TRITIUM SMEAR RESULTS

Addendum to the Final Status Survey Report

Timken Motor and Crane Services, DBA Schulz Electric, LLC

Background

Timken Motor and Crane works (the Company) is decommissioning the location at 30 Gando Drive and relocating the current work performed at this location to 110 Commerce St. As part of the process, the company requested CN Associates (CN) to support the effort and complete a Final Status Survey.

CN performed the FSS and submitted the results to the Nuclear Regulatory Commission (NRC) on January 25, 2022. During the review of these results, the NRC requested that a series of wipes be performed in the ventilation system for the area that is being decommissioned.

CN dispatched a team to the site to obtain the smears in the ventilation system. These smears were summitted to an independent third-party laboratory for analysis. This paper reports the results of these tritium wipes.

Smear Locations and Results

The team dispatched to the site obtain a total of 9 wipes to be analyzed for tritium. Figure 1 illustrates the approximate location of the smears. The smears were analyzed at an independent third-party laboratory for tritium and gamma spectroscopy. The laboratory results are included as Attachment 1. The locations and results are summarized in Table 1.

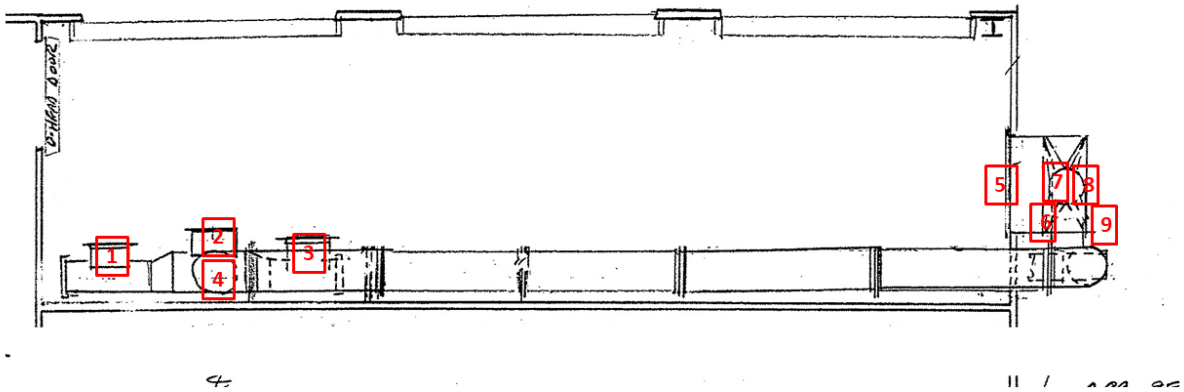

Table 1 - Tritium Smear Results and Locations

Wipe Number	Location	Results
1	Outlet plenum	MDA
2	Outlet Plenum	MDA
3	Outlet Plenum	MDA
4	Outlet plenum, distribution header bend in pipe, obtain with a long-handled pole	MDA
5	Inlet - HEPA filter grid supports	MDA
6	Inlet – back wall of the ventilation system down duct	MDA
7	Inlet – Bottom bend in pipe to fan, obtained with long handled pole	MDA
8	Inlet – bottom duct, bend in pipe, obtained with long handled poles	MDA
9	Inlet Back wall of the distribution box	MDA

Conclusion

Based upon the results of the wipes performed, the wipes for tritium analysis were less than the unrestricted release limits for tritium established in NUREG-1757, Consolidated Guidance on Decommissioning, Vol 1, Appendix B.

Attachments

1. Laboratory Results for Tritium

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171
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April 04, 2022

Mr. Ron Cardarelli
CN Associates, Inc.
PO Box 1446
18 Pine Street
Manchester, Massachusetts 01944

Re: Schulz Electric
Work Order: 574561

Dear Mr. Cardarelli:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 28, 2022. 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. 4422.

Sincerely,

Jake Crook
Project Manager

Purchase Order: GELP20-0963R1
Enclosures

problem solved

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

CNAS001 CN Associates, Inc.

Client SDG: 574561 GEL Work Order: 574561

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.

UI Gamma Spectroscopy––Uncertain identification

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, Jake Crook.

Reviewed by _____

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

Certificate of Analysis

Company : CN Associates, Inc.
Address : PO Box 1446
18 Pine Street
Manchester, Massachusetts 01944
Report Date: April 4, 2022
Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 1
Sample ID: 574561001
Matrix: Swipe
Collect Date: 21-MAR-22
Receive Date: 28-MAR-22
Collector: Client
Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Actinium-228	U	-4.04	+/-8.80	12.8	+/-8.99		dpm/Filter			MXR1	03/29/22	0926	2246531	1
Americium-241	U	-2.00	+/-6.40	10.4	+/-6.47		dpm/Filter							
Antimony-124	U	1.23	+/-8.56	7.45	+/-8.56		dpm/Filter							
Antimony-125	U	-0.959	+/-3.55	6.26	+/-3.58		dpm/Filter							
Barium-133	U	0.865	+/-1.59	2.74	+/-1.64		dpm/Filter							
Barium-140	U	6.35	+/-6.55	13.2	+/-7.19		dpm/Filter							
Beryllium-7	U	9.79	+/-10.5	21.0	+/-11.5		dpm/Filter							
Bismuth-212	U	6.62	+/-21.7	31.5	+/-21.9		dpm/Filter							
Bismuth-214	U	-1.24	+/-4.20	6.62	+/-4.24		dpm/Filter							
Cerium-139	U	-0.389	+/-0.897	1.59	+/-0.918		dpm/Filter							
Cerium-141	U	1.41	+/-1.69	2.96	+/-1.81		dpm/Filter							
Cerium-144	U	-4.62	+/-6.03	10.5	+/-6.40		dpm/Filter							
Cesium-134	U	0.205	+/-1.60	2.97	+/-1.60		dpm/Filter							
Cesium-136	U	-1.02	+/-3.03	5.66	+/-3.06		dpm/Filter							
Cesium-137	UI	0.000	+/-3.08	2.05	+/-3.12	25.0	dpm/Filter							
Chromium-51	U	-0.748	+/-10.6	19.0	+/-10.6		dpm/Filter							
Cobalt-56	U	-0.101	+/-1.68	3.01	+/-1.68		dpm/Filter							
Cobalt-57	U	0.00921	+/-0.788	1.44	+/-0.788		dpm/Filter							
Cobalt-58	U	0.305	+/-1.53	2.86	+/-1.53		dpm/Filter							
Cobalt-60	U	-1.39	+/-1.34	2.13	+/-1.48		dpm/Filter							
Europium-152	U	-0.408	+/-3.30	5.92	+/-3.31		dpm/Filter							
Europium-154	U	-1.50	+/-4.48	8.43	+/-4.53		dpm/Filter							
Europium-155	U	1.16	+/-3.14	5.90	+/-3.19		dpm/Filter							
Iridium-192	U	0.471	+/-1.02	1.93	+/-1.05		dpm/Filter							
Iron-59	U	-3.39	+/-3.98	5.76	+/-4.27		dpm/Filter							
Lead-210	U	-428	+/-259	276	+/-326		dpm/Filter							
Lead-212	U	-3.29	+/-2.44	3.73	+/-2.87		dpm/Filter							
Lead-214	U	0.497	+/-3.94	5.03	+/-3.94		dpm/Filter							
Manganese-54	U	-0.423	+/-1.52	2.65	+/-1.53		dpm/Filter							
Mercury-203	U	0.542	+/-1.16	2.16	+/-1.19		dpm/Filter							
Neodymium-147	U	-2.28	+/-13.0	23.4	+/-13.1		dpm/Filter							
Neptunium-239	U	-3.09	+/-8.10	14.5	+/-8.22		dpm/Filter							
Niobium-94	U	1.39	+/-2.12	2.92	+/-2.22		dpm/Filter							
Niobium-95	UI	0.000	+/-2.07	2.55	+/-2.13		dpm/Filter							
Potassium-40	U	-3.56	+/-27.4	46.8	+/-27.4		dpm/Filter							
Promethium-144	U	0.194	+/-1.44	2.65	+/-1.45		dpm/Filter							
Promethium-146	U	0.607	+/-1.55	2.92	+/-1.58		dpm/Filter							
Radium-226	U	-1.24	+/-4.20	6.62	+/-4.24		dpm/Filter							
Radium-228	U	-4.04	+/-8.80	12.8	+/-8.99		dpm/Filter							
Ruthenium-106	U	-2.41	+/-13.8	23.3	+/-13.9		dpm/Filter							

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Certificate of Analysis

Company : CN Associates, Inc.
Address : PO Box 1446
18 Pine Street
Manchester, Massachusetts 01944

Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 1
Sample ID: 574561001

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Silver-110m	U	-0.0817	+/-1.76	3.26	+/-1.77		dpm/Filter							
Sodium-22	U	-0.462	+/-1.59	3.01	+/-1.60		dpm/Filter							
Thallium-208	U	-0.348	+/-1.92	3.00	+/-1.92		dpm/Filter							
Thorium-234	U	44.6	+/-93.4	106	+/-96.1		dpm/Filter							
Tin-113	U	-0.716	+/-1.48	2.57	+/-1.52		dpm/Filter							
Uranium-235	U	0.381	+/-10.4	10.6	+/-10.4		dpm/Filter							
Uranium-238	U	44.6	+/-93.4	106	+/-96.1		dpm/Filter							
Yttrium-88	U	1.41	+/-1.70	4.06	+/-1.82		dpm/Filter							
Zinc-65	U	-0.872	+/-3.55	6.69	+/-3.58		dpm/Filter							
Zirconium-95	U	-1.32	+/-2.64	4.48	+/-2.72		dpm/Filter							
Rad Liquid Scintillation Analysis														
LSC, Direct Tritium, Filter "As Received"														
Tritium	U	8.75	+/-16.0	27.8	+/-16.0	1000	dpm/Filter			KXA1	04/01/22	1542	2248340	2

