%-20%) MXL2	07/07/20 10:40
Methylcyclohexane	50.0		45.8	ug/kg	2	92	(0%-20%)	
Methylene chloride	50.0		49.1	ug/kg	14	98	(0%-20%)	
Styrene	50.0		45.2	ug/kg	5	90	(0%-20%)	
Tetrachloroethylene	50.0		44.0	ug/kg	7	88	(0%-20%)	
Toluene	50.0		44.5	ug/kg	3	89	(0%-20%)	
Trichloroethylene	50.0		46.7	ug/kg	3	93	(0%-20%)	
Trichlorofluoromethane	50.0		41.2	ug/kg	1	82	(0%-20%)	
Vinyl chloride	50.0		49.6	ug/kg	3	99	(0%-20%)	
cis-1,2-Dichloroethylene	50.0		49.9	ug/kg	9	100	(0%-20%)	
cis-1,3-Dichloropropylene	50.0		49.7	ug/kg	4	99	(0%-20%)	
· • •								
m,p-Xylenes	100		89.0	ug/kg	4	89	(0%-20%)	
o-Xylene	50.0		43.2	ug/kg	4	86	(0%-20%)	
tert-Butyl methyl ether	50.0		48.1	ug/kg	9	96	(0%-20%)	
tort-butyr monyr onor	20.0			4 <u>9</u> , 4 <u>9</u>	,	20	(070 2070)	
trans-1,2-Dichloroethylene	50.0		48.9	ug/kg	9	98	(0%-20%)	
duis 1,2 Dienioroeuryiene	50.0		40.9	ug/Kg	,	70	(070 2070)	

Workordon 514004		$\underline{\mathbf{v}}$						
Workorder: 514924			~~~	<b>T</b> T <b>1</b> :		DEGAL		Page 10 of 15
Parmname Volatile-GC/MS	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Batch 2017923								
trans-1,3-Dichloropropylene	50.0		46.5	ug/kg	3	93	(0%-20%) MXL2	07/07/20 10:40
**1,2-Dichloroethane-d4	50.0		45.1	ug/L		90	(81%-124%)	
**Bromofluorobenzene	50.0		50.1	ug/L		100	(70%-130%)	
**Toluene-d8	50.0		46.5	ug/L		93	(81%-120%)	
QC1204592432 MB		TI	ND	/1				07/07/20 12:00
1,1,1-Trichloroethane		U	ND	ug/kg				07/07/20 12:00
1122 Tetership weather a		TI	ND	/1				
1,1,2,2-Tetrachloroethane		U	ND	ug/kg				
112 Tricklass theme		U	ND	ua/ka				
1,1,2-Trichloroethane		0	ND	ug/kg				
1,1-Dichloroethane		U	ND	ng/kg				
1,1-Dichloroethane		0	ND	ug/kg				
1,1-Dichloroethylene		U	ND	ng/kg				
1,1-Dichloroethylene		0	ND	ug/kg				
1,2,3-Trichlorobenzene		U	ND	ug/kg				
1,2,5-111011010000120110		0	ND	ug/kg				
1,2,4-Trichlorobenzene		U	ND	ng/kg				
1,2,4-11101000012010		U	ND	ug/kg				
1,2-Dibromo-3-chloropropane		U	ND	ug/kg				
1,2-Diotomo-5-emotopropane		U	ND	ug/kg				
1,2-Dibromoethane		U	ND	ug/kg				
1,2-D10101110cutalle		U	ΝD	ug/Kg				
1,2-Dichlorobenzene		U	ND	ug/kg				
		C C	ΝD	ug/Kg				
1,2-Dichloroethane		U	ND	110/20				
1,2-DICHIOIOeunane		U	ND	ug/kg				

# **QC Summary**

		<u>QC Su</u>	milai	y						
Workorder: 514924				_					Page 1	11 of 15
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MSBatch2017923										
1,2-Dichloropropane		U	ND	ug/kg				MXL2	07/07/2	0 12:00
1,3-Dichlorobenzene		U	ND	ug/kg						
1,4-Dichlorobenzene		U	ND	ug/kg						
1,4-Dioxane		U	ND	ug/kg						
2-Butanone		U	ND	ug/kg						
2-Hexanone		U	ND	ug/kg						
4-Methyl-2-pentanone		U	ND	ug/kg						
Acetone		U	ND	ug/kg						
Benzene		U	ND	ug/kg						
Bromochloromethane		U	ND	ug/kg						
Bromodichloromethane		U	ND	ug/kg						
Bromoform		U	ND	ug/kg						
Bromomethane		U	ND	ug/kg						
Carbon disulfide		U	ND	ug/kg						
Carbon tetrachloride		U	ND	ug/kg						

