CYAPCO
FINAL STATUS SURVEY RELEASE RECORD
SOUTHWEST SITE STORAGE AREA
SURVEY UNIT 9520-0004

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TABLE OF CONTENTS

1. SURVEY UNIT DESCRIPTION

Survey Unit 9520-0004 (Southwest Site Storage Area) is designated as Final Status Survey (FSS) Class 1 and consists of 1985 m^2 (0.5 acres) of uninhabited open land located approximately 1,860 feet from the reference coordinate system benchmark used at Haddam Neck Plant (HNP) (see Attachment 1). The survey unit is bounded by Survey Unit 9520-0003. The survey unit is relatively level open space in the middle of the peninsula. The restoration of the peninsula for FSS has removed most of the surface interference in the survey unit.

The reference coordinates associated with this survey unit are E005 through E011 by S086 through S091 (refer to License Termination Plan (LTP) Section 5.4.4). The reference coordinates provide the maximum dimensions of a rectangle containing this survey unit. Some areas contained in this rectangle may not be part of this survey unit. The boundary of the survey unit was defined using a Global Positioning System (GPS) based on the Connecticut State Plane System North American Datum (NAD) 1927.

2. CLASSIFICATION BASIS

The survey unit was classified in accordance with Procedure RPM 5.1-10, *"Survey Unit Classification."*

The *"Classification Basis Summary"* conducted for Survey Unit 9520-0004 consisted of:

a) A review of the 10CFR50.75 (g) (1) database,

b) A review of the *"Initial Characterization Report"* and the *"Historic Site Assessment Supplement,"*

c) Historic and current survey records review,

d) Visual inspections and a "walkdown."

A review of the 10CFR50.75(g)(1) database report and historical files shows a documented history of the use of this survey unit as a radioactive materials storage area. Examples of some of the major events are provided below.

a) Plant Incident Report (PIR) 80-37 reported the discovery of three (3) discrete sources of elevated activity on the Southeast Site Storage area in March 1980, along with other areas around the site. The three (3) discrete sources were identified within adjacent Survey Units 9520-0001 and 9520-0002. The elevated areas were removed upon detection according to the report.

b) Health Physics surveys performed in 1983 and 1985 document the discovery of radioactive material (strainers, bolts, wood pallets, sections of pipe, etc.) on the peninsula. The 1985 survey documents the discovery of contaminated dirt under a pallet.

c) Condition Report (CR) 05-0314: Documents the discovery of excavation spoils, intended for backfill, above the radiological criteria for use as backfill. These spoils were likely located in Survey Units 9520-0003 and 9520-0004 on review of the documentation. According to the CR closure documentation, the affected spoils were removed and packaged for disposal. Follow-up survey and sampling was performed and the results were below established action levels.

A review of the *"Initial and Supplemental Characterization Reports"* as well as the previous *"Classification Basis Summaries"* was performed. Survey Unit 9520-0004 was initially included in Survey Unit 9520-0003, a Class 2 survey unit. However, in March of 2006, Co-60 and Cs-137 were identified in subsurface soils in sufficient quantities to warrant radiological remediation. Radiological remediation was performed in July 2006. A new Class 1 survey unit, Survey Unit 9520-0004, was established to bound the area of remediation.

Characterization was performed in August 2006 to support final classification and FSS planning. Statistical quantities (mean, median and standard deviation) from the 2006 characterization survey conducted under SSWP 06-07-006 are provided in Table 1.

Table 1 – Basic Statistical Quantities for Cs-137 from the 2006 Characterization Survey

Minimum Observed Concentration (pCi/g) :	1.86E-02
Maximum Observed Concentration (pCi/g) :	4.80E-04
Mean (pCi/g):	1.62E-01
Median (pCi/g):	6.12E-02
Standard Deviation (pCi/g):	5.88E-02

The FSS Engineer performed a visual inspection and walk-down during September 2006 to assess the physical condition of the survey unit, evaluate access points and travel paths and identify potentially hazardous conditions.

This survey area is affected by existing groundwater (reference CY memo ISC 06-024) which will be a source of dose from residual radioactivity, as discussed in Section 3 under the Data Quality Objectives.

Based upon the identification of radioactive material above the Derived Concentration Guideline Levels (DCGLs), and the need for radiological remediation, it was concluded that there was some probability for residual radioactivity in concentrations greater than the DCGLs, justifying a final survey unit classification of Class 1 (refer to Section 3).

3. DATA QUALITY OBJECTIVES (DQO)

FSS design and planning used the Data Quality Objective (DQO) process as described by the LTP, Procedure RPM 5.1-11, *"Preparation of Final Status Survey Plan,"* and the *"Multi-Agency Radiation Survey and Site Investigation Manual"* (MARSSIM). A summary of the main features of the DQO process are provided herein.

The DQO process incorporated hypothesis testing and probabilistic sampling distributions to control decision errors during data analysis. Hypothesis testing is a process based on the scientific method that compares a baseline condition to an alternate condition. The baseline condition is technically known as the null hypothesis. Hypothesis testing rests on the premise that the null hypothesis is true and that sufficient evidence must be provided for rejection. In designing the survey plan, the underlying assumption, or null hypothesis was that residual activity in the survey unit exceeded the release criteria. Rejection of the null hypothesis would indicate that residual activity within the survey unit does not exceed the release criteria. Therefore, the survey unit does satisfy the primary objective of the FSS plan.

The primary objective of the FSS plan was to demonstrate that the level of residual radioactivity in Survey Unit 9520-0004 did not exceed the release criteria specified in the LTP and that the potential dose from residual radioactivity is As Low As Reasonably Achievable (ALARA).

A fundamental precursor to survey design is to establish a relationship between the release criteria and some measurable quantity. This is done through the development of DCGLs. The DCGLs represent average levels of radioactivity above background levels and are presented in terms of surface or mass activity concentrations. Chapter 6 of the LTP describes in detail the modeling used to develop the DCGLs for soil (called Base Case Soil DCGL), existing groundwater radioactivity and future groundwater radioactivity that will be contributed by building basements and footings.

The DCGLs presented in Chapter 6 of the LTP were developed for exposures from three (3) components, that is, residual radioactivity in soil, existing groundwater radioactivity, and future groundwater radioactivity from the burial of concrete foundations or footings from site buildings containing residual radioactivity. Equation 1 shows the mathematical relationship between the three (3) components and the total dose.

Equation 1

$$H_{Total} = H_{Soil} + H_{ExistingGW} + H_{FutureGW}$$

The total dose under the LTP criteria is twenty-five (25) mrem/yr TEDE from all three (3) components. The allowable total dose under the Connecticut Department of Environmental Protection (CTDEP) radiological remediation

standard for CY is nineteen (19) mrem/yr TEDE. To satisfy both the LTP and CY CTDEP criteria, the dose from soil must be reduced when using the existing and future groundwater dose values discussed above.

This survey area is affected by existing groundwater (reference CY memo ISC 06-024). Therefore, the dose contribution from existing groundwater is bounded by two (2) mrem/yr TEDE.

This survey unit is not considered impacted by future groundwater radioactive contamination, as there are no buried concrete foundations or footings containing residual radioactive material within the groundwater saturated zone in the area (reference CY memo ISC 06-024). The dose contribution from future groundwater, the third dose component is, therefore, zero (0) mrem/yr TEDE.

Equation 2

$$19\ \text{mrem/yr}_{\text{Total}} = 17\ \text{mrem/yr}_{\text{Soil}} + 2\ \text{mrem/yr}_{\text{Existing GW}} + 0\ \text{mrem/yr}_{\text{FutureGW}}$$

The allowable dose for soil in this survey unit is seventeen (17) mrem/yr TEDE as shown by Equation 2 above. The concentration of residual radioactivity resulting in seventeen (17) mrem/yr TEDE is designated as the Operational DCGL, and has been established for the radionuclides of concern as provided in Table 2.

Table 2 – Radionuclide Specific Base Case Soil DCGL, Operational DCGLs and Required Minimum Detectable Concentrations

Radionuclide [1]	Base Case Soil DCGL (ρCi/g) [2]	Operational DCGL (ρCi/g) [3]	Required MDC (ρCi/g) [4]
H-3	4.12E+02	2.80E+02	1.65E+01
C-14	5.66E+00	3.85E+00	2.26E-01
Mn-54	1.74E+01	1.18E+01	6.96E-01
Fe-55	2.74E+04	1.86E+04	1.10E+03
Co-60	3.81E+00	2.59E+00	1.52E-01
Ni-63	7.23E+02	4.92E+02	2.89E+01
Sr-90	1.55E+00	1.05E+00	6.20E-02
Nb-94	7.12E+00	4.84E+00	2.85E-01
Tc-99	1.26E+01	8.57E+00	5.04E-01
Ag-108m	7.14E+00	4.86E+00	2.86E-01
Cs-134	4.67E+00	3.18E+00	1.87E-01
Cs-137	7.91E+00	5.38E+00	3.16E-01
Eu-152	1.01E+01	6.87E+00	4.04E-01
Eu-154	9.29E+00	6.32E+00	3.72E-01
Eu-155	3.92E+02	2.67E+02	1.57E+01

Table 2 – Radionuclide Specific Base Case Soil DCGL, Operational DCGLs and Required Minimum Detectable Concentrations

Radionuclide [1]	Base Case Soil DCGL (pCi/g) [2]	Operational DCGL (pCi/g) [3]	Required MDC (pCi/g) [4]
Pu-238	2.96E+01	2.01E+01	1.18E+00
Pu-239/240	2.67E+01	1.82E+01	1.07E+00
Pu-241	8.70E+02	5.92E+02	3.48E+01
Am-241 [5]	2.58E+01	1.75E+01	1.03E+00
Cm-243/244	2.90E+01	1.97E+01	1.16E+00

(1) **Bold** indicates those radionuclides considered to be Hard-to-Detect (HTD)

(2) The Base Case Soil DCGLs for soil are specified by the LTP in Chapter 6 and are equivalent to 25 mrem/yr TEDE

(3) The Operational DCGL is equivalent to 17 mrem/yr TEDE

(4) The required MDC is equivalent to 1 mrem/yr TEDE

(5) Americium-241 can be analyzed by gamma and alpha spectroscopy and is considered to be Easy to Detect (ETD); the preferred result is the alpha spectroscopy's when both analyses are performed

Another important facet of the DQO process is to identify the radionuclides of concern and determine the concentration variability. Soil samples were collected in 2006 to establish the radiological condition of Survey Unit 9520-0004 for FSS. Cs-137 was the only gamma emitting radionuclide reported in concentrations with the potential for exceeding the screening criteria. The characterization data were used for the survey design and are provided in Table 1.

Instrument DQOs included a verification of the ability of the survey instrument to detect the radiation(s) of interest relative to the DCGL. Survey instrument response checks were required prior to issue and after the instrument had been used. Control and accountability of survey instruments was required to assure the quality and prevent the loss of data.

As part of the DQOs applied to laboratory processes, analysis results were reported as actual calculated results. Results reported as less than Minimum Detectable Concentration (MDC) were not accepted for FSS. Sample report summaries included unique sample identification, analytical method, radionuclide, result, and uncertainty to two (2) standard deviations, laboratory data qualifiers, units, and the required and observed MDC.

4. SURVEY DESIGN

The level of effort associated with planning a survey is based on the complexity of the survey and nature of the hazards. Guidance for preparing FSS plans is provided in Procedure RPM 5.1-11, "*Preparation of Final Status Survey Plans*". The FSS plan uses an integrated sample design that combines scanning surveys and sampling which can be either random or biased.

The DQO process determined that Cs-137 would be the radionuclide of concern in Survey Unit 9520-0004 (refer to Section 3). Other radionuclides identified during this FSS would be evaluated to ensure adequate survey design.

Surrogate DCGLs were not required for this survey unit based the previous FSS of this survey unit and via screening under LTP Section 5.4.7.2, "*Gross Activity DCGLs*". Radionuclide screening or de-selection is a process where an individual radionuclide or aggregates may be considered insignificant and eliminated from the FSS. The criteria for de-selection are concentrations less than 5% for individual radionuclides and less than 10% for aggregates.

The Elevated Measurement Comparison (EMC) did apply to this survey unit since it is a Class 1 area and discrete, elevated areas of contamination were expected.

The Sign Test was selected as the non-parametric statistical test. The use of the Sign Test did not require the selection or use of a background reference area, which simplified survey design and implementation. This approach was conservative since it included background Cs-137 as part of the sample set.

The number of soil samples for FSS was determined in accordance with Procedure RPM 5.1-12, "*Determination of the Number of Surface Samples for Final Status Survey.*" The Lower Bound of the Gray Region (LBGR) was set in accordance with Procedure RPM 5.1-11 to 5.27 to maintain the relative shift (Δ/σ) in the range of 1 and 3. The resulting Adjusted Relative Shift was 2.0. A Prospective Power Curve was generated using COMPASS, a software package developed under the sponsorship of the United States Nuclear Regulatory Commission (USNRC) for implementation of the MARSSIM in support of the decommissioning license termination rule (10 CFR 20, Subpart E). The result of the COMPASS computer run showed adequate power for the survey design. The survey design specified fifteen (15) surface soil samples for non-parametric statistical testing.

The grid pattern and locations of the soil samples were determined using Visual Sample Plan (VSP) in accordance with Procedure RPM 5.1-14, "*Identifying, and Marking Surface Sample Locations for Final Status Survey.*" Visual Sample Plan was created by Pacific Northwest National Laboratory (PNNL) for the United States Department of Energy. A systematic triangular grid pattern with a random starting point was selected for sample design, which is appropriate for a Class 1 area.

Sample locations were identified using AutoCAD-LT, a commercially available plotting software package with coordinates consistent with the Connecticut State Plane System. These coordinates were integrated with a GPS to locate sample locations in the field. Sample Measurement Locations for the design are listed with the GPS coordinates in Table 3.

Table 3 - Sample Measurement Locations with Associated GPS Coordinates

Designation	Northing	Easting
9520-0004-001F	235584.13	669733.34
9520-0004-002F	235619.22	669753.61
9520-0004-003F	235654.32	669773.87
9520-0004-004F	235619.22	669794.13
9520-0004-005F	235584.13	669773.87
9520-0004-006F	235549.03	669753.61
9520-0004-007F	235549.03	669794.13
9520-0004-008F	235584.13	669814.39
9520-0004-009F	235619.22	669834.65
9520-0004-010F	235584.13	669854.91
9520-0004-011F	235549.03	669834.65
9520-0004-012F	235513.94	669814.39
9520-0004-013F	235513.94	669854.91
9520-0004-014F	235549.03	669875.18
9520-0004-015F	235584.13	669895.44

Procedure RPM 5.1-11 specifies that 5% of the samples are required to be selected for HTD analysis. Two (2) soil samples, or about 10% of the number of samples that would be used for non-parametric statistical testing were randomly selected for HTD radionuclide analysis using the Microsoft Excel "RANDBETWEEN" function. Each sample was sent off-site for a full suite analysis of the HTD radionuclides specified in the LTP, Table 2-12, "*Radionuclides Potentially Present at Haddam Neck Plant*" and as provided in Table 2.

The implementation of quality control measures as referenced by Procedure RPM 5.1-24, "*Split Sample Assessment for Final Status Survey*," included the collection of two (2) soil samples for "split sample" analysis by the off-site laboratory. These locations were selected randomly using the Microsoft Excel "RANDBETWEEN" function. The number of quality control soil samples was about 10% of fifteen (15) samples.

The LTP specifies a required scanning coverage of 100% for outdoor Class 1 areas.

For this Class 1 survey unit, the "Investigation Level" for area scanning and soil sample measurement results are those levels specified in LTP, Table 5-8. Table 4 provides a synopsis of the survey design.

Table 4 – Synopsis of the Survey Design

Feature	Design Criteria	Basis
Survey Unit Land Area	1,985 m^2	Based on AutoCAD-LT
Number of Measurements	15 (15 systematic grid)	Type 1 and Type 2 errors were 0.05, sigma was 0.055 pCi/g, the LBGR was adjusted to 5.27 to maintain Relative Shift in the range of 1 and 3
Grid Spacing	12.4 m	Based on triangular grid
Operational DCGL	5.38 pCi/g Cs-137	Administratively set to achieve 17 mrem/yr TEDE (1)
Soil Investigation Level	5.38 pCi/g Cs-137	The Operational DCGL conservatively meets the LTP criteria for a Class 1 survey unit
Scan Survey Area Coverage	Approximately 100% of the area	The LTP requires 100% area coverage for Class 1 survey units
Scan Investigation Level	An instrument response greater than 3,108 cpm above background	Based upon a Minimum Detectable Count Rate (MDCR) of 1,597 cpm and a corresponding $DCGL_{EMC}$ of 13.3 pCi/g (2)

(1) The allowable dose for soil in this survey unit is 17 mrem/yr TEDE as the bounding dose from existing and future groundwater has been established based on field data (reference CY memo ISC 06-024)
(2) The Area Factor is 2.54 and the instrument conversion factor for Cs-137 is 228 cpm/pCi/g

5. SURVEY IMPLEMENTATION

FSS field activities were conducted under Work Plan and Inspection Record (WP&IR) 2006-0038. The WP&IR package included a detailed FSS plan, job safety analysis, job planning checklist and related procedures for reference. Daily briefings were conducted to discuss the expectations for job performance and the safety aspects of the survey. The "Daily Survey Journal" was used to document field activities and other information pertaining to the FSS.

A single scan area was established that constituted approximately 100% of the surface area of Survey Unit 9520-0004. Grid lines, one meter wide, were painted on the ground of the scan area. A background survey was performed around the survey unit and it was determined that, using an Eberline E-600 with a SPA-3 sodium iodide detector, background ranged from 4,950 counts per minute (cpm) up to 7,230 cpm.

The scan area was established and scanned for elevated readings (see Attachment 2 for all scan results). Scanning was performed with an Eberline E-600 using a SPA-3 sodium iodide detector. The E-600 was operated in the rate-meter mode and used with audio response. The probe was positioned as close to the ground as possible and was moved at a scan speed of about 0.5 meters per second. Approximately 100% of the survey unit was scanned.

Measurement locations were identified in North American Datum (NAD) 1927 coordinates using GPS coordinates; sample locations were identified and marked with a surveyor's flag or paint for identification. At each sample location, a one (1) meter radius around the sample flag or paint mark was scanned for elevated radiation levels.

Seventeen (17) surface soil samples were collected and packaged in accordance with Haddam Neck Plant (HNP) Procedure RPM 5.1-3, "*Collection of Sample Media for Final Status Survey*" and FSS design. Samples were controlled, transported, stored, and transferred to the off-site laboratory using Chain-of-Custody (COC) protocol in accordance with Procedure RPM 5.1-5, "*Chain of Custody for Final Status Survey Samples.*"

Two (2) samples (9520-0004-011F and 9520-0004-014F) were randomly selected for HTD radionuclide analysis.

The implementation of survey specific quality control measures included the collection of two (2) samples (9520-0004-004F and 9520-0004-012F) for "split sample" analysis.

6. SURVEY RESULTS

All field survey activities were conducted between October 13, 2006 and October 23, 2006.

Table 5 provides an overview of the scan results for sample measurement locations. Scan results are provided in Attachment 2.

Table 5 - Scan Results for Sample Measurement Locations

Sample Measurement Location	Highest Logged Reading (kcpm)	Action Level [1] (kcpm)	> Action Level [2]
1	4.73	5.29	NO
2	5.39	5.37	YES
3	6.65	7.64	NO
4	5.89	6.42	NO
5	4.52	5.47	NO
6	5.05	5.57	NO

Table 5 - Scan Results for Sample Measurement Locations			
Sample Measurement Location	Highest Logged Reading (kcpm)	Action Level (1) (kcpm)	> Action Level (2)
7	6.59	6.55	YES
8	6.40	7.71	NO
9	6.78	6.58	YES
10	5.13	6.69	NO
11	5.46	6.91	NO
12	6.72	7.64	NO
13	6.42	8.17	NO
14	7.44	6.76	YES
15	7.39	8.08	NO

(1) The action level is based on a measurement above ambient background in accordance with the FSS plan

The scan areas, that comprised approximately 100% of the total surface area for the survey unit, were scanned for elevated radiation levels. The survey unit was scanned in accordance with the FSS plan on October 17, 2006 through October 23, 2006. Two elevated measurement locations were identified during scanning. Table 6 provides an overview of the scan area survey. Scan results are provided in Attachment 2.