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	GL-RAD-A-002

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Company : CN Associates, Inc.
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Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 2
Sample ID: 574561002
Matrix: Swipe
Collect Date: 21-MAR-22
Receive Date: 28-MAR-22
Collector: Client

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Actinium-228	U	-9.32	+/-7.40	11.5	+/-8.58		dpm/Filter			MXR1	03/29/22	0927	2246531	1
Americium-241	U	1.25	+/-3.86	6.70	+/-3.90		dpm/Filter							
Antimony-124	U	-3.38	+/-3.07	4.24	+/-3.44		dpm/Filter							
Antimony-125	U	0.420	+/-2.72	5.17	+/-2.73		dpm/Filter							
Barium-133	U	-0.860	+/-1.18	2.06	+/-1.24		dpm/Filter							
Barium-140	U	-0.302	+/-5.64	10.5	+/-5.64		dpm/Filter							
Beryllium-7	U	2.80	+/-9.60	18.3	+/-9.69		dpm/Filter							
Bismuth-212	U	8.33	+/-18.0	34.9	+/-18.4		dpm/Filter							
Bismuth-214	U	-1.13	+/-3.49	4.99	+/-3.52		dpm/Filter							
Cerium-139	U	0.0707	+/-0.766	1.33	+/-0.767		dpm/Filter							
Cerium-141	U	1.50	+/-1.95	2.05	+/-1.96		dpm/Filter							
Cerium-144	U	0.252	+/-4.75	8.34	+/-4.75		dpm/Filter							
Cesium-134	U	-0.481	+/-1.38	2.42	+/-1.40		dpm/Filter							
Cesium-136	U	0.723	+/-2.67	5.43	+/-2.69		dpm/Filter							
Cesium-137	U	0.583	+/-1.94	2.08	+/-1.94	25.0	dpm/Filter							
Chromium-51	U	-3.64	+/-9.07	16.4	+/-9.22		dpm/Filter							
Cobalt-56	U	1.06	+/-1.60	2.91	+/-1.67		dpm/Filter							
Cobalt-57	U	0.434	+/-0.630	1.16	+/-0.660		dpm/Filter							
Cobalt-58	U	-0.855	+/-1.35	1.90	+/-1.41		dpm/Filter							
Cobalt-60	U	0.561	+/-1.23	2.74	+/-1.26		dpm/Filter							
Europium-152	U	1.18	+/-2.74	5.34	+/-2.80		dpm/Filter							
Europium-154	U	-1.51	+/-3.97	7.39	+/-4.03		dpm/Filter							
Europium-155	U	0.274	+/-2.45	4.37	+/-2.45		dpm/Filter							
Iridium-192	U	-0.0335	+/-0.924	1.73	+/-0.924		dpm/Filter							
Iron-59	U	-1.39	+/-2.58	4.69	+/-2.66		dpm/Filter							
Lead-210	U	-61.8	+/-149	220	+/-152		dpm/Filter							
Lead-212	U	-0.412	+/-2.72	5.01	+/-2.72		dpm/Filter							
Lead-214	U	1.41	+/-2.99	4.87	+/-3.06		dpm/Filter							
Manganese-54	U	-0.105	+/-1.32	2.40	+/-1.32		dpm/Filter							
Mercury-203	U	0.101	+/-0.925	1.75	+/-0.926		dpm/Filter							
Neodymium-147	U	0.0597	+/-9.94	18.8	+/-9.94		dpm/Filter							
Neptunium-239	U	-2.57	+/-6.49	11.0	+/-6.60		dpm/Filter							
Niobium-94	U	-0.578	+/-1.32	2.28	+/-1.35		dpm/Filter							
Niobium-95	U	1.86	+/-1.23	2.73	+/-1.51		dpm/Filter							
Potassium-40	U	13.9	+/-30.5	26.3	+/-30.5		dpm/Filter							
Promethium-144	U	0.0586	+/-1.19	2.20	+/-1.19		dpm/Filter							
Promethium-146	U	0.345	+/-1.22	2.36	+/-1.23		dpm/Filter							
Radium-226	U	-1.13	+/-3.49	4.99	+/-3.52		dpm/Filter							
Radium-228	U	-9.32	+/-7.40	11.5	+/-8.58		dpm/Filter							
Ruthenium-106	U	2.63	+/-10.4	19.9	+/-10.5		dpm/Filter							
Silver-110m	U	0.124	+/-1.97	3.27	+/-1.97		dpm/Filter							

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

Certificate of Analysis

Company : CN Associates, Inc.
Address : PO Box 1446
18 Pine Street
Manchester, Massachusetts 01944

Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 2
Sample ID: 574561002

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Sodium-22	U	-0.807	+/-1.46	2.62	+/-1.51		dpm/Filter							
Thallium-208	UI	0.000	+/-3.10	2.04	+/-3.12		dpm/Filter							
Thorium-234	UI	0.000	+/-57.7	73.6	+/-70.3		dpm/Filter							
Tin-113	U	0.809	+/-1.21	2.42	+/-1.27		dpm/Filter							
Uranium-235	U	5.75	+/-6.69	9.13	+/-6.71		dpm/Filter							
Uranium-238	UI	0.000	+/-57.7	73.6	+/-70.3		dpm/Filter							
Yttrium-88	U	-0.631	+/-1.66	3.03	+/-1.69		dpm/Filter							
Zinc-65	U	-0.584	+/-4.02	6.43	+/-4.03		dpm/Filter							
Zirconium-95	U	0.342	+/-2.13	4.06	+/-2.13		dpm/Filter							
Rad Liquid Scintillation Analysis														
LSC, Direct Tritium, Filter "As Received"														
Tritium	U	17.0	+/-30.0	52.0	+/-30.0	1000	dpm/Filter			KXA1	04/01/22	1558	2248340	2

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	GL-RAD-A-002

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

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DF: Dilution Factor
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MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Company : CN Associates, Inc.
Address : PO Box 1446
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Manchester, Massachusetts 01944

Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 3
Sample ID: 574561003
Matrix: Swipe
Collect Date: 21-MAR-22
Receive Date: 28-MAR-22
Collector: Client

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Actinium-228	UI	0.000	+/-13.8	13.4	+/-15.5		dpm/Filter			MXR1	03/29/22	1023	2246531	1
Americium-241	U	-5.92	+/-14.6	25.7	+/-14.9		dpm/Filter							
Antimony-124	U	-1.19	+/-3.68	6.96	+/-3.72		dpm/Filter							
Antimony-125	U	-1.02	+/-4.00	6.58	+/-4.03		dpm/Filter							
Barium-133	U	0.105	+/-1.73	2.94	+/-1.73		dpm/Filter							
Barium-140	U	1.80	+/-6.61	12.8	+/-6.66		dpm/Filter							
Beryllium-7	U	5.83	+/-10.7	21.3	+/-11.1		dpm/Filter							
Bismuth-212	U	5.50	+/-23.1	43.4	+/-23.2		dpm/Filter							
Bismuth-214	U	3.74	+/-8.26	5.14	+/-8.27		dpm/Filter							
Cerium-139	U	0.380	+/-1.08	1.92	+/-1.10		dpm/Filter							
Cerium-141	U	-0.235	+/-2.01	3.47	+/-2.01		dpm/Filter							
Cerium-144	U	-1.49	+/-7.61	13.1	+/-7.64		dpm/Filter							
Cesium-134	U	0.287	+/-1.55	2.97	+/-1.55		dpm/Filter							
Cesium-136	U	0.0990	+/-2.60	5.29	+/-2.60		dpm/Filter							
Cesium-137	U	0.503	+/-1.73	3.26	+/-1.74	25.0	dpm/Filter							
Chromium-51	U	-0.683	+/-12.0	22.4	+/-12.0		dpm/Filter							
Cobalt-56	U	-0.929	+/-1.93	3.27	+/-1.97		dpm/Filter							
Cobalt-57	U	0.810	+/-0.941	1.74	+/-1.01		dpm/Filter							
Cobalt-58	U	0.0640	+/-1.39	2.62	+/-1.39		dpm/Filter							
Cobalt-60	U	-0.365	+/-2.11	3.99	+/-2.12		dpm/Filter							
Europium-152	U	0.950	+/-3.74	7.13	+/-3.76		dpm/Filter							
Europium-154	U	-0.754	+/-5.56	10.7	+/-5.57		dpm/Filter							
Europium-155	U	-1.31	+/-4.06	7.04	+/-4.10		dpm/Filter							
Iridium-192	U	-0.0287	+/-1.20	2.26	+/-1.20		dpm/Filter							
Iron-59	U	0.836	+/-3.44	6.99	+/-3.46		dpm/Filter							
Lead-210	U	200	+/-956	1580	+/-961		dpm/Filter							
Lead-212	U	1.28	+/-3.69	4.30	+/-3.74		dpm/Filter							
Lead-214	U	5.11	+/-7.28	6.62	+/-7.65		dpm/Filter							
Manganese-54	U	1.45	+/-1.64	3.13	+/-1.77		dpm/Filter							
Mercury-203	U	-0.395	+/-1.71	2.48	+/-1.72		dpm/Filter							
Neodymium-147	U	-7.24	+/-13.0	22.8	+/-13.4		dpm/Filter							
Neptunium-239	U	-0.544	+/-10.0	17.6	+/-10.0		dpm/Filter							
Niobium-94	U	1.73	+/-2.33	3.14	+/-2.47		dpm/Filter							
Niobium-95	U	1.31	+/-1.56	2.99	+/-1.67		dpm/Filter							
Potassium-40	U	18.2	+/-40.2	33.7	+/-40.3		dpm/Filter							
Promethium-144	U	1.10	+/-1.60	3.03	+/-1.68		dpm/Filter							
Promethium-146	U	-1.49	+/-1.58	2.68	+/-1.73		dpm/Filter							
Radium-226	U	3.74	+/-8.26	5.14	+/-8.27		dpm/Filter							
Radium-228	UI	0.000	+/-13.8	13.4	+/-15.5		dpm/Filter							
Ruthenium-106	U	-4.14	+/-12.0	21.5	+/-12.2		dpm/Filter							
Silver-110m	U	-0.962	+/-2.17	3.72	+/-2.21		dpm/Filter							