Workorder: 514924		_	<u></u>		<u></u>					Page 12 of 15
Parmname	NOM	Sample	Oual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MSBatch2017923		Dampie	Quai	<u> </u>			<u></u>		<u></u>	
Chlorobenzene			U	ND	ug/kg				MXL2	07/07/20 12:00
Chloroethane			U	ND	ug/kg					
Chloroform			U	ND	ug/kg					
Chloromethane			U	ND	ug/kg					
Cyclohexane			U	ND	ug/kg					
Dibromochloromethane			U	ND	ug/kg					
Dichlorodifluoromethane			U	ND	ug/kg					
Ethylbenzene			U	ND	ug/kg					
Isopropylbenzene			U	ND	ug/kg					
Methyl acetate			U	ND	ug/kg					
Methylcyclohexane			U	ND	ug/kg					
Methylene chloride			U	ND	ug/kg					
Styrene			U	ND	ug/kg					
Tetrachloroethylene			U	ND	ug/kg					
Toluene			U	ND	ug/kg					

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# **QC Summary**

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Workorder: 514924									Page 13 of 15
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MSBatch2017923									
Trichloroethylene		U	ND	ug/kg				MXL2	07/07/20 12:00
Trichlorofluoromethane		U	ND	ug/kg					
Trichlorotrifluoroethane		U	ND	ug/kg					
Vinyl chloride		U	ND	ug/kg					
cis-1,2-Dichloroethylene		U	ND	ug/kg					
cis-1,3-Dichloropropylene		U	ND	ug/kg					
m,p-Xylenes		U	ND	ug/kg					
o-Xylene		U	ND	ug/kg					
tert-Butyl methyl ether		U	ND	ug/kg					
trans-1,2-Dichloroethylene		U	ND	ug/kg					
trans-1,3-Dichloropropylene		U	ND	ug/kg					
**1,2-Dichloroethane-d4	50.0		45.9	ug/L		92	(81%-124%	) )	
**Bromofluorobenzene	50.0		48.4	ug/L		97	(70%-130%	<b>)</b> )	
**Toluene-d8	50.0		48.2	ug/L		96	(81%-120%	<b>)</b> )	

### Notes:

The Qualifiers in this report are defined as follows:

Workor	der:	514924			•	$\chi \circ \delta$	4111114	<u> </u>					D	14 0 17
Parmnar		514524		NOM	Sample	Oual	QC	Units	RPD%	REC%	Range	Anlst	0	14 of 15 
**		is a surrogat	te compound			Quai	<u></u>	Cints	<b>KI D</b> 70	KEC /0	Kange	Amst	Date	<u></u>
<	-	s less than va	-											
>			n value report	ted										
A		-	-	densation pro-	duct									
В		-		n the associate										
С				C/MS analys										
D	Results	are reported t	from a dilute	d aliquot of th	he sample									
Е	%differ	ence of samp	ole and SD is	>10%. Samr	ole concentrat	ion must	meet flaggi	ng criteria						
Е	Concent	tration of the	target analyt	e exceeds the	e instrument c	alibration	range							
Е	General	Chemistry	Concentratio	n of the targe	et analyte exce	eeds the in	nstrument c	alibration r	ange					
FB H	invalid	for reporting	present at qua to regulatory me was exce	agencies	centrations in	field bla	nks received	l with these	e samples. I	Data associate	ed with the	blank are	deemed	
J	See case	e narrative for	or an explanat	ion										
J	Value is	s estimated												
JNX	Non Ca	librated Com	pound											
Ν	Metals-	-The Matrix s	spike sample	recovery is n	not within spe	cified cor	trol limits							
N N N/A	on neare Presump internal	est internal st ptive evidenc standard resp	tandard respo e based on m	onse factor nass spectral l	ss spectral libr	-				-				
N1	See case	e narrative												
ND	Analyte	concentratio	on is not detec	cted above the	e detection lir	nit								
NJ	Consult	Case Narrati	ive, Data Sun	nmary packaş	ge, or Project	Manager	concerning	this qualifi	ier					
Р	Organic	sThe conce	entrations bet	ween the prir	nary and conf	irmation	columns/de	tectors is >	40% differe	nt. For HPL	C, the diffe	rence is >	70%.	
Q	One or i	more quality	control criter	ria have not b	een met. Refe	er to the a	pplicable na	arrative or l	DER.					
R R	purpose			64 Revision I	B, due to matr	rix spike r	ecovery iss	ues, this re	sult may not	be reported	or used for	regulator	y complia	nce
U	Analyte	was analyze	d for, but not	t detected abo	ove the MDL,	MDA, M	DC or LOI	).						
UJ	Compou	und cannot be	e extracted											
Х	Consult	Case Narrati	ive, Data Sun	nmary packaş	ge, or Project	Manager	concerning	this qualifi	ier					
Y	Other sp	pecific qualifi	iers were req	uired to prop	erly define the	e results.	Consult cas	e narrative.						
Y	QC San	nples were no	ot spiked with	n this compou	ınd									
Ζ	Paint Fi	lter TestPar	rticulates pas	sed through t	he filter, how	ever no fr	ee liquids v	vere observ	ed.					
^	RPD of	sample and c	duplicate eva	luated using -	+/-RL. Conce	entrations	are <5X th	e RL. Qua	lifier Not Aj	plicable for	Radiochem	istry.		
d	5-day B	ODThe 2:1	depletion re	quirement wa	as not met for	this samp	ole							
e		ODTest rep g purposes	plicates show	more than 30	0% difference	between	high and lo	w values.	The data is q	ualified per t	he method	and can b	e used for	

