GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
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gel.com

September 13, 2019

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

Re: ENV-CONSENTA
Work Order: 487768

Dear Ms. Logsdon:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 15, 2019. 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. 4778.

Sincerely,

Hope Taylor
Project Manager

Purchase Order: 4500778461
Enclosures

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

WNUC009 Westinghouse Electric Co, LLC

Client SDG: 487768 GEL Work Order: 487768

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

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, Hope Taylor.

Reviewed by _____

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

Certificate of Analysis

Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-13 (0-1)	Project:	WNUC01519
Sample ID:	487768001	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 11:35		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	5.42	+/-15.5	26.7	50.0	pCi/g			JJ3	09/11/19	2156	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.6	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-13 (1-3)	Project:	WNUC01519
Sample ID:	487768002	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 12:10		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	11.0	+/-21.0	36.0	50.0	pCi/g			JJ3	09/11/19	2213	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-13 (3-5)	Project:	WNUC01519
Sample ID:	487768003	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 12:30		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	2.05	+/-18.3	31.9	50.0	pCi/g			JJ3	09/11/19	2231	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			101	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-13 (5-7)	Project:	WNUC01519
Sample ID:	487768004	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 12:50		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	3.31	+/-15.2	26.4	50.0	pCi/g			JJ3	09/11/19	2248	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.4	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-13-DUP (5-7)	Project:	WNUC01519
Sample ID:	487768005	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 12:50		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	21.6	+/-18.5	30.7	50.0	pCi/g			JJ3	09/11/19	2305	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			102	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-11 (0-1)	Project:	WNUC01519
Sample ID:	487768006	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 14:10		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	9.64	+/-18.3	31.4	50.0	pCi/g			JJ3	09/11/19	2322	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-11 (1-3)	Project:	WNUC01519
Sample ID:	487768007	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 14:25		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-1.34	+/-20.3	35.8	50.0	pCi/g			JJ3	09/11/19	2339	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			100	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-11 (3-5)	Project:	WNUC01519
Sample ID:	487768008	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 15:20		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	14.3	+/-18.8	31.7	50.0	pCi/g			JJ3	09/11/19	2356	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-11 (5-7)	Project:	WNUC01519
Sample ID:	487768009	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 15:40		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	17.3	+/-16.1	26.8	50.0	pCi/g			JJ3	09/12/19	0013	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-12 (0-1)	Project:	WNUC01519
Sample ID:	487768010	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 16:00		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	8.88	+/-19.1	32.8	50.0	pCi/g			JJ3	09/12/19	0030	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-12 (1-3)	Project:	WNUC01519
Sample ID:	487768011	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 16:20		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	8.02	+/-17.8	30.5	50.0	pCi/g			JJ3	09/12/19	0047	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-12 (3-5)	Project:	WNUC01519
Sample ID:	487768012	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 16:40		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	10.0	+/-14.5	24.5	50.0	pCi/g			JJ3	09/12/19	0104	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-12 (5-7)	Project:	WNUC01519
Sample ID:	487768013	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	12-AUG-19 17:00		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	6.76	+/-15.8	27.2	50.0	pCi/g			JJ3	09/12/19	0121	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-14 (0-1)	Project:	WNUC01519
Sample ID:	487768014	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 08:00		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	4.80	+/-15.9	27.5	50.0	pCi/g			JJ3	09/12/19	0138	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-14 (1-3)	Project:	WNUC01519
Sample ID:	487768015	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 08:15		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	1.57	+/-15.0	26.2	50.0	pCi/g			JJ3	09/12/19	0155	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			103	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-14 (3-5)	Project:	WNUC01519
Sample ID:	487768016	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 09:00		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	4.99	+/-13.7	23.6	50.0	pCi/g			JJ3	09/12/19	0212	1908282	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			100	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-14 (5-7)	Project:	WNUC01519
Sample ID:	487768017	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 09:10		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-2.9	+/-18.6	32.5	50.0	pCi/g			RP1	09/08/19	0539	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			94.1	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-14-DUP (5-7)	Project:	WNUC01519
Sample ID:	487768018	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 09:10		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	9.42	+/-16.0	27.2	50.0	pCi/g			RP1	09/08/19	0600	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Address :	PO Drawer R
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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-10 (0-1)	Project:	WNUC01519
Sample ID:	487768019	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 09:55		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-7.99	+/-20.4	35.9	50.0	pCi/g			RP1	09/08/19	0621	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			89.6	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-10 (1-3)	Project:	WNUC01519
Sample ID:	487768020	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 10:15		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-0.334	+/-18.2	31.7	50.0	pCi/g			RP1	09/08/19	0643	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-10 (3-5)	Project:	WNUC01519
Sample ID:	487768021	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 10:35		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-0.137	+/-19.5	33.8	50.0	pCi/g			RP1	09/08/19	0704	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-10 (5-7)	Project:	WNUC01519
Sample ID:	487768022	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 10:45		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-6.79	+/-17.6	31.1	50.0	pCi/g			RP1	09/08/19	0726	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.9	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-8 (0-1)	Project:	WNUC01519
Sample ID:	487768023	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 11:25		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-19.7	+/-18.9	34.2	50.0	pCi/g			RP1	09/08/19	0747	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-8 (1-3)	Project:	WNUC01519
Sample ID:	487768024	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 11:50		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	5.52	+/-22.3	38.3	50.0	pCi/g			RP1	09/08/19	0809	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-8 (3-5)	Project:	WNUC01519
Sample ID:	487768025	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 12:10		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	1.09	+/-21.1	36.6	50.0	pCi/g			RP1	09/08/19	0830	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			94.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-8 (5-7)	Project:	WNUC01519