Table 6 - Scan Area Results				
Scan Area	Highest Logged Reading (kcpm)	Action Level (1) (kcpm)	Elevated Reading Identification (2)	Investigation Sample
1	27.1	7.88	9520-04-ER-01-26-1	9520-0004-016F
			9520-04-ER-01-31-1	9520-0004-017F

(1) The action level is based on a measurement above ambient background

(2) ER is an abbreviation associated with the barcodes used in the field where ER stands for Elevated Reading

The off-site laboratory employed for the radiological analyses of samples was General Engineering Laboratories, LLC. The laboratory analyzed the fifteen (15) samples collected for non-parametric statistical testing, the associated field splits, and the two (2) confirmatory samples using gamma spectroscopy. Gamma spectroscopy analysis was performed to the required MDCs. Gamma spectroscopy results identified some radionuclides meeting the accepted criteria

for detection (i.e., a result greater than two standard deviations uncertainty). However, Cs-137 was the only radionuclide reported in concentrations exceeding the de-selection criteria.

Cs-137 was identified in thirteen (13) of the fifteen (15) samples collected for non-parametric statistical testing. Cs-137 was the primary radionuclide confirming the DQOs. The mean of the gamma spectroscopic analysis results for the sample population indicated that Cs-137 was present at levels lower than the concentration of Cs-137 found in soil at off-site locations within the vicinity of the HNP as presented in the Health Physics TSD BCY-HP-0063.

A summary of the fifteen (15) samples collected for non-parametric statistical testing results is provided in Table 7.

Table 7 - Summary of Soil Sample Results for the Statistical Sample Population

Sample Numbe	Cs-137 pCi/g	Fraction of the Operational DCGL (1)
9520-0004-001F	3.19E-02	0.033
9520-0004-002F	2.85E-02	0.025
9520-0004-003F	3.94E-02	0.023
9520-0004-004F	5.92E-02	0.026
9520-0004-005F	3.15E-02	0.027
9520-0004-006F	-9.59E-03	0.016
9520-0004-007F	3.22E-02	0.028
9520-0004-008F	5.20E-02	0.026
9520-0004-009F	4.11E-02	0.023
9520-0004-010F	3.46E-02	0.029
9520-0004-011F	5.69E-02	0.040
9520-0004-012F	1.20E-01	0.037
9520-0004-013F	7.37E-02	0.022
9520-0004-014F	4.71E-02	0.020
9520-0004-015F	5.71E-02	0.024

(1) The Operational DCGL from Table 2 is 5.38 pCi/g for Cs-137 to achieve 17 mrem/yr TEDE

The off-site laboratory also processed two (2) samples for HTD analysis as required by the sample plan. The requested analyses included alpha spectroscopy, gas proportional counting, and liquid scintillation depending on the radionuclide and the measurement method. All analyses met the required MDC.

As previously stated in Section 4 of this report, the criteria for de-selection of a radionuclide is a concentration that is less than 5% of the Operational DCGL for individual radionuclides and less than 10% of the Operational DCGLs for aggregates. H-3 was the only HTD, which by analysis, met the criteria for detection (i.e., a result greater than two standard deviations uncertainty). The highest result for H-3 was at 4% of the Operational DCGL.

Table 8 - Hard-to-Detect Sample Results

Sample	H-3 (ρCi/g)	Fraction of Operational DCGL (1)
9520-0004-011F	9.05E+00	0.032
9520-0004-014F	9.45E+00	0.034

(1) The Operational DCGL from Table 2 is 280 ρCi/g for H-3 to achieve 17 mrem/yr TEDE

7. QUALITY CONTROL

The off-site laboratory processed the split samples and performed gamma spectroscopy analysis. Ten percent (10%) of the samples were selected for analysis, which exceeds the 5% minimum required by the LTP. The data were evaluated using USNRC acceptance criteria specified in Inspection Procedure 84750 as detailed in HNP Procedure RPM 5.1-24, "*Split Sample Assessment for Final Status Survey*". Cs-137 was not detected in sufficient quantities in the field split results at location 9520-0004-004 to evaluate in accordance with procedure. Evaluation using the reported results for K-40 resulted in acceptable agreement between the field split result at this location. There was acceptable agreement between the field split results at location 9520-0004-012.

The sample analysis vendor, General Engineering Laboratories, LLC, maintains quality control and quality assurance plans as part of normal operation. Refer to Attachment 4 for data and data quality analysis results.

8. INVESTIGATIONS AND RESULTS

Two confirmatory samples were collected at the locations exhibiting elevated scan readings. The samples are denoted as shown in Table 6, with the sample results shown in Table 9 below.

Table 9 - Confirmatory Sample Results

Sample Number	Cs-137 ρCi/g	Fraction of the Operational DCGL (1)
9520-0004-016F	1.25E-01	0.023
9520-0004-017F	1.68E-01	0.031

(1) The Operational DCGL from Table 2 is 5.38 ρCi/g for Cs-137 to achieve 17 mrem/yr TEDE

9. REMEDIATION AND RESULTS

Radiological remedial action as described by MARSSIM Section 5.4 was performed in this survey unit prior to FSS. The results for Cs-137 following remediation were well below the Operational DCGL provided in Table 2. Cs-137 was not identified in any of the samples. Health Physics TSD BCY-HP-0078, "*ALARA Evaluation of Soil Remediation in Support of Final Status Survey,*" determined that remediation beyond that required to meet the release criteria is unnecessary and that the remaining residual radioactivity in soil was ALARA.

10. CHANGES FROM THE FINAL STATUS SURVEY PLAN

No changes were made to the FSS plan.

11. DATA QUALITY ASSESSMENT (DQA)

The DQO sample design and data were reviewed in accordance with Procedure RPM 5.1-23, "*Data Quality Assessment,*" for completeness and consistency. The sampling design had adequate power as indicated by the Retrospective Power Curve. The Sign Test was performed on the data and compared to the original assumptions of the DQOs. The evaluation of the Sign Test results demonstrates that the survey unit passes the unrestricted release criteria, thus, the null hypothesis is rejected.

Documentation was complete and legible. Surveys and sample collection were consistent with the DQOs and were sufficient to ensure that the survey unit was properly designated as Class 1.

The preliminary data review consisted of calculating basic statistical quantities (e.g., mean, median, standard deviation). The mean and median values are well below the Operational DCGL. Also, the retrospective power curve shows that a sufficient number of samples were collected to achieve the desired power. Therefore, the survey unit meets the unrestricted release criteria with adequate power as required by the DQOs.

For Cs-137, the range of the data, about five (5) standard deviations, was not an overly large variation considering that the levels were essentially at existing environmental levels where such variation is to be expected. The difference between the mean and median was about 20% of the standard deviation which indicates slight skewness in the data. The data was represented graphically through posting plots, a frequency plot, and a quantile plot. The frequency plot indicates positive skewness as confirmed by the calculated skew of 0.88.

All data, assessments, and graphical representations are provided in Attachment 4.

12. ANOMALIES

No anomalies were noted.

13. CONCLUSION

Survey Unit 9520-0004 has met the final DQOs of the FSS plan. The ALARA criteria for soils as specified in Chapter 4 of the LTP were achieved following remedial action. Elevated Measurement Comparison was not required.

Cs-137 was used for statistical testing to determine the adequacy of the survey unit for FSS.

The sample data passed the Sign Test. The null hypothesis was rejected. The Retrospective Power Curve generated using COMPASS shows adequate power was achieved. The survey unit is properly designated as Class 1.

The dose contribution from soil is less than 1 mrem/yr TEDE based on the average concentration of the samples used for non-parametric statistical sampling.

This survey area is affected by existing groundwater (reference CY memo ISC 06-024); therefore the dose contribution from existing groundwater is bounded at two (2) mrem/yr TEDE.

This survey unit is not considered impacted by future groundwater radioactive contamination, as there are no underground structures, systems or components containing residual radioactive material within the groundwater saturated zone in the area (reference CY memo ISC 06-024); therefore, the dose contribution from future groundwater is zero (0) mrem/yr TEDE.

The average total dose from residual radioactivity in this survey unit, including exposures from the three (3) components as described in Section 3, that is, residual radioactivity in soil, existing groundwater radioactivity, and future groundwater radioactivity from the burial of concrete foundations or footings from site buildings containing residual radioactivity, will not exceed 3 mrem/yr TEDE. Therefore, Survey Unit 9520-0004 is acceptable for unrestricted release.

14. ATTACHMENTS

14.1 Attachment 1 – Survey Unit Location Map

14.2 Attachment 2 – Scan Results

14.3 Attachment 3 – Laboratory Results

14.4 Attachment 4 – DQA Results

ATTACHMENT 1 (FIGURES)

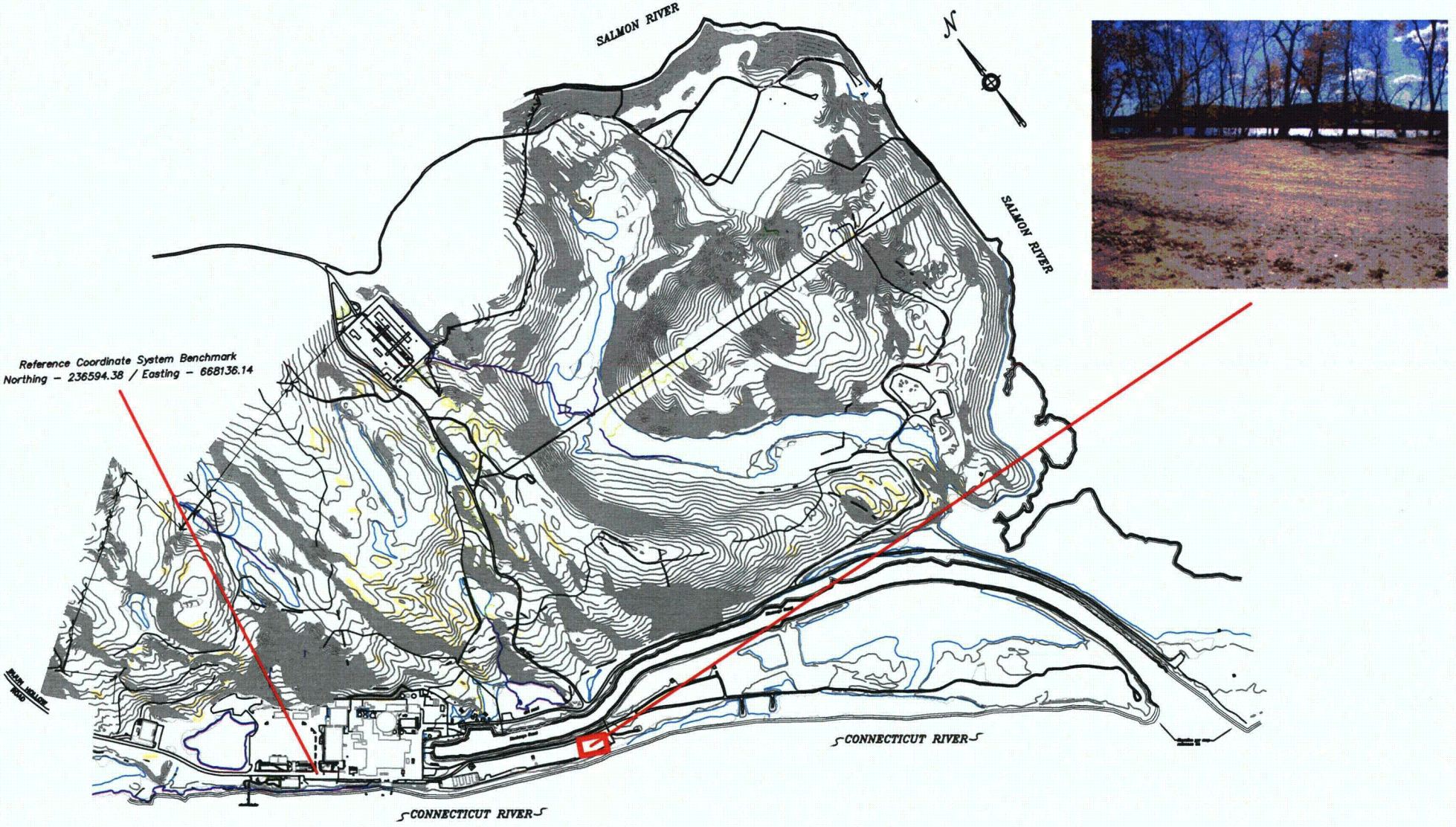

Figure 1	*Connecticut Yankee Atomic Power Company* *Site Map With Reference To Survey Unit 9520-0004*	*Date*	*By*
		November 2006	*J. McC.*

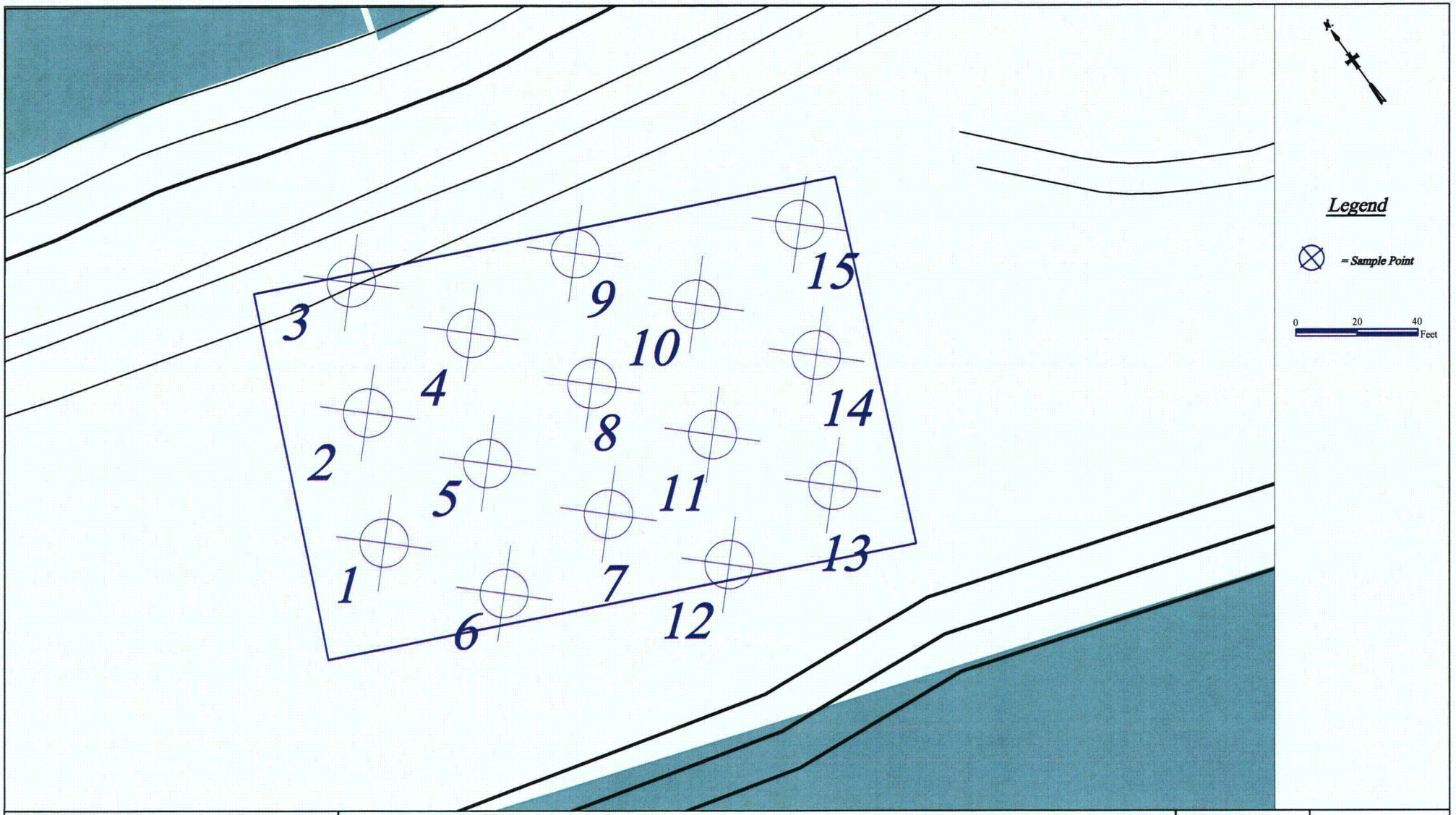

Figure 2	*Connecticut Yankee Atomic Power Company* *Survey Unit 9520-0004 Final Status Survey Design*	*Date*	*By*
		November 2006	*J. McCarthy*

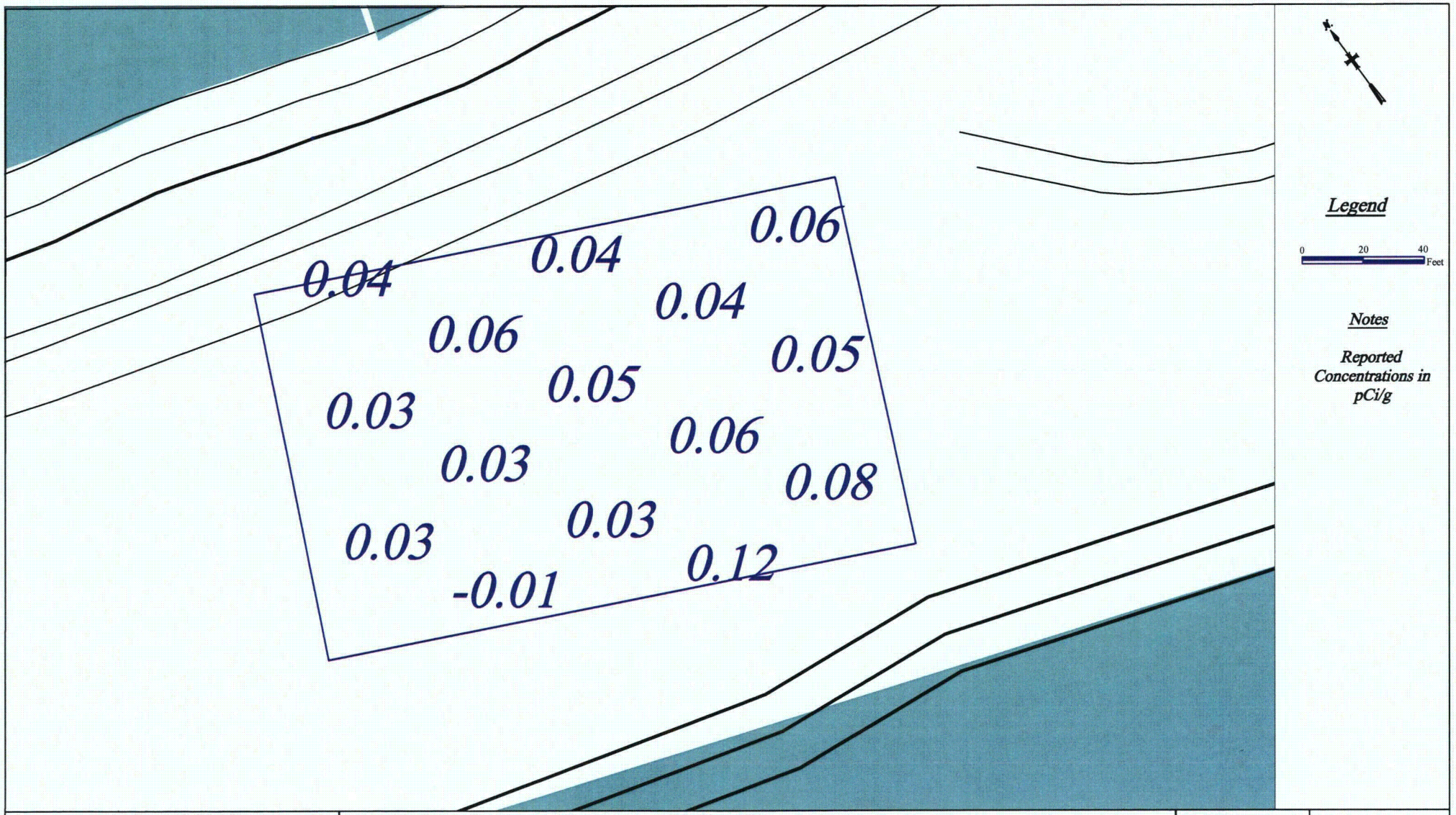

Figure 3	Connecticut Yankee Atomic Power Company Survey Unit 9520-0004 Final Status Survey Cs-137 Posting Plot	Date	By
		November 2006	J. McCarthy