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## **QC Summary**

Workorder:	514924									Page 15 of 15
Parmname		NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time

Preparation or preservation holding time was exceeded h

Workorder:

514924

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable. ^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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	QC	Summary
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Report Date: July 8, 2020

Page 1 of 3

Westinghouse Electric Company, LLC PO Drawer R Columbia, South Carolina Ms. Cynthia Logsdon

Workorder: 514924

**Contact:** 

Parmname	NOM	Sample Qu	ial QC	Units	RPD%	REC%	Range Anlst	Date Time
Ion Chromatography Batch 2016999								
QC1204590228 514924001 DUP Fluoride		1.31 J	1.02	mg/kg	25.2 ^		(+/-1.13) LXA2	07/02/20 13:11
QC1204590227 LCS Fluoride	24.6		24.9	mg/kg		101	(90%-110%)	07/02/20 12:17
QC1204590226 MB Fluoride		τ	J 0.000	mg/kg				07/02/20 11:48
QC1204590229 514924001 MS Fluoride	27.9	1.31	9.35	mg/kg		28.9*	(75%-125%)	07/02/20 13:38
Batch 2017034 —								
QC1204590309 514924011 DUP Fluoride	U	0.000 U	J 0.000	mg/kg	N/A		CH5	07/03/20 22:42
QC1204590308 LCS Fluoride	24.6		24.6	mg/kg		100	(90%-110%)	07/03/20 21:46
QC1204590307 MB Fluoride		τ	J 0.000	mg/kg				07/03/20 21:18
QC1204590310 514924011 MS Fluoride	26.7 U	0.000	7.30	mg/kg		27.3*	(75%-125%)	07/03/20 23:10
Rad Alpha Spec Batch 2017171 ———								
QC1204590576 514924001 DUP Uranium-233/234		1.33	1.41	pCi/g	6.34		(0%-20%) HAKB	07/06/20 23:57
Uranium-235/236	U	0.136 U	J 0.187	pCi/g	N/A		N/A	

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## **QC Summary**

		$\underline{\mathbf{v}}\underline{\mathbf{v}}$	Summai	<u>. y</u>				
Workorder: 514924								Page 2 of 3
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Alpha SpecBatch2017171								
Uranium-238		0.679	0.620	pCi/g	9.06		(0% - 100%) HAK	B 07/06/20 23:57
QC1204590577 LCS Uranium-233/234			13.0	pCi/g				07/06/20 23:58
Uranium-235/236			1.26	pCi/g				
Uranium-238	13.1		14.5	pCi/g		111	(75%-125%)	
QC1204590575 MB Uranium-233/234		U	0.135	pCi/g				07/06/20 23:57
Uranium-235/236		U	-0.00981	pCi/g				
Uranium-238		U	0.00926	pCi/g				
Rad Liquid Scintillation Batch 2017085								
QC1204590420 514924001 DUP Technetium-99	U	-0.396 U	-0.0271	pCi/g	N/A		N/A JJ	J3 07/07/20 16:02
QC1204590421 LCS Technetium-99	28.7		28.2	pCi/g		98.3	(75%-125%)	07/07/20 16:40
QC1204590419 MB Technetium-99		U	-0.182	pCi/g				07/07/20 15:25

### Notes:

The Qualifiers in this report are defined as follows:

\*\* Analyte is a Tracer compound

< Result is less than value reported

> Result is greater than value reported

B The target analyte was detected in the associated blank.

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# **QC Summary**

Workor	der:	514924			-	<b>X</b> CD	umma	<u>, y</u>					Рад	e 3 of 3
Parmnai	me			NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	0	Time
BD	Results	s are either l	below the MI	DC or tracer rec	overy is low									
Е	Genera	l Chemistry	yConcentrat	tion of the targe	t analyte exce	eds the in	strument ca	libration ra	ange					
FA	Failed	analysis.												
Н	Analyt	ical holding	g time was exe	ceeded										
J	See cas	se narrative	for an explan	nation										
J	Value	is estimated	1											
Κ	Analyt	e present. R	Reported value	e may be biased	l high. Actual	value is e	expected to	be lower.						
L	Analyt	e present. R	Reported value	e may be biased	l low. Actual	value is e	xpected to l	e higher.						
М	M if ab	ove MDC a	and less than	LLD										
М	REMP	Result > M	IDC/CL and «	< RDL										
N/A	RPD of	r %Recover	ry limits do no	ot apply.										
N1	See cas	se narrative												
ND	Analyt	e concentra	tion is not de	tected above the	e detection lin	nit								
NJ	Consul	t Case Narr	rative, Data S	ummary packag	ge, or Project	Manager	concerning	this qualifi	er					
Q	One or	more quali	ity control crit	teria have not b	een met. Refe	r to the ap	oplicable na	rrative or I	DER.					
R	purpos	es.		1664 Revision 1	B, due to matr	ix spike r	ecovery iss	ues, this res	sult may not	be reported	or used for	regulatory	<sup>7</sup> complia	nce
R	-	e results are	-	. 1 1 1										
U	-	-		not detected abo		MDA, M	DC or LOL	).						
UI		-		in identification										
UJ		-		in identification										
UL				ssociated numb	-			-		due to a low	bias.			
X				ummary packag		-	-	-						
Y				equired to prop	-									
Z			-	assed through t			-				D = 4:1	•		
		-	-	valuated using				e KL. Qua	inter Not Ap	oplicable for	Kaulochem	istry.		
d	5		1	requirement wa		1		w volues. 7	The data is a	ualified part	ha mathad	and can b	a used for	
e		ng purposes		ow more than 3	J% difference	between	mgn and io	w values.	i në data is q	uanned per t	ne method		e used for	
h	Prepara	ation or pres	servation hole	ding time was e	xceeded									
^ The Ro five time RL is us	elative H les (5X) sed to ev	Percent Diff the contract aluate the I	ference (RPD) t required dete DUP result.	do not apply wl ) obtained from ection limit (RI eter was not wi	the sample du L). In cases wh	uplicate ( nere eithe	(DUP) is ev	aluated aga	inst the acco	eptance criter	ria when the	e sample i	s greater	