Sample ID:	487768026	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 12:30		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-4.71	+/-15.5	27.2	50.0	pCi/g			RP1	09/08/19	0852	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Address :	PO Drawer R
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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-7 (0-1)	Project:	WNUC01519
Sample ID:	487768027	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 13:20		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	8.60	+/-17.1	29.2	50.0	pCi/g			RP1	09/08/19	0913	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			93.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-7 (1-3)	Project:	WNUC01519
Sample ID:	487768028	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 13:45		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-22.9	+/-23.0	41.4	50.0	pCi/g			RP1	09/08/19	0935	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.6	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-7 (3-5)	Project:	WNUC01519
Sample ID:	487768029	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 14:05		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-13.6	+/-23.0	40.8	50.0	pCi/g			RP1	09/08/19	0956	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			94.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-7 (5-7)	Project:	WNUC01519
Sample ID:	487768030	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 14:15		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-2.13	+/-19.0	33.1	50.0	pCi/g			RP1	09/08/19	1017	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			93.6	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-9 (0-1)	Project:	WNUC01519
Sample ID:	487768031	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 14:45		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-13.4	+/-20.4	36.3	50.0	pCi/g			RP1	09/08/19	1039	1908284	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-9 (1-3)	Project:	WNUC01519
Sample ID:	487768032	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 15:05		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-9.16	+/-25.5	45.3	50.0	pCi/g			JJ3	09/08/19	0715	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			90.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-9 (3-5)	Project:	WNUC01519
Sample ID:	487768033	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 15:30		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	0.572	+/-24.6	43.0	50.0	pCi/g			JJ3	09/08/19	0732	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			93.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-9 (5-7)	Project:	WNUC01519
Sample ID:	487768034	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	13-AUG-19 15:45		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	18.1	+/-18.8	31.5	50.0	pCi/g			JJ3	09/08/19	0749	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-3 (0-1)	Project:	WNUC01519
Sample ID:	487768035	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 08:45		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	12.9	+/-25.0	42.7	50.0	pCi/g			JJ3	09/08/19	0805	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			93.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-3 (1-3)	Project:	WNUC01519
Sample ID:	487768036	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 09:00		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	4.83	+/-20.2	35.0	50.0	pCi/g			JJ3	09/08/19	0822	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-3 (3-5)	Project:	WNUC01519
Sample ID:	487768037	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 09:15		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-0.193	+/-12.8	22.4	50.0	pCi/g			JJ3	09/08/19	0838	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			88.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-3 (5-7)	Project:	WNUC01519
Sample ID:	487768038	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 09:20		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	3.12	+/-21.5	37.3	50.0	pCi/g			JJ3	09/08/19	0855	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-3-DUP (5-7)	Project:	WNUC01519
Sample ID:	487768039	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 09:20		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	1.35	+/-22.0	38.3	50.0	pCi/g			JJ3	09/08/19	0912	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-4 (0-1)	Project:	WNUC01519
Sample ID:	487768040	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 09:50		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	2.35	+/-21.2	36.8	50.0	pCi/g			JJ3	09/08/19	0928	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96.1	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-4 (1-3)	Project:	WNUC01519
Sample ID:	487768041	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 10:00		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	16.1	+/-25.0	42.4	50.0	pCi/g			JJ3	09/08/19	0945	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			93.1	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Company :	Westinghouse Electric Company, LLC
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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-4 (3-5)	Project:	WNUC01519
Sample ID:	487768042	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 10:10		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	7.72	+/-14.7	25.1	50.0	pCi/g			JJ3	09/08/19	1001	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			91.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-4 (5-7)	Project:	WNUC01519
Sample ID:	487768043	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 10:20		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-3.26	+/-11.9	21.1	50.0	pCi/g			JJ3	09/08/19	1018	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-6 (0-1)	Project:	WNUC01519
Sample ID:	487768044	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 11:25		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	7.58	+/-23.3	40.0	50.0	pCi/g			JJ3	09/08/19	1035	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-6 (1-3)	Project:	WNUC01519
Sample ID:	487768045	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 11:40		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-0.921	+/-24.2	42.4	50.0	pCi/g			JJ3	09/08/19	1051	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			93.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-6 (3-5)	Project:	WNUC01519
Sample ID:	487768046	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 11:55		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-13.2	+/-17.8	32.2	50.0	pCi/g			JJ3	09/08/19	1108	1908285	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.4	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-6 (5-7)	Project:	WNUC01519
Sample ID:	487768047	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 12:10		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-6.56	+/-23.6	41.9	50.0	pCi/g			JJ3	09/08/19	1103	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-5 (0-1)	Project:	WNUC01519
Sample ID:	487768048	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 13:20		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	0.637	+/-21.2	36.9	50.0	pCi/g			JJ3	09/08/19	1120	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-5 (1-3)	Project:	WNUC01519
Sample ID:	487768049	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 13:35		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-1.62	+/-24.3	42.7	50.0	pCi/g			JJ3	09/08/19	1136	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.4	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-5 (3-5)	Project:	WNUC01519
Sample ID:	487768050	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 13:45		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	4.46	+/-20.6	35.7	50.0	pCi/g			JJ3	09/08/19	1153	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-5 (5-7)	Project:	WNUC01519
Sample ID:	487768051	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 13:55		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	0.843	+/-16.1	28.2	50.0	pCi/g			JJ3	09/08/19	1210	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			102	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SP-1	Project:	WNUC01519
Sample ID:	487768052	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 14:30		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	7.73	+/-21.1	36.2	50.0	pCi/g			JJ3	09/08/19	1226	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

