ORISE
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

January 12, 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. 05000030/2009001;05000185/2009001] (RFTA NO. 10-001), DCN: 2009-LR-01-0

Dear Mr. Tapp:

The Oak Ridge Institute for Science and Education (ORISE) received five soil samples on December 7, 2009 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

Dale Condra, Manager
Laboratory

RDC:WPI:jc

Enclosures

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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
2009S0001	NPB-3-01	12/2/09	1100
2009S0002	NPB-3-02	12/2/09	1115
2009S0003	NPB-3-03	12/2/09	1125
2009S0004	NPB-3-04	12/2/09	1345
2009S0005	NPB-3-05	12/2/09	1350

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, TPUs, and MDCs[a] (pCi/g)	
		Co-60	Cs-137
2009S0001	NRC-1	0.01 ± 0.06[b] , 0.10	0.02 ± 0.04 , 0.07
2009S0002	NRC-2	0.04 ± 0.06 , 0.11	3.98 ± 0.36 , 0.06
2009S0003	NRC-3	-0.01 ± 0.04 , 0.07	-0.02 ± 0.03 , 0.05
2009S0004	NRC-4	0.02 ± 0.04 , 0.07	0.01 ± 0.03 , 0.05
2009S0005	NRC-5	-0.04 ± 0.05 , 0.08	0.00[c] ± 0.03 , 0.06

[a]The MDCs appear after the commas.

[b]Uncertainties represent the 95% confidence level, based on total propagated uncertainties.

[c]Zero value is due to rounding or equal sample and background counts.