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

## Technical Case Narrative Westinghouse Electric Co, LLC SDG #: 514924

## **GC/MS Volatile**

<u>Product:</u> Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer <u>Analytical Method:</u> SW846 8260D <u>Analytical Procedure:</u> GL-OA-E-038 REV# 28 <u>Analytical Batch:</u> 2017923

<u>Preparation Method:</u> SW846 5035 <u>Preparation Procedure:</u> GL-OA-E-039 REV# 13 <u>Preparation Batch:</u> 2017922

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	Client Sample Identification
514924003	C-41-3
514924008	C-56-3
514924009	C-56-4
514924013	C-60-3
1204592432	Method Blank (MB)
1204592433	Laboratory Control Sample (LCS)
1204592434	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on a "dry weight" basis.

## **Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## **Metals**

<u>Product:</u> Determination of Metals by ICP-MS <u>Analytical Method:</u> SW846 3050B/6020B <u>Analytical Procedure:</u> GL-MA-E-014 REV# 33 <u>Analytical Batch:</u> 2016943

<u>Preparation Method:</u> SW846 3050B <u>Preparation Procedure:</u> GL-MA-E-009 REV# 29 <u>Preparation Batch:</u> 2016942

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<b><u>Client Sample Identification</u></b>
514924001	C-41-1

514924006	C-56-1
1204590119	Method Blank (MB)ICP-MS
1204590120	Laboratory Control Sample (LCS)
1204590168	Laboratory Control Sample (LCS)
1204590123	514924001(C-41-1L) Serial Dilution (SD)
1204590121	514924001(C-41-1S) Matrix Spike (MS)
1204590169	514924001(C-41-1S) Matrix Spike (MS)
1204590122	514924001(C-41-1SD) Matrix Spike Duplicate (MSD)
1204590170	514924001(C-41-1SD) Matrix Spike Duplicate (MSD)
1204592690	514924001(C-41-1PS) Post Spike (PS)

The samples in this SDG were analyzed on a "dry weight" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

## **Calibration Information**

### **ICSA/ICSAB Statement**

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

### **Quality Control (QC) Information**

### Matrix Spike (MS/MSD) Recovery Statement

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike recovery was within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recovery may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1204590122 (C-41-1MSD)	Uranium-235	206* (75%-125%)
	Uranium-238	132* (75%-125%)

## MS/MSD Relative Percent Difference (RPD) Statement

The RPD values between qualifying analyte results in the MS and MSD were not within the acceptance limits. Sample non-homogeneity and/or possible matrix interferences may be suspected.

Sample	Analyte	Value
1204590121MS and 1204590122MSD (C-41-1)	Uranium-235	RPD 50.1* (0%-20%)
	Uranium-238	RPD 23.9* (0%-20%)

## **Technical Information**

## **Preparation/Analytical Method Verification**

Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that

will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

### **Sample Dilutions**

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. The ICPMS solid samples in this SDG were diluted the standard two times.

Amolyta	514	924
Analyte	001	006
Uranium-234	2X	2X
Uranium-235	2X	2X
Uranium-238	2X	2X

## **General Chemistry**

**Product: Ion Chromatography Analytical Method:** SW846 9056A **Analytical Procedure:** GL-GC-E-086 REV# 28 **Analytical Batches:** 2016999 and 2016998

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<b><u>Client Sample Identification</u></b>
514924001	C-41-1
514924002	C-41-2
514924003	C-41-3
514924004	C-41-4
514924005	C-41-5
514924006	C-56-1
514924007	C-56-2
514924008	C-56-3
514924009	C-56-4
514924010	C-56-5
1204590226	Method Blank (MB)
1204590227	Laboratory Control Sample (LCS)
1204590228	514924001(C-41-1) Sample Duplicate (DUP)
1204590229	514924001(C-41-1) Matrix Spike (MS)

The samples in this SDG were analyzed on a "dry weight" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

### **Quality Control (QC) Information**

### Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is

less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Fluoride	1204590229 (C-41-1MS)	28.9* (75%-125%)

<u>Product:</u> Ion Chromatography <u>Analytical Method:</u> SW846 9056A <u>Analytical Procedure:</u> GL-GC-E-086 REV# 28 <u>Analytical Batches:</u> 2017034 and 2017032

The following samples were analyzed using the above methods and analytical procedure(s).