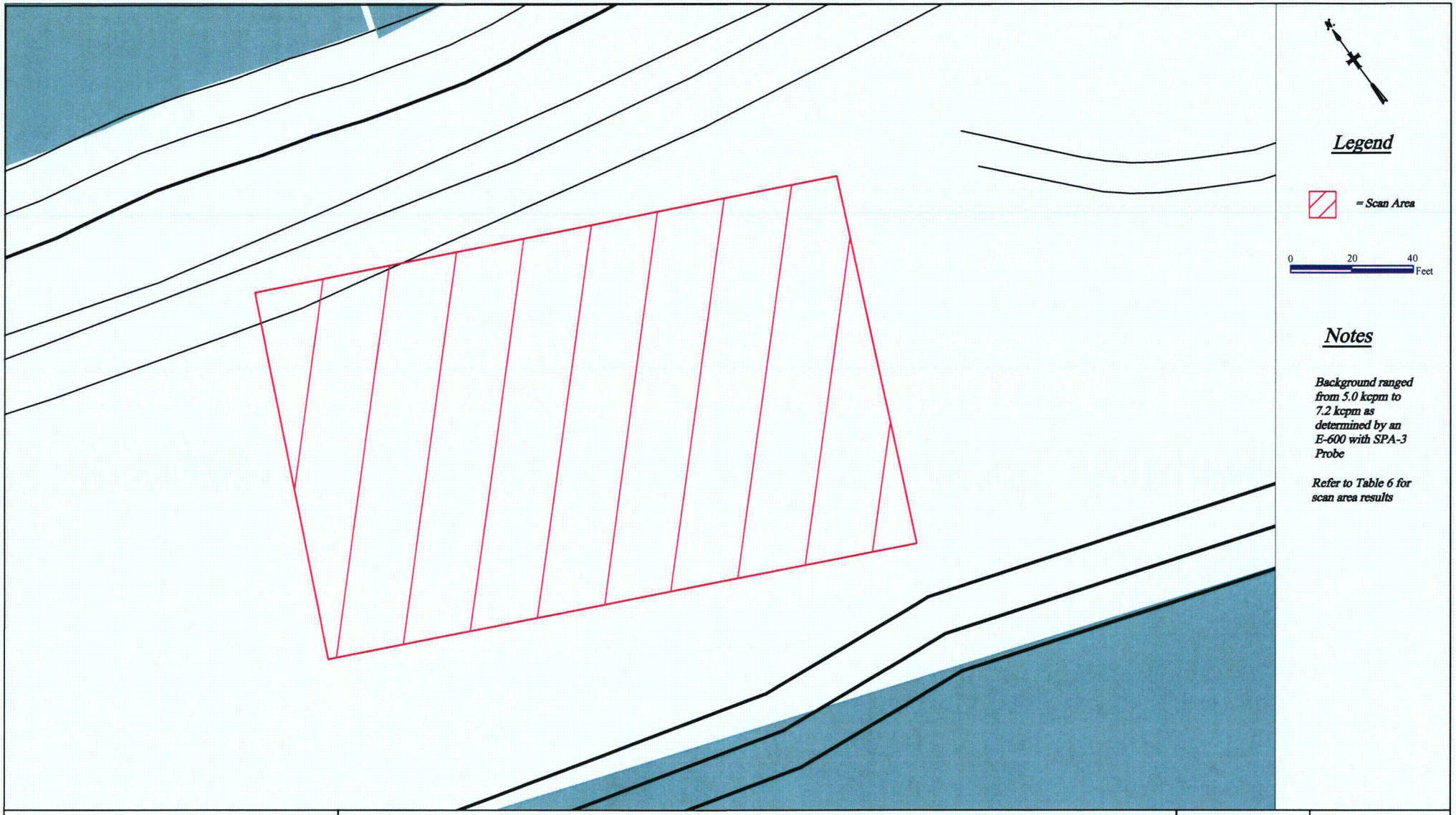

Figure 4	Connecticut Yankee Atomic Power Company Survey Unit 9520-0004 Final Status Survey Scan Areas	Date	By
		November 2006	J. McCarthy

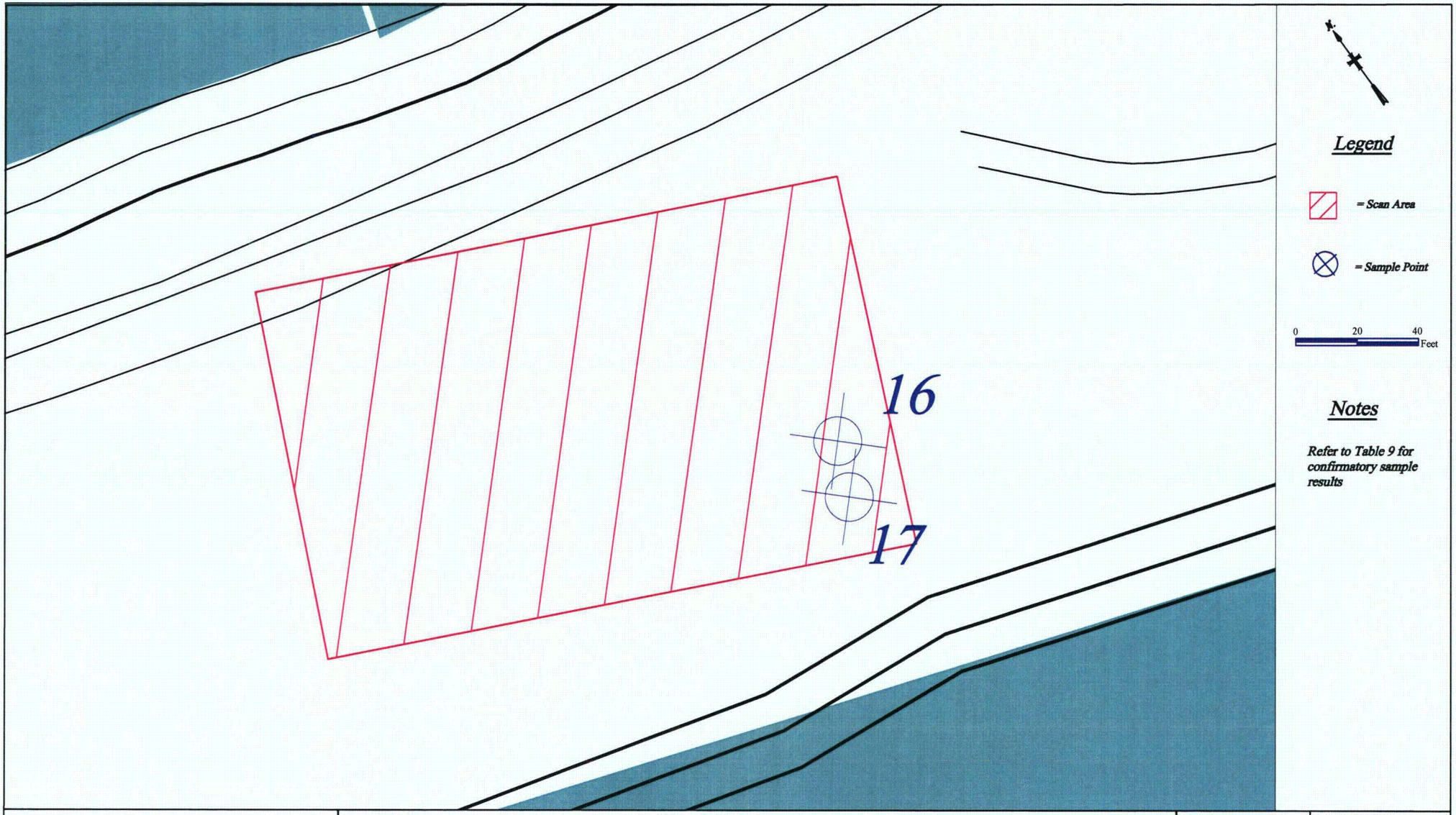

Figure 5	Connecticut Yankee Atomic Power Company Survey Unit 9520-0004 Final Status Survey Confirmatory Samples	Date	By
		November 2006	J. McCarthy

ATTACHMENT 2 (SCAN RESULTS)

Survey Release Record Sample Location Scan Results
Survey Unit 9520-0004

Sample Name	Background (cpm)	Action Level (cpm)	Results (cpm)	Above AL	Log Date	Log Time	E600 S/N	Probe S/N
9520-04-SL-00-01-0	4.35E+03	5.29E+03	4.73E+03		10/13/2006	8:15:00	1105	1012
9520-04-SL-00-02-0	4.42E+03	5.37E+03	5.39E+03	+	10/13/2006	9:29:00	1105	1012
9520-04-SL-00-03-0	6.49E+03	7.64E+03	6.65E+03		10/13/2006	9:37:00	1105	1012
9520-04-SL-00-04-0	5.37E+03	6.42E+03	5.89E+03		10/13/2006	9:46:00	1105	1012
9520-04-SL-00-05-0	4.51E+03	5.47E+03	4.52E+03		10/13/2006	10:02:00	1105	1012
9520-04-SL-00-06-0	4.60E+03	5.57E+03	5.05E+03		10/13/2006	10:15:00	1105	1012
9520-04-SL-00-07-0	5.49E+03	6.55E+03	6.59E+03	+	10/13/2006	10:27:00	1105	1012
9520-04-SL-00-08-0	6.55E+03	7.71E+03	6.40E+03		10/13/2006	10:53:00	1105	1012
9520-04-SL-00-09-0	5.52E+03	6.58E+03	6.78E+03	+	10/13/2006	11:04:00	1105	1012
9520-04-SL-00-10-0	5.62E+03	6.69E+03	5.13E+03		10/13/2006	12:52:00	1105	1012
9520-04-SL-00-11-0	5.82E+03	6.91E+03	5.46E+03		10/13/2006	13:02:00	1105	1012
9520-04-SL-00-12-0	6.49E+03	7.64E+03	6.72E+03		10/13/2006	13:14:00	1105	1012
9520-04-SL-00-13-0	6.98E+03	8.17E+03	6.42E+03		10/13/2006	13:33:00	1105	1012
9520-04-SL-00-14-0	5.68E+03	6.76E+03	7.44E+03	+	10/13/2006	13:54:00	1105	1012
9520-04-SL-00-15-0	6.89E+03	8.08E+03	7.39E+03		10/13/2006	13:58:00	1105	1012

AL - Action Level

Survey Release Record Scan Area Results
Survey Unit 9520-0004

9520-0004 SCAN AREA 1

Sample Name	Background (cpm)	Action Level (cpm)	Results (cpm)	Above AL	Log Date	Log Time	E600 S/N	Probe S/N
9520-04-SC-01-01-0	5.96E+03	7.06E+03	6.64E+03		10/17/2006	14:05:00	1112	1013
9520-04-SC-01-02-0	7.17E+03	8.38E+03	5.43E+03		10/17/2006	14:10:00	1112	1013
9520-04-SC-01-03-0	5.74E+03	6.82E+03	6.45E+03		10/17/2006	14:13:00	1112	1013
9520-04-SC-01-04-0	6.38E+03	7.52E+03	6.82E+03		10/19/2006	13:30:00	1105	1012
9520-04-SC-01-05-0	6.61E+03	7.77E+03	6.19E+03		10/19/2006	13:36:00	1105	1012
9520-04-SC-01-06-0	6.49E+03	7.64E+03	6.86E+03		10/19/2006	13:42:00	1105	1012
9520-04-SC-01-07-0	6.24E+03	7.37E+03	5.63E+03		10/19/2006	13:46:00	1105	1012
9520-04-SC-01-08-0	6.06E+03	7.17E+03	6.68E+03		10/19/2006	13:52:00	1105	1012
9520-04-SC-01-09-0	6.40E+03	7.54E+03	5.48E+03		10/19/2006	13:57:00	1105	1012
9520-04-SC-01-10-0	5.26E+03	6.30E+03	5.96E+03		10/19/2006	14:04:00	1105	1012
9520-04-SC-01-11-0	5.70E+03	6.78E+03	6.32E+03		10/23/2006	8:14:00	1117	1001
9520-04-SC-01-12-0	7.13E+03	8.34E+03	6.11E+03		10/23/2006	8:18:00	1117	1001
9520-04-SC-01-13-0	6.89E+03	8.08E+03	5.61E+03		10/19/2006	14:07:00	1105	1012
9520-04-SC-01-14-0	6.70E+03	7.87E+03	6.37E+03		10/19/2006	14:11:00	1105	1012
9520-04-SC-01-15-0	7.12E+03	8.32E+03	5.77E+03		10/19/2006	14:14:00	1105	1012
9520-04-SC-01-16-0	6.31E+03	7.44E+03	6.46E+03		10/23/2006	8:21:00	1117	1001
9520-04-SC-01-17-0	7.23E+03	8.44E+03	6.68E+03		10/23/2006	8:24:00	1117	1001
9520-04-SC-01-18-0	5.83E+03	6.92E+03	6.13E+03		10/19/2006	14:21:00	1105	1012
9520-04-SC-01-19-0	6.48E+03	7.63E+03	6.45E+03		10/19/2006	14:24:00	1105	1012
9520-04-SC-01-20-0	6.37E+03	7.51E+03	5.94E+03		10/19/2006	14:29:00	1105	1012
9520-04-SC-01-21-0	5.10E+03	6.12E+03	5.59E+03		10/18/2006	14:34:00	1114	1014
9520-04-SC-01-22-0	5.30E+03	6.34E+03	5.05E+03		10/18/2006	14:30:00	1114	1014
9520-04-SC-01-23-0	4.95E+03	5.95E+03	4.75E+03		10/18/2006	14:24:00	1114	1014
9520-04-SC-01-24-0	5.15E+03	6.17E+03	5.03E+03		10/18/2006	14:22:00	1114	1014
9520-04-SC-01-25-0	5.59E+03	6.66E+03	5.16E+03		10/18/2006	14:16:00	1114	1014
9520-04-SC-01-26-0	6.39E+03	7.53E+03	5.26E+03		10/18/2006	14:11:00	1114	1014
9520-04-ER-01-26-1	6.39E+03	7.53E+03	2.34E+04	+	10/19/2006	7:37:00	1105	1012
9520-04-SC-01-27-0	6.65E+03	7.81E+03	5.06E+03		10/18/2006	14:05:00	1114	1014
9520-04-SC-01-28-0	6.57E+03	7.73E+03	5.11E+03		10/18/2006	13:55:00	1114	1014

AL - Action Level

Survey Release Record Scan Area Results
Survey Unit 9520-0004

9520-04-SC-01-29-0	6.67E+03	7.84E+03	5.68E+03		10/18/2006	13:48:00	1114	1014
9520-04-SC-01-30-0	6.23E+03	7.36E+03	5.67E+03		10/18/2006	13:44:00	1114	1014
9520-04-SC-01-31-0	6.71E+03	7.88E+03	5.43E+03		10/18/2006	13:39:00	1114	1014
9520-04-ER-01-31-1	6.71E+03	7.88E+03	2.71E+04	+	10/19/2006	7:38:00	1105	1012
9520-04-SC-01-32-0	6.78E+03	7.96E+03	5.50E+03		10/18/2006	13:35:00	1114	1014
9520-04-SC-01-33-0	6.24E+03	7.37E+03	5.19E+03		10/18/2006	13:25:00	1114	1014
9520-04-SC-01-34-0	6.66E+03	7.83E+03	5.22E+03		10/18/2006	13:21:00	1114	1014
9520-04-SC-01-35-0	6.46E+03	7.61E+03	6.50E+03		10/18/2006	13:16:00	1114	1014

AL - Action Level

ATTACHMENT 3 (LABORATORY DATA)

General Narrative

General Narrative
for
Connecticut Yankee Atomic Power Co.
Work Order: 174346
SDG: MSR#06-1375

October 24, 2006

Laboratory Identification:

General Engineering Laboratories, LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt

The samples arrived at General Engineering Laboratories, LLC, Charleston, South Carolina on October 18, 2006 for analysis. Shipping container temperatures were checked, documented, and within specifications. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage.

Sample Identification The laboratory received the following samples:

Laboratory Identification	Sample Description
174346001	9520-0004-001F
174346002	9520-0004-002F
174346003	9520-0004-003F
174346004	9520-0004-004F
174346005	9520-0004-004FS
174346006	9520-0004-005F
174346007	9520-0004-006F
174346008	9520-0004-007F
174346009	9520-0004-008F
174346010	9520-0004-009F
174346011	9520-0004-010F
174346012	9520-0004-012F
174346013	9520-0004-012FS
174346014	9520-0004-013F
174346015	9520-0004-015F
174346016	9520-0004-011F
174346017	9520-0004-014F

Items of Note

There are no items to note.

Case Narrative

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Analytical Request

Fifteen soil samples were analyzed for FSSGAM. Two soil samples were analyzed for FSSALL.