Report Date: September 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: SP-2
Sample ID: 487768053
Matrix: Solid
Collect Date: 14-AUG-19 14:35
Receive Date: 15-AUG-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-1.25	+/-22.5	39.5	50.0	pCi/g			JJ3	09/08/19	1243	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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Certificate of Analysis

Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-2 (0-1)	Project:	WNUC01519
Sample ID:	487768054	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 15:25		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-2.91	+/-24.0	42.1	50.0	pCi/g			JJ3	09/08/19	1300	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96.4	(15%-125%)

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

Report Date: September 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: SS-2 (1-3)
Sample ID: 487768055
Matrix: Solid
Collect Date: 14-AUG-19 15:40
Receive Date: 15-AUG-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	9.60	+/-19.7	33.7	50.0	pCi/g			JJ3	09/08/19	1316	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			102	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

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

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	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-2 (3-5)	Project:	WNUC01519
Sample ID:	487768056	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 15:55		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	4.78	+/-21.5	37.2	50.0	pCi/g			JJ3	09/08/19	1333	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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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Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-2 (5-7)	Project:	WNUC01519
Sample ID:	487768057	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	14-AUG-19 16:05		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	4.02	+/-18.5	32.0	50.0	pCi/g			JJ3	09/08/19	1349	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-1 (0-1)	Project:	WNUC01519
Sample ID:	487768058	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	15-AUG-19 08:30		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	0.171	+/-14.5	25.4	50.0	pCi/g			JJ3	09/08/19	1406	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-1 (1-3)	Project:	WNUC01519
Sample ID:	487768059	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	15-AUG-19 08:55		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	4.39	+/-16.8	29.0	50.0	pCi/g			JJ3	09/08/19	1423	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-1 (3-5)	Project:	WNUC01519
Sample ID:	487768060	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	15-AUG-19 09:05		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-0.576	+/-23.3	40.8	50.0	pCi/g			JJ3	09/08/19	1440	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	SS-1 (5-7)	Project:	WNUC01519
Sample ID:	487768061	Client ID:	WNUC009
Matrix:	Solid		
Collect Date:	15-AUG-19 09:15		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-4.99	+/-14.8	26.3	50.0	pCi/g			JJ3	09/08/19	1456	1908287	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

Report Date: September 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	EB-01-081519	Project:	WNUC01519
Sample ID:	487768062	Client ID:	WNUC009
Matrix:	Water		
Collect Date:	15-AUG-19 09:30		
Receive Date:	15-AUG-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	4.19	+/-24.3	41.9	50.0	pCi/L			JJ3	09/08/19	0351	1912084	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			96.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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

GEL LABORATORIES LLC
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QC Summary

Report Date: September 13, 2019

Westinghouse Electric Company, LLC
PO Drawer R
Columbia, South Carolina

Contact: **Ms. Cynthia Logsdon**

Workorder: **487768**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 1908282										
QC1204359988 487768010 DUP										
Technetium-99	U	8.88	U	1.98	pCi/g	N/A		N/A	JJ3	09/12/19 02:46
	Uncertainty	+/-19.1		+/-10.9						
QC1204359989 LCS										
Technetium-99	429			414	pCi/g		96.3	(75%-125%)		09/12/19 03:02
	Uncertainty			+/-24.3						
QC1204359987 MB										
Technetium-99			U	5.40	pCi/g					09/12/19 02:29
	Uncertainty			+/-11.3						
Batch 1908284										
QC1204359991 487768017 DUP										
Technetium-99	U	-2.9	U	-7.72	pCi/g	N/A		N/A	RP1	09/08/19 11:21
	Uncertainty	+/-18.6		+/-18.0						
QC1204359992 LCS										
Technetium-99	566			500	pCi/g		88.4	(75%-125%)		09/08/19 11:43
	Uncertainty			+/-29.2						
QC1204359990 MB										
Technetium-99			U	-0.872	pCi/g					09/08/19 11:00
	Uncertainty			+/-15.2						
Batch 1908285										
QC1204359994 487768032 DUP										
Technetium-99	U	-9.16	U	-2.61	pCi/g	N/A		N/A	JJ3	09/08/19 11:41
	Uncertainty	+/-25.5		+/-21.8						
QC1204359995 LCS										
Technetium-99	394			389	pCi/g		98.9	(75%-125%)		09/08/19 11:57
	Uncertainty			+/-24.1						
QC1204359993 MB										
Technetium-99			U	2.91	pCi/g					09/08/19 11:24
	Uncertainty			+/-12.3						

