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March 25, 2011

Mr. Robert Evans
U.S. Nuclear Regulatory Commission
Region IV: DNMS: NMLB
Suite 400
611 Ryan Plaza Drive
Arlington, TX 76011

Docket 030-28641
License 42-23539-01AF

**SUBJECT: ORISE CONTRACT NO. DE-AC05-06OR23100
ANALYTICAL RESULTS FOR FIVE SOIL SAMPLES ASSOCIATED WITH
KIRTLAND AIR FORCE BASE, DEPARTMENT OF THE AIR FORCE IN
ALBUQUERQUE, NEW MEXICO
(INSPECTION REPORT NUMBER 030-28641/11-002) [RFTA NO. 11-001]
DCN: 2043-LR-01-0**

Dear Mr. Evans:

The Oak Ridge Institute for Science and Education (ORISE) received five soil samples associated with Kirtland Air Force Base, Department of the Air Force in Albuquerque, New Mexico on March 14, 2011. The samples were analyzed for cesium-137 by gamma spectroscopy (GS). After reviewing the GS data with you by phone on March 16, 2011, you requested that sample NRC-5 be analyzed for plutonium-239 (Pu-239) and that the other possible analytes listed on form 303 would not be analyzed at this time. The sample identifications are listed in Table 1. The GS data are presented in Table 2 along with the pertinent procedure reference.

Two aliquots of sample NRC-5 were analyzed for Pu-239. The concentrations of the analyses were 9.10 ± 0.70 pCi/g and 8.44 ± 0.66 pCi/g. The analyses were performed using AP11, Revision 5.

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:fr
Enclosures

c: T. Carter, NRC/FSME/DWMEP/TWFFN 8F5 File 2043
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electronic distribution: S. Roberts, ORISE T. Vitkus, ORISE

Distribution approval and concurrence: Initials

Technical Review

Quality Review

ENB
PB

TABLE 1

**SAMPLE IDENTIFICATIONS
AND COLLECTION DATA
KIRTLAND AIR FORCE BASE
DEPARTMENT OF THE AIR FORCE
ALBUQUERQUE, NEW MEXICO**

ORISE Sample ID	NRC Region IV Sample ID	Collection Date	Collection Time
2043S0001	NRC-1	3/9/11	1:25 PM
2043S0002	NRC-2	3/9/11	1:35 PM
2043S0003	NRC-3	3/9/11	1:45 PM
2043S0004	NRC-4	3/9/11	1:55 PM
2043S0005	NRC-5	3/9/11	2:00 PM

TABLE 2
CONCENTRATIONS OF CESIUM-137
IN SOIL SAMPLES
BY GAMMA SPECTROSCOPY
CP1, REVISION 17
KIRTLAND AIR FORCE BASE
DEPARTMENT OF THE AIR FORCE
ALBUQUERQUE, NEW MEXICO

ORISE Sample ID	NRC Region IV Sample ID	Concentrations, TPUs, and MDCs ^a (pCi/g)			
2043S0001	NRC-1	0.04	±	0.02 ^b	, 0.04
2043S0002	NRC-2	0.06	±	0.02	, 0.04
2043S0003	NRC-3	0.08	±	0.02	, 0.03
2043S0004	NRC-4	0.03	±	0.07	, 0.03
2043S0005	NRC-5	0.04	±	0.05	, 0.09

^aThe MDCs are after the comma.

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