Data Package

The enclosed data package contains the following sections: General Narrative, Chain of Custody and Supporting Documentation, Data Review Qualifier Definitions, and data from the following fractions: Radiochemistry.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Cheryl Jones
Project Manager

List of current GEL Certifications as of 24 October 2006

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas	TX213-2006A
Texas NELAP	T104704235-06-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2006-00630

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

Analytical Lab (Name, City, State)
General Engineering Laboratories
2040 Savage Road. Charleston SC. 29407
843 556 8171. Attn. Cheryl Jones

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
174346

6

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9520-0004-001F	10/13/06	0817	TS	G	BP	X							
9520-0004-002F	10/13/06	0932	TS	G	BP	X							
9520-0004-003F	10/13/06	0941	TS	G	BP	X							
9520-0004-004F	10/13/06	0949	TS	G	BP	X							
9520-0004-004FS	10/13/06	0949	TS	G	BP	X							
9520-0004-005F	10/13/06	1005	TS	G	BP	X							
9520-0004-006F	10/13/06	1018	TS	G	BP	X							
9520-0004-007F	10/13/06	1030	TS	G	BP	X							
9520-0004-008F	10/13/06	1055	TS	G	BP	X							
9520-0004-009F	10/13/06	1107	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-1375 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	10/17/06 1330	R. [signature]	10-18-6 830
3) Relinquished By	Date/Time	4) Received By	Date/Time

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7990 2092 4064
Bill of Lading #

Internal Container Temp.: ____ Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

Chain of Custody Form

No. 2006-00631

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

Analytical Lab (Name, City, State)
General Engineering Laboratories
2040 Savage Road. Charleston SC. 29407
843 556 8171. Attn. Cheryl Jones

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only

Comments:

174346 %

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9520-0004-010F	10/13/06	1255	TS	G	BP	X							
9520-0004-011F	10/13/06	1305	TS	G	BP		X						
9520-0004-012F	10/13/06	1317	TS	G	BP	X							
9520-0004-012FS	10/13/06	1317	TS	G	BP	X							
9520-0004-013F	10/13/06	1336	TS	G	BP	X							
9520-0004-014F	10/13/06	1357	TS	G	BP		X						
9520-0004-015F	10/13/06	1402	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-1375 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other

7990 2092 4064
Bill of Lading #

Internal Container Temp.: ____ Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	10/17/06 1330	[signature]	10-18-6 930
3) Relinquished By	Date/Time	4) Received By	Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 10-18-6 930Am

SDG#: MSR#06-1375, MSR#06-1376

Work Order Number: 174346, 174341

Shipping Container ID: 7990 2092 4064 Chain of Custody # 2006-00630, 00631, 00635

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ] NA
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 18°
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] NA
6. Number of samples in shipping container: 18
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:
   - [✓] tape
   - [ ] hazard labels
   - [ ] custody seals
   - [ ] appropriate sample labels

40 CFR

9. Samples are:
   - [✓] in good condition
   - [ ] leaking
   - [ ] broken
   - [ ] have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: B Linen Date: 10-18-6

Telephoned to: _____ On _____ By _____

Data Review Qualifier Definitions

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 174346

Method/Analysis Information

Product:	**Alphaspec Am241, Cm, Solid ALL FSS**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	580396
Prep Batch Number:	580482
Dry Soil Prep GL-RAD-A-021 Batch Number:	580480

Sample ID	Client ID
174346016	9520-0004-011F
174346017	9520-0004-014F
1201210037	Method Blank (MB)
1201210038	174224006(9520-0002-008F) Sample Duplicate (DUP)
1201210039	174224006(9520-0002-008F) Matrix Spike (MS)
1201210040	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 14.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174224006 (9520-0002-008F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 174346016 (9520-0004-011F) was recounted due to a negative result greater than three times the error.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 374838 was generated due to Container scanning event for custody missed. 1. The analyst did not scan the samples into the batch prior to analysis, however the samples did remain in their custody at all times. The error has been corrected and the analyst has been instructed on proper scanning procedures. 1. Reporting results.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Solid-ALL FSS**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	580398
Prep Batch Number:	580482
Dry Soil Prep GL-RAD-A-021 Batch Number:	580480

Sample ID	Client ID
174346016	9520-0004-011F
174346017	9520-0004-014F
1201210045	Method Blank (MB)
1201210046	174224006(9520-0002-008F) Sample Duplicate (DUP)
1201210047	174224006(9520-0002-008F) Matrix Spike (MS)
1201210048	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 14.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174224006 (9520-0002-008F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 374219 was generated due to Container scanning event for custody missed. 1. The analyst did not scan the samples into the batch prior to analysis, however the samples did remain in their custody at all times. The error has been corrected and the analyst has been instructed on proper scanning procedures. 1. Reporting results.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-ALL FSS**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	580400
Prep Batch Number:	580482
Dry Soil Prep GL-RAD-A-021 Batch Number:	580480

Sample ID	Client ID
174346016	9520-0004-011F
174346017	9520-0004-014F
1201210053	Method Blank (MB)
1201210054	174224006(9520-0002-008F) Sample Duplicate (DUP)
1201210055	174224006(9520-0002-008F) Matrix Spike (MS)
1201210056	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174224006 (9520-0002-008F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from

referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 374454 was generated due to Container scanning event for custody missed. 1. Samples 174346 016,017 were scanned. There is an error with AlphaLIMS making it appear that they were not. 1. Reporting results and investigating cause of error.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	581675
Prep Batch Number:	580480

Sample ID	Client ID
174346001	9520-0004-001F
174346002	9520-0004-002F
174346003	9520-0004-003F
174346004	9520-0004-004F
174346005	9520-0004-004FS
174346006	9520-0004-005F
174346007	9520-0004-006F
174346008	9520-0004-007F
174346009	9520-0004-008F
174346010	9520-0004-009F
174346011	9520-0004-010F
174346012	9520-0004-012F
174346013	9520-0004-012FS
174346014	9520-0004-013F
174346015	9520-0004-015F
174346016	9520-0004-011F
174346017	9520-0004-014F
1201213157	Method Blank (MB)
1201213158	174346001(9520-0004-001F) Sample Duplicate (DUP)
1201213159	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174346001 (9520-0004-001F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high counting uncertainty.	Bismuth-212	174346013
		Potassium-40	1201213157
UI	Data rejected due to interference.	Cesium-134	174346008
		Europium-155	174346016
UI	Data rejected due to low abundance.	Cesium-134	174346001
			174346002
			174346003
			174346009
			174346011
			174346014
			174346015

Method/Analysis Information

Product:	**GFPC, Sr90, solid-ALL FSS**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	580488
Prep Batch Number:	580482
Dry Soil Prep GL-RAD-A-021 Batch Number:	580480

Sample ID	Client ID
174346016	9520-0004-011F
174346017	9520-0004-014F
1201210298	Method Blank (MB)
1201210299	174224006(9520-0002-008F) Sample Duplicate (DUP)
1201210300	174224006(9520-0002-008F) Matrix Spike (MS)
1201210301	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174224006 (9520-0002-008F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 1201210299 (9520-0002-008F) was recounted due to high MDA.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 375263 was generated due to Container scanning event for custody missed. 1. Samples 174346016 and 174346017 were scanned into the batch prior to analysis, but the event did not save due to a computer network error. Custody of the samples was maintained at all times. 1. Reporting results.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Solid-ALL FSS**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	580727

Sample ID	Client ID
174346016	9520-0004-011F
174346017	9520-0004-014F
1201210846	Method Blank (MB)
1201210847	174346016(9520-0004-011F) Sample Duplicate (DUP)
1201210848	174346016(9520-0004-011F) Matrix Spike (MS)
1201210849	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174346016 (9520-0004-011F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 375329 was generated due to Container scanning event for custody missed. 1. The analyst did not scan the samples 174346016 and 174346017 into the batch prior to analysis, however the samples did remain in their custody at all times. 1. The error has been corrected and the analyst has been instructed on the proper scanning procedures. Reporting results.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-ALL FSS**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	580395
Prep Batch Number:	580482
Dry Soil Prep GL-RAD-A-021 Batch Number:	580480

Sample ID	Client ID
174346016	9520-0004-011F
174346017	9520-0004-014F
1201210033	Method Blank (MB)
1201210034	174224006(9520-0002-008F) Sample Duplicate (DUP)
1201210035	174224006(9520-0002-008F) Matrix Spike (MS)
1201210036	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 3.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174224006 (9520-0002-008F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Solid-ALL FSS**
Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	580397
Prep Batch Number:	580482
Dry Soil Prep GL-RAD-A-021 Batch Number:	580480

Sample ID	Client ID
174346016	9520-0004-011F
174346017	9520-0004-014F
1201210041	Method Blank (MB)
1201210042	174224021(9520-0002-015F) Sample Duplicate (DUP)
1201210043	174224021(9520-0002-015F) Matrix Spike (MS)
1201210044	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174224021 (9520-0002-015F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from

referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL FSS**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	580729

Sample ID	Client ID
174346016	9520-0004-011F
174346017	9520-0004-014F
1201210854	Method Blank (MB)
1201210855	174346016(9520-0004-011F) Sample Duplicate (DUP)
1201210856	174346016(9520-0004-011F) Matrix Spike (MS)
1201210857	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volumes in this batch.

Designated QC
The following sample was used for QC: 174346016 (9520-0004-011F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples were recounted due to low/high recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid All,FSS**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	580730

Sample ID	Client ID
174346016	9520-0004-011F
174346017	9520-0004-014F
1201210858	Method Blank (MB)
1201210859	174346016(9520-0004-011F) Sample Duplicate (DUP)
1201210860	174346016(9520-0004-011F) Matrix Spike (MS)
1201210861	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-003 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174346016 (9520-0004-011F).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: _____ 10/26/06

NCR Report No.: 374219
Revision No.: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
21-OCT-06	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, Pu-11-RC Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
580398	See Below		

Potentially affected work order(s)(SDG): 174224(MSR#06-1371),174228(MSR#06-1370),174346(MSR#06-1375)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The analyst did not scan the samples into the batch prior to analysis, however the samples did remain in their custody at all times. The error has been corrected and the analyst has been instructed on proper scanning procedures.	1. Reporting results.

Originator's Name:
Eric Brimstin 21-OCT-06

Data Validator/Group Leader:
Lesley Anderson 22-OCT-06

Quality Review:

Director:

General Engineering Laboratories
Form GEL-NCR
Rev. 06/05

NCR Report No.: 374454
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-OCT-06	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE EML HASL-300, Pu-11-RC Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
580400	See Below		

Potentially affected work order(s)(SDG): 174224(MSR#06-1371),174228(MSR#06-1370),174346(MSR#06-1375)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Samples 174346 016,017 were scanned. There is an error with AlphaLIMS making it appear that they were not.	1. Reporting results and investigating cause of error.

Originator's Name:
Amy Scott 23-OCT-06

Data Validator/Group Leader:
Lesley Anderson 23-OCT-06

Quality Review:

Director:

NCR Report No.: 374838
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-OCT-06	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, Am-05-RC Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
580396	See Below		

Potentially affected work order(s)(SDG): 174224(MSR#06-1371),174228(MSR#06-1370),174346(MSR#06-1375)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The analyst did not scan the samples into the batch prior to analysis, however the samples did remain in their custody at all times. The error has been corrected and the analyst has been instructed on proper scanning procedures.	1. Reporting results.

Originator's Name:

Jessica Downey 23-OCT-06

Data Validator/Group Leader:

Melanie Aycock 24-OCT-06

Quality Review:

Director:

NCR Report No.: 375263
Revision No.: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-OCT-06	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GFPC	EPA 905.0 Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
580488	See Below		

Potentially affected work order(s)(SDG): 174224(MSR#06-1371),174346(MSR#06-1375)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Samples 174346016 and 174346017 were scanned into the batch prior to analysis, but the event did not save due to a computer network error. Custody of the samples was maintained at all times.	1. Reporting results.

Originator's Name:

John Parker 24-OCT-06

Data Validator/Group Leader:

Lesley Anderson 25-OCT-06

Quality Review:

Director:

General Engineering Laboratories
Form GEL-NCR
Rev. 06/05

NCR Report No.: 375329
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-OCT-06	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE EML HASL-300, Tc-02-RC Modified	Solid	YANK
Batch ID:	**Sample Numbers:**		
580727	See Below		

Potentially affected work order(s)(SDG): 174346(MSR#06-1375)

Application Issues:

Container scanning event for custody missed

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The analyst did not scan the samples 174346016 and 174346017 into the batch prior to analysis, however the samples did remain in their custody at all times.	1. The error has been corrected and the analyst has been instructed on the proper scanning procedures. Reporting results.

Originator's Name:
Melanie Aycock 24-OCT-06

Data Validator/Group Leader:
Lesley Anderson 25-OCT-06

Quality Review:

Director:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#06-1375 GEL Work Order: 174346

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

UI Gamma Spectroscopy--Uncertain identification

ND The analyte concentration is not detected above the detection limit.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: October 26, 2006

Client Sample ID:	9520-0004-001F	Project:	YANK01204
Sample ID:	174346001	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	7.09%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.739	+/-0.156	0.0576	+/-0.156	0.122	pCi/g		MJH1	10/25/06	0558	581675	1
Americium-241	U	-0.00139	+/-0.0236	0.0218	+/-0.0236	0.0449	pCi/g						
Bismuth-212		0.368	+/-0.265	0.125	+/-0.265	0.263	pCi/g						
Bismuth-214		0.442	+/-0.0807	0.0313	+/-0.0807	0.0656	pCi/g						
Cesium-134	UI	0.00	+/-0.0441	0.0205	+/-0.0441	0.043	pCi/g						
Cesium-137	U	0.0319	+/-0.0333	0.0169	+/-0.0333	0.0355	pCi/g						
Cobalt-60	U	-0.00636	+/-0.0198	0.0162	+/-0.0198	0.035	pCi/g						
Europium-152	U	0.00386	+/-0.0449	0.0394	+/-0.0449	0.082	pCi/g						
Europium-154	U	0.0267	+/-0.0569	0.0505	+/-0.0569	0.108	pCi/g						
Europium-155	U	0.0194	+/-0.0412	0.0371	+/-0.0412	0.0763	pCi/g						
Lead-212		0.412	+/-0.0541	0.0308	+/-0.0541	0.063	pCi/g						
Lead-214		0.499	+/-0.0827	0.0277	+/-0.0827	0.0577	pCi/g						
Manganese-54	U	0.00185	+/-0.0195	0.0166	+/-0.0195	0.0351	pCi/g						
Niobium-94	U	-0.00452	+/-0.0184	0.0158	+/-0.0184	0.0331	pCi/g						
Potassium-40		6.70	+/-0.609	0.134	+/-0.609	0.295	pCi/g						
Radium-226		0.442	+/-0.0807	0.0313	+/-0.0807	0.0656	pCi/g						
Silver-108m	U	0.00712	+/-0.0152	0.0142	+/-0.0152	0.0297	pCi/g						
Thallium-208		0.183	+/-0.0403	0.0157	+/-0.0403	0.033	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

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2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-001F
Sample ID: 174346001
Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-002F	Project:	YANK01204
Sample ID:	174346002	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	11.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.705	+/-0.115	0.0446	+/-0.115	0.0958	pCi/g		MJH1	10/25/06	0558	581675	1
Americium-241	U	-0.00449	+/-0.0191	0.0171	+/-0.0191	0.0351	pCi/g						
Bismuth-212		0.415	+/-0.202	0.0987	+/-0.202	0.210	pCi/g						
Bismuth-214		0.516	+/-0.0683	0.0233	+/-0.0683	0.0493	pCi/g						
Cesium-134	UI	0.00	+/-0.0252	0.0186	+/-0.0252	0.0392	pCi/g						
Cesium-137		0.0285	+/-0.0248	0.013	+/-0.0248	0.0277	pCi/g						
Cobalt-60	U	0.00116	+/-0.0165	0.014	+/-0.0165	0.0306	pCi/g						
Europium-152	U	-0.0116	+/-0.0374	0.0316	+/-0.0374	0.0662	pCi/g						
Europium-154	U	0.0159	+/-0.0528	0.046	+/-0.0528	0.099	pCi/g						
Europium-155	U	0.0474	+/-0.0465	0.0285	+/-0.0465	0.0588	pCi/g						
Lead-212		0.602	+/-0.0423	0.0183	+/-0.0423	0.038	pCi/g						
Lead-214		0.514	+/-0.0599	0.0222	+/-0.0599	0.0465	pCi/g						
Manganese-54	U	-0.0113	+/-0.0161	0.0128	+/-0.0161	0.0273	pCi/g						
Niobium-94	U	-0.00754	+/-0.0148	0.0122	+/-0.0148	0.0259	pCi/g						
Potassium-40		10.1	+/-0.710	0.111	+/-0.710	0.248	pCi/g						
Radium-226		0.516	+/-0.0683	0.0233	+/-0.0683	0.0493	pCi/g						
Silver-108m	U	-0.0114	+/-0.0123	0.0105	+/-0.0123	0.0221	pCi/g						
Thallium-208		0.228	+/-0.0372	0.0121	+/-0.0372	0.0256	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-002F
Sample ID: 174346002
Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-003F	Project:	YANK01204
Sample ID:	174346003	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	9.6%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.620	+/-0.118	0.0419	+/-0.118	0.0897	pCi/g		MJH1	10/25/06	0559	581675	1
Americium-241	U	0.0292	+/-0.0425	0.0395	+/-0.0425	0.0813	pCi/g						
Bismuth-212		0.431	+/-0.219	0.0753	+/-0.219	0.162	pCi/g						
Bismuth-214		0.555	+/-0.075	0.0217	+/-0.075	0.0459	pCi/g						
Cesium-134	UI	0.00	+/-0.0317	0.0166	+/-0.0317	0.0349	pCi/g						
Cesium-137		0.0394	+/-0.0234	0.0117	+/-0.0234	0.0248	pCi/g						
Cobalt-60	U	0.00486	+/-0.0149	0.0133	+/-0.0149	0.0288	pCi/g						
Europium-152	U	-0.0173	+/-0.0331	0.0279	+/-0.0331	0.0587	pCi/g						
Europium-154	U	0.0481	+/-0.0474	0.0375	+/-0.0474	0.0811	pCi/g						
Europium-155	U	0.0561	+/-0.0466	0.0327	+/-0.0466	0.0675	pCi/g						
Lead-212		0.686	+/-0.0666	0.0192	+/-0.0666	0.0396	pCi/g						
Lead-214		0.586	+/-0.0796	0.0202	+/-0.0796	0.0424	pCi/g						
Manganese-54	U	0.010	+/-0.0147	0.0132	+/-0.0147	0.028	pCi/g						
Niobium-94	U	0.0064	+/-0.0126	0.0114	+/-0.0126	0.0242	pCi/g						
Potassium-40		11.5	+/-0.967	0.0792	+/-0.967	0.181	pCi/g						
Radium-226		0.555	+/-0.075	0.0217	+/-0.075	0.0459	pCi/g						
Silver-108m	U	0.000306	+/-0.011	0.0094	+/-0.011	0.0199	pCi/g						
Thallium-208		0.235	+/-0.0374	0.0116	+/-0.0374	0.0245	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

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< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520–0004–003F
Sample ID: 174346003

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol–condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy––Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/–RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-004F	Project:	YANK01204
Sample ID:	174346004	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.788	+/-0.149	0.0662	+/-0.149	0.142	pCi/g		MJH1	10/25/06	0559	581675	1
Americium-241	U	-0.00523	+/-0.0272	0.0257	+/-0.0272	0.0527	pCi/g						
Bismuth-212		0.768	+/-0.257	0.135	+/-0.257	0.288	pCi/g						
Bismuth-214		0.618	+/-0.104	0.0335	+/-0.104	0.0709	pCi/g						
Cesium-134	U	0.0503	+/-0.0402	0.0243	+/-0.0402	0.0512	pCi/g						
Cesium-137		0.0592	+/-0.0259	0.0175	+/-0.0259	0.0373	pCi/g						
Cobalt-60	U	0.00448	+/-0.0223	0.0194	+/-0.0223	0.0423	pCi/g						
Europium-152	U	0.0389	+/-0.0493	0.0464	+/-0.0493	0.0969	pCi/g						
Europium-154	U	0.00465	+/-0.0747	0.064	+/-0.0747	0.138	pCi/g						
Europium-155	U	-0.0157	+/-0.0502	0.0407	+/-0.0502	0.0839	pCi/g						
Lead-212		0.715	+/-0.053	0.0232	+/-0.053	0.0483	pCi/g						
Lead-214		0.634	+/-0.0789	0.0302	+/-0.0789	0.0633	pCi/g						
Manganese-54	U	0.00405	+/-0.021	0.0179	+/-0.021	0.0383	pCi/g						
Niobium-94	U	-0.0127	+/-0.0199	0.0161	+/-0.0199	0.0343	pCi/g						
Potassium-40		12.0	+/-0.844	0.137	+/-0.844	0.310	pCi/g						
Radium-226		0.618	+/-0.104	0.0335	+/-0.104	0.0709	pCi/g						
Silver-108m	U	-0.00335	+/-0.0201	0.0155	+/-0.0201	0.0327	pCi/g						
Thallium-208		0.187	+/-0.0449	0.0199	+/-0.0449	0.0418	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
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< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520–0004–004F
Sample ID: 174346004
Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol–condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy––Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/–RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-004FS	Project:	YANK01204
Sample ID:	174346005	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	10.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.768	+/-0.154	0.0486	+/-0.154	0.0971	pCi/g		MJH1	10/25/06	0615	581675	1
Americium-241	U	0.0871	+/-0.0747	0.0616	+/-0.0747	0.123	pCi/g						
Bismuth-212		0.296	+/-0.241	0.103	+/-0.241	0.206	pCi/g						
Bismuth-214		0.563	+/-0.0819	0.0277	+/-0.0819	0.0553	pCi/g						
Cesium-134	U	0.0308	+/-0.0227	0.0178	+/-0.0227	0.0356	pCi/g						
Cesium-137	U	0.0276	+/-0.0305	0.0154	+/-0.0305	0.0308	pCi/g						
Cobalt-60	U	-0.0166	+/-0.0205	0.0145	+/-0.0205	0.029	pCi/g						
Europium-152	U	0.0267	+/-0.0737	0.0404	+/-0.0737	0.0808	pCi/g						
Europium-154	U	-0.0305	+/-0.0534	0.0431	+/-0.0534	0.0861	pCi/g						
Europium-155	U	0.0289	+/-0.0567	0.0429	+/-0.0567	0.0857	pCi/g						
Lead-212		0.656	+/-0.0732	0.0228	+/-0.0732	0.0456	pCi/g						
Lead-214		0.574	+/-0.0867	0.028	+/-0.0867	0.0559	pCi/g						
Manganese-54	U	0.00962	+/-0.0179	0.0163	+/-0.0179	0.0326	pCi/g						
Niobium-94	U	0.0124	+/-0.0154	0.0138	+/-0.0154	0.0276	pCi/g						
Potassium-40		11.8	+/-0.986	0.124	+/-0.986	0.247	pCi/g						
Radium-226		0.563	+/-0.0819	0.0277	+/-0.0819	0.0553	pCi/g						
Silver-108m	U	0.00248	+/-0.0173	0.0134	+/-0.0173	0.0268	pCi/g						
Thallium-208		0.253	+/-0.0365	0.0129	+/-0.0365	0.0258	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