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Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Sodium-22	U	-0.339	+/-1.94	3.71	+/-1.95		dpm/Filter							
Thallium-208	U	-1.07	+/-2.42	3.18	+/-2.47		dpm/Filter							
Thorium-234	U	142	+/-149	205	+/-166		dpm/Filter							
Tin-113	U	-0.403	+/-1.60	2.94	+/-1.61		dpm/Filter							
Uranium-235	U	-8.13	+/-9.00	13.0	+/-9.74		dpm/Filter							
Uranium-238	U	142	+/-149	205	+/-166		dpm/Filter							
Yttrium-88	U	0.136	+/-1.98	4.01	+/-1.98		dpm/Filter							
Zinc-65	U	-0.325	+/-3.42	6.66	+/-3.42		dpm/Filter							
Zirconium-95	U	0.906	+/-2.85	5.04	+/-2.88		dpm/Filter							
Rad Liquid Scintillation Analysis														
LSC, Direct Tritium, Filter "As Received"														
Tritium	U	39.0	+/-61.0	105	+/-61.0	1000	dpm/Filter			KXA1	04/01/22	1615	2248340	2

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	GL-RAD-A-002

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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

Certificate of Analysis

Company : CN Associates, Inc.
Address : PO Box 1446
18 Pine Street
Manchester, Massachusetts 01944

Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 4
Sample ID: 574561004
Matrix: Swipe
Collect Date: 21-MAR-22
Receive Date: 28-MAR-22
Collector: Client

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Actinium-228	U	1.39	+/-11.1	10.4	+/-11.1		dpm/Filter			MXR1	03/29/22	0927	2246531	1
Americium-241	U	-0.222	+/-3.04	4.86	+/-3.04		dpm/Filter							
Antimony-124	U	-0.173	+/-2.39	5.05	+/-2.39		dpm/Filter							
Antimony-125	U	1.16	+/-2.42	4.63	+/-2.48		dpm/Filter							
Barium-133	U	0.630	+/-1.39	2.35	+/-1.42		dpm/Filter							
Barium-140	U	2.32	+/-5.48	10.3	+/-5.58		dpm/Filter							
Beryllium-7	U	0.226	+/-8.86	14.4	+/-8.86		dpm/Filter							
Bismuth-212	U	6.88	+/-13.4	27.6	+/-13.8		dpm/Filter							
Bismuth-214	U	0.143	+/-3.04	5.00	+/-3.04		dpm/Filter							
Cerium-139	U	-0.140	+/-0.659	1.21	+/-0.663		dpm/Filter							
Cerium-141	U	-0.0962	+/-1.74	2.30	+/-1.74		dpm/Filter							
Cerium-144	U	1.93	+/-4.96	8.04	+/-5.03		dpm/Filter							
Cesium-134	U	0.149	+/-1.19	2.32	+/-1.19		dpm/Filter							
Cesium-136	U	-0.00455	+/-2.61	4.94	+/-2.61		dpm/Filter							
Cesium-137	U	1.73	+/-1.32	2.67	+/-1.55	25.0	dpm/Filter							
Chromium-51	U	1.43	+/-8.19	15.2	+/-8.22		dpm/Filter							
Cobalt-56	U	-1.34	+/-1.26	2.09	+/-1.41		dpm/Filter							
Cobalt-57	U	-0.564	+/-0.590	0.920	+/-0.644		dpm/Filter							
Cobalt-58	U	1.33	+/-1.19	2.54	+/-1.34		dpm/Filter							
Cobalt-60	U	0.879	+/-1.31	2.83	+/-1.37		dpm/Filter							
Europium-152	U	-1.63	+/-2.85	4.65	+/-2.95		dpm/Filter							
Europium-154	U	-3.01	+/-3.90	6.44	+/-4.14		dpm/Filter							
Europium-155	U	0.958	+/-2.34	4.14	+/-2.38		dpm/Filter							
Iridium-192	U	-0.664	+/-0.863	1.47	+/-0.915		dpm/Filter							
Iron-59	U	-0.221	+/-2.02	3.91	+/-2.02		dpm/Filter							
Lead-210	U	32.3	+/-87.4	88.6	+/-87.5		dpm/Filter							
Lead-212	U	1.55	+/-3.30	3.27	+/-3.37		dpm/Filter							
Lead-214	U	0.267	+/-6.14	4.49	+/-6.14		dpm/Filter							
Manganese-54	U	-0.227	+/-1.31	2.13	+/-1.31		dpm/Filter							
Mercury-203	U	-0.510	+/-0.853	1.48	+/-0.884		dpm/Filter							
Neodymium-147	U	-4.05	+/-9.75	16.8	+/-9.93		dpm/Filter							
Neptunium-239	U	-2.37	+/-6.38	10.5	+/-6.48		dpm/Filter							
Niobium-94	U	-0.330	+/-1.01	1.86	+/-1.02		dpm/Filter							
Niobium-95	U	-0.474	+/-1.55	2.22	+/-1.57		dpm/Filter							
Potassium-40	U	-19.8	+/-22.2	35.9	+/-24.0		dpm/Filter							
Promethium-144	U	0.932	+/-2.26	2.05	+/-2.30		dpm/Filter							
Promethium-146	U	0.0323	+/-1.10	2.02	+/-1.10		dpm/Filter							
Radium-226	U	0.143	+/-3.04	5.00	+/-3.04		dpm/Filter							
Radium-228	U	1.39	+/-11.1	10.4	+/-11.1		dpm/Filter							
Ruthenium-106	U	-1.48	+/-10.9	19.1	+/-11.0		dpm/Filter							
Silver-110m	U	-0.0373	+/-1.62	2.88	+/-1.62		dpm/Filter							

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Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 4
Sample ID: 574561004

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Sodium-22	U	-1.06	+/-1.37	2.26	+/-1.46		dpm/Filter							
Thallium-208	UI	0.000	+/-2.81	1.87	+/-2.83		dpm/Filter							
Thorium-234	U	3.91	+/-49.6	61.4	+/-49.7		dpm/Filter							
Tin-113	U	-0.247	+/-1.09	1.95	+/-1.10		dpm/Filter							
Uranium-235	UI	0.000	+/-9.90	7.93	+/-9.98		dpm/Filter							
Uranium-238	U	3.91	+/-49.6	61.4	+/-49.7		dpm/Filter							
Yttrium-88	U	0.682	+/-1.70	3.61	+/-1.73		dpm/Filter							
Zinc-65	U	1.37	+/-3.38	5.99	+/-3.43		dpm/Filter							
Zirconium-95	U	-1.59	+/-1.96	3.41	+/-2.10		dpm/Filter							
Rad Liquid Scintillation Analysis														
LSC, Direct Tritium, Filter "As Received"														
Tritium	U	6.02	+/-9.43	16.2	+/-9.44	1000	dpm/Filter			KXA1	04/01/22	1631	2248340	2

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	GL-RAD-A-002

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Company : CN Associates, Inc.
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Manchester, Massachusetts 01944

Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 5
Sample ID: 574561005
Matrix: Swipe
Collect Date: 21-MAR-22
Receive Date: 28-MAR-22
Collector: Client