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QC Summary

Workorder: **487768**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 1908287										
QC1204359997 487768057 DUP										
Technetium-99	U	4.02	U	-9.39	pCi/g	N/A		N/A	JJ3	09/08/19 15:30
	Uncertainty	+/-18.5		+/-18.0						
QC1204359998 LCS										
Technetium-99	503			519	pCi/g		103	(75%-125%)		09/08/19 15:47
	Uncertainty			+/-30.3						
QC1204359996 MB										
Technetium-99			U	2.68	pCi/g					09/08/19 15:13
	Uncertainty			+/-14.3						
Batch 1912084										
QC1204369419 LCS										
Technetium-99	854			881	pCi/L		103	(75%-125%)	JJ3	09/08/19 04:34
	Uncertainty			+/-48.2						
QC1204369420 LCSD										
Technetium-99	854			861	pCi/L	2.24	101	(0%-20%)		09/08/19 04:55
	Uncertainty			+/-46.7						
QC1204369418 MB										
Technetium-99			U	6.72	pCi/L					09/08/19 04:13
	Uncertainty			+/-28.4						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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
BD	Results are either below the MDC or tracer recovery is low
FA	Failed analysis.
H	Analytical holding time was exceeded
J	See case narrative for an explanation
J	Value is estimated
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
M	M if above MDC and less than LLD
M	REMP Result > MDC/CL and < RDL
N/A	RPD or %Recovery limits do not apply.

GEL LABORATORIES LLC

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

QC Summary

Workorder: **487768**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N1	See case narrative
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

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.

Radiochemistry
Technical Case Narrative
Westinghouse Electric Co, LLC
SDG #: 487768

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: 1908282

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

GEL Sample ID#	Client Sample Identification
487768001	SS-13 (0-1)
487768002	SS-13 (1-3)
487768003	SS-13 (3-5)
487768004	SS-13 (5-7)
487768005	SS-13-DUP (5-7)
487768006	SS-11 (0-1)
487768007	SS-11 (1-3)
487768008	SS-11 (3-5)
487768009	SS-11 (5-7)
487768010	SS-12 (0-1)
487768011	SS-12 (1-3)
487768012	SS-12 (3-5)
487768013	SS-12 (5-7)
487768014	SS-14 (0-1)
487768015	SS-14 (1-3)
487768016	SS-14 (3-5)
1204359987	Method Blank (MB)
1204359988	487768010(SS-12 (0-1)) Sample Duplicate (DUP)
1204359989	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.

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: 1908284

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

GEL Sample ID#	Client Sample Identification

487768017	SS-14 (5-7)
487768018	SS-14-DUP (5-7)
487768019	SS-10 (0-1)
487768020	SS-10 (1-3)
487768021	SS-10 (3-5)
487768022	SS-10 (5-7)
487768023	SS-8 (0-1)
487768024	SS-8 (1-3)
487768025	SS-8 (3-5)
487768026	SS-8 (5-7)
487768027	SS-7 (0-1)
487768028	SS-7 (1-3)
487768029	SS-7 (3-5)
487768030	SS-7 (5-7)
487768031	SS-9 (0-1)
1204359990	Method Blank (MB)
1204359991	487768017(SS-14 (5-7)) Sample Duplicate (DUP)
1204359992	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.

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: 1908285

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

GEL Sample ID#	Client Sample Identification
487768032	SS-9 (1-3)
487768033	SS-9 (3-5)
487768034	SS-9 (5-7)
487768035	SS-3 (0-1)
487768036	SS-3 (1-3)
487768037	SS-3 (3-5)
487768038	SS-3 (5-7)
487768039	SS-3-DUP (5-7)
487768040	SS-4 (0-1)
487768041	SS-4 (1-3)
487768042	SS-4 (3-5)
487768043	SS-4 (5-7)
487768044	SS-6 (0-1)
487768045	SS-6 (1-3)
487768046	SS-6 (3-5)
1204359993	Method Blank (MB)
1204359994	487768032(SS-9 (1-3)) Sample Duplicate (DUP)

1204359995	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.