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< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-004FS Project: YANK01204
Sample ID: 174346005 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-005F	Project:	YANK01204
Sample ID:	174346006	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	5.69%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived												
Actinium-228		0.583	+/-0.159	0.0558	+/-0.159	0.112	pCi/g		MJH1	10/25/06 0617	581675	1
Americium-241	U	0.0239	+/-0.0257	0.0216	+/-0.0257	0.0431	pCi/g					
Bismuth-212		0.516	+/-0.216	0.135	+/-0.216	0.269	pCi/g					
Bismuth-214		0.346	+/-0.0895	0.0284	+/-0.0895	0.0568	pCi/g					
Cesium-134	U	0.0141	+/-0.021	0.0194	+/-0.021	0.0389	pCi/g					
Cesium-137		0.0315	+/-0.0271	0.014	+/-0.0271	0.0279	pCi/g					
Cobalt-60	U	-0.00296	+/-0.0225	0.0185	+/-0.0225	0.037	pCi/g					
Europium-152	U	-0.0245	+/-0.0611	0.0392	+/-0.0611	0.0784	pCi/g					
Europium-154	U	-0.00234	+/-0.0554	0.0463	+/-0.0554	0.0925	pCi/g					
Europium-155	U	-0.00765	+/-0.0393	0.0349	+/-0.0393	0.0698	pCi/g					
Lead-212		0.415	+/-0.0569	0.0226	+/-0.0569	0.0451	pCi/g					
Lead-214		0.394	+/-0.0777	0.0289	+/-0.0777	0.0577	pCi/g					
Manganese-54	U	-0.00317	+/-0.0198	0.017	+/-0.0198	0.034	pCi/g					
Niobium-94	U	-0.00408	+/-0.0183	0.0159	+/-0.0183	0.0317	pCi/g					
Potassium-40		5.67	+/-0.740	0.186	+/-0.740	0.371	pCi/g					
Radium-226		0.346	+/-0.0895	0.0284	+/-0.0895	0.0568	pCi/g					
Silver-108m	U	-0.0201	+/-0.0177	0.0143	+/-0.0177	0.0285	pCi/g					
Thallium-208		0.134	+/-0.0452	0.017	+/-0.0452	0.0341	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-005F
Sample ID: 174346006

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

GENERAL ENGINEERING LABORATORIES, LLC
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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-006F	Project:	YANK01204
Sample ID:	174346007	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	6.74%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.201	+/-0.111	0.0431	+/-0.111	0.0945	pCi/g		MJH1	10/25/06	1008	581675	1
Americium-241	U	0.0098	+/-0.018	0.0172	+/-0.018	0.0356	pCi/g						
Bismuth-212		0.400	+/-0.208	0.104	+/-0.208	0.225	pCi/g						
Bismuth-214		0.172	+/-0.0787	0.0267	+/-0.0787	0.0568	pCi/g						
Cesium-134	U	0.0225	+/-0.0168	0.016	+/-0.0168	0.0345	pCi/g						
Cesium-137	U	-0.00959	+/-0.0156	0.0126	+/-0.0156	0.0273	pCi/g						
Cobalt-60	U	0.0128	+/-0.0173	0.016	+/-0.0173	0.0352	pCi/g						
Europium-152	U	-0.0385	+/-0.0352	0.0295	+/-0.0352	0.0627	pCi/g						
Europium-154	U	0.000208	+/-0.040	0.0342	+/-0.040	0.077	pCi/g						
Europium-155	U	0.0122	+/-0.0329	0.0305	+/-0.0329	0.0632	pCi/g						
Lead-212		0.290	+/-0.045	0.0214	+/-0.045	0.0444	pCi/g						
Lead-214		0.295	+/-0.0602	0.0236	+/-0.0602	0.0499	pCi/g						
Manganese-54	U	-0.009	+/-0.0145	0.0113	+/-0.0145	0.0248	pCi/g						
Niobium-94	U	-0.00189	+/-0.0142	0.012	+/-0.0142	0.0257	pCi/g						
Potassium-40		5.07	+/-0.565	0.117	+/-0.565	0.265	pCi/g						
Radium-226		0.172	+/-0.0787	0.0267	+/-0.0787	0.0568	pCi/g						
Silver-108m	U	0.00924	+/-0.0133	0.0123	+/-0.0133	0.0261	pCi/g						
Thallium-208		0.0915	+/-0.0285	0.0142	+/-0.0285	0.0303	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-006F
Sample ID: 174346007
Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-007F	Project:	YANK01204
Sample ID:	174346008	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	6.68%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth													
Waived													
Actinium-228		0.594	+/-0.155	0.052	+/-0.155	0.113	pCi/g		MJH1	10/25/06	1009	581675	1
Americium-241	U	-0.0438	+/-0.0864	0.0676	+/-0.0864	0.140	pCi/g						
Bismuth-212		0.308	+/-0.213	0.104	+/-0.213	0.226	pCi/g						
Bismuth-214		0.482	+/-0.0862	0.0298	+/-0.0862	0.0632	pCi/g						
Cesium-134	UI	0.00	+/-0.0298	0.0158	+/-0.0298	0.0341	pCi/g						
Cesium-137	U	0.0322	+/-0.0276	0.0159	+/-0.0276	0.0339	pCi/g						
Cobalt-60		0.0742	+/-0.0396	0.0139	+/-0.0396	0.0311	pCi/g						
Europium-152	U	-0.0126	+/-0.0541	0.0457	+/-0.0541	0.0955	pCi/g						
Europium-154	U	0.0227	+/-0.0514	0.0465	+/-0.0514	0.102	pCi/g						
Europium-155	U	0.0643	+/-0.0718	0.0408	+/-0.0718	0.0845	pCi/g						
Lead-212		0.534	+/-0.0555	0.0265	+/-0.0555	0.0548	pCi/g						
Lead-214		0.515	+/-0.0809	0.0308	+/-0.0809	0.0646	pCi/g						
Manganese-54	U	0.00797	+/-0.0188	0.0165	+/-0.0188	0.0353	pCi/g						
Niobium-94	U	0.00862	+/-0.0173	0.0155	+/-0.0173	0.0329	pCi/g						
Potassium-40		8.81	+/-0.744	0.158	+/-0.744	0.350	pCi/g						
Radium-226		0.482	+/-0.0862	0.0298	+/-0.0862	0.0632	pCi/g						
Silver-108m	U	0.0158	+/-0.0164	0.0147	+/-0.0164	0.031	pCi/g						
Thallium-208		0.194	+/-0.0365	0.0149	+/-0.0365	0.0317	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-007F
Sample ID: 174346008
Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-008F	Project:	YANK01204
Sample ID:	174346009	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	9.52%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth													
Waived													
Actinium-228		0.682	+/-0.113	0.0383	+/-0.113	0.0834	pCi/g		MJH1	10/25/06	1010	581675	1
Americium-241	U	0.0423	+/-0.0766	0.064	+/-0.0766	0.132	pCi/g						
Bismuth-212		0.247	+/-0.169	0.112	+/-0.169	0.237	pCi/g						
Bismuth-214		0.536	+/-0.0639	0.0236	+/-0.0639	0.0502	pCi/g						
Cesium-134	UI	0.00	+/-0.0246	0.0153	+/-0.0246	0.0327	pCi/g						
Cesium-137		0.052	+/-0.0256	0.0141	+/-0.0256	0.0299	pCi/g						
Cobalt-60	U	0.000583	+/-0.0157	0.0134	+/-0.0157	0.0295	pCi/g						
Europium-152	U	-0.0226	+/-0.0399	0.0331	+/-0.0399	0.0693	pCi/g						
Europium-154	U	0.00152	+/-0.0502	0.0375	+/-0.0502	0.0822	pCi/g						
Europium-155	U	0.0216	+/-0.0431	0.0414	+/-0.0431	0.0853	pCi/g						
Lead-212		0.661	+/-0.046	0.0186	+/-0.046	0.0387	pCi/g						
Lead-214		0.647	+/-0.0698	0.0252	+/-0.0698	0.0527	pCi/g						
Manganese-54	U	0.00618	+/-0.0161	0.0141	+/-0.0161	0.030	pCi/g						
Niobium-94	U	0.00581	+/-0.0143	0.0128	+/-0.0143	0.027	pCi/g						
Potassium-40		10.2	+/-0.674	0.104	+/-0.674	0.234	pCi/g						
Radium-226		0.536	+/-0.0639	0.0236	+/-0.0639	0.0502	pCi/g						
Silver-108m	U	0.00526	+/-0.0129	0.0119	+/-0.0129	0.0251	pCi/g						
Thallium-208		0.240	+/-0.0343	0.0132	+/-0.0343	0.028	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-008F
Sample ID: 174346009

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-009F	Project:	YANK01204
Sample ID:	174346010	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	11.9%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth													
Waived													
Actinium-228		0.719	+/-0.130	0.0454	+/-0.130	0.0972	pCi/g		MJH1	10/25/06	1011	581675	1
Americium-241	U	0.0133	+/-0.0632	0.061	+/-0.0632	0.126	pCi/g						
Bismuth-212		0.376	+/-0.187	0.0979	+/-0.187	0.208	pCi/g						
Bismuth-214		0.458	+/-0.0625	0.0257	+/-0.0625	0.054	pCi/g						
Cesium-134	U	0.0229	+/-0.0199	0.0164	+/-0.0199	0.0346	pCi/g						
Cesium-137		0.0411	+/-0.0229	0.0117	+/-0.0229	0.0249	pCi/g						
Cobalt-60	U	0.00299	+/-0.0133	0.0116	+/-0.0133	0.0255	pCi/g						
Europium-152	U	-0.0231	+/-0.038	0.0335	+/-0.038	0.070	pCi/g						
Europium-154	U	-0.0303	+/-0.0517	0.0414	+/-0.0517	0.0894	pCi/g						
Europium-155	U	0.0252	+/-0.0567	0.0397	+/-0.0567	0.0817	pCi/g						
Lead-212		0.619	+/-0.0481	0.0202	+/-0.0481	0.0418	pCi/g						
Lead-214		0.509	+/-0.0661	0.0261	+/-0.0661	0.0544	pCi/g						
Manganese-54	U	0.00382	+/-0.0145	0.0131	+/-0.0145	0.0279	pCi/g						
Niobium-94	U	0.0054	+/-0.0149	0.013	+/-0.0149	0.0274	pCi/g						
Potassium-40		10.4	+/-0.664	0.128	+/-0.664	0.281	pCi/g						
Radium-226		0.458	+/-0.0625	0.0257	+/-0.0625	0.054	pCi/g						
Silver-108m	U	-0.000387	+/-0.0132	0.0117	+/-0.0132	0.0246	pCi/g						
Thallium-208		0.205	+/-0.0331	0.0148	+/-0.0331	0.031	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

GENERAL ENGINEERING LABORATORIES, LLC
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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-009F
Sample ID: 174346010

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: October 26, 2006

Client Sample ID:	9520-0004-010F	Project:	YANK01204
Sample ID:	174346011	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.655	+/-0.134	0.0451	+/-0.134	0.0968	pCi/g		MJH1	10/25/06	1012	581675	1
Americium-241	U	-0.0109	+/-0.115	0.0936	+/-0.115	0.192	pCi/g						
Bismuth-212		0.487	+/-0.196	0.112	+/-0.196	0.236	pCi/g						
Bismuth-214		0.609	+/-0.0907	0.0262	+/-0.0907	0.0552	pCi/g						
Cesium-134	UI	0.00	+/-0.0259	0.0175	+/-0.0259	0.037	pCi/g						
Cesium-137		0.0346	+/-0.0285	0.0148	+/-0.0285	0.0313	pCi/g						
Cobalt-60	U	-0.0151	+/-0.0179	0.0142	+/-0.0179	0.0309	pCi/g						
Europium-152	U	-0.0136	+/-0.0429	0.0372	+/-0.0429	0.0776	pCi/g						
Europium-154	U	-0.0331	+/-0.0518	0.0423	+/-0.0518	0.0915	pCi/g						
Europium-155	U	0.0469	+/-0.0531	0.0486	+/-0.0531	0.0995	pCi/g						
Lead-212		0.685	+/-0.0727	0.0223	+/-0.0727	0.0461	pCi/g						
Lead-214		0.624	+/-0.0913	0.0264	+/-0.0913	0.0551	pCi/g						
Manganese-54	U	0.0222	+/-0.0232	0.0144	+/-0.0232	0.0306	pCi/g						
Niobium-94	U	0.0081	+/-0.0151	0.0137	+/-0.0151	0.0289	pCi/g						
Potassium-40		11.2	+/-1.03	0.119	+/-1.03	0.264	pCi/g						
Radium-226		0.609	+/-0.0907	0.0262	+/-0.0907	0.0552	pCi/g						
Silver-108m	U	0.00352	+/-0.0145	0.0127	+/-0.0145	0.0266	pCi/g						
Thallium-208		0.236	+/-0.0392	0.0139	+/-0.0392	0.0294	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