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Actinium-228	U	-3.10	+/-8.52	11.9	+/-8.64		dpm/Filter			MXR1	03/29/22	0928	2246531	1
Americium-241	U	2.12	+/-4.13	7.83	+/-4.24		dpm/Filter							
Antimony-124	U	4.80	+/-4.69	4.89	+/-4.71		dpm/Filter							
Antimony-125	U	0.441	+/-2.56	4.86	+/-2.56		dpm/Filter							
Barium-133	U	0.651	+/-1.22	2.37	+/-1.25		dpm/Filter							
Barium-140	U	4.22	+/-5.94	11.7	+/-6.26		dpm/Filter							
Beryllium-7	U	4.79	+/-8.55	16.8	+/-8.83		dpm/Filter							
Bismuth-212	U	-11.6	+/-23.5	32.4	+/-24.2		dpm/Filter							
Bismuth-214	U	-4.25	+/-3.83	5.13	+/-4.32		dpm/Filter							
Cerium-139	U	0.188	+/-0.733	1.30	+/-0.739		dpm/Filter							
Cerium-141	U	-0.562	+/-1.58	2.47	+/-1.60		dpm/Filter							
Cerium-144	U	1.33	+/-4.52	8.19	+/-4.56		dpm/Filter							
Cesium-134	U	0.155	+/-1.28	2.40	+/-1.29		dpm/Filter							
Cesium-136	U	0.0781	+/-2.52	4.93	+/-2.52		dpm/Filter							
Cesium-137	U	-0.499	+/-2.04	3.05	+/-2.05	25.0	dpm/Filter							
Chromium-51	U	-1.36	+/-8.85	16.4	+/-8.88		dpm/Filter							
Cobalt-56	UI	0.000	+/-2.97	2.47	+/-3.45		dpm/Filter							
Cobalt-57	U	-0.225	+/-0.685	1.18	+/-0.693		dpm/Filter							
Cobalt-58	U	-0.358	+/-1.26	2.22	+/-1.28		dpm/Filter							
Cobalt-60	U	-0.262	+/-0.960	1.88	+/-0.968		dpm/Filter							
Europium-152	U	-1.78	+/-2.77	4.91	+/-2.89		dpm/Filter							
Europium-154	U	1.59	+/-3.97	8.25	+/-4.03		dpm/Filter							
Europium-155	U	-0.385	+/-2.77	4.87	+/-2.78		dpm/Filter							
Iridium-192	U	0.0492	+/-0.857	1.62	+/-0.858		dpm/Filter							
Iron-59	U	3.37	+/-2.48	5.55	+/-2.93		dpm/Filter							
Lead-210	U	48.3	+/-306	228	+/-306		dpm/Filter							
Lead-212	U	0.666	+/-3.95	3.54	+/-3.96		dpm/Filter							
Lead-214	U	-0.303	+/-2.82	4.45	+/-2.82		dpm/Filter							
Manganese-54	U	1.20	+/-1.21	2.50	+/-1.34		dpm/Filter							
Mercury-203	U	0.132	+/-1.05	1.80	+/-1.05		dpm/Filter							
Neodymium-147	U	9.36	+/-10.9	22.0	+/-11.7		dpm/Filter							
Neptunium-239	U	1.03	+/-6.72	12.0	+/-6.74		dpm/Filter							
Niobium-94	U	0.103	+/-1.35	2.45	+/-1.35		dpm/Filter							
Niobium-95	U	0.364	+/-1.19	2.28	+/-1.21		dpm/Filter							
Potassium-40	U	0.180	+/-27.8	26.7	+/-27.8		dpm/Filter							
Promethium-144	U	-0.0968	+/-1.44	2.56	+/-1.44		dpm/Filter							
Promethium-146	U	-0.845	+/-1.30	2.27	+/-1.36		dpm/Filter							
Radium-226	U	-4.25	+/-3.83	5.13	+/-4.32		dpm/Filter							
Radium-228	U	-3.10	+/-8.52	11.9	+/-8.64		dpm/Filter							
Ruthenium-106	U	3.85	+/-10.4	19.8	+/-10.5		dpm/Filter							
Silver-110m	U	1.72	+/-2.34	3.07	+/-2.47		dpm/Filter							

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Certificate of Analysis

Company : CN Associates, Inc.
Address : PO Box 1446
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Manchester, Massachusetts 01944

Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 5
Sample ID: 574561005

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Sodium-22	U	0.530	+/-1.39	2.89	+/-1.41		dpm/Filter							
Thallium-208	U	0.0690	+/-2.14	2.07	+/-2.14		dpm/Filter							
Thorium-234	U	-30.3	+/-48.1	83.0	+/-50.4		dpm/Filter							
Tin-113	U	1.07	+/-1.26	2.52	+/-1.36		dpm/Filter							
Uranium-235	U	1.29	+/-8.59	9.63	+/-8.59		dpm/Filter							
Uranium-238	U	-30.3	+/-48.1	83.0	+/-50.4		dpm/Filter							
Yttrium-88	U	0.165	+/-1.31	2.75	+/-1.31		dpm/Filter							
Zinc-65	U	-0.122	+/-2.79	5.05	+/-2.79		dpm/Filter							
Zirconium-95	U	0.451	+/-2.13	4.03	+/-2.14		dpm/Filter							
Rad Liquid Scintillation Analysis														
LSC, Direct Tritium, Filter "As Received"														
Tritium	U	10.8	+/-16.6	28.5	+/-16.6	1000	dpm/Filter			KXA1	04/01/22	1647	2248340	2

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	GL-RAD-A-002

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : CN Associates, Inc.
Address : PO Box 1446
18 Pine Street
Manchester, Massachusetts 01944

Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 6
Sample ID: 574561006
Matrix: Swipe
Collect Date: 21-MAR-22
Receive Date: 28-MAR-22
Collector: Client

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Actinium-228	U	12.7	+/-9.77	14.8	+/-11.4		dpm/Filter			MXR1	03/29/22	0928	2246531	1
Americium-241	U	0.847	+/-6.65	11.8	+/-6.66		dpm/Filter							
Antimony-124	U	-0.732	+/-3.84	7.28	+/-3.86		dpm/Filter							
Antimony-125	U	2.03	+/-3.49	5.28	+/-3.62		dpm/Filter							
Barium-133	U	-0.125	+/-1.50	2.46	+/-1.50		dpm/Filter							
Barium-140	U	0.00310	+/-7.21	12.3	+/-7.21		dpm/Filter							
Beryllium-7	U	-3.65	+/-11.0	19.4	+/-11.1		dpm/Filter							
Bismuth-212	U	7.17	+/-18.1	34.8	+/-18.4		dpm/Filter							
Bismuth-214	U	0.210	+/-4.40	6.73	+/-4.40		dpm/Filter							
Cerium-139	U	-0.153	+/-0.968	1.61	+/-0.971		dpm/Filter							
Cerium-141	U	0.975	+/-1.78	2.92	+/-1.83		dpm/Filter							
Cerium-144	U	-0.875	+/-6.09	10.2	+/-6.11		dpm/Filter							
Cesium-134	U	-0.0616	+/-1.57	2.83	+/-1.57		dpm/Filter							
Cesium-136	U	-2.78	+/-2.93	4.91	+/-3.21		dpm/Filter							
Cesium-137	U	0.314	+/-1.41	2.63	+/-1.42	25.0	dpm/Filter							
Chromium-51	U	-13.5	+/-9.51	15.3	+/-11.4		dpm/Filter							
Cobalt-56	U	0.416	+/-1.54	2.89	+/-1.56		dpm/Filter							
Cobalt-57	U	0.650	+/-0.762	1.39	+/-0.818		dpm/Filter							
Cobalt-58	U	-0.933	+/-1.55	2.55	+/-1.61		dpm/Filter							
Cobalt-60	U	-0.652	+/-1.71	3.11	+/-1.73		dpm/Filter							
Europium-152	U	0.125	+/-3.68	6.72	+/-3.68		dpm/Filter							
Europium-154	U	1.28	+/-3.80	8.10	+/-3.84		dpm/Filter							
Europium-155	U	1.94	+/-3.05	5.53	+/-3.17		dpm/Filter							
Iridium-192	U	0.883	+/-1.06	2.09	+/-1.14		dpm/Filter							
Iron-59	U	2.63	+/-2.72	6.12	+/-2.98		dpm/Filter							
Lead-210	U	-4.50	+/-271	477	+/-271		dpm/Filter							
Lead-212	U	2.20	+/-3.59	4.30	+/-3.72		dpm/Filter							
Lead-214	U	0.631	+/-5.70	5.89	+/-5.71		dpm/Filter							
Manganese-54	U	1.23	+/-1.45	2.90	+/-1.56		dpm/Filter							
Mercury-203	U	-0.293	+/-1.17	2.11	+/-1.18		dpm/Filter							
Neodymium-147	U	-1.98	+/-11.7	21.2	+/-11.7		dpm/Filter							
Neptunium-239	U	-0.458	+/-8.32	14.2	+/-8.32		dpm/Filter							
Niobium-94	U	1.18	+/-1.33	2.64	+/-1.44		dpm/Filter							
Niobium-95	U	1.34	+/-2.14	2.31	+/-2.14		dpm/Filter							
Potassium-40	U	-44.3	+/-25.7	37.8	+/-32.9		dpm/Filter							
Promethium-144	U	0.187	+/-1.60	2.88	+/-1.60		dpm/Filter							
Promethium-146	U	-0.569	+/-1.56	2.74	+/-1.58		dpm/Filter							
Radium-226	U	0.210	+/-4.40	6.73	+/-4.40		dpm/Filter							
Radium-228	U	12.7	+/-9.77	14.8	+/-11.4		dpm/Filter							
Ruthenium-106	U	-4.94	+/-11.5	19.9	+/-11.7		dpm/Filter							
Silver-110m	U	1.31	+/-1.95	4.06	+/-2.04		dpm/Filter							

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Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 6
Sample ID: 574561006

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Sodium-22	U	-0.191	+/-1.46	2.83	+/-1.47		dpm/Filter							
Thallium-208	U	0.124	+/-2.67	2.50	+/-2.67		dpm/Filter							
Thorium-234	U	-24.2	+/-78.1	126	+/-79.1		dpm/Filter							
Tin-113	U	-0.411	+/-1.56	2.79	+/-1.58		dpm/Filter							
Uranium-235	U	3.76	+/-14.1	10.1	+/-14.1		dpm/Filter							
Uranium-238	U	-24.2	+/-78.1	126	+/-79.1		dpm/Filter							
Yttrium-88	U	1.32	+/-2.02	4.37	+/-2.11		dpm/Filter							
Zinc-65	U	-0.681	+/-3.43	6.43	+/-3.45		dpm/Filter							
Zirconium-95	U	-2.08	+/-3.37	4.18	+/-3.51		dpm/Filter							
Rad Liquid Scintillation Analysis														
LSC, Direct Tritium, Filter "As Received"														
Tritium	U	6.12	+/-9.57	16.5	+/-9.57	1000	dpm/Filter			KXA1	04/01/22	1704	2248340	2