Client Sample Identification
C-60-1
C-60-2
C-60-3
C-60-4
C-60-5
Method Blank (MB)
Laboratory Control Sample (LCS)
514924011(C-60-1) Sample Duplicate (DUP)
514924011(C-60-1) Matrix Spike (MS)

The samples in this SDG were analyzed on a "dry weight" basis.

### **Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

## **Quality Control (QC) Information**

## Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Fluoride	1204590310 (C-60-1MS)	27.3* (75%-125%)

## **Radiochemistry**

Product: Alphaspec U, Soil/Veg

<u>Analytical Method:</u> DOE EML HASL-300, U-02-RC Modified <u>Analytical Procedure:</u> GL-RAD-A-011 REV# 27 <u>Analytical Batch:</u> 2017171

**Preparation Method:** Dry Soil Prep **Preparation Procedure:** GL-RAD-A-021 REV# 23 **Preparation Batch:** 2016895

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<b><u>Client Sample Identification</u></b>
514924001	C-41-1
514924002	C-41-2
514924003	C-41-3
514924004	C-41-4
514924005	C-41-5
514924006	C-56-1
514924007	C-56-2
514924008	C-56-3
514924009	C-56-4
514924010	C-56-5
514924011	C-60-1
514924012	C-60-2
514924013	C-60-3
514924014	C-60-4
514924015	C-60-5
1204590575	Method Blank (MB)
1204590576	514924001(C-41-1) Sample Duplicate (DUP)
1204590577	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

## **Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Dry Weight Preparation Method: ASTM D 2216 (Modified) Preparation Procedure: GL-OA-E-020 REV# 13 Preparation Batch: 2016895

**Preparation Method:** Dry Soil Prep **Preparation Procedure:** GL-RAD-A-021 REV# 23 **Preparation Batch:** 2016895

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u> <u>Client Sample Identification</u>

514924001	C-41-1
514924002	C-41-2
514924003	C-41-3
514924004	C-41-4
514924005	C-41-5
514924006	C-56-1
514924007	C-56-2
514924008	C-56-3
514924009	C-56-4
514924010	C-56-5
514924011	C-60-1
514924012	C-60-2
514924013	C-60-3
514924014	C-60-4
514924015	C-60-5
1204590011	514924001(C-41-1) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

## **Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Product: Liquid Scint Tc99, Soil Analytical Method:** DOE EML HASL-300, Tc-02-RC Modified **Analytical Procedure:** GL-RAD-A-059 REV# 5 **Analytical Batch:** 2017085

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	Client Sample Identification
514924001	C-41-1
514924002	C-41-2
514924003	C-41-3
514924004	C-41-4
514924005	C-41-5
514924006	C-56-1
514924007	C-56-2
514924008	C-56-3
514924009	C-56-4
514924010	C-56-5
514924011	C-60-1
514924012	C-60-2
514924013	C-60-3
514924014	C-60-4
514924015	C-60-5
1204590419	Method Blank (MB)
1204590420	514924001(C-41-1) Sample Duplicate (DUP)
1204590421	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

## Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

## **Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Dage: 1	of 2					+020						GEL Labo	GEL Laboratories, LLC	
Project # Seatand Soll Sampling June 2020 PGEI, Ouote #- WNI JC009	CO09					-auuraning indication indication			يا ما يا يا يا يا ي			2040 Savage Road	age Road	
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PDO # 4500778461, Line 1		GEL Worl	GEL Work Order Number:			<b>GEL Project Manager:</b>	Manager .	.				Fax: (843)	Fax: (843) 766-1178	
Client Name: Westinghouse	ouse			Phone # 803.647.3171	03.647.317	1.		Samp	Sample Analysis Requested <sup>(5)</sup>	iis Requ		n the numbe	(Fill in the number of containers for each test)	for each test)
deroject/Site Name:				Fax # 803.695.3964	695.3964		Should this	1.433637304						< Preservative Type (6)
Address: 5801 Bluff Road, Hopkins, SC 29061	ad, Hopkins, SC 290	)61					sample be considered:		λq ι					
Collected By: Randy Crews Ruzu	crews Rhai	X	Send Results To: logsdocj@westinghouse.com	@westingh	ouse.com		JI)	spa	oədg uniue.	SIA				Comments Note: extra sample is
* For composites	Sample ID For composites - indicate start and stop date time	op date time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhum)	QC Code (2) Fi	Field Sample Filtered (3) Matrix (4)	Radioactive yes, please sup isotopic info.)	(7) Known or possible Haza Total number	rU sotopic Ur Alpha U sotopic Ur	ICPN	DOV Fluor			required for sample specific QC
	C-41-1		6/29/2020	0918	G	so			×××	×	×			
	C-41-2		6/29/2020	0922	U	so		-			×			
	C-41-3		6/29/2020	0926	Ð	so			×	×	x x			
	C-41-4		6/29/2020	1660	IJ	so		1	x	x	X			
	C-41-5		6/29/2020	0940	C	so			X	×	×			
	C-56-1		6/29/2020	0950	ß	so			x x	×	x			
	C-56-2		6/29/2020	0954	U	so			×	×	x			
	C-56-3		6/29/2020	0958	G	so			×	×	×××			
	C-56-4		6/29/2020	1003	G	so			×	×	-			
	C-56-5		6/29/2020	1011	ŋ	SO		-	×	×	×			
		Chain of Custe	Chain of Custody Signatures						TATR	TAT Requested:	: Normal:	Rush: X		Specify: 5 days (1 week)
Relinquished By (Signed)	) Date	Time	Received by (signed)		Date	Time		Fax Results: [ ] Yes	[] Yes	[ x ] No				
1 Randy Crews RULY 07/01/2020	W 07/01/2020	(0 25	1 Secure Location		07/01/2020	1025	~	Select Delive	erable: [ ]	C of A	Select Deliverable: [ ] C of A [ ] QC Summary	[] level ]	[] Level 2	[ ] Level 3 [ ] Level 4
2 Secure Location	07/01/2020	1160	2 40U	24	20	180		Additional Remarks.	emarks:					1
	74.70	1535		1.	110	(53)		<sup>c</sup> or Lab Rev	ceiving Us	e Only: (	For Lab Receiving Use Only: Custody Seal Intact? [] Yes	ict? [ ] Yes	[] No Coolei	Cooler Temp:C
> For sample shipping and delivery details, see Sample Receipt & Review fo. <ol> <li>Chain of Custody Number = Client Determined</li> </ol>	<pre>md delivery details, = Client Determined</pre>	see Sample Receipt		m (SRR.)			Sample Ci	ollection In	ne Zone :	Easte	Sample Collection Time Zone : [ ] Eastern [ ] Pacific [ ] Central	[ ] Central	I ] Mountain [ ] Other:	l ] Other.
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite	ımple, T <b>B</b> = Trip Blank, I	FD = Field Duplicate, EB	3 = Equipment Blank,	MS = Matrix 5	spike Sample.	, MSD = Matrix S <sub>I</sub>	sike Duplicate	Sample, G = (	Jrab, C = Cor	nposite				
3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.	natrices, indicate with a -	Y - for yes the sample wa	as field filtered or - N -	for sample wa	s not field filt	ered.	:							
1. Mathx Codes: DW=Uniting water, UW=Unitable Water, WW=Water, WW=Water, WL=Mater, ML=Mider, SD=Sediment, SL=Studge, SS=Solid Water, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal [5.] Sample Analysis Requested: Analytical method requested (i.e. 82608, 60108/7470A) and number of containers provided for each (i.e. 83608, -3, 60108/74704, -1)	ing water, U w=Uroundw I: Analytical method requ	water, 5W≕5urtace Water uested (i.e. 8260B, 6910B,	r, WW=Waste Water, V7470A) and number o	W=Water, ML f containers pr	"=Misc Liquit ovided for ear	1, SO=Soil, SD=St ch (i.e. 8260B - 3	diment, SL=S 6010B:7470.4	ludge, SS=Sol - 1)	id Waste, <b>O</b> =	Oil, F=Filte	rt, P=Wipe, U=Urine	, F=Fecal, N=Ns	asal	
(6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, HX = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank	ydrochloric Acid, NI = N	litric Acid, SH = Sodium	Hydroxide, SA = Sulfi	tric Acid, AA ≞	a Ascorbic Ac	id, HX = Hexane,	<b>ST</b> = Sodium	Thiosulfate, If	no preservati	ve is added	= leave field blank			
7) KNOWN OR POSSIBLE HAZARDS	<b>IBLE HAZARDS</b>	Characteris	Characteristic Hazards	Listed Waste	Waste			Other					Please provide	Please provide any additional details
RCRA Metals As = Arsenic Hg= N Ba = Barium Se= S	Hg= Mercury Se= Selenium	FL = Flammable CO = Corrosive RE = Reactive	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW= Listed W (F.K.P and U-1) Waste code(s):	LW= Listed Waste (F.K.P and U-listed wastes.) Waste code(s):	e d wastes.)		OT= Other / Unknown (i.e.: High/low pH, asbest misc. health hazards, etc.) Doscrintian	<sup>(</sup> Unknown w pH, asb hazards, ei	estos, ber (c.)	OT= Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Descrimtan:	other	below regardin concerns. (i.e.: of site collected	below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices. etc.)
	Ag= Silver	TSCA Regulated	ilated		a series a series and s					steratoralita guittanatur excer	anna seasan ann an ann an ann an ann ann ann an	or the second		
$\mathbf{P}\mathbf{b} = \mathbf{L}\mathbf{c}\mathbf{ad}$	MR= Misc. RCRA metals		Polychlorinated hinhenvls											
								The second secon	The state of the s					<ul> <li>Construction of the Construction of the Construction</li></ul>

Bage: 2 of 2				- -	-						GEL Laho	GEL Laboratories 1.1.C	
Control of the sealand Soil Sampling June 2020		Ž			-aboratories LLC	Dries	TC				2040 Savage Road	age Road	
10			Chain	- "0	<ul> <li>Unemistry i Hadiocnemistry i Hadiobioassay i Speciality Analytics of Custody and Analytical Request</li> </ul>	Analvtic:	bloassay I Sp al Reduce	ecialty Analy <b>st</b>	tics		Charleston	Charleston, SC 29407	
PO # 4500778461, Line 1	GEL Work	GEL Work Order Number:			GEL Project Manager:	Manager.	200	5			Fax: (843	F110ne: (843) 250-81/1 Fax: (843) 766-1178	
Glient Name: Westinghouse			Phone # 803.647.317	3.647.317				le Analys	Sample Analysis Requested <sup>(5)</sup>		in the numbe	(Fill in the number of containers for each test)	
deroject/Site Name:			Fax # 803.69	595.3964		Should this	100000					Preservative Type (6)	Vpe (6)
ddress: 5801 Bluff Road, Hopkins, SC 29061			÷			sample be considered:		۶ą					
Collected By: Randy Crews Ruco	Send Results	Send Results To: logsdocj@westinghouse.com	Qwestinghe	use.com		مالع (الر	Lq2	muins Spec	SN			Comments Note: extra samule is	s Inle ic
756 Sample ID * For composites - indicate start and stop date time	date time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Sample Filtered (3) Matrix (4)	Radioactive yes, please sup isotopic info.)	ro nwony (7) Rash eldissog Total number	IU piqotosl nU piqotosl nU piqotosl	Tc-9			required for sample specific QC	mple
C-60-1		6/29/2020	1018	G	so			×	××				
C-60-2		6/29/2020	1021	σ	so			×	T				
C-60-3		6/29/2020	1024	0	so		-	×		×			
C-60-4		6/29/2020	1031	G	so			×		1			
C-60-5		6/29/2020	1035	G	so		-	×	××				
									1				
	<b>Chain of Custody Signatures</b>	y Signatures						TATR	TAT Requested:	Normal:	Rush:	X Specify: 5 days (1 week)	
Relinquished By (Signed) Date I	Time	Received by (signed)		Date	Time	Ŀ	Fax Results: [ ] Yes		[ x ] No				
1 Randy Crews 12 Conto-07/01/2020	1025 1	Secure Location	/10//0	01/2020	[025	s	elect Delive	srable: [ ] (	CofA []	Select Deliverable: [ ] C of A [ ] QC Summary	/ [ ] level 1	[] Level 2 [] Level 3 [] Level 4	el 4
)1/2020 <sup>C</sup>	150 2	All C	2.1	d	11 54	0 A	Additional Remarks.	emarks:					
All 7-4-20 1	18 8 8 3	Ņ	0 1 1	47120	XXX XXX	1	or Lab Rec	eiving Use	Only: Cur	For Lab Receiving Use Only: Custody Seal Intact? [] Yes	act? [ ] Yes	[] No Cooler Temp: C °C	
> For sample shipping and delivery details, see	e Sample Receipt &	Review form (	(RR.)			Sample Co	llection Tir	te Zone:	] Eastern	[] Pacific	[] Central	Sample Collection Time Zone: [] Eastern [] Pacific [] Central [] Mountain [] Other:	
<ol> <li>Criatal of Custody Number = Cirent Determined</li> <li>OC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equinment Blank, MS = Matrix Socie Sample MSD = Montives Socie Duplicate Sample, C = Grash C = Grash</li></ol>	= Field Duplicate. EB =	Equipment Blank	<b>dS</b> = Matrix Si	oike Samule	MSD = Matrix So	the Durbinets S	j - j j						
<ol> <li>Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.</li> </ol>	for ves the sample was fi	eld filtered or - N - 1	or sample was	not field filt	red	ike rupiicate s	sample, G – C	rao, c = com	posite				
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Water, W=Water, W=Water, WL=Miss Liquid, SD=Sediment, SL=Sludgee, SS=Solid Waste, Q=O(1 F=Filter P=Wine, F=Fione, F=Fi	r, SW=Surface Water, W	W=Waste Water, V	∕=Water, ML=	Mise Liquid	. SO=Soil, SD=Se	liment, SL=Sh	udge, SS=Soli	d Waste. O≃C	úl F=Filter F	-Wine H=I lring	FirFacal NaNa		
5.) Sample Analysis Requested: Analytical method requested (i.e. 82608, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).	cd (i.e. 8260B, 6010B/74	70A) and number o	containers pro	vided for ear	ch (i.e. <i>8260B</i> - <b>3</b> ,	A010B/7470A	, (f					1541	
6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank	: Acid, SH = Sodium Hy	droxide, SA = Sulfu	ic Acid, AA =	Ascorbic Ac	id, HX = Hexane,	ST = Sodium	Thiosulfate, If	no preservativ	e is added = l	ave field blank			
/) ANOWN OK POSSIBLE HAZARDS	Characteristic Hazards FL = Flammable/Ignitable	Hazards le/Ignitable	Listed Waste LW= Listed V	Listed Waste LW= Listed Waste		႞ႍႍႜ	Other OT= Other / I Inknown	l Inknown				Please provide any additional details	uits
5	CO = Corrosive	)	(F.K.P a	(F.K.P and U-listed wastes.)	d wastes.)	) (i)	e.: High/lo	w pH, asbe	stos, beryll	(i.e.: High/low pH, asbestos, beryllium, irritants, other	other	oetow regarang nanaung ana/or aisposal concerns. (i.e.: Origin of sample(s), type	disposat ), type
	KL = Kcacuve		Waste code(s):	ode(s):		ž Q	misc. health hazards, etc.) Description:	iazards, etc	(			of site collected from, odd matrices, etc.)	; etc.)
Cd = Cadmium Ag= Silver	TSCA Regulated	led		antination of the second strains					anananan arang sebagai	distribution de la construction de	and a state of the		
	FCD - FUIJUIII	ormateu ds											
							andre son and an and an						