GENERAL ENGINEERING LABORATORIES, LLC
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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-010F
Sample ID: 174346011
Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-012F	Project:	YANK01204
Sample ID:	174346012	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	12.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.744	+/-0.130	0.0557	+/-0.130	0.119	pCi/g		MJH1	10/25/06	1013	581675	1
Americium-241	U	-0.0169	+/-0.0928	0.0759	+/-0.0928	0.155	pCi/g						
Bismuth-212		0.601	+/-0.245	0.115	+/-0.245	0.245	pCi/g						
Bismuth-214		0.509	+/-0.0855	0.0298	+/-0.0855	0.0626	pCi/g						
Cesium-134	U	0.0405	+/-0.0248	0.0205	+/-0.0248	0.043	pCi/g						
Cesium-137		0.120	+/-0.0368	0.0168	+/-0.0368	0.0355	pCi/g						
Cobalt-60	U	0.00371	+/-0.0185	0.0156	+/-0.0185	0.0341	pCi/g						
Europium-152	U	-0.00568	+/-0.0505	0.0431	+/-0.0505	0.0896	pCi/g						
Europium-154	U	-0.00834	+/-0.0586	0.0479	+/-0.0586	0.104	pCi/g						
Europium-155	U	0.0318	+/-0.0533	0.0494	+/-0.0533	0.102	pCi/g						
Lead-212		0.820	+/-0.0556	0.026	+/-0.0556	0.0535	pCi/g						
Lead-214		0.560	+/-0.0789	0.0306	+/-0.0789	0.0638	pCi/g						
Manganese-54	U	0.00744	+/-0.0165	0.0151	+/-0.0165	0.0321	pCi/g						
Niobium-94	U	-0.000455	+/-0.0164	0.0142	+/-0.0164	0.030	pCi/g						
Potassium-40		11.7	+/-0.752	0.127	+/-0.752	0.283	pCi/g						
Radium-226		0.509	+/-0.0855	0.0298	+/-0.0855	0.0626	pCi/g						
Silver-108m	U	-0.00461	+/-0.0176	0.0146	+/-0.0176	0.0306	pCi/g						
Thallium-208		0.261	+/-0.0365	0.0164	+/-0.0365	0.0345	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-012F Project: YANK01204
Sample ID: 174346012 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-012FS	Project:	YANK01204
Sample ID:	174346013	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	14.3%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.813	+/-0.208	0.0841	+/-0.208	0.179	pCi/g		MJH1	10/25/06	1014	581675	1
Americium-241	U	0.0152	+/-0.0441	0.0316	+/-0.0441	0.0648	pCi/g						
Bismuth-212	UI	0.00	+/-0.409	0.188	+/-0.409	0.396	pCi/g						
Bismuth-214		0.589	+/-0.114	0.0456	+/-0.114	0.0957	pCi/g						
Cesium-134	U	0.0308	+/-0.0368	0.0319	+/-0.0368	0.0669	pCi/g						
Cesium-137		0.155	+/-0.0471	0.028	+/-0.0471	0.0585	pCi/g						
Cobalt-60	U	0.00188	+/-0.0314	0.0261	+/-0.0314	0.0562	pCi/g						
Europium-152	U	0.0408	+/-0.0718	0.0608	+/-0.0718	0.127	pCi/g						
Europium-154	U	0.0205	+/-0.0863	0.0733	+/-0.0863	0.158	pCi/g						
Europium-155	U	0.0557	+/-0.0623	0.0523	+/-0.0623	0.108	pCi/g						
Lead-212		0.670	+/-0.0889	0.0425	+/-0.0889	0.0871	pCi/g						
Lead-214		0.609	+/-0.107	0.0439	+/-0.107	0.0913	pCi/g						
Manganese-54	U	0.0278	+/-0.0302	0.0264	+/-0.0302	0.0555	pCi/g						
Niobium-94	U	-0.0271	+/-0.0286	0.0223	+/-0.0286	0.047	pCi/g						
Potassium-40		12.6	+/-0.969	0.234	+/-0.969	0.509	pCi/g						
Radium-226		0.589	+/-0.114	0.0456	+/-0.114	0.0957	pCi/g						
Silver-108m	U	-0.00641	+/-0.0239	0.0204	+/-0.0239	0.0427	pCi/g						
Thallium-208		0.285	+/-0.0664	0.0231	+/-0.0664	0.0486	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520–0004–012FS
Sample ID: 174346013
Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol–condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy––Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/–RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-013F	Project:	YANK01204
Sample ID:	174346014	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	12.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd
Rad Gamma Spec Analysis												
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived												
Actinium-228		0.794	+/-0.135	0.0528	+/-0.135	0.112	pCi/g		MJH1	10/25/06 1015	581675	1
Americium-241	U	0.00918	+/-0.0219	0.0199	+/-0.0219	0.0407	pCi/g					
Bismuth-212		0.739	+/-0.260	0.103	+/-0.260	0.218	pCi/g					
Bismuth-214		0.671	+/-0.070	0.0241	+/-0.070	0.051	pCi/g					
Cesium-134	UI	0.00	+/-0.0267	0.0196	+/-0.0267	0.0411	pCi/g					
Cesium-137		0.0737	+/-0.0222	0.014	+/-0.0222	0.0296	pCi/g					
Cobalt-60	U	0.00633	+/-0.0186	0.0162	+/-0.0186	0.035	pCi/g					
Europium-152	U	0.00313	+/-0.0424	0.0365	+/-0.0424	0.0759	pCi/g					
Europium-154	U	-0.00984	+/-0.0545	0.0453	+/-0.0545	0.0976	pCi/g					
Europium-155	U	0.0304	+/-0.0325	0.0318	+/-0.0325	0.0653	pCi/g					
Lead-212		0.798	+/-0.046	0.018	+/-0.046	0.0373	pCi/g					
Lead-214		0.734	+/-0.0676	0.0241	+/-0.0676	0.0504	pCi/g					
Manganese-54	U	0.00425	+/-0.0163	0.014	+/-0.0163	0.0298	pCi/g					
Niobium-94	U	-0.00114	+/-0.015	0.0128	+/-0.015	0.0271	pCi/g					
Potassium-40		12.4	+/-0.735	0.119	+/-0.735	0.265	pCi/g					
Radium-226		0.671	+/-0.070	0.0241	+/-0.070	0.051	pCi/g					
Silver-108m	U	0.0115	+/-0.0131	0.0116	+/-0.0131	0.0244	pCi/g					
Thallium-208		0.265	+/-0.0356	0.0129	+/-0.0356	0.0273	pCi/g					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-013F
Sample ID: 174346014
Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-015F	Project:	YANK01204
Sample ID:	174346015	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	11%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.622	+/-0.132	0.043	+/-0.132	0.092	pCi/g		MJH1	10/25/06	1016	581675	1
Americium-241	U	-0.0107	+/-0.046	0.0409	+/-0.046	0.0841	pCi/g						
Bismuth-212		0.410	+/-0.233	0.0902	+/-0.233	0.192	pCi/g						
Bismuth-214		0.620	+/-0.0854	0.0219	+/-0.0854	0.0463	pCi/g						
Cesium-134	UI	0.00	+/-0.0291	0.018	+/-0.0291	0.0378	pCi/g						
Cesium-137		0.0571	+/-0.0242	0.0118	+/-0.0242	0.025	pCi/g						
Cobalt-60	U	0.00144	+/-0.0144	0.0125	+/-0.0144	0.0273	pCi/g						
Europium-152	U	-0.00125	+/-0.0358	0.0311	+/-0.0358	0.0651	pCi/g						
Europium-154	U	0.0208	+/-0.044	0.0397	+/-0.044	0.0856	pCi/g						
Europium-155	U	0.0414	+/-0.039	0.0351	+/-0.039	0.0723	pCi/g						
Lead-212		0.791	+/-0.0746	0.0177	+/-0.0746	0.0367	pCi/g						
Lead-214		0.618	+/-0.0803	0.0218	+/-0.0803	0.0457	pCi/g						
Manganese-54	U	-0.01	+/-0.0152	0.0124	+/-0.0152	0.0263	pCi/g						
Niobium-94	U	0.00883	+/-0.0161	0.0117	+/-0.0161	0.0247	pCi/g						
Potassium-40		11.3	+/-0.949	0.113	+/-0.949	0.248	pCi/g						
Radium-226		0.620	+/-0.0854	0.0219	+/-0.0854	0.0463	pCi/g						
Silver-108m	U	0.00184	+/-0.0127	0.0109	+/-0.0127	0.023	pCi/g						
Thallium-208		0.221	+/-0.0376	0.0119	+/-0.0376	0.0252	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
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< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-015F Project: YANK01204
Sample ID: 174346015 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-011F	Project:	YANK01204
Sample ID:	174346016	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	12.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium-241	U	-0.00633	+/-0.0183	0.0276	+/-0.0183	0.139	pCi/g	1	MXA1	10/23/06	1039	580396	1
Curium-242	U	0.00	+/-0.063	0.00	+/-0.063	0.0871	pCi/g						
Curium-243/244	U	-0.0148	+/-0.0637	0.039	+/-0.0637	0.161	pCi/g						
Alphaspec Pu, Solid-ALL FSS													
Plutonium-238	U	-0.0277	+/-0.0713	0.0763	+/-0.0713	0.234	pCi/g	1	MXA1	10/20/06	0813	580398	3
Plutonium-239/240	U	-0.065	+/-0.0424	0.081	+/-0.043	0.243	pCi/g						
Liquid Scint Pu241, Solid-ALL FSS													
Plutonium-241	U	-4.84	+/-6.28	5.48	+/-6.28	11.5	pCi/g	1	MXA1	10/21/06	1753	580400	4
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.656	+/-0.161	0.0626	+/-0.161	0.134	pCi/g		MJH1	10/25/06	1017	581675	5
Americium-241	U	0.00419	+/-0.0293	0.0256	+/-0.0293	0.0526	pCi/g						
Bismuth-212		0.534	+/-0.200	0.135	+/-0.200	0.286	pCi/g						
Bismuth-214		0.611	+/-0.0923	0.0305	+/-0.0923	0.0645	pCi/g						
Cesium-134	U	0.0223	+/-0.033	0.022	+/-0.033	0.0465	pCi/g						
Cesium-137		0.0569	+/-0.0404	0.0184	+/-0.0404	0.0388	pCi/g						
Cobalt-60	U	0.00854	+/-0.021	0.0187	+/-0.021	0.0406	pCi/g						
Europium-152	U	0.00571	+/-0.0432	0.0399	+/-0.0432	0.0835	pCi/g						
Europium-154	U	-0.0175	+/-0.0617	0.0512	+/-0.0617	0.111	pCi/g						
Europium-155	UI	0.00	+/-0.0582	0.0377	+/-0.0582	0.0776	pCi/g						
Lead-212		0.723	+/-0.0499	0.0213	+/-0.0499	0.0442	pCi/g						
Lead-214		0.566	+/-0.0755	0.0309	+/-0.0755	0.0644	pCi/g						
Manganese-54	U	0.0103	+/-0.0203	0.0179	+/-0.0203	0.0381	pCi/g						
Niobium-94	U	0.00709	+/-0.0197	0.0174	+/-0.0197	0.0366	pCi/g						
Potassium-40		11.1	+/-0.828	0.135	+/-0.828	0.303	pCi/g						
Radium-226		0.611	+/-0.0923	0.0305	+/-0.0923	0.0645	pCi/g						
Silver-108m	U	0.00105	+/-0.016	0.0145	+/-0.016	0.0304	pCi/g						
Thallium-208		0.208	+/-0.0441	0.0179	+/-0.0441	0.0377	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	0.00719	+/-0.020	0.0158	+/-0.020	0.0366	pCi/g		KSD1	10/20/06	1940	580488	6
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-011F
Sample ID: 174346016
Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium	U	9.05	+/-6.30	4.74	+/-6.30	10.2	pCi/g		DFA1	10/24/06	1251	580729	7
Liquid Scint C14, Solid All,FSS													
Carbon-14	U	-0.0717	+/-0.110	0.0937	+/-0.110	0.191	pCi/g		AXD2	10/20/06	0318	580730	9
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55	U	-8.85	+/-31.2	23.2	+/-31.2	48.8	pCi/g		MXP1	10/23/06	0139	580395	10
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	-4.14	+/-13.7	11.7	+/-13.7	24.5	pCi/g		MXP1	10/22/06	2125	580397	11
Liquid Scint Tc99, Solid-ALL FSS													
Technetium-99	U	-0.146	+/-0.233	0.201	+/-0.233	0.418	pCi/g		KXR1	10/24/06	1107	580727	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EML HASL 300, 4.5.2.3
6	EPA 905.0 Modified
7	EPA 906.0 Modified
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	93	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	102	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-ALL FS	98	(25%-125%)

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: October 26, 2006

Client Sample ID: 9520-0004-011F
Sample ID: 174346016

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd
Strontium-90		GFPC, Sr90, solid-ALL FSS			85		(25%-125%)					
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			85		(25%-125%)					
Iron-55		Liquid Scint Fe55, Solid-ALL FS			61		(15%-125%)					
Nickel-63		Liquid Scint Ni63, Solid-ALL FS			61		(25%-125%)					
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			61		(25%-125%)					
Technetium-99		Liquid Scint Tc99, Solid-ALL FS			79		(15%-125%)					
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-ALL FS			79		(15%-125%)					

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: October 26, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-014F	Project:	YANK01204
Sample ID:	174346017	Client ID:	YANK001
Matrix:	Soil	Vol. Recv.:	
Collect Date:	13-OCT-06		
Receive Date:	18-OCT-06		
Collector:	Client		
Moisture:	9.82%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium-241	U	0.123	+/-0.161	0.0922	+/-0.162	0.265	pCi/g		MXA1	10/20/06	0813	580396	1
Curium-242	U	0.00979	+/-0.0929	0.0726	+/-0.0929	0.228	pCi/g						
Curium-243/244	U	-0.0463	+/-0.118	0.116	+/-0.118	0.312	pCi/g						
Alphaspec Pu, Solid-ALL FSS													
Plutonium-238	U	0.0173	+/-0.107	0.082	+/-0.107	0.242	pCi/g		MXA1	10/20/06	0813	580398	2
Plutonium-239/240	U	0.00231	+/-0.0889	0.0734	+/-0.0889	0.225	pCi/g						
Liquid Scint Pu241, Solid-ALL FSS													
Plutonium-241	U	-5.17	+/-6.25	5.47	+/-6.25	11.5	pCi/g		MXA1	10/21/06	1809	580400	3
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.783	+/-0.107	0.0339	+/-0.107	0.0717	pCi/g		MJH1	10/25/06	1017	581675	4
Americium-241	U	0.0117	+/-0.0475	0.0455	+/-0.0475	0.0931	pCi/g						
Bismuth-212		0.426	+/-0.171	0.0788	+/-0.171	0.165	pCi/g						
Bismuth-214		0.558	+/-0.0582	0.0184	+/-0.0582	0.0384	pCi/g						
Cesium-134	U	0.0239	+/-0.0146	0.0122	+/-0.0146	0.0255	pCi/g						
Cesium-137		0.0471	+/-0.0196	0.0104	+/-0.0196	0.0218	pCi/g						
Cobalt-60	U	-0.000675	+/-0.0125	0.0104	+/-0.0125	0.0222	pCi/g						
Europium-152	U	0.00107	+/-0.0311	0.028	+/-0.0311	0.0581	pCi/g						
Europium-154	U	-0.00476	+/-0.0315	0.026	+/-0.0315	0.056	pCi/g						
Europium-155	U	-0.000381	+/-0.040	0.0367	+/-0.040	0.0752	pCi/g						
Lead-212		0.752	+/-0.0417	0.0166	+/-0.0417	0.0341	pCi/g						
Lead-214		0.631	+/-0.0656	0.020	+/-0.0656	0.0415	pCi/g						
Manganese-54	U	0.0126	+/-0.0154	0.0101	+/-0.0154	0.0213	pCi/g						
Niobium-94	U	-0.00147	+/-0.0107	0.00942	+/-0.0107	0.0197	pCi/g						
Potassium-40		11.0	+/-0.543	0.0833	+/-0.543	0.181	pCi/g						
Radium-226		0.558	+/-0.0582	0.0184	+/-0.0582	0.0384	pCi/g						
Silver-108m	U	-0.00898	+/-0.0103	0.00867	+/-0.0103	0.0181	pCi/g						
Thallium-208		0.226	+/-0.0287	0.00984	+/-0.0287	0.0206	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90	U	0.0072	+/-0.0161	0.0123	+/-0.0161	0.0295	pCi/g		KSD1	10/21/06	0850	580488	5
Rad Liquid Scintillation Analysis													

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Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: October 26, 2006

Client Sample ID: 9520-0004-014F
Sample ID: 174346017

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium	U	9.45	+/-8.24	6.34	+/-8.24	13.6	pCi/g		DFA1	10/24/06	1308	580729	6
Liquid Scint C14, Solid All,FSS													
Carbon-14	U	-0.167	+/-0.111	0.0957	+/-0.111	0.195	pCi/g		AXD2	10/20/06	0558	580730	8
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55	U	20.9	+/-33.6	24.1	+/-33.7	50.6	pCi/g		MXP1	10/23/06	0155	580395	9
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	-9.29	+/-8.76	7.77	+/-8.76	16.3	pCi/g		MXP1	10/22/06	2141	580397	10
Liquid Scint Tc99, Solid-ALL FSS													
Technetium-99	U	-0.0833	+/-0.253	0.215	+/-0.253	0.447	pCi/g		KXR1	10/24/06	1123	580727	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	10/18/06	1634	580480

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EML HASL 300, 4.5.2.3
5	EPA 905.0 Modified
6	EPA 906.0 Modified
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	91	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	105	(15%-125%)
Plutonium-241	Liquid Scint Pu241, Solid-ALL FS	99	(25%-125%)
Strontium-90	GFPC, Sr90, solid-ALL FSS	88	(25%-125%)

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Contact: Mr. Jack McCarthy
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Report Date: October 26, 2006

Client Sample ID: 9520-0004-014F
Sample ID: 174346017

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			88		(25%-125%)					
Iron-55		Liquid Scint Fe55, Solid-ALL FS			57		(15%-125%)					
Nickel-63		Liquid Scint Ni63, Solid-ALL FS			92		(25%-125%)					
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			92		(25%-125%)					
Technetium-99		Liquid Scint Tc99, Solid-ALL FS			75		(15%-125%)					
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-ALL FS			75		(15%-125%)					

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UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

QC Summary

Report Date: October 26, 2006
Page 1 of 9

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut
Contact: Mr. Jack McCarthy

Workorder: 174346

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 580396										
QC1201210038 174224006 DUP										
Americium-241	U	-0.00901	U	-0.0356	pCi/g	119		(0% - 100%)	MXA1	10/20/06 08:13
	Uncert:	+/-0.0461		+/-0.035						
	TPU:	+/-0.0461		+/-0.0352						
Curium-242	U	0.00	U	-0.0155	pCi/g	200		(0% - 100%)		
	Uncert:	+/-0.0812		+/-0.0215						
	TPU:	+/-0.0812		+/-0.0216						
Curium-243/244	U	0.00	U	-0.0556	pCi/g	200		(0% - 100%)		
	Uncert:	+/-0.0764		+/-0.123						
	TPU:	+/-0.0764		+/-0.123						
QC1201210040 LCS										
Americium-241	2.72			2.33	pCi/g		86	(75%-125%)		10/20/06 08:13
	Uncert:			+/-0.266						
	TPU:			+/-0.392						
Curium-242			U	0.00823	pCi/g					
	Uncert:			+/-0.0232						
	TPU:			+/-0.0232						
Curium-243/244	3.27			3.55	pCi/g		109	(75%-125%)		
	Uncert:			+/-0.330						
	TPU:			+/-0.549						
QC1201210037 MB										
Americium-241			U	2.200E-05	pCi/g					10/20/06 08:13
	Uncert:			+/-0.0261						
	TPU:			+/-0.0261						
Curium-242			U	0.00	pCi/g					
	Uncert:			+/-0.0134						
	TPU:			+/-0.0134						
Curium-243/244			U	-0.00919	pCi/g					
	Uncert:			+/-0.0222						
	TPU:			+/-0.0222						
QC1201210039 174224006 MS										
Americium-241	13.3 U	-0.00901		13.9	pCi/g		105	(75%-125%)		10/20/06 08:13
	Uncert:	+/-0.0461		+/-1.44						
	TPU:	+/-0.0461		+/-2.27						
Curium-242	U	0.00	U	0.0808	pCi/g					
	Uncert:	+/-0.0812		+/-0.112						
	TPU:	+/-0.0812		+/-0.112						
Curium-243/244	16.1 U	0.00		18.4	pCi/g		114	(75%-125%)		
	Uncert:	+/-0.0764		+/-1.66						
	TPU:	+/-0.0764		+/-2.87						
Batch 580398										
QC1201210046 174224006 DUP										
Plutonium-238	U	0.00905	U	0.0116	pCi/g	25		(0% - 100%)	MXA1	10/20/06 08:13

QC Summary

Workorder: 174346

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 580398										
	Uncert:	+/-0.086		+/-0.121						
	TPU:	+/-0.086		+/-0.121						
Plutonium-239/240	U	-0.0532	U	0.0814	pCi/g	955		(0% - 100%)		
	Uncert:	+/-0.0721		+/-0.112						
	TPU:	+/-0.0723		+/-0.112						
QC1201210048 LCS										
Plutonium-238			U	-0.00419	pCi/g			(75%-125%)		10/20/06 08:13
	Uncert:			+/-0.0143						
	TPU:			+/-0.0143						
Plutonium-239/240	2.51			2.38	pCi/g		95	(75%-125%)		
	Uncert:			+/-0.238						
	TPU:			+/-0.332						
QC1201210045 MB										
Plutonium-238			U	-0.0118	pCi/g					10/20/06 08:13
	Uncert:			+/-0.018						
	TPU:			+/-0.018						
Plutonium-239/240			U	-0.00516	pCi/g					
	Uncert:			+/-0.00584						
	TPU:			+/-0.00586						
QC1201210047 174224006 MS										
Plutonium-238	U	0.00905	U	-0.0482	pCi/g			(75%-125%)		
	Uncert:	+/-0.086		+/-0.0653						
	TPU:	+/-0.086		+/-0.0654						
Plutonium-239/240	12.3 U	-0.0532		15.4	pCi/g		125	(75%-125%)		
	Uncert:	+/-0.0721		+/-1.23						
	TPU:	+/-0.0723		+/-1.94						
Batch 580400										
QC1201210054 174224006 DUP										
Plutonium-241	U	-4.06	U	-1.47	pCi/g	0		(0% - 100%)	MXA1	10/21/06 18:42
	Uncert:	+/-7.84		+/-6.92						
	TPU:	+/-7.84		+/-6.92						
QC1201210056 LCS										
Plutonium-241	35.9			35.5	pCi/g		99	(75%-125%)		10/21/06 19:14
	Uncert:			+/-3.19						
	TPU:			+/-4.69						
QC1201210053 MB										
Plutonium-241			U	-0.233	pCi/g					10/21/06 18:26
	Uncert:			+/-1.77						
	TPU:			+/-1.77						
QC1201210055 174224006 MS										
Plutonium-241	143 U	-4.06		124	pCi/g		86	(75%-125%)		10/21/06 18:58
	Uncert:	+/-7.84		+/-11.4						
	TPU:	+/-7.84		+/-16.4						
Rad Gamma Spec										
Batch 581675										
QC1201213158 174346001 DUP										
Actinium-228		0.739		0.528	pCi/g	33		(0% - 100%)	MJH1	10/25/06 11:04
	Uncert:	+/-0.156		+/-0.123						
				+/-0.123						

QC Summary

Workorder: 174346

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 581675											
	TPU:	+/-0.156									
Americium-241	U	-0.00139	U	0.0268	pCi/g	222		(0% - 100%)			
	Uncert:	+/-0.0236		+/-0.0262							
	TPU:	+/-0.0236		+/-0.0262							
Bismuth-212		0.368		0.431	pCi/g	16		(0% - 100%)			
	Uncert:	+/-0.265		+/-0.250							
	TPU:	+/-0.265		+/-0.250							
Bismuth-214		0.442		0.468	pCi/g	6		(0% - 100%)			
	Uncert:	+/-0.0807		+/-0.0892							
	TPU:	+/-0.0807		+/-0.0892							
Cesium-134	UI	0.00	U	0.0283	pCi/g	75		(0% - 100%)			
	Uncert:	+/-0.0441		+/-0.0245							
	TPU:	+/-0.0441		+/-0.0245							
Cesium-137	U	0.0319		0.0366	pCi/g	14		(0% - 100%)			
	Uncert:	+/-0.0333		+/-0.0293							
	TPU:	+/-0.0333		+/-0.0293							
Cobalt-60	U	-0.00636	U	0.020	pCi/g	387		(0% - 100%)			
	Uncert:	+/-0.0198		+/-0.0248							
	TPU:	+/-0.0198		+/-0.0248							
Europium-152	U	0.00386	U	0.00827	pCi/g	73		(0% - 100%)			
	Uncert:	+/-0.0449		+/-0.0545							
	TPU:	+/-0.0449		+/-0.0545							
Europium-154	U	0.0267	U	0.0258	pCi/g	3		(0% - 100%)			
	Uncert:	+/-0.0569		+/-0.0664							
	TPU:	+/-0.0569		+/-0.0664							
Europium-155	U	0.0194	U	0.0266	pCi/g	31		(0% - 100%)			
	Uncert:	+/-0.0412		+/-0.0399							
	TPU:	+/-0.0412		+/-0.0399							
Lead-212		0.412		0.485	pCi/g	16		(0% - 100%)			
	Uncert:	+/-0.0541		+/-0.0603							
	TPU:	+/-0.0541		+/-0.0603							
Lead-214		0.499		0.530	pCi/g	6		(0%-20%)			
	Uncert:	+/-0.0827		+/-0.0836							
	TPU:	+/-0.0827		+/-0.0836							
Manganese-54	U	0.00185	U	0.0212	pCi/g	168		(0% - 100%)			
	Uncert:	+/-0.0195		+/-0.0239							
	TPU:	+/-0.0195		+/-0.0239							
Niobium-94	U	-0.00452	U	0.0106	pCi/g	496		(0% - 100%)			
	Uncert:	+/-0.0184		+/-0.0182							
	TPU:	+/-0.0184		+/-0.0182							
Potassium-40		6.70		7.13	pCi/g	6		(0% - 20%)			
	Uncert:	+/-0.609		+/-0.710							
	TPU:	+/-0.609		+/-0.710							
Radium-226		0.442		0.468	pCi/g	6		(0% - 100%)			
	Uncert:	+/-0.0807		+/-0.0892							
	TPU:	+/-0.0807		+/-0.0892							
Silver-108m	U	0.00712	U	-0.00779	pCi/g	4430		(0% - 100%)			
	Uncert:	+/-0.0152		+/-0.0154							