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	GL-RAD-A-002

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : CN Associates, Inc.
Address : PO Box 1446
18 Pine Street
Manchester, Massachusetts 01944

Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 7
Sample ID: 574561007
Matrix: Swipe
Collect Date: 21-MAR-22
Receive Date: 28-MAR-22
Collector: Client

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Actinium-228	U	2.15	+/-10.0	11.0	+/-10.1		dpm/Filter			MXR1	03/29/22	1023	2246531	1
Americium-241	U	1.28	+/-3.33	6.17	+/-3.38		dpm/Filter							
Antimony-124	U	-2.28	+/-3.29	5.79	+/-3.46		dpm/Filter							
Antimony-125	U	-0.293	+/-3.40	4.84	+/-3.41		dpm/Filter							
Barium-133	U	-0.785	+/-1.38	2.13	+/-1.43		dpm/Filter							
Barium-140	U	-5.79	+/-7.08	10.2	+/-7.58		dpm/Filter							
Beryllium-7	U	-9.38	+/-8.65	13.9	+/-9.69		dpm/Filter							
Bismuth-212	U	6.39	+/-15.9	30.0	+/-16.2		dpm/Filter							
Bismuth-214	U	1.90	+/-4.50	4.62	+/-4.51		dpm/Filter							
Cerium-139	U	0.234	+/-0.758	1.23	+/-0.767		dpm/Filter							
Cerium-141	U	-1.03	+/-1.47	2.39	+/-1.54		dpm/Filter							
Cerium-144	U	-2.42	+/-4.77	7.96	+/-4.90		dpm/Filter							
Cesium-134	U	-1.19	+/-1.53	2.26	+/-1.63		dpm/Filter							
Cesium-136	U	-2.03	+/-2.35	3.90	+/-2.53		dpm/Filter							
Cesium-137	UI	0.000	+/-2.84	2.05	+/-2.88	25.0	dpm/Filter							
Chromium-51	U	1.18	+/-8.87	16.5	+/-8.89		dpm/Filter							
Cobalt-56	U	-1.24	+/-1.19	1.98	+/-1.32		dpm/Filter							
Cobalt-57	U	-0.0270	+/-0.589	1.02	+/-0.589		dpm/Filter							
Cobalt-58	U	0.299	+/-1.15	2.29	+/-1.16		dpm/Filter							
Cobalt-60	U	0.110	+/-1.34	2.62	+/-1.34		dpm/Filter							
Europium-152	U	0.513	+/-3.02	5.07	+/-3.03		dpm/Filter							
Europium-154	U	-0.746	+/-4.16	7.69	+/-4.18		dpm/Filter							
Europium-155	U	-0.959	+/-2.50	4.28	+/-2.54		dpm/Filter							
Iridium-192	U	-0.716	+/-0.902	1.56	+/-0.960		dpm/Filter							
Iron-59	U	-2.69	+/-2.32	3.55	+/-2.63		dpm/Filter							
Lead-210	U	60.1	+/-142	143	+/-142		dpm/Filter							
Lead-212	U	0.792	+/-2.44	2.77	+/-2.44		dpm/Filter							
Lead-214	U	0.215	+/-4.80	3.75	+/-4.80		dpm/Filter							
Manganese-54	U	-0.587	+/-1.24	2.24	+/-1.27		dpm/Filter							
Mercury-203	U	-0.833	+/-0.957	1.66	+/-1.03		dpm/Filter							
Neodymium-147	U	-3.82	+/-11.7	20.4	+/-11.9		dpm/Filter							
Neptunium-239	U	-4.53	+/-6.47	10.7	+/-6.80		dpm/Filter							
Niobium-94	U	0.800	+/-1.21	2.13	+/-1.27		dpm/Filter							
Niobium-95	U	1.87	+/-1.32	2.82	+/-1.59		dpm/Filter							
Potassium-40	U	7.04	+/-23.7	39.9	+/-23.9		dpm/Filter							
Promethium-144	U	0.324	+/-1.25	2.27	+/-1.26		dpm/Filter							
Promethium-146	U	0.738	+/-1.16	2.26	+/-1.21		dpm/Filter							
Radium-226	U	1.90	+/-4.50	4.62	+/-4.51		dpm/Filter							
Radium-228	U	2.15	+/-10.0	11.0	+/-10.1		dpm/Filter							
Ruthenium-106	U	4.89	+/-9.56	18.3	+/-9.83		dpm/Filter							
Silver-110m	U	0.769	+/-1.75	3.49	+/-1.79		dpm/Filter							

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

Certificate of Analysis

Company : CN Associates, Inc.
Address : PO Box 1446
18 Pine Street
Manchester, Massachusetts 01944

Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 7
Sample ID: 574561007

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Sodium-22	U	-0.183	+/-1.48	2.75	+/-1.48		dpm/Filter							
Thallium-208	U	-0.0460	+/-1.90	2.60	+/-1.90		dpm/Filter							
Thorium-234	U	-11.8	+/-42.0	70.3	+/-42.4		dpm/Filter							
Tin-113	U	-0.461	+/-1.20	2.12	+/-1.22		dpm/Filter							
Uranium-235	U	0.573	+/-6.55	9.67	+/-6.56		dpm/Filter							
Uranium-238	U	-11.8	+/-42.0	70.3	+/-42.4		dpm/Filter							
Yttrium-88	U	-0.0259	+/-1.65	2.92	+/-1.65		dpm/Filter							
Zinc-65	U	-0.161	+/-2.88	4.80	+/-2.88		dpm/Filter							
Zirconium-95	U	-0.243	+/-2.18	4.12	+/-2.18		dpm/Filter							
Rad Liquid Scintillation Analysis														
LSC, Direct Tritium, Filter "As Received"														
Tritium	U	2.15	+/-12.8	23.0	+/-12.8	1000	dpm/Filter			KXA1	04/01/22	1720	2248340	2

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	GL-RAD-A-002

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : CN Associates, Inc.
Address : PO Box 1446
18 Pine Street
Manchester, Massachusetts 01944

Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 8
Sample ID: 574561008
Matrix: Swipe
Collect Date: 21-MAR-22
Receive Date: 28-MAR-22
Collector: Client

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Actinium-228	U	-2.24	+/-7.38	12.4	+/-7.45		dpm/Filter			MXR1	03/29/22	1024	2246531	1
Americium-241	U	0.888	+/-9.47	14.7	+/-9.47		dpm/Filter							
Antimony-124	U	-1.62	+/-3.87	6.94	+/-3.94		dpm/Filter							
Antimony-125	U	0.0870	+/-3.02	5.48	+/-3.02		dpm/Filter							
Barium-133	U	-0.967	+/-1.40	2.35	+/-1.47		dpm/Filter							
Barium-140	U	4.13	+/-7.08	13.5	+/-7.34		dpm/Filter							
Beryllium-7	U	4.70	+/-11.8	21.8	+/-12.0		dpm/Filter							
Bismuth-212	U	2.62	+/-19.0	36.9	+/-19.0		dpm/Filter							
Bismuth-214	U	-0.786	+/-4.18	6.08	+/-4.20		dpm/Filter							
Cerium-139	U	-0.227	+/-0.821	1.47	+/-0.829		dpm/Filter							
Cerium-141	U	-0.219	+/-1.57	2.83	+/-1.57		dpm/Filter							
Cerium-144	U	2.15	+/-5.53	10.4	+/-5.62		dpm/Filter							
Cesium-134	U	-0.177	+/-1.53	2.89	+/-1.53		dpm/Filter							
Cesium-136	U	-2.02	+/-3.35	4.97	+/-3.49		dpm/Filter							
Cesium-137	U	0.191	+/-3.59	2.88	+/-3.59	25.0	dpm/Filter							
Chromium-51	U	-4.94	+/-12.7	19.1	+/-12.9		dpm/Filter							
Cobalt-56	U	-0.00191	+/-1.65	3.13	+/-1.65		dpm/Filter							
Cobalt-57	U	0.355	+/-0.735	1.34	+/-0.753		dpm/Filter							
Cobalt-58	U	-0.179	+/-1.36	2.59	+/-1.36		dpm/Filter							
Cobalt-60	U	0.638	+/-1.68	3.44	+/-1.71		dpm/Filter							
Europium-152	U	0.647	+/-3.20	5.86	+/-3.21		dpm/Filter							
Europium-154	U	-3.08	+/-4.64	7.98	+/-4.86		dpm/Filter							
Europium-155	U	-1.20	+/-3.25	5.85	+/-3.30		dpm/Filter							
Iridium-192	U	-0.125	+/-1.08	1.93	+/-1.08		dpm/Filter							
Iron-59	U	-0.755	+/-3.18	5.91	+/-3.20		dpm/Filter							
Lead-210	U	217	+/-324	499	+/-339		dpm/Filter							
Lead-212	U	-3.05	+/-2.54	3.62	+/-2.90		dpm/Filter							
Lead-214	U	-3.38	+/-3.60	4.85	+/-3.92		dpm/Filter							
Manganese-54	U	-0.934	+/-1.83	2.74	+/-1.88		dpm/Filter							
Mercury-203	U	-0.380	+/-1.21	1.89	+/-1.22		dpm/Filter							
Neodymium-147	U	-0.268	+/-12.5	22.6	+/-12.5		dpm/Filter							
Neptunium-239	U	4.32	+/-7.87	15.0	+/-8.12		dpm/Filter							
Niobium-94	U	0.513	+/-1.37	2.69	+/-1.39		dpm/Filter							
Niobium-95	U	1.00	+/-1.42	2.93	+/-1.50		dpm/Filter							
Potassium-40	U	-1.61	+/-28.0	46.7	+/-28.0		dpm/Filter							
Promethium-144	U	-0.158	+/-1.64	2.84	+/-1.64		dpm/Filter							
Promethium-146	U	0.381	+/-1.39	2.59	+/-1.40		dpm/Filter							
Radium-226	U	-0.786	+/-4.18	6.08	+/-4.20		dpm/Filter							
Radium-228	U	-2.24	+/-7.38	12.4	+/-7.45		dpm/Filter							
Ruthenium-106	U	-9.16	+/-12.1	19.5	+/-12.9		dpm/Filter							
Silver-110m	U	0.521	+/-2.20	4.29	+/-2.22		dpm/Filter							