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: 1908287

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

GEL Sample ID#	Client Sample Identification
487768047	SS-6 (5-7)
487768048	SS-5 (0-1)
487768049	SS-5 (1-3)
487768050	SS-5 (3-5)
487768051	SS-5 (5-7)
487768052	SP-1
487768053	SP-2
487768054	SS-2 (0-1)
487768055	SS-2 (1-3)
487768056	SS-2 (3-5)
487768057	SS-2 (5-7)
487768058	SS-1 (0-1)
487768059	SS-1 (1-3)
487768060	SS-1 (3-5)
487768061	SS-1 (5-7)
1204359996	Method Blank (MB)
1204359997	487768057(SS-2 (5-7)) Sample Duplicate (DUP)
1204359998	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.

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

Analytical Batch: 1912084

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

GEL Sample ID#	Client Sample Identification
487768062	EB-01-081519
1204369418	Method Blank (MB)
1204369419	Laboratory Control Sample (LCS)
1204369420	Laboratory Control Sample Duplicate (LCSD)

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.

Page: 1 of 7
Project # 605956 49
GEL Quote #:
COC Number (1):
PO# 4500778461 Ln 1 ENV-CONSENTA

GEL Laboratories LLC
Chemistry | Radiochemistry | Radiobioassay | Specialty Analytics

Chain of Custody and Analytical Request

GEL Work Order Number: **GEL Project Manager:**

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

487768

Client Name: Westinghouse Phone # 803.647.1920
Project/Site Name: Fax #
Address: 5801 Bluff Road, Hopkins, SC 29061
Collected By: Will Dennis-Ewing Send Results To: joynerdp@westinghouse.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive (If yes, please supply isotopic info.)	Should this sample be considered: (7) Known or possible Hazards	Total number of containers	Tc-99	<-- Preservative Type (6)	Comments
SS-13 (0-1)	08-12-19	1135	C	N	SO			1	X		Note: extra sample is required for sample specific QC
SS-13 (1-3)	08-12-19	1210	C	N	SO			1	X		
SS-13 (3-5)	08-12-19	1230	C	N	SO			1	X		
SS-13 (5-7)	08-12-19	1250	C	N	SO			1	X		
SS-13-DUP (5-7)	08-12-19	1250	FD	N	SO			1	X		
SS-11 (0-1)	08-12-19	1410	C	N	SO			1	X		
SS-11 (1-3)	08-12-19	1425	C	N	SO			1	X		
SS-11 (3-5)	08-12-19	1520	C	N	SO			1	X		
SS-11 (5-7)	08-12-19	1540	C	N	SO			1	X		
SS-12 (0-1)	08-12-19	1600	C	N	SO			1	X		

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	Will Dennis-Ewing	8.15.19	1305		8/15/19	1305
2						
3						

TAT Requested: Normal: X Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: [ ] Yes [X] No E-mail Results

Select Deliverable: [ ] C of A [ ] QC Summary [ ] level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4

Additional Remarks:

For Lab Receiving Use Only: *Custody Seal Intact?* [ ] *Yes* [ ] *No* ***Cooler Temp:*** 1 °C

> ***For sample shipping and delivery details, see Sample Receipt & Review form (SRR).***

Sample Collection Time Zone: [X] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other:

1.) Chain of Custody Number = Client Determined

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

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.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, **ML**=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A**) and number of containers provided for each (i.e. *8260B* **- 3**, *6010B/7470A* **- 1**).

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

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals
As = Arsenic **Hg**= Mercury
Ba = Barium **Se**= Selenium
Cd = Cadmium **Ag**= Silver
Cr = Chromium **MR**= Misc. RCRA metals
Pb = Lead

Characteristic Hazards
FL = Flammable/Ignitable
CO = Corrosive
RE = Reactive

TSCA Regulated
PCB = Polychlorinated biphenyls

Listed Waste
LW= Listed Waste
(F,K,P and U-listed wastes.)
Waste code(s):

Other
OT= Other / Unknown
(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns. *(i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)*

Page: 2 of 7
Project # 605936649
GEL Quote #:
COC Number (1):
PO# 4500778461 Ln 1 ENV-CONSENTA

GEL Laboratories LLC
Chemistry | Radiochemistry | Radiobioassay | Specialty Analytics

Chain of Custody and Analytical Request

GEL Work Order Number: *GEL Project Manager:*

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Phone # 803.647.1920
Project/Site Name: Fax #
Address: 5801 Bluff Road, Hopkins, SC 29061
Collected By: Will Dennis-King Send Results To: joynerdp@westinghouse.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive (If yes, please supply isotopic info.)	Should this sample be considered: (7) Known or possible Hazards	Total number of containers	Tc-99	<-- Preservative Type (6)
SS-12-~~MS~~ (0-1)	08-12-19	1600	MS	N	SO			1	X	
SS-12-MSD (0-1)	08-12-19	1600	MSD	N	SO			1	X	
SS-12 (1-3)	08-12-19	1620	C	N	SO			1	X	
SS-12 (3-5)	08-12-19	1640	C	N	SO			1	X	
SS-12 (5-7)	08-12-19	1700	C	N	SO			1	X	
SS-14 (0-1)	08-13-19	0800	C	N	SO			1	X	
SS-14 (1-3)	08-13-19	0815	C	N	SO			1	X	
SS-14 (3-5)	08-13-19	0900	C	N	SO			1	X	
SS-14 (5-7)	08-13-19	0910	C	N	SO			1	X	
SS-14-DUP (5-7)	08-13-19	0910	FD	N	SO			1	X	