QC Summary

Workorder: 174346

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 581675										
	TPU:	+/-0.0152		+/-0.0154						
Thallium-208		0.183		0.186	pCi/g	2		(0% - 100%)		
	Uncert:	+/-0.0403		+/-0.0412						
	TPU:	+/-0.0403		+/-0.0412						
QC1201213159 LCS										
Actinium-228			U	0.743	pCi/g					10/25/06 07:15
	Uncert:			+/-0.554						
	TPU:			+/-0.554						
Americium-241	23.4			24.4	pCi/g		104	(75%-125%)		
	Uncert:			+/-1.27						
	TPU:			+/-1.27						
Bismuth-212			U	-0.111	pCi/g					
	Uncert:			+/-1.11						
	TPU:			+/-1.11						
Bismuth-214			U	0.247	pCi/g					
	Uncert:			+/-0.204						
	TPU:			+/-0.204						
Cesium-134			U	0.0584	pCi/g					
	Uncert:			+/-0.143						
	TPU:			+/-0.143						
Cesium-137	9.55			9.67	pCi/g		101	(75%-125%)		
	Uncert:			+/-0.437						
	TPU:			+/-0.437						
Cobalt-60	14.2			14.6	pCi/g		102	(75%-125%)		
	Uncert:			+/-0.633						
	TPU:			+/-0.633						
Europium-152			U	0.219	pCi/g					
	Uncert:			+/-0.293						
	TPU:			+/-0.293						
Europium-154			U	-0.0828	pCi/g					
	Uncert:			+/-0.303						
	TPU:			+/-0.303						
Europium-155			U	0.164	pCi/g					
	Uncert:			+/-0.307						
	TPU:			+/-0.307						
Lead-212			U	0.0745	pCi/g					
	Uncert:			+/-0.163						
	TPU:			+/-0.163						
Lead-214			U	0.247	pCi/g					
	Uncert:			+/-0.350						
	TPU:			+/-0.350						
Manganese-54			U	0.00541	pCi/g					
	Uncert:			+/-0.137						
	TPU:			+/-0.137						
Niobium-94			U	-0.0757	pCi/g					
	Uncert:			+/-0.111						
	TPU:			+/-0.111						
Potassium-40			U	-0.178	pCi/g					

QC Summary

Workorder: 174346

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 581675											
	Uncert:			+/-0.986							
	TPU:			+/-0.986							
Radium-226			U	0.247	pCi/g			(75%-125%)			
	Uncert:			+/-0.204							
	TPU:			+/-0.204							
Silver-108m			U	0.0371	pCi/g						
	Uncert:			+/-0.113							
	TPU:			+/-0.113							
Thallium-208			U	0.0403	pCi/g						
	Uncert:			+/-0.114							
	TPU:			+/-0.114							
QC1201213157 MB											
Actinium-228			U	0.0547	pCi/g					10/25/06	10:33
	Uncert:			+/-0.0339							
	TPU:			+/-0.0339							
Americium-241			U	0.035	pCi/g						
	Uncert:			+/-0.0503							
	TPU:			+/-0.0503							
Bismuth-212			U	0.0861	pCi/g						
	Uncert:			+/-0.0721							
	TPU:			+/-0.0721							
Bismuth-214			U	0.0234	pCi/g						
	Uncert:			+/-0.0389							
	TPU:			+/-0.0389							
Cesium-134			U	0.00174	pCi/g						
	Uncert:			+/-0.00859							
	TPU:			+/-0.00859							
Cesium-137			U	-0.00489	pCi/g						
	Uncert:			+/-0.00879							
	TPU:			+/-0.00879							
Cobalt-60			U	-0.00292	pCi/g						
	Uncert:			+/-0.00844							
	TPU:			+/-0.00844							
Europium-152			U	-0.0124	pCi/g						
	Uncert:			+/-0.0226							
	TPU:			+/-0.0226							
Europium-154			U	-0.0125	pCi/g						
	Uncert:			+/-0.0235							
	TPU:			+/-0.0235							
Europium-155			U	-0.00752	pCi/g						
	Uncert:			+/-0.027							
	TPU:			+/-0.027							
Lead-212			U	0.00708	pCi/g						
	Uncert:			+/-0.0292							
	TPU:			+/-0.0292							
Lead-214			U	0.0307	pCi/g						
	Uncert:			+/-0.032							
	TPU:			+/-0.032							

QC Summary

Workorder: 174346

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 581675										
Manganese-54			U	-0.003	pCi/g					
Uncert:				+/-0.00927						
TPU:				+/-0.00927						
Niobium-94			U	0.0088	pCi/g					
Uncert:				+/-0.00881						
TPU:				+/-0.00881						
Potassium-40			UI	0.00	pCi/g					
Uncert:				+/-0.169						
TPU:				+/-0.169						
Radium-226			U	0.0234	pCi/g					
Uncert:				+/-0.0389						
TPU:				+/-0.0389						
Silver-108m			U	-0.00204	pCi/g					
Uncert:				+/-0.00779						
TPU:				+/-0.00779						
Thallium-208			U	0.00488	pCi/g					
Uncert:				+/-0.0168						
TPU:				+/-0.0168						
Rad Gas Flow										
Batch 580488										
QC1201210299 174224006 DUP										
Strontium-90	U	0.0274	U	0.019	pCi/g	0		(0% - 100%)	KSD1	10/23/06 14:39
Uncert:		+/-0.0243		+/-0.0165						
TPU:		+/-0.0243		+/-0.0165						
QC1201210301 LCS										
Strontium-90	1.48			1.21	pCi/g		82	(75%-125%)		10/21/06 08:50
Uncert:				+/-0.0826						
TPU:				+/-0.0897						
QC1201210298 MB										
Strontium-90			U	-0.000851	pCi/g					10/21/06 08:50
Uncert:				+/-0.0154						
TPU:				+/-0.0154						
QC1201210300 174224006 MS										
Strontium-90	3.12 U	0.0274		2.73	pCi/g		88	(75%-125%)		10/21/06 08:50
Uncert:		+/-0.0243		+/-0.188						
TPU:		+/-0.0243		+/-0.204						
Rad Liquid Scintillation										
Batch 580395										
QC1201210034 174224006 DUP										
Iron-55	U	2.10	U	6.20	pCi/g	0		(0% - 100%)	MXP1	10/23/06 02:29
Uncert:		+/-28.7		+/-29.1						
TPU:		+/-28.7		+/-29.1						
QC1201210036 LCS										
Iron-55	607			623	pCi/g		103	(75%-125%)		10/23/06 03:02
Uncert:				+/-52.8						
TPU:				+/-73.5						
QC1201210033 MB										
Iron-55			U	2.58	pCi/g					10/23/06 02:12

QC Summary

Workorder: 174346

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 580395										
	Uncert:			+/-32.0						
	TPU:			+/-32.0						
QC1201210035 174224006 MS										
Iron-55	666 U	2.10		631	pCi/g		95	(75%-125%)		10/23/06 02:45
	Uncert:	+/-28.7		+/-52.7						
	TPU:	+/-28.7		+/-73.8						
Batch 580397										
QC1201210042 174224021 DUP										
Nickel-63	U	-2.58	U	-5.26	pCi/g	0		(0% - 100%)	MXP1	10/22/06 22:13
	Uncert:	+/-9.45		+/-8.14						
	TPU:	+/-9.45		+/-8.14						
QC1201210044 LCS										
Nickel-63	180			158	pCi/g		88	(75%-125%)		10/22/06 22:46
	Uncert:			+/-7.84						
	TPU:			+/-8.98						
QC1201210041 MB										
Nickel-63			U	0.00	pCi/g					10/22/06 21:57
	Uncert:			+/-2.82						
	TPU:			+/-2.82						
QC1201210043 174224021 MS										
Nickel-63	577 U	-2.58		446	pCi/g		77	(75%-125%)		10/22/06 22:30
	Uncert:	+/-9.45		+/-21.3						
	TPU:	+/-9.45		+/-26.8						
Batch 580727										
QC1201210847 174346016 DUP										
Technetium-99	U	-0.146	U	-0.172	pCi/g	0		(0% - 100%)	KXR1	10/24/06 11:56
	Uncert:	+/-0.233		+/-0.265						
	TPU:	+/-0.233		+/-0.265						
QC1201210849 LCS										
Technetium-99	13.1			12.1	pCi/g		92	(75%-125%)		10/24/06 12:29
	Uncert:			+/-0.535						
	TPU:			+/-0.614						
QC1201210846 MB										
Technetium-99			U	0.0139	pCi/g					10/24/06 11:40
	Uncert:			+/-0.214						
	TPU:			+/-0.214						
QC1201210848 174346016 MS										
Technetium-99	12.9 U	-0.146		11.5	pCi/g		89	(75%-125%)		10/24/06 12:12
	Uncert:	+/-0.233		+/-0.584						
	TPU:	+/-0.233		+/-0.651						
Batch 580729										
QC1201210855 174346016 DUP										
Tritium	U	9.05	U	-1.8	pCi/g	0		(0% - 100%)	DFA1	10/24/06 13:41
	Uncert:	+/-6.30		+/-4.98						
	TPU:	+/-6.30		+/-4.98						
QC1201210857 LCS										
Tritium	45.8			46.0	pCi/g		100	(75%-125%)		10/24/06 14:15
	Uncert:			+/-7.99						
	TPU:			+/-8.03						

QC Summary

Workorder: 174346

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 580729										
QC1201210854 MB										
Tritium			U	-1.27	pCi/g					10/24/06 13:24
	Uncert:			+/-5.32						
	TPU:			+/-5.32						
QC1201210856 174346016 MS										
Tritium	51.2 U	9.05		39.8	pCi/g		78	(75%-125%)		10/24/06 13:58
	Uncert:	+/-6.30		+/-8.21						
	TPU:	+/-6.30		+/-8.24						
Batch 580730										
QC1201210859 174346016 DUP										
Carbon-14	U	-0.0717	U	-0.0607	pCi/g	0		(0% - 100%)	AXD2	10/20/06 08:03
	Uncert:	+/-0.110		+/-0.114						
	TPU:	+/-0.110		+/-0.114						
QC1201210861 LCS										
Carbon-14	6.86			6.73	pCi/g		98	(75%-125%)		10/20/06 10:09
	Uncert:			+/-0.206						
	TPU:			+/-0.231						
QC1201210858 MB										
Carbon-14			U	-0.107	pCi/g					10/20/06 07:00
	Uncert:			+/-0.110						
	TPU:			+/-0.110						
QC1201210860 174346016 MS										
Carbon-14	6.93 U	-0.0717		6.92	pCi/g		100	(75%-125%)		10/20/06 09:06
	Uncert:	+/-0.110		+/-0.209						
	TPU:	+/-0.110		+/-0.235						

Notes:
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound

RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL

QC Summary

Workorder: 174346

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

^

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

General Narrative

General Narrative
for
Connecticut Yankee Atomic Power Co.
Work Order: 174936
SDG: MSR#06-1407

October 30, 2006

Laboratory Identification:

General Engineering Laboratories, LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt

The samples arrived at General Engineering Laboratories, LLC, Charleston, South Carolina on October 26, 2006 for analysis. Shipping container temperatures were checked, documented, and within specifications. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage.

Sample Identification The laboratory received the following samples:

Laboratory Identification	Sample Description
174936001	9522-01-005C
174936002	9522-01-007C
174936003	9520-0004-016F
174936004	9520-0004-017F
174936005	9504-0-010C
174936006	9504-0-013C
174936007	9520-0005-019F

Items of Note

There are no items to note.

Case Narrative

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Analytical Request

Four soil samples were analyzed for CHALL. Three soil samples were analyzed for FSSGAM.

Data Package

The enclosed data package contains the following sections: General Narrative, Chain of Custody and Supporting Documentation, Data Review Qualifier Definitions, and data from the following fractions: Radiochemistry.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Cheryl Jones
Project Manager

List of current GEL Certifications as of 30 October 2006

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas	TX213-2006A
Texas NELAP	T104704235-06-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Chain of Custody Form

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

No. 2006-00637

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
ATT: Cheryl Jones (843-556-8171)

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- &Type Code	Analyses Requested: CHALL						Lab Use Only: Comment, Preservation	Lab Sample ID
9522-01-005C	10-18-06	1355	TS	G	BP	X							
9522-01-007C	10-18-06	1425	TS	G	BP	X							

Lab Use Only
Comments:
1749361

NOTES: PO #: 002332 MSR #: 06-1407 ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7986 2834 3252
Bill of Lading #

Internal Container Temp.: 18° Deg. C

Custody Sealed? Y ☒ N ☐
Custody Seal Intact? Y ☒ N ☐

1) Relinquished By: John W. Heath	Date/Time: 10/25/06 1430	2) Received By: Chance	Date/Time: 10/26/06 9:00
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2006-00638

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

Analytical Lab (Name, City, State)
General Engineering Laboratories
2040 Savage Road. Charleston SC. 29407
843 556 8171. Attn. Cheryl Jones

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only
Comments:
174936/.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9520-0004-016F	10/19/06	0742	TS	G	BP	X							
9520-0004-017F	10/19/06	0743	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06- 1407 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7980 2834 3252
Bill of Lading #

Internal Container Temp.: 18 / C Deg.
Custody Sealed? Y ☒ N ☐
Custody Seal Intact? Y ☒ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[signature]	10/25/06 1430	[signature] 10/26/06	9:00
3) Relinquished By	Date/Time	4) Received By	Date/Time

Connecticut Yankee Atomic Power Company

362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2006-00639

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

Analytical Lab (Name, City, State):
General Engineering Laboratories
2040 Savage Road
Charleston, SC 29407
ATT: Cheryl Jones (843-556-8171)

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D.
Other:

Lab Use Only

Comments: 174936 1.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- &Type Code	Analyses Requested: CHALL						Comment, Preservation	Lab Sample ID
9504-0-010C	10/10/06	1035	TS	G	BP	X							
9504-0-013C	10/10/06	0820	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-1407 ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7980 2534 3252
Bill of Lading #

Internal Container Temp.: -18 Deg. C

Custody Sealed? X Y ☐ N ☐
Custody Seal Intact? X Y ☐ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
John J. Smith	10/25/06 1430	C Sause	10/26/06 9:00
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Connecticut Yankee Atomic Power Company

362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556

Chain of Custody Form

No. 2006-00640

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Jack McCarthy 860-267-3924

Analytical Lab (Name, City, State)
General Engineering Laboratories
2040 Savage Road. Charleston SC. 29407
843 556 8171. Attn. Cheryl Jones

Priority: ☐ 30 D. ☐ 14 D. ☒ 7 D. ☐ 3 D.

Lab Use Only

Comments:

1749361.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- &Type Code	Analyses Requested: FSSGAM	FSSALL					Comment, Preservation	Lab Sample ID
9520-0005-019F	10/23/06	~~1028~~	TS	G	BP	X							

NOTES: PO #: 002332 MSR #: 06-~~1381~~ 1407 RwC 10/25/06 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other
7980 2834 3252
Bill of Lading #

Internal Container Temp.: 18° Deg. C
Custody Sealed? Y X N
Custody Seal Intact? Y X N

1) Relinquished By	Date/Time	2) Received By	Date/Time
John J. McCarthy	10/25/06 1430	Osauce	10/26/06 9:00
3) Relinquished By	Date/Time	4) Received By	Date/Time

6

Figure 1. Sample Check-in List

Date/Time Received: 9100 10/26/06

SDG#: MSR#06-1407

Work Order Number: 1749361

Shipping Container ID: 1980 2834 3252 Chain of Custody # 2006-00640 – 00637, 00639, 00638

1. Custody Seals on shipping container intact? Yes [X] No [ ]
2. Custody Seals dated and signed? Yes [X] No [ ]
3. Chain-of-Custody record present? Yes [X] No [ ]
4. Cooler temperature 18°
5. Vermiculite/packing materials is: Wet [ ] Dry [X]
6. Number of samples in shipping container: 7
7. Sample holding times exceeded? Yes [ ] No [X]

8. Samples have:
   - [X] tape
   - [ ] hazard labels
   - [ ] custody seals
   - [ ] appropriate sample labels

9. Samples are:
   - [X] in good condition
   - [ ] leaking
   - [ ] broken
   - [ ] have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [X]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: [signature] Date: 10/26/06

Telephoned to: _____ On _____ By _____

Data Review Qualifier Definitions

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 174936

Method/Analysis Information

Product:	**Alphaspec Am241, Cm, Solid ALL FSS**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	583311
Prep Batch Number:	583211
Dry Soil Prep GL-RAD-A-021 Batch Number:	583196

Sample ID	Client ID
174936001	9522-01-005C
174936002	9522-01-007C
174936005	9504-0-010C
174936006	9504-0-013C
1201216888	Method Blank (MB)
1201216890	174936001(9522-01-005C) Matrix Spike (MS)
1201216891	Laboratory Control Sample (LCS)
1201217370	174936001(9522-01-005C) Sample Duplicate (DUP)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 14.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174936001 (9522-01-005C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The blank, 1201216888 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Solid-ALL FSS**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	583312
Prep Batch Number:	583211
Dry Soil Prep GL-RAD-A-021 Batch Number:	583196

Sample ID	Client ID
174936001	9522-01-005C
174936002	9522-01-007C
174936005	9504-0-010C
174936006	9504-0-013C
1201216892	Method Blank (MB)
1201216893	174936001(9522-01-005C) Sample Duplicate (DUP)
1201216894	174936001(9522-01-005C) Matrix Spike (MS)
1201216895	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 14.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174936001 (9522-01-005C).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Solid-ALL FSS**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	583313
Prep Batch Number:	583211
Dry Soil Prep GL-RAD-A-021 Batch Number:	583196

Sample ID	Client ID
174936001	9522-01-005C
174936002	9522-01-007C
174936005	9504-0-010C
174936006	9504-0-013C
1201216896	Method Blank (MB)
1201216897	174936001(9522-01-005C) Sample Duplicate (DUP)
1201216898	174936001(9522-01-005C) Matrix Spike (MS)
1201216899	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-035 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174936001 (9522-01-005C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
The batch was recounted due to a low LCS recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	583389
Prep Batch Number:	583196

Sample ID	Client ID
174936001	9522-01-005C
174936002	9522-01-007C
174936003	9520-0004-016F
174936004	9520-0004-017F
174936005	9504-0-010C
174936006	9504-0-013C
174936007	9520-0005-019F
1201217095	Method Blank (MB)
1201217096	174911001(9801-0-R101-SFCC-01-C1 (0-2in)) Sample Duplicate (DUP)
1201217097	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174911001 (9801-0-R101-SFCC-01-C1 (0-2in)).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high counting uncertainty.	Bismuth-212	1201217096
UI	Data rejected due to high peak-width.	Cesium-134	1201217095
UI	Data rejected due to interference.	Europium-155	174936002
		Manganese-54	174936002
			174936005
UI	Data rejected due to low abundance.	Cesium-134	174936001
			174936002
			174936005
			174936007
			1201217096
		Lead-214	1201217095

Method/Analysis Information

Product:	**GFPC, Sr90, solid-ALL FSS**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	583243
Prep Batch Number:	583211
Dry Soil Prep GL-RAD-A-021 Batch Number:	583196

Sample ID	Client ID
174936001	9522-01-005C
174936002	9522-01-007C
174936005	9504-0-010C
174936006	9504-0-013C
1201216717	Method Blank (MB)
1201216718	174936001(9522-01-005C) Sample Duplicate (DUP)
1201216719	174936001(9522-01-005C) Matrix Spike (MS)
1201216720	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 10.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volumes in this batch.