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Certificate of Analysis

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Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 8
Sample ID: 574561008

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Sodium-22	U	-1.08	+/-1.63	2.81	+/-1.71		dpm/Filter							
Thallium-208	U	-0.593	+/-1.92	3.11	+/-1.94		dpm/Filter							
Thorium-234	U	16.2	+/-148	111	+/-148		dpm/Filter							
Tin-113	U	-0.533	+/-1.51	2.62	+/-1.53		dpm/Filter							
Uranium-235	U	-15.5	+/-10.2	10.7	+/-12.4		dpm/Filter							
Uranium-238	U	16.2	+/-148	111	+/-148		dpm/Filter							
Yttrium-88	U	1.23	+/-2.43	4.96	+/-2.50		dpm/Filter							
Zinc-65	U	-0.722	+/-3.01	5.61	+/-3.03		dpm/Filter							
Zirconium-95	U	-0.588	+/-2.66	4.97	+/-2.68		dpm/Filter							
Rad Liquid Scintillation Analysis														
LSC, Direct Tritium, Filter "As Received"														
Tritium	U	7.56	+/-12.2	20.9	+/-12.2	1000	dpm/Filter			KXA1	04/01/22	1737	2248340	2

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	GL-RAD-A-002

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : CN Associates, Inc.
Address : PO Box 1446
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Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 9
Sample ID: 574561009
Matrix: Swipe
Collect Date: 21-MAR-22
Receive Date: 28-MAR-22
Collector: Client

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Actinium-228	U	3.06	+/-9.40	11.6	+/-9.51		dpm/Filter			MXR1	03/29/22	1024	2246531	1
Americium-241	U	-4.79	+/-6.28	8.15	+/-6.66		dpm/Filter							
Antimony-124	U	-2.78	+/-3.22	5.24	+/-3.46		dpm/Filter							
Antimony-125	U	0.781	+/-2.48	4.82	+/-2.50		dpm/Filter							
Barium-133	U	-1.01	+/-1.21	1.87	+/-1.29		dpm/Filter							
Barium-140	U	7.32	+/-8.43	9.58	+/-9.09		dpm/Filter							
Beryllium-7	U	-2.56	+/-8.63	15.8	+/-8.71		dpm/Filter							
Bismuth-212	U	3.00	+/-15.3	29.4	+/-15.3		dpm/Filter							
Bismuth-214	U	0.556	+/-2.93	4.86	+/-2.94		dpm/Filter							
Cerium-139	U	-0.261	+/-0.666	1.14	+/-0.679		dpm/Filter							
Cerium-141	U	-1.11	+/-1.29	1.95	+/-1.39		dpm/Filter							
Cerium-144	U	-4.55	+/-4.47	7.32	+/-4.93		dpm/Filter							
Cesium-134	U	-0.180	+/-1.06	1.97	+/-1.06		dpm/Filter							
Cesium-136	U	0.880	+/-2.49	4.92	+/-2.52		dpm/Filter							
Cesium-137		6.13	+/-3.10	1.95	+/-3.19	25.0	dpm/Filter							
Chromium-51	U	-2.25	+/-9.93	16.6	+/-9.99		dpm/Filter							
Cobalt-56	U	-0.499	+/-1.33	2.34	+/-1.35		dpm/Filter							
Cobalt-57	U	-0.0440	+/-0.547	0.910	+/-0.548		dpm/Filter							
Cobalt-58	U	-1.34	+/-1.20	1.86	+/-1.35		dpm/Filter							
Cobalt-60	U	2.73	+/-2.41	2.74	+/-2.43		dpm/Filter							
Europium-152	U	-0.981	+/-2.66	4.39	+/-2.70		dpm/Filter							
Europium-154	U	2.12	+/-3.51	7.86	+/-3.64		dpm/Filter							
Europium-155	U	-0.489	+/-2.23	3.97	+/-2.24		dpm/Filter							
Iridium-192	U	-0.339	+/-0.868	1.44	+/-0.881		dpm/Filter							
Iron-59	U	-1.58	+/-2.54	4.21	+/-2.65		dpm/Filter							
Lead-210	U	59.6	+/-335	331	+/-335		dpm/Filter							
Lead-212	U	-1.24	+/-2.24	3.23	+/-2.31		dpm/Filter							
Lead-214	U	1.86	+/-3.53	4.29	+/-3.63		dpm/Filter							
Manganese-54	U	0.505	+/-1.23	2.41	+/-1.26		dpm/Filter							
Mercury-203	U	0.457	+/-0.936	1.69	+/-0.959		dpm/Filter							
Neodymium-147	U	-6.16	+/-9.38	16.5	+/-9.80		dpm/Filter							
Neptunium-239	U	0.421	+/-5.85	10.6	+/-5.85		dpm/Filter							
Niobium-94	U	0.804	+/-1.15	2.29	+/-1.21		dpm/Filter							
Niobium-95	U	-0.0591	+/-1.13	2.10	+/-1.13		dpm/Filter							
Potassium-40	U	10.7	+/-27.3	29.1	+/-27.3		dpm/Filter							
Promethium-144	U	-0.270	+/-1.02	1.85	+/-1.03		dpm/Filter							
Promethium-146	U	0.872	+/-1.12	2.29	+/-1.20		dpm/Filter							
Radium-226	U	0.556	+/-2.93	4.86	+/-2.94		dpm/Filter							
Radium-228	U	3.06	+/-9.40	11.6	+/-9.51		dpm/Filter							
Ruthenium-106	U	4.13	+/-9.68	19.0	+/-9.88		dpm/Filter							
Silver-110m	U	-0.128	+/-1.43	2.68	+/-1.43		dpm/Filter							

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Certificate of Analysis

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Report Date: April 4, 2022

Contact: Mr. Ron Cardarelli
Project: Schulz Electric

Client Sample ID: Wipe 9
Sample ID: 574561009

Project: CNAS00221
Client ID: CNAS001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gammaspec, Gamma, Filter (Standard List) "As Received"														
Sodium-22	U	0.776	+/-1.24	2.78	+/-1.29		dpm/Filter							
Thallium-208	U	-0.737	+/-1.50	2.42	+/-1.54		dpm/Filter							
Thorium-234	U	11.4	+/-68.1	67.6	+/-68.2		dpm/Filter							
Tin-113	U	-0.194	+/-1.12	1.90	+/-1.13		dpm/Filter							
Uranium-235	U	-8.09	+/-5.10	7.62	+/-6.30		dpm/Filter							
Uranium-238	U	11.4	+/-68.1	67.6	+/-68.2		dpm/Filter							
Yttrium-88	U	1.62	+/-1.70	3.96	+/-1.85		dpm/Filter							
Zinc-65	U	1.82	+/-2.18	4.90	+/-2.34		dpm/Filter							
Zirconium-95	U	-0.312	+/-2.10	3.86	+/-2.11		dpm/Filter							
Rad Liquid Scintillation Analysis														
LSC, Direct Tritium, Filter "As Received"														
Tritium	U	13.4	+/-11.9	19.5	+/-11.9	1000	dpm/Filter			KXA1	04/01/22	1753	2248340	2

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R
2	GL-RAD-A-002

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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QC Summary

Report Date: April 4, 2022

CN Associates, Inc.
PO Box 1446
18 Pine Street
Manchester, Massachusetts

Contact: **Mr. Ron Cardarelli**

Workorder: **574561**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 2246531											
QC1205052055 574561001 DUP											
Actinium-228	U	-4.04	U	-11.0	dpm/Filter	N/A			N/A MXR1	03/29/22	13:44
	Uncertainty	+/-8.80		+/-7.87							
Americium-241	U	-2.00	U	1.02	dpm/Filter	N/A			N/A		
	Uncertainty	+/-6.40		+/-3.79							
Antimony-124	U	1.23	U	0.769	dpm/Filter	N/A			N/A		
	Uncertainty	+/-8.56		+/-3.66							
Antimony-125	U	-0.959	U	1.30	dpm/Filter	N/A			N/A		
	Uncertainty	+/-3.55		+/-2.79							
Barium-133	U	0.865	U	-0.487	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.59		+/-1.00							
Barium-140	U	6.35	U	8.30	dpm/Filter	N/A			N/A		
	Uncertainty	+/-6.55		+/-5.80							
Beryllium-7	U	9.79	U	-1.76	dpm/Filter	N/A			N/A		
	Uncertainty	+/-10.5		+/-9.86							
Bismuth-212	U	6.62	U	-0.747	dpm/Filter	N/A			N/A		
	Uncertainty	+/-21.7		+/-17.9							
Bismuth-214	U	-1.24	U	0.880	dpm/Filter	N/A			N/A		
	Uncertainty	+/-4.20		+/-3.65							
Cerium-139	U	-0.389	U	-0.224	dpm/Filter	N/A			N/A		
	Uncertainty	+/-0.897		+/-0.762							
Cerium-141	U	1.41	UI	0.000	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.69		+/-2.62							
Cerium-144	U	-4.62	U	-5.10	dpm/Filter	N/A			N/A		
	Uncertainty	+/-6.03		+/-4.46							
Cesium-134	U	0.205	U	0.636	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.60		+/-1.40							

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QC Summary

Workorder: **574561**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 2246531											
Cesium-136	U	-1.02	U	-1.61	dpm/Filter	N/A			N/A MXR1	03/29/22	13:44
	Uncertainty	+/-3.03		+/-2.79							
Cesium-137	UI	0.000	U	0.380	dpm/Filter	N/A			N/A		
	Uncertainty	+/-3.08		+/-1.28							
Chromium-51	U	-0.748	U	0.513	dpm/Filter	N/A			N/A		
	Uncertainty	+/-10.6		+/-10.3							
Cobalt-56	U	-0.101	U	0.279	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.68		+/-1.33							
Cobalt-57	U	0.00921	U	0.103	dpm/Filter	N/A			N/A		
	Uncertainty	+/-0.788		+/-0.613							
Cobalt-58	U	0.305	U	0.621	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.53		+/-1.43							
Cobalt-60	U	-1.39	U	1.24	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.34		+/-1.53							
Europium-152	U	-0.408	U	-0.116	dpm/Filter	N/A			N/A		
	Uncertainty	+/-3.30		+/-2.90							
Europium-154	U	-1.50	U	-0.363	dpm/Filter	N/A			N/A		
	Uncertainty	+/-4.48		+/-4.04							
Europium-155	U	1.16	U	2.82	dpm/Filter	N/A			N/A		
	Uncertainty	+/-3.14		+/-2.43							
Iridium-192	U	0.471	U	-0.130	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.02		+/-0.957							
Iron-59	U	-3.39	U	-1.03	dpm/Filter	N/A			N/A		
	Uncertainty	+/-3.98		+/-2.91							
Lead-210	U	-428	U	66.3	dpm/Filter	N/A			N/A		
	Uncertainty	+/-259		+/-207							
Lead-212	U	-3.29	U	0.891	dpm/Filter	N/A			N/A		
	Uncertainty	+/-2.44		+/-3.20							
Lead-214	U	0.497	U	-0.222	dpm/Filter	N/A			N/A		
	Uncertainty	+/-3.94		+/-2.78							

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QC Summary

Workorder: **574561**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 2246531											
Manganese-54	U	-0.423	U	0.0860	dpm/Filter	N/A			N/A MXR1	03/29/22	13:44
	Uncertainty	+/-1.52		+/-1.21							
Mercury-203	U	0.542	U	-0.551	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.16		+/-1.00							
Neodymium-147	U	-2.28	U	-3.93	dpm/Filter	N/A			N/A		
	Uncertainty	+/-13.0		+/-10.8							
Neptunium-239	U	-3.09	U	1.66	dpm/Filter	N/A			N/A		
	Uncertainty	+/-8.10		+/-6.68							
Niobium-94	U	1.39	U	0.399	dpm/Filter	N/A			N/A		
	Uncertainty	+/-2.12		+/-1.13							
Niobium-95	UI	0.000	U	0.916	dpm/Filter	N/A			N/A		
	Uncertainty	+/-2.07		+/-1.44							
Potassium-40	U	-3.56	U	12.3	dpm/Filter	N/A			N/A		
	Uncertainty	+/-27.4		+/-28.4							
Promethium-144	U	0.194	U	-0.809	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.44		+/-1.17							
Promethium-146	U	0.607	U	0.0623	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.55		+/-1.28							
Radium-226	U	-1.24	U	0.880	dpm/Filter	N/A			N/A		
	Uncertainty	+/-4.20		+/-3.65							
Radium-228	U	-4.04	U	-11.0	dpm/Filter	N/A			N/A		
	Uncertainty	+/-8.80		+/-7.87							
Ruthenium-106	U	-2.41	U	-1.02	dpm/Filter	N/A			N/A		
	Uncertainty	+/-13.8		+/-10.4							
Silver-110m	U	-0.0817	U	0.376	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.76		+/-1.79							
Sodium-22	U	-0.462	U	0.0212	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.59		+/-1.39							
Thallium-208	U	-0.348	U	-0.678	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.92		+/-2.00							

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QC Summary

Workorder: 574561

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 2246531											
Thorium-234	U	44.6	U	-33.0	dpm/Filter	N/A			N/A MXR1	03/29/22	13:44
	Uncertainty	+/-93.4		+/-43.3							
Tin-113	U	-0.716	U	-0.253	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.48		+/-1.41							
Uranium-235	U	0.381	UI	0.000	dpm/Filter	N/A			N/A		
	Uncertainty	+/-10.4		+/-9.37							
Uranium-238	U	44.6	U	-33.0	dpm/Filter	N/A			N/A		
	Uncertainty	+/-93.4		+/-43.3							
Yttrium-88	U	1.41	U	0.252	dpm/Filter	N/A			N/A		
	Uncertainty	+/-1.70		+/-1.64							
Zinc-65	U	-0.872	U	-0.230	dpm/Filter	N/A			N/A		
	Uncertainty	+/-3.55		+/-3.82							
Zirconium-95	U	-1.32	U	1.24	dpm/Filter	N/A			N/A		
	Uncertainty	+/-2.64		+/-1.88							
QC1205052056 LCS											
Actinium-228			U	-85.8	dpm/Filter					03/29/22	10:47
	Uncertainty			+/-300							
Americium-241	67500			70500	dpm/Filter		104	(75%-125%)			
	Uncertainty			+/-547							
Antimony-124			U	-10.8	dpm/Filter						
	Uncertainty			+/-74.4							
Antimony-125			U	-90.0	dpm/Filter						
	Uncertainty			+/-180							
Barium-133			U	-39.1	dpm/Filter						
	Uncertainty			+/-60.2							
Barium-140			U	10.8	dpm/Filter						
	Uncertainty			+/-176							
Beryllium-7			U	-375	dpm/Filter						
	Uncertainty			+/-573							
Bismuth-212			U	101	dpm/Filter						
	Uncertainty			+/-773							

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QC Summary

Workorder: **574561**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 2246531											
Bismuth-214			U	-45.6	dpm/Filter				MXR1	03/29/22	10:47
	Uncertainty			+/-93.4							
Cerium-139			U	-13.8	dpm/Filter						
	Uncertainty			+/-25.7							
Cerium-141			U	-11.9	dpm/Filter						
	Uncertainty			+/-42.0							
Cerium-144			U	106	dpm/Filter						
	Uncertainty			+/-170							
Cesium-134			U	24.5	dpm/Filter						
	Uncertainty			+/-67.8							
Cesium-136			U	-22.3	dpm/Filter						
	Uncertainty			+/-97.1							
Cesium-137	20000			21800	dpm/Filter		109	(75%-125%)			
	Uncertainty			+/-477							
Chromium-51			U	17.8	dpm/Filter						
	Uncertainty			+/-334							
Cobalt-56			U	4.34	dpm/Filter						
	Uncertainty			+/-63.7							
Cobalt-57			U	-5.84	dpm/Filter						
	Uncertainty			+/-21.4							
Cobalt-58			U	-31.9	dpm/Filter						
	Uncertainty			+/-63.9							
Cobalt-60	8120			9220	dpm/Filter		114	(75%-125%)			
	Uncertainty			+/-402							
Europium-152			U	-66.9	dpm/Filter						
	Uncertainty			+/-139							
Europium-154			U	15.5	dpm/Filter						
	Uncertainty			+/-84.6							
Europium-155				184	dpm/Filter						
	Uncertainty			+/-177							

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 2246531											
Iridium-192			U	9.81	dpm/Filter				MXR1	03/29/22	10:47
	Uncertainty			+/-39.6							
Iron-59			U	28.4	dpm/Filter			(75%-125%)			
	Uncertainty			+/-143							
Lead-210				6.60E+05	dpm/Filter						
	Uncertainty			+/-5000							
Lead-212			U	-14.2	dpm/Filter						
	Uncertainty			+/-64.2							
Lead-214			U	29.2	dpm/Filter						
	Uncertainty			+/-106							
Manganese-54			U	-13.6	dpm/Filter						
	Uncertainty			+/-65.7							
Mercury-203			U	-26.8	dpm/Filter						
	Uncertainty			+/-40.5							
Neodymium-147			U	-70.5	dpm/Filter						
	Uncertainty			+/-369							
Neptunium-239			U	27.1	dpm/Filter						
	Uncertainty			+/-242							
Niobium-94			U	11.4	dpm/Filter						
	Uncertainty			+/-49.0							
Niobium-95			U	14.8	dpm/Filter						
	Uncertainty			+/-56.1							
Potassium-40			U	-185	dpm/Filter						
	Uncertainty			+/-283							
Promethium-144			U	-35.1	dpm/Filter						
	Uncertainty			+/-45.2							
Promethium-146			U	-4.90	dpm/Filter						
	Uncertainty			+/-93.5							
Radium-226			U	-45.6	dpm/Filter						
	Uncertainty			+/-93.4							