Comments
Note: extra sample is required for sample specific QC

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	William Dennis-King	8-15-19	1305		08/15/19	1305
2						
3						

TAT Requested: Normal: X Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: [ ] Yes [X] No Email Results

Select Deliverable: [ ] C of A [ ] QC Summary [ ] level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4

Additional Remarks:

For Lab Receiving Use Only: *Custody Seal Intact?* [ ] *Yes* [ ] *No* ***Cooler Temp:*** 1 °C

> ***For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)***

Sample Collection Time Zone: [X] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other:

1.) Chain of Custody Number = Client Determined

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

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.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, **ML**=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B**, **6010B/7470A**) and number of containers provided for each (i.e. *8260B* **- 3**, *6010B/7470A* **- 1**).

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

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals
As = Arsenic **Hg**= Mercury
Ba = Barium **Se**= Selenium
Cd = Cadmium **Ag**= Silver
Cr = Chromium **MR**= Misc. RCRA metals
Pb = Lead

Characteristic Hazards
FL = Flammable/Ignitable
CO = Corrosive
RE = Reactive

TSCA Regulated
PCB = Polychlorinated biphenyls

Listed Waste
LW= Listed Waste
(F,K,P and U-listed wastes.)
Waste code(s):

Other
OT= Other / Unknown
(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns. *(i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)*

Page: 3 of 7
Project # 605466 49
GEL Quote #:
COC Number (1):
PO# 4500778461 Ln 1 ENV-CONSENTA

GEL Laboratories LLC
gel.com
Chemistry | Radiochemistry | Radiobioassay | Specialty Analytics

Chain of Custody and Analytical Request

GEL Work Order Number: *GEL Project Manager:*

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Phone # 803.647.1920
Project/Site Name: Fax #
Address: 5801 Bluff Road, Hopkins, SC 29061
Collected By: Will Dennis-Long Send Results To: joynerdp@westinghouse.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive (If yes, please supply isotopic info.)	Should this sample be considered: (7) Known or possible Hazards	Total number of containers	Tc-99	<-- Preservative Type (6)	Comments
SS-10 (0-1)	08-13-19	0955	C	N	SO			1	X		Note: extra sample is required for sample specific QC
SS-10 (1-3)	08-13-19	1015	C	N	SO			1	X		
SS-10 (3-5)	08-13-19	1035	C	N	SO			1	X		
SS-10 (5-7)	08-13-19	1045	C	N	SO			1	X		
SS-8 (0-1)	08-13-19	1125	C	N	SO			1	X		
SS-8 (1-3)	08-13-19	1150	C	N	SO			1	X		
SS-8 (3-5)	08-13-19	1210	C	N	SO			1	X		
SS-8 (5-7)	08-13-19	1230	C	N	SO			1	X		
SS-7 (0-1)	08-13-19	1320	C	N	SO			1	X		
SS-7 (1-3)	08-13-19	1345	C	N	SO			1	X		

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1		8-15-19	1305		8/15/19	1305
2						
3						

TAT Requested: Normal: X Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: [ ] Yes [X] No Email Results

Select Deliverable: [ ] C of A [ ] QC Summary [ ] level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4

Additional Remarks:

For Lab Receiving Use Only: *Custody Seal Intact?* [ ] *Yes* [ ] *No* ***Cooler Temp:*** 1 °C

> ***For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)***

Sample Collection Time Zone: [X] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other:

1.) Chain of Custody Number = Client Determined

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

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.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, **ML**=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A)** and number of containers provided for each (i.e. *8260B* **- 3**, *6010B/7470A* **- 1**).

5.) 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

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals
As = Arsenic **Hg**= Mercury
Ba = Barium **Se**= Selenium
Cd = Cadmium **Ag**= Silver
Cr = Chromium **MR**= Misc. RCRA metals
Pb = Lead

Characteristic Hazards
FL = Flammable/Ignitable
CO = Corrosive
RE = Reactive

TSCA Regulated
PCB = Polychlorinated biphenyls

Listed Waste
LW= Listed Waste
(F,K,P and U-listed wastes.)
Waste code(s):

Other
OT= Other / Unknown
(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns. *(i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)*

Page: 4 of 7
Project # 605956 49
GEL Quote #:
COC Number (1):
PO Number: 4500778461

GEL Laboratories LLC
gel.com | Chemistry | Radiochemistry | Radiobioassay | Specialty Analytics

Chain of Custody and Analytical Request

GEL Work Order Number:

GEL Project Manager:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse
Phone # 803.647.1920