Designated QC
The following sample was used for QC: 174936001 (9522-01-005C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples were recounted due to being originally counted on detectors with expired calibrations.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
The blank result for 1201216717 (MB) is greater than the MDA but less than the detection limit.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Solid-ALL FSS**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	583233

Sample ID	Client ID
174936001	9522-01-005C
174936002	9522-01-007C
174936005	9504-0-010C
174936006	9504-0-013C
1201216689	Method Blank (MB)
1201216690	174936001(9522-01-005C) Sample Duplicate (DUP)
1201216691	174936001(9522-01-005C) Matrix Spike (MS)
1201216692	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-005 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174936001 (9522-01-005C).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Samples 174936001 (9522-01-005C) and 174936002 (9522-01-007C) were recounted due to spectral interference.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
The result for sample 174936006 (9504-0-013C) is biased high due to spectral interference.

Qualifier information

Qualifier	Reason	Analyte	Sample
X	Sample result biased high due to spectral interference.	Technetium-99	174936006

Method/Analysis Information

Product:	**Liquid Scint Fe55, Solid-ALL FSS**
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	583239
Prep Batch Number:	583211
Dry Soil Prep GL-RAD-A-021 Batch Number:	583196

Sample ID	Client ID
174936001	9522-01-005C
174936002	9522-01-007C
174936005	9504-0-010C
174936006	9504-0-013C
1201216709	Method Blank (MB)
1201216710	174936001(9522-01-005C) Sample Duplicate (DUP)
1201216711	174936001(9522-01-005C) Matrix Spike (MS)
1201216712	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-040 REV# 3.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174936001 (9522-01-005C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Solid-ALL FSS**
Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	583241
Prep Batch Number:	583211
Dry Soil Prep GL-RAD-A-021 Batch Number:	583196

Sample ID	Client ID
174936001	9522-01-005C
174936002	9522-01-007C
174936005	9504-0-010C
174936006	9504-0-013C
1201216713	Method Blank (MB)
1201216714	174936001(9522-01-005C) Sample Duplicate (DUP)
1201216715	174936001(9522-01-005C) Matrix Spike (MS)
1201216716	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-022 REV# 8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174936001 (9522-01-005C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid-HTD2,ALL FSS**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	583234

Sample ID	Client ID
174936001	9522-01-005C
174936002	9522-01-007C
174936005	9504-0-010C
174936006	9504-0-013C
1201216693	Method Blank (MB)
1201216694	174936001(9522-01-005C) Sample Duplicate (DUP)
1201216695	174936001(9522-01-005C) Matrix Spike (MS)
1201216696	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174936001 (9522-01-005C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
Sample 174936005 (9504-0-010C) was recounted due to high MDA.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid All,FSS**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	583236

Sample ID	Client ID
174936001	9522-01-005C
174936002	9522-01-007C
174936005	9504-0-010C
174936006	9504-0-013C
1201216701	Method Blank (MB)
1201216702	174936001(9522-01-005C) Sample Duplicate (DUP)
1201216703	174936001(9522-01-005C) Matrix Spike (MS)
1201216704	Laboratory Control Sample (LCS)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-003 REV# 8.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 174936001 (9522-01-005C).

QC Information
All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Preparation Information
All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Pamela Williams 11/2/06

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#06-1407 GEL Work Order: 174936

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

UI Gamma Spectroscopy--Uncertain identification

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

ND The analyte concentration is not detected above the detection limit.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 2, 2006

Client Sample ID:	9522-01-005C	Project:	YANK01204
Sample ID:	174936001	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	18-OCT-06		
Receive Date:	26-OCT-06		
Collector:	Client		
Moisture:	37.8%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium-241	U	0.00136	+/-0.138	0.115	+/-0.138	0.327	pCi/g	1	MXA	10/30/06	1058	583311	1
Curium-242	U	0.0391	+/-0.110	0.0674	+/-0.110	0.237	pCi/g						
Curium-243/244	U	-0.0385	+/-0.139	0.132	+/-0.140	0.361	pCi/g						
Alphaspec Pu, Solid-ALL FSS													
Plutonium-238	U	-0.104	+/-0.112	0.133	+/-0.113	0.352	pCi/g	1	MXA	10/30/06	1058	583312	2
Plutonium-239/240	U	-0.137	+/-0.0631	0.120	+/-0.0652	0.326	pCi/g						
Liquid Scint Pu241, Solid-ALL FSS													
Plutonium-241	U	-5.01	+/-7.31	6.36	+/-7.31	13.4	pCi/g	1	MXA	11/02/06	0824	583313	3
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.942	+/-0.216	0.0684	+/-0.216	0.148	pCi/g		MJH1	10/31/06	0910	583389	5
Americium-241		0.232	+/-0.147	0.0857	+/-0.147	0.177	pCi/g						
Bismuth-212		1.25	+/-0.452	0.152	+/-0.452	0.326	pCi/g						
Bismuth-214		1.01	+/-0.155	0.0431	+/-0.155	0.091	pCi/g						
Cesium-134	UI	0.00	+/-0.0505	0.0289	+/-0.0505	0.061	pCi/g						
Cesium-137		1.58	+/-0.100	0.0221	+/-0.100	0.0469	pCi/g						
Cobalt-60	U	0.0278	+/-0.0308	0.0272	+/-0.0308	0.0585	pCi/g						
Europium-152	U	-0.0437	+/-0.0735	0.0588	+/-0.0735	0.123	pCi/g						
Europium-154	U	0.0164	+/-0.0885	0.0637	+/-0.0885	0.139	pCi/g						
Europium-155	U	0.0621	+/-0.0836	0.0693	+/-0.0836	0.143	pCi/g						
Lead-212		1.10	+/-0.0891	0.0406	+/-0.0891	0.0838	pCi/g						
Lead-214		0.962	+/-0.132	0.044	+/-0.132	0.0921	pCi/g						
Manganese-54	U	-0.00466	+/-0.0271	0.0223	+/-0.0271	0.0474	pCi/g						
Niobium-94	U	-0.0112	+/-0.0232	0.0188	+/-0.0232	0.0401	pCi/g						
Potassium-40		12.1	+/-1.00	0.191	+/-1.00	0.423	pCi/g						
Radium-226		1.01	+/-0.155	0.0431	+/-0.155	0.091	pCi/g						
Silver-108m	U	3.670E-05	+/-0.026	0.0213	+/-0.026	0.0446	pCi/g						
Thallium-208		0.306	+/-0.0549	0.0218	+/-0.0549	0.0461	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.0263	+/-0.0109	0.00825	+/-0.011	0.0172	pCi/g		KSD1	11/01/06	2100	583243	6

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-01-005C Project: YANK01204
Sample ID: 174936001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium	U	3.72	+/-5.94	4.71	+/-5.94	10.2	pCi/g		DFA1	10/28/06	0650	583234	7
Liquid Scint C14, Solid All,FSS													
Carbon-14	U	0.179	+/-0.112	0.0898	+/-0.112	0.184	pCi/g		AXD2	10/27/06	2110	583236	8
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55	U	14.2	+/-19.7	12.8	+/-19.7	27.0	pCi/g		MXP1	11/01/06	1809	583239	9
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	-0.799	+/-7.83	6.60	+/-7.83	13.8	pCi/g		MXP1	11/01/06	1536	583241	10
Liquid Scint Tc99, Solid-ALL FSS													
Technetium-99	U	0.320	+/-0.221	0.181	+/-0.221	0.367	pCi/g		KXR1	10/31/06	2145	583233	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	WXL1	10/26/06	1442	583196

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EML HASL 300, 4.5.2.3
6	EPA 905.0 Modified
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified
12	DOE EML HASL-300, Tc-02-RC Modified
13	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	92	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	93	(15%-125%)

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9522-01-005C Project: YANK01204
Sample ID: 174936001 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Plutonium-241		Liquid Scint Pu241, Solid-ALL FS			88		(25%-125%)						
Strontium-90		GFPC, Sr90, solid-ALL FSS			76		(25%-125%)						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			76		(25%-125%)						
Iron-55		Liquid Scint Fe55, Solid-ALL FS			83		(15%-125%)						
Nickel-63		Liquid Scint Ni63, Solid-ALL FS			88		(25%-125%)						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			88		(25%-125%)						
Technetium-99		Liquid Scint Tc99, Solid-ALL FS			50		(15%-125%)						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-ALL FS			50		(15%-125%)						

Notes:
The Qualifiers in this report are defined as follows :

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< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9522-01-007C	Project:	YANK01204
Sample ID:	174936002	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	18-OCT-06		
Receive Date:	26-OCT-06		
Collector:	Client		
Moisture:	18%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium-241	U	0.0547	+/-0.122	0.0789	+/-0.123	0.237	pCi/g	1	MXA1	10/30/06	1058	583311	1
Curium-242	U	0.0395	+/-0.0893	0.048	+/-0.0894	0.180	pCi/g						
Curium-243/244	U	-0.0258	+/-0.0943	0.0912	+/-0.0944	0.262	pCi/g						
Alphaspec Pu, Solid-ALL FSS													
Plutonium-238	U	-0.0671	+/-0.0439	0.0837	+/-0.0444	0.252	pCi/g	1	MXA1	10/30/06	1058	583312	2
Plutonium-239/240	U	0.0733	+/-0.145	0.0925	+/-0.145	0.269	pCi/g						
Liquid Scint Pu241, Solid-ALL FSS													
Plutonium-241	U	4.10	+/-7.32	5.96	+/-7.33	12.5	pCi/g	1	MXA1	11/02/06	0840	583313	3
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		4.39	+/-0.204	0.0457	+/-0.204	0.0959	pCi/g		MJH1	10/31/06	0925	583389	5
Americium-241	U	-0.147	+/-0.0988	0.0841	+/-0.0988	0.170	pCi/g						
Bismuth-212		2.99	+/-0.322	0.128	+/-0.322	0.264	pCi/g						
Bismuth-214		1.41	+/-0.0972	0.0296	+/-0.0972	0.0611	pCi/g						
Cesium-134	UI	0.00	+/-0.0358	0.0276	+/-0.0358	0.0564	pCi/g						
Cesium-137		2.55	+/-0.0752	0.0187	+/-0.0752	0.0386	pCi/g						
Cobalt-60	U	0.0262	+/-0.0175	0.0166	+/-0.0175	0.0351	pCi/g						
Europium-152	U	-0.03	+/-0.059	0.0503	+/-0.059	0.103	pCi/g						
Europium-154	U	0.0248	+/-0.0468	0.0422	+/-0.0468	0.0893	pCi/g						
Europium-155	UI	0.00	+/-0.0881	0.056	+/-0.0881	0.114	pCi/g						
Lead-212		4.38	+/-0.0865	0.0288	+/-0.0865	0.0585	pCi/g						
Lead-214		1.56	+/-0.100	0.0346	+/-0.100	0.0707	pCi/g						
Manganese-54	UI	0.00	+/-0.0272	0.0159	+/-0.0272	0.0331	pCi/g						
Niobium-94	U	0.0109	+/-0.0182	0.0162	+/-0.0182	0.0335	pCi/g						
Potassium-40		2.51	+/-0.375	0.124	+/-0.375	0.266	pCi/g						
Radium-226		1.41	+/-0.0972	0.0296	+/-0.0972	0.0611	pCi/g						
Silver-108m	U	-0.00514	+/-0.0191	0.0173	+/-0.0191	0.0353	pCi/g						
Thallium-208		1.40	+/-0.0595	0.0174	+/-0.0595	0.0359	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.0327	+/-0.00864	0.00613	+/-0.00866	0.0128	pCi/g		KSD1	11/01/06	2100	583243	6
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 2, 2006

Client Sample ID: 9522-01-007C
Sample ID: 174936002

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium	U	3.14	+/-7.71	6.23	+/-7.71	13.5	pCi/g		DFA1	10/28/06	0706	583234	7
Liquid Scint C14, Solid All,FSS													
Carbon-14	U	0.0254	+/-0.113	0.0944	+/-0.113	0.194	pCi/g		AXD2	10/27/06	2158	583236	8
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55	U	8.48	+/-18.0	11.8	+/-18.0	24.9	pCi/g		MXP1	11/01/06	1825	583239	9
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	2.80	+/-7.02	5.78	+/-7.02	12.1	pCi/g		MXP1	11/01/06	1558	583241	10
Liquid Scint Tc99, Solid-ALL FSS													
Technetium-99		0.321	+/-0.163	0.126	+/-0.163	0.262	pCi/g		KXR1	10/31/06	2246	583233	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	WXL1	10/26/06	1442	583196

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EML HASL 300, 4.5.2.3
6	EPA 905.0 Modified
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified
12	DOE EML HASL-300, Tc-02-RC Modified
13	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	93	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	91	(15%-125%)

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: November 2, 2006

Client Sample ID: 9522–01–007C
Sample ID: 174936002

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch Mtd
Plutonium–241		Liquid Scint Pu241, Solid–ALL FS			94		(25%–125%)			
Strontium–90		GFPC, Sr90, solid–ALL FSS			100		(25%–125%)			
Carrier/Tracer Recovery		GFPC, Sr90, solid–ALL FSS			100		(25%–125%)			
Iron–55		Liquid Scint Fe55, Solid–ALL FS			86		(15%–125%)			
Nickel–63		Liquid Scint Ni63, Solid–ALL FS			90		(25%–125%)			
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid–ALL FS			90		(25%–125%)			
Technetium–99		Liquid Scint Tc99, Solid–ALL FS			113		(15%–125%)			
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid–ALL FS			113		(15%–125%)			

Notes:
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< Result is less than value reported
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C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy––Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/–RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0004-016F	Project:	YANK01204
Sample ID:	174936003	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	19-OCT-06		
Receive Date:	26-OCT-06		
Collector:	Client		
Moisture:	15.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.747	+/-0.134	0.0498	+/-0.134	0.105	pCi/g		MJH1	10/31/06	0927	583389	1
Americium-241	U	0.0504	+/-0.105	0.0823	+/-0.105	0.169	pCi/g						
Bismuth-212		0.654	+/-0.242	0.105	+/-0.242	0.221	pCi/g						
Bismuth-214		0.970	+/-0.0713	0.026	+/-0.0713	0.0544	pCi/g						
Cesium-134	U	0.0184	+/-0.0256	0.0177	+/-0.0256	0.0372	pCi/g						
Cesium-137		0.125	+/-0.0228	0.0129	+/-0.0228	0.0273	pCi/g						
Cobalt-60	U	-0.00778	+/-0.0166	0.0131	+/-0.0166	0.0286	pCi/g						
Europium-152	U	0.00444	+/-0.044	0.0366	+/-0.044	0.076	pCi/g						
Europium-154	U	-0.0216	+/-0.0534	0.0432	+/-0.0534	0.0927	pCi/g						
Europium-155	U	0.0674	+/-0.0698	0.0415	+/-0.0698	0.0852	pCi/g						
Lead-212		0.838	+/-0.0517	0.0219	+/-0.0517	0.045	pCi/g						
Lead-214		1.12	+/-0.0838	0.0267	+/-0.0838	0.0553	pCi/g						
Manganese-54	U	0.0154	+/-0.0174	0.0152	+/-0.0174	0.032	pCi/g						
Niobium-94	U	-0.00323	+/-0.015	0.0124	+/-0.015	0.026	pCi/g						
Potassium-40		12.1	+/-0.758	0.140	+/-0.758	0.303	pCi/g						
Radium-226		0.970	+/-0.0713	0.026	+/-0.0713	0.0544	pCi/g						
Silver-108m	U	-0.00181	+/-0.0144	0.0125	+/-0.0144	0.0261	pCi/g						
Thallium-208		0.238	+/-0.0369	0.013	+/-0.0369	0.0273	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	WXL1	10/26/06	1443	583196

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
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< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
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Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-016F
Sample ID: 174936003

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol–condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/–RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520–0004–017F	Project:	YANK01204
Sample ID:	174936004	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	19–OCT–06		
Receive Date:	26–OCT–06		
Collector:	Client		
Moisture:	18.7%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid–FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium–228		0.492	+/–0.157	0.0658	+/–0.157	0.140	pCi/g		MJH1	10/31/06	0927	583389	1
Americium–241	U	–0.0222	+/–0.0995	0.0726	+/–0.0995	0.149	pCi/g						
Bismuth–212		0.424	+/–0.289	0.143	+/–0.289	0.303	pCi/g						
Bismuth–214		0.778	+/–0.115	0.0326	+/–0.115	0.0688	pCi/g						
Cesium–134	U	0.00206	+/–0.0338	0.0207	+/–0.0338	0.0438	pCi/g						
Cesium–137		0.168	+/–0.0358	0.0171	+/–0.0358	0.0363	pCi/g						
Cobalt–60	U	–0.0183	+/–0.024	0.0187	+/–0.024	0.0408	pCi/g						
Europium–152	U	–0.00147	+/–0.061	0.0498	+/–0.061	0.103	pCi/g						
Europium–154	U	–0.0213	+/–0.0645	0.0528	+/–0.0645	0.115	pCi/g						
Europium–155	U	0.00598	+/–0.0551	0.0479	+/–0.0551	0.0986	pCi/g						
Lead–212		0.616	+/–0.0645	0.0293	+/–0.0645	0.0603	pCi/g						
Lead–214		0.926	+/–0.0913	0.0374	+/–0.0913	0.0776	pCi/g						
Manganese–54	U	0.0215	+/–0.0229	0.0202	+/–0.0229	0.0426	pCi/g						
Niobium–94	U	0.00767	+/–0.0209	0.0179	+/–0.0209	0.0376	pCi/g						
Potassium–40		9.31	+/–0.909	0.166	+/–0.909	0.366	pCi/g						
Radium–226		0.778	+/–0.115	0.0326	+/–0.115	0.0688	pCi/g						
Silver–108m	U	–0.00183	+/–0.0211	0.0168	+/–0.0211	0.0352	pCi/g						
Thallium–208		0.222	+/–0.0438	0.0192	+/–0.0438	0.0402	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	WXL1	10/26/06	1444	583196

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
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< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0004-017F Project: YANK01204
Sample ID: 174936004 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol–condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/–RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9504-0-010C	Project:	YANK01204
Sample ID:	174936005	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	10-OCT-06		
Receive Date:	26-OCT-06		
Collector:	Client		
Moisture:	43.4%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium-241	U	0.0682	+/-0.103	0.0315	+/-0.103	0.158	pCi/g	1	MXA1	10/30/06	1058	583311	1
Curium-242	U	-0.046	+/-0.0403	0.0769	+/-0.0408	0.258	pCi/g						
Curium-243/244	U	-0.10	+/-0.0956	0.126	+/-0.0966	0.348	pCi/g						
Alphaspec Pu, Solid-ALL FSS													
Plutonium-238	U	0.0235	+/-0.087	0.0589	+/-0.087	0.197	pCi/g	1	MXA1	10/30/06	1058	583312	2
Plutonium-239/240	U	0.0235	+/-0.0869	0.0588	+/-0.087	0.197	pCi/g						
Liquid Scint Pu241, Solid-ALL FSