


**OAK RIDGE INSTITUTE FOR
SCIENCE AND EDUCATION**

October 3, 2017

Mr. Eric Simpson
U.S. Nuclear Regulatory Commission
Region IV
1600 East Lamar Boulevard
Arlington, TX 76011

**SUBJECT: ORISE CONTRACT NO. DE-SC0014664
LETTER REPORT FOR ANALYTICAL RESULTS FOR FOUR SOIL SAMPLES
ASSOCIATED WITH THE SEQUOYAH FUELS CORPORATION IN GORE,
OKLAHOMA
[TAC NO. 040-08027/17-002] [DOCKET NO. 040-08027] (RFTA NO. 17-001)
DCN: 5206-LR-09-0; SDG: 13199-2**

Dear Mr. Simpson:

Oak Ridge Institute for Science and Education (ORISE) received four soil samples on September 21, 2017 from the Sequoyah Fuels Corporation in Gore, Oklahoma. The samples were received in good condition. Per the NRC Form 303 that was sent with the samples, the samples were analyzed for total uranium by gamma spectrometry. The analytical data for uranium-235, uranium-238, and total uranium, along with the procedure reference, are presented in the attached reports.

ORAU's Quality Control (QC) requirements were met for these analyses. The QC files are available for your review upon request.

Please contact me at 865.576.9184 or Forrest Smith at 865.574.9802 with any questions or comments.

Sincerely,

Wade P. Ivey
Wade Ivey, Manager
Laboratory

WPI:lw

Attachments

Electronic distribution: T. Carter, NRC S. Roberts, ORAU T. Vitkus, ORAU
E. Bailey, ORAU D. Hagemeyer, ORAU R. Evans, NRC
R. Kellar, NRC File code: 5206 Lab code: 13199

Distribution approval and concurrence:	Initials
Technical Review	ENB
Quality Review	JV

Gamma Spectrometry Summary Results By Analyte



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Report Date: September 27, 2017

Analyte:	U-235	SOP (Rev. #)	CP1 (21)
Project Name:	Sequoyah Fuels	Energy Signature:	143.76 (KeV)
Project # :	201213199	SDG # :	201213199-2

Client Sample ID:	Lab Sample ID:	Result	TPU (2s)	MDC	Units	Qualifier Flag	Batch #
NRC-1	13199S0003	0.104	0.094	0.217	pCi/g	U	GS0593
	13199S0003Dup	0.133	0.083	0.190	pCi/g	U	GS0593
NRC-2	13199S0004	0.15	0.12	0.29	pCi/g	U	GS0593
NRC-3	13199S0005	0.197	0.071	0.153	pCi/g		GS0593
NRC-4	13199S0006	0.133	0.071	0.161	pCi/g	U	GS0593

Electronically Validated By:
John Cox- 9/27/2017 15:09

Electronically Approved By:

Wade P. Ivey

Wade Ivey 9/27/2017 16:13

Qualifier Flags:

U = Analyte not detected (< MDC)

TPU = Total Propagated Uncertainty

MDC = Minimum Detectable Concentration

Gamma Spectrometry Summary Results By Analyte



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Report Date: September 27, 2017

Analyte:	U-238 by Th-234	SOP (Rev. #)	CP1 (21)
Project Name:	Sequoyah Fuels	Energy Signature:	63.29 (KeV)
Project # :	201213199	SDG # :	201213199-2

Client Sample ID:	Lab Sample ID:	Result	TPU (2s)	MDC	Units	Qualifier Flag	Batch #
NRC-1	13199S0003	2.87	0.91	1.38	pCi/g		GS0593
	13199S0003Dup	2.26	0.63	0.81	pCi/g		GS0593
NRC-2	13199S0004	2.07	0.59	0.80	pCi/g		GS0593
NRC-3	13199S0005	4.5	1.0	0.6	pCi/g		GS0593
NRC-4	13199S0006	2.44	0.59	0.54	pCi/g		GS0593

Electronically Validated By:
John Cox- 9/27/2017 15:09

Electronically Approved By:

Wade P. Ivey

Wade Ivey 9/27/2017 16:13

Qualifier Flags:

U = Analyte not detected (< MDC)

TPU = Total Propagated Uncertainty

MDC = Minimum Detectable Concentration

Total Uranium



Analyte: U-Total
Project Name: Sequoyah Fuels
Project #: 20121399

SOP (Rev. #): CP1 (21)
SDG #: 13199-2
Report Date: 9/28/2017

Client Sample ID	Lab Sample ID	Result	TPU(2s)	Units	Enriched or	Batch #
					Natural	
NRC-1	13199S0003	5.8	1.8	pCi/g	Natural	GS0593
NRC-1	13199S0003Dup	4.7	1.3	pCi/g	Natural	GS0593
NRC-2	13199S0004	4.3	1.2	pCi/g	Natural	GS0593
NRC-3	13199S0005	9.2	2.0	pCi/g	Natural	GS0593
NRC-4	13199S0006	5.0	1.2	pCi/g	Natural	GS0593

Signed By:

A handwritten signature in black ink, appearing to read "Wade C. Gray", is written over the "Signed By:" label and extends towards the "Date:" label.

Date:

9/28/2017

TPU= Total Propagated Uncertainty