	GEL	Laboratories LLC				SAMPLE	RECEIPT &	REN	VIEW FORM 5/492	4	4
Client: WNWC					SD	G/AR/COC/Wor					
Received By: ZKW					Da	te Received:	7/1/20	>	. 1 <sup>- 1</sup>		
Carrier and Tracking Number							FedEx Expres	s Fec	Circle Applicable: Ex Ground UPS Field Services	Courie Other	
Suspected Hazard Information			Yes	°N N	*If	Net Counts > 100	cpm on samples n	ot mark	ed "radioactive", contact the Radiation S	afety Group for further i	nvestigation.
A)Shipped as a DOT Hazardous?				8		ard Class Shipped N2910, Is the Rad		nt Surve	UN#: y Compliant? Yes No		
B) Did the client designate the samples are to be received as radioactive?				~	co	C notation or radi	oactive stickers or	i contaii	ters equal client designation.		
C) Did the RSO classify the samples as radioactive?			~	ł	Ma; Cla	ximum Net Count ssified as: Rad 1	SObserved* (Obs Rad 2 Rad		ounts - Area Background Counts): 30	D @DmR/Hr	
D) Did the client designate samples are hazardous?				V				uners ec	ual client designation.		
E) Did the RSO identify possible hazards?			-	JIF D PCI	or E is yes, select 3's Flammable		RC	RA Asbestos Beryllium Other:			
	Sampl	e Receipt Criteria	Yes	Ž	No.		Com	ments/Q	ualifiers (Required for Non-Conformi	ng Items)	1
1	Shipping con sealed?	tainers received intact and	2			Circle Applicable:	Seals broken D	amaged	container Leaking container Other (desc	ribe)	
2	Chain of cus with shipme	tody documents included nt?	~				Client contacted :				
3	Samples req within (0 ≤ 6	uiring cold preservation deg. C)?*	~	ł			are recorded in	Celsius	•	темр:/	<u>'c</u>
4	Daily check temperature	performed and passed on IR gun?	-				erature Device Se		f Applicable):		
5	Sample cont	iners intact and sealed?	-			Circle Applicable:	Seals broken D	amaged	container Leaking container Other (desc	ribe)	
6	Samples req at proper pH	iring chemical preservation		-	ł	Sample ID's and Co If Preservation add					
7	Do any :	amples require Volatile Analysis?	-			Do liquid VOA	vials contain acid vials free of heads	preserva	ntion? Yes No NA (If unknow	ike to VOA Freezer) vn, select:No)	
8	Samples rece	ived within holding time?	~			ID's and tests affe	ected:				
9	Sample ID's bottles?	on COC match ID's on	-			ID's and containe	rs affected:				
10	Date & time on bottles?	on COC match date & time	~			Circle Applicable	e: No dates on co	ntainers	No times on containers COC missing	; info Other (describe)	
11		ontainers received match ated on COC?	/			Circle Applicable	e: No container c	ount on	COC Other (describe)		
12	GEL provide		~			Circle Applicable	Not ralinquie	had C	thar (dasariba)	- -	
13 COC form is properly signed in relinquished/received sections?		2			Circle Applicable	. socremquis		(describe)			
_ om	ments (Use Co	ntinuation Form if needed):	(4) =		· 1014	ials <i>411</i>	Date	-2	JIN Page of		
						»_ <ff< td=""><td>Date</td><td></td><td>Q. / Q. / of</td><td>GL-CHL-SR-001</td><td>Rev 6</td></ff<>	Date		Q. / Q. / of	GL-CHL-SR-001	Rev 6

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122020-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019–165
Pennsylvania NELAP	68–00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-20-17
Utah NELAP	SC000122020-32
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

List of current GEL Certifications as of 08 July 2020