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QC Summary

Workorder: 574561

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 2246531											
Radium-228			U	-85.8	dpm/Filter				MXR1	03/29/22	10:47
	Uncertainty			+/-300							
Ruthenium-106			U	19.7	dpm/Filter						
	Uncertainty			+/-394							
Silver-110m			U	-92.1	dpm/Filter						
	Uncertainty			+/-93.3							
Sodium-22			U	6.26	dpm/Filter						
	Uncertainty			+/-29.9							
Thallium-208			U	-17.0	dpm/Filter						
	Uncertainty			+/-48.8							
Thorium-234			U	577	dpm/Filter						
	Uncertainty			+/-653							
Tin-113			U	20.8	dpm/Filter						
	Uncertainty			+/-75.5							
Uranium-235			U	23.4	dpm/Filter						
	Uncertainty			+/-179							
Uranium-238			U	577	dpm/Filter						
	Uncertainty			+/-653							
Yttrium-88			U	2.22	dpm/Filter						
	Uncertainty			+/-27.0							
Zinc-65			U	-26.5	dpm/Filter						
	Uncertainty			+/-166							
Zirconium-95			U	-30.9	dpm/Filter						
	Uncertainty			+/-95.3							
QC1205052054 MB											
Actinium-228			U	1.62	dpm/Filter					03/29/22	10:25
	Uncertainty			+/-7.91							
Americium-241			U	-0.226	dpm/Filter						
	Uncertainty			+/-5.06							
Antimony-124			U	0.506	dpm/Filter						
	Uncertainty			+/-3.87							

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QC Summary

Workorder: **574561**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 2246531											
Antimony-125			U	0.168	dpm/Filter				MXR1	03/29/22	10:25
	Uncertainty			+/-3.24							
Barium-133			U	1.20	dpm/Filter						
	Uncertainty			+/-1.21							
Barium-140			U	0.263	dpm/Filter						
	Uncertainty			+/-4.60							
Beryllium-7			U	3.87	dpm/Filter						
	Uncertainty			+/-9.21							
Bismuth-212			U	-5.17	dpm/Filter						
	Uncertainty			+/-19.4							
Bismuth-214			U	-2.18	dpm/Filter						
	Uncertainty			+/-3.90							
Cerium-139			U	-0.369	dpm/Filter						
	Uncertainty			+/-0.694							
Cerium-141			U	-0.155	dpm/Filter						
	Uncertainty			+/-1.15							
Cerium-144			U	-1.13	dpm/Filter						
	Uncertainty			+/-4.50							
Cesium-134			U	1.23	dpm/Filter						
	Uncertainty			+/-1.35							
Cesium-136			U	-1.21	dpm/Filter						
	Uncertainty			+/-2.21							
Cesium-137			U	0.635	dpm/Filter						
	Uncertainty			+/-1.48							
Chromium-51			U	-0.985	dpm/Filter						
	Uncertainty			+/-8.09							
Cobalt-56			U	0.150	dpm/Filter						
	Uncertainty			+/-1.39							
Cobalt-57			U	0.184	dpm/Filter						
	Uncertainty			+/-0.555							

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QC Summary

Workorder: **574561**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 2246531											
Cobalt-58			U	0.296	dpm/Filter				MXR1	03/29/22	10:25
	Uncertainty			+/-1.14							
Cobalt-60			U	-0.833	dpm/Filter						
	Uncertainty			+/-1.91							
Europium-152			U	1.85	dpm/Filter						
	Uncertainty			+/-2.89							
Europium-154			U	3.12	dpm/Filter						
	Uncertainty			+/-5.31							
Europium-155			U	-0.996	dpm/Filter						
	Uncertainty			+/-2.28							
Iridium-192			U	0.281	dpm/Filter						
	Uncertainty			+/-0.872							
Iron-59			U	-0.684	dpm/Filter						
	Uncertainty			+/-2.48							
Lead-210			U	-5.01	dpm/Filter						
	Uncertainty			+/-276							
Lead-212			U	-1.62	dpm/Filter						
	Uncertainty			+/-2.22							
Lead-214			U	-1.34	dpm/Filter						
	Uncertainty			+/-2.87							
Manganese-54			U	-0.229	dpm/Filter						
	Uncertainty			+/-1.33							
Mercury-203			U	-0.205	dpm/Filter						
	Uncertainty			+/-0.938							
Neodymium-147			U	-6.49	dpm/Filter						
	Uncertainty			+/-8.40							
Neptunium-239			U	-0.203	dpm/Filter						
	Uncertainty			+/-5.99							
Niobium-94			U	-3.31	dpm/Filter						
	Uncertainty			+/-1.99							

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QC Summary

Workorder: **574561**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 2246531										
Niobium-95			U	-0.425	dpm/Filter				MXR1	03/29/22 10:25
	Uncertainty			+/-1.04						
Potassium-40			U	-20.2	dpm/Filter					
	Uncertainty			+/-29.0						
Promethium-144			U	-2.84	dpm/Filter					
	Uncertainty			+/-2.31						
Promethium-146			U	1.07	dpm/Filter					
	Uncertainty			+/-1.44						
Radium-226			U	-2.18	dpm/Filter					
	Uncertainty			+/-3.90						
Radium-228			U	1.62	dpm/Filter					
	Uncertainty			+/-7.91						
Ruthenium-106			U	2.86	dpm/Filter					
	Uncertainty			+/-11.3						
Silver-110m			U	-0.931	dpm/Filter					
	Uncertainty			+/-1.76						
Sodium-22			U	1.09	dpm/Filter					
	Uncertainty			+/-1.86						
Thallium-208			U	-1.95	dpm/Filter					
	Uncertainty			+/-1.81						
Thorium-234			U	-20.8	dpm/Filter					
	Uncertainty			+/-62.3						
Tin-113			U	-0.249	dpm/Filter					
	Uncertainty			+/-1.23						
Uranium-235			U	-2.86	dpm/Filter					
	Uncertainty			+/-6.16						
Uranium-238			U	-20.8	dpm/Filter					
	Uncertainty			+/-62.3						
Yttrium-88			U	1.23	dpm/Filter					
	Uncertainty			+/-2.18						

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QC Summary

Workorder: **574561**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 2246531										
Zinc-65			U	1.09	dpm/Filter				MXR1	03/29/22 10:25
	Uncertainty			+/-3.16						
Zirconium-95			U	-1.23	dpm/Filter					
	Uncertainty			+/-2.18						
Rad Liquid Scintillation										
Batch 2248340										
QC1205055633 LCS										
Tritium	597			541	dpm/Filter		90.7	(75%-125%)	KXA1	04/01/22 18:26
	Uncertainty			+/-29.9						
QC1205055634 LCSD										
Tritium	597			608	dpm/Filter	11.7	102	(0%-20%)		04/01/22 18:42
	Uncertainty			+/-33.0						
QC1205055632 MB										
Tritium			U	7.52	dpm/Filter					04/01/22 18:09
	Uncertainty			+/-8.87						

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.
- 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.

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QC Summary

Workorder: 574561

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

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
CN Associates, Inc.
SDG #: 574561

Gammaspec, Gamma, Filter (Standard List)

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.

LSC, Direct Tritium, Filter

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.

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Project #
GEL Quote #: GELP-20-1218
COC Number (1): SZ Samples Page 1 of 1
PO Number:

574561

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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: C.N. Associates — Phone # 978-525-2400
Project/Site Name: Schulz Electric — Fax #
Address: New Haven, CT
Collected By: Willie Harris — Send Results To: ron.cardarelli@cnassociates.net; cindy.ha

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.)	(7) Known or possible Hazards	Total number of containers		EPA 906.0 Mod (H-3)	DOE EML HASL 300 4.5.2.3/Ga-01-R (Cs-137 + Licensed	Gross Alpha	Gross Beta						<-- Preservative Type (6) Comments Note: extra sample is required for sample specific QC
Wipe 1	3/21/22	0900	N	N	P	N	N	1		X	X	X	X						
Wipe 2	3/21/22	0900	N	N	P	N	N	1		X	X	X	X						
Wipe 3	3/21/22	0900	N	N	P	N	N	1		X	X	X	X						
Wipe 4	3/21/22	0900	N	N	P	N	N	1		X	X	X	X						
Wipe 5	3/21/22	0900	N	N	P	N	N	1		X	X	X	X						
Wipe 6	3/21/22	0900	N	N	P	N	N	1		X	X	X	X						
Wipe 7	3/21/22	0900	N	N	P	N	N	1		X	X	X	X						
Wipe 8	3/21/22	0900	N	N	P	N	N	1		X	X	X	X						
Wipe 9	3/21/22	0900	N	N	P	N	N	1		X	X	X	X						

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 Willie Harris	3/25/2021		1 [signature]	3-28-22	0820
2			2		
3			3		

TAT Requested: Normal: ____ Rush: _X____ Specify: ____1 week__ (Subject to Surcharge)
Fax Results: [ ] Yes [ ] No
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: [ ] 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.)
Tritium - 100/dpm/wipe
Gross alpha – MDA less than 3 dpm/wipe
Gross beta MDA less than 70 dpm/wipe

5c

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: CNAS	SDG/ARS/COC/Work Order: 374561
Received By: BE	Date Received: 3/28/22
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other 7769 0369 6193

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): 0 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: 17
4	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: IR2-21 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 by use of GEL labels?			✓	
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 AM Date 3/30/22 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 04 April 2022

State	Certification
Alabama	42200
Alaska	17–018
Alaska Drinking Water	SC00012
Arkansas	88–0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH–0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330–15–00283, P330–15–00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C–SC–01
Kansas NELAP	E–10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M–SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE–OS–26–13
Nevada	SC000122021–1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R–158
Oklahoma	2019–165
Pennsylvania NELAP	68–00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235–22–20
Utah NELAP	SC000122021–36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780