Project/Site Name:
Fax #

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected By: Will Dennis-King
Send Results To: joynerdp@westinghouse.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive (If yes, please supply isotopic info.)	Should this sample be considered: (7) Known or possible Hazards	Total number of containers	Tc-99	<-- Preservative Type (6)
SS-7 (3-5)	08-13-19	1405	C	N	SO			1	X	
SS-7 (5-7)	08-13-19	1415	C	N	SO			1	X	
SS-9 (0-1)	08-13-19	1445	C	N	SO			1	X	
SS-9 (1-3)	08-13-19	1505	C	N	SO			1	X	
SS-9-MS (1-3)	08-13-19	1505	MS	N	SO			1	X	
SS-9-MSD (1-3)	08-13-19	1505	MSD	N	SO			1	X	
SS-9 (3-5)	08-13-19	1530	C	N	SO			1	X	
SS-9 (5-7)	08-13-19	1545	C	N	SO			1	X	
SS-3 (0-1)	08-14-19	0845	C	N	SO			1	X	
SS-3 (1-3)	08-14-19	0900	C	N	SO			1	X	

Comments
Note: extra sample is required for sample specific QC

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	[signature]	8/15/19	1305	[signature]	8/15/19	1305
2						
3						

TAT Requested: Normal: X Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: [ ] Yes [X] No E-mail Results

Select Deliverable: [ ] C of A [ ] QC Summary [ ] level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4

Additional Remarks:

For Lab Receiving Use Only: *Custody Seal Intact?* [ ] *Yes* [ ] *No* ***Cooler Temp:*** 1 °C

> ***For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)***

Sample Collection Time Zone: [X] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other:

1.) Chain of Custody Number = Client Determined

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

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.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, **ML**=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B**, **6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).

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

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals
As = Arsenic **Hg**= Mercury
Ba = Barium **Se**= Selenium
Cd = Cadmium **Ag**= Silver
Cr = Chromium **MR**= Misc. RCRA metals
Pb = Lead

Characteristic Hazards
FL = Flammable/Ignitable
CO = Corrosive
RE = Reactive

TSCA Regulated
PCB = Polychlorinated biphenyls

Listed Waste
LW= Listed Waste
(F,K,P and U-listed wastes.)
Waste code(s):

Other
OT= Other / Unknown
(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns. *(i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)*

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Project # 605956 49
GEL Quote #:
COC Number (1):
PO Number: 4500778461 bnl ENV. CONSENTA

GEL Laboratories LLC
gel.com | Chemistry | Radiochemistry | Radiobioassay | Specialty Analytics

Chain of Custody and Analytical Request

GEL Work Order Number: *GEL Project Manager:*

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Phone # 803.647.1920
Project/Site Name: Fax #
Address: 5801 Bluff Road, Hopkins, SC 29061
Collected By: Will Dennis-King Send Results To: joynerdp@westinghouse.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive (If yes, please supply isotopic info.)	Should this sample be considered: (7) Known or possible Hazards	Total number of containers	Tc-99	<-- Preservative Type (6)	Comments
SS-3 (3-5)	08-14-19	0915	C	N	SO			1	X		Note: extra sample is required for sample specific QC
SS-3 (5-7)	08-14-19	0920	C	N	SO			1	X		
SS-3-DUP (5-7)	08-14-19	0920	FD	N	SO			1	X		
SS-4 (0-1)	08-14-19	0950	C	N	SO			1	X		
SS-4 (1-3)	08-14-19	1000	C	N	SO			1	X		
SS-4 (3-5)	08-14-19	1010	C	N	SO			1	X		
SS-4 (5-7)	08-14-19	1020	C	N	SO			1	X		
SS-6 (0-1)	08-14-19	1125	C	N	SO			1	X		
SS-6 (1-3)	08-14-19	1140	C	N	SO			1	X		
SS-6 (3-5)	08-14-19	1155	C	N	SO			1	X		

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 Will Gel-King	8/15/19	1305	1	8/15/19	1305
2			2		
3			3		

TAT Requested: Normal: X Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: [ ] Yes [X] No E-mail Results

Select Deliverable: [ ] C of A [ ] QC Summary [ ] level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4

Additional Remarks:

For Lab Receiving Use Only: *Custody Seal Intact?* [ ] *Yes* [ ] *No* ***Cooler Temp:*** 1 °C

> ***For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)***

Sample Collection Time Zone: [X] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other:

1.) Chain of Custody Number = Client Determined

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

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.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, **ML**=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).

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

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals
As = Arsenic **Hg**= Mercury
Ba = Barium **Se**= Selenium
Cd = Cadmium **Ag**= Silver
Cr = Chromium **MR**= Misc. RCRA metals
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Characteristic Hazards
FL = Flammable/Ignitable
CO = Corrosive
RE = Reactive

TSCA Regulated
PCB = Polychlorinated biphenyls

Listed Waste
LW= Listed Waste
(F,K,P and U-listed wastes.)
Waste code(s):

Other
OT= Other / Unknown
(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns. *(i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)*

Page: 6 of 7
Project # 605956 49
GEL Quote #:
COC Number (1):
PO Number: 4500778461 bal ENV-CONSENT A

