

ORISE
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

July 14, 2006

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

SUBJECT: REPORT OF ANALYTICAL RESULTS FOR SIX SOIL SAMPLES FROM S.C. HOLDINGS (HARTLEY AND HARTLEY LANDFILL), BAY COUNTY, MICHIGAN [INSPECTION REPORT NO. 040-09022/2006-001] (RFTA NO. 06-001)

Dear Mr. Bonano:

The Oak Ridge Institute for Science and Education (ORISE) received six soil samples on June 8, 2006 collected at S.C. Holdings (Hartley and Hartley Landfill) in Bay County, Michigan. The six samples were analyzed by gamma spectroscopy (GS) for thorium. The sample identifications and collection data are presented in Table 1. The GS data are presented in Table 2. The pertinent procedure references are provided in the specific 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:ess

Enclosure

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TABLE 1

**SAMPLE IDENTIFICATIONS
AND COLLECTION DATA
S.C. HOLDINGS (HARTLEY AND HARTLEY LANDFILL)
BAY COUNTY, MICHIGAN**

ORISE Sample ID	NRC Region III Sample ID	Collection Date	Collection Time
1709S0001	SCH-06-1-01	05/09/06	1:10 PM
1709S0002	SCH-06-1-02	05/09/06	1:30 PM
1709S0003	SCH-06-1-03	05/09/06	2:45 PM
1709S0004	SCH-06-1-04	05/09/06	10:45 AM
1709S0005	SCH-06-1-05	05/10/06	1:40 PM
1709S0006	SCH-06-1-06	05/10/06	2:00 PM

TABLE 2

**CONCENTRATIONS OF SELECTED GAMMA EMITTING
RADIONUCLIDES
IN SOIL SAMPLES
BY SAMPLE PREPARATION SP3, REVISION 4
AND GAMMA SPECTROSCOPY CP1, REVISION 15
S.C. HOLDINGS (HARTLEY AND HARTLEY LANDFILL)
BAY COUNTY, MICHIGAN**

ORISE Sample ID	NRC Region III Sample ID	Radionuclide Concentrations (pCi/g) ^a			
		Th-230	Th-228 by Pb-212	Th-232 by Ac-228	Total Th ^b
1709S0001	SCH-06-1-01	0.4 ± 2.4 ^c	0.64 ± 0.05	0.70 ± 0.11	1.34 ± 0.12
1709S0002	SCH-06-1-02	0.4 ± 1.9	0.50 ± 0.04	0.65 ± 0.11	1.15 ± 0.12
1709S0003	SCH-06-1-03	0.2 ± 2.4	0.54 ± 0.05	0.50 ± 0.11	1.04 ± 0.12
1709S0004	SCH-06-1-04	-0.3 ± 1.9	0.24 ± 0.03	0.28 ± 0.12	0.52 ± 0.12
1709S0005	SCH-06-1-05	-0.1 ± 2.8	0.32 ± 0.04	0.39 ± 0.10	0.71 ± 0.11
1709S0006	SCH-06-1-06	1.0 ± 3.5	0.46 ± 0.05	0.54 ± 0.15	1.00 ± 0.16

^aThe average MDCs for these radionuclides range from 0.03 pCi/g for Th-228 by Pb-212 to 5.2 pCi/g for Th-230.

^bTotal thorium is the sum of Th-228 and Th-232.

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