

July 29, 2010

Mr. Jeremy Tapp
U. S. Nuclear Regulatory Commission
Region III
2443 Warrenville Road
Lisle, IL 60532-4351

**SUBJECT: ORISE CONTRACT NO. DE-AC05-06OR23100
LETTER REPORT FOR ANALYTICAL RESULTS FOR FIVE SOIL SAMPLES FROM
NASA PLUM BROOK, SANDUSKY, OHIO
[INSPECTION REPORT NOS. 05000030/2010-001;05000185/2010-001]
(RFTA NO. 10-001), DCN: 2021-LR-01-0**

Dear Mr. Tapp:

The Oak Ridge Institute for Science and Education (ORISE) received five soil samples on July 15, 2010 from NASA Plum Brook in Sandusky, Ohio. The samples were analyzed according to the 303 form supplied with the samples. The sample identification numbers are presented in Table 1. The gamma spectroscopy results for cobalt-60 and cesium-137 are in Table 2. The pertinent procedure references are included with the data tables.

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

My contact information is listed below. You may also contact Wade Ivey at 865.576.9184 with any questions or comments.

Sincerely,



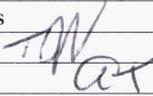
Dale Condra, Manager
Laboratory

RDC:WPI:jc

Enclosures

c: T. Carter, NRC/FSME/DWMEP T-8F5 T. Patterson, NRC/FSME/TW/FN 8D42
File 2010

Electronic: S. Roberts, ORISE T. Vitkus, ORISE

Distribution approval and concurrence :	Initials
Technical Review	
Quality Review	

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TABLE 1

**SAMPLE IDENTIFICATIONS
AND COLLECTION INFORMATION
NASA PLUM BROOK
SANDUSKY, OHIO**

ORISE Sample ID	NRC Region III Sample ID	Collection Date	Collection Time
2021S0001	NPB-1-10-01	7/13/10	1335
2021S0002	NPB-1-10-02	7/13/10	1341
2021S0003	NPB-1-10-03	7/13/10	1352
2021S0004	NPB-1-10-04	7/13/10	1401
2021S0005	NPB-1-10-05	7/13/10	1408

TABLE 2
CONCENTRATIONS OF COBALT-60 AND CESIUM-137
IN SOIL SAMPLES
BY GAMMA SPECTROSCOPY CP1, REVISION 17
NASA PLUM BROOK
SANDUSKY, OHIO

ORISE Sample ID	NRC Region III Sample ID	Radionuclide Concentrations, TPU, and MDCs ^a (pCi/g)	
		Co-60	Cs-137
2021S0001	NPB-1-10-01	0.01 ± 0.04 ^b , 0.06	0.22 ± 0.03, 0.03
2021S0002	NPB-1-10-02	-0.03 ± 0.05, 0.08	0.80 ± 0.07, 0.04
2021S0003	NPB-1-10-03	-0.02 ± 0.05, 0.08	0.32 ± 0.04, 0.04
2021S0004	NPB-1-10-04	0.04 ± 0.05, 0.10	0.19 ± 0.03, 0.05
2021S0005	NPB-1-10-05	0.01 ± 0.04, 0.07	0.18 ± 0.03, 0.03

^aThe MDCs appear after the commas.

^bUncertainties represent the 95% confidence level, based on total propagated uncertainties.