GEL Laboratories LLC

gel.com | Chemistry | Radiochemistry | Radiobioassay | Specialty Analytics

Chain of Custody and Analytical Request

GEL Work Order Number: *GEL Project Manager:*

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Phone # 803.647.1920
Project/Site Name: Fax #
Address: 5801 Bluff Road, Hopkins, SC 29061
Collected By: Will Dennis-King Send Results To: joynerdp@westinghouse.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive (If yes, please supply isotopic info.)	Should this sample be considered: (7) Known or possible Hazards	Total number of containers	Tc-99	<-- Preservative Type (6)
SS-6 (5-7)	08-14-19	1210	C	N	SO			1	X	
SS-5 (0-1)	08-14-19	1320	C	N	SO			1	X	
SS-5 (1-3)	08-14-19	1335	C	N	SO			1	X	
SS-5 (3-5)	08-14-19	1345	C	N	SO			1	X	
SS-5 (5-7)	08-14-19	1355	C	N	SO			1	X	
SP-1	08-14-19	1430	G	N	S			1	X	
SP-2	08-14-19	1435	G	N	S			1	X	
SS-2 (0-1)	08-14-19	1525	C	N	SO			1	X	
SS-2 (1-3)	08-14-19	1540	C	N	SO			1	X	
SS-2 (3-5)	08-14-19	1555	C	N	SO			1	X	

Comments
Note: extra sample is required for sample specific QC

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	[signature]	8/15/19	1305	[signature]	8/15/19	1305
2						
3						

TAT Requested: Normal: X Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: [ ] Yes [X] No Email results

Select Deliverable: [ ] C of A [ ] QC Summary [ ] level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4

Additional Remarks:

For Lab Receiving Use Only: *Custody Seal Intact?* [ ] *Yes* [ ] *No* ***Cooler Temp:*** ____ °C

> ***For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)***

Sample Collection Time Zone: [X] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other:

1.) Chain of Custody Number = Client Determined

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

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.

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5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).

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RE = Reactive

TSCA Regulated
PCB = Polychlorinated biphenyls

Listed Waste
LW= Listed Waste
(F,K,P and U-listed wastes.)
Waste code(s):

Other
OT= Other / Unknown
(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns. *(i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)*

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Project # 605956649
GEL Quote #:
COC Number (1):
PO Number: 4500778461 Lvl ENV-

GEL Laboratories LLC
gel.com
Chemistry | Radiochemistry | Radiobioassay | Specialty Analytics

Chain of Custody and Analytical Request

GEL Work Order Number:
GEL Project Manager:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse CONSENT A
Phone # 803.647.1920
Project/Site Name:
Fax #
Address: 5801 Bluff Road, Hopkins, SC 29061
Collected By: Will Dennis-King
Send Results To: joynerdp@westinghouse.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive (If yes, please supply isotopic info.)	Should this sample be considered: (7) Known or possible Hazards	Total number of containers	Tc-99	<-- Preservative Type (6)	Comments
SS-2 (5-7)	08-14-19	1605	C	N	SO			1	X		Note: extra sample is required for sample specific QC
SS-2-MS (5-7)	08-14-19	1605	C	N	SO			1	X		
SS-2-MSD (5-7)	08-14-19	1605	C	N	SO			1	X		
SS-1 (0-1)	08-15-19	0830	C	N	SO			1	X		
SS-1 (1-3)	08-15-19	0855	C	N	SO			1	X		
SS-1 (3-5)	08-15-19	0905	C	N	SO			1	X		
SS-1 (5-7)	08-15-19	0915	C	N	SO			1	X		
EB-01-081519	08-15-19	0930	EB	N	W			1	X		*NI (6)

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time		Received by (signed)	Date	Time
1	Will Dennis-King	8/15/19	1805	1		8/15/19	1805
2				2			
3				3			

> *For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)*

TAT Requested: Normal: X Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: [ ] Yes [X] No E-mail Results

Select Deliverable: [ ] C of A [ ] QC Summary [ ] level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4

Additional Remarks:

For Lab Receiving Use Only: *Custody Seal Intact?* [ ] *Yes* [ ] *No* ***Cooler Temp:*** 1 °C

Sample Collection Time Zone : [X] Eastern [ ] Pacific [ ] Central [ ] Mountain [ ] Other:

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TSCA Regulated
PCB = Polychlorinated biphenyls

Listed Waste
LW= Listed Waste
(F,K,P and U-listed wastes.)
Waste code(s):

Other
OT= Other / Unknown
(i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns. *(i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)*

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: WNUC	SDG/AR/COC/Work Order: 487768
Received By: SB	Date Received: 8/15/19
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other — CLIENT

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): Ø CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	✓			Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 1°c
4	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: IR1-19 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided?	✓			
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials TMC Date 8/16/19 Page 1 of 1

List of current GEL Certifications as of 13 September 2019

State	Certification
Alaska	17−018
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
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	2019−013
Pennsylvania NELAP	68−00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235−19−15
Utah NELAP	SC000122019−28
Vermont	VT87156
Virginia NELAP	460202
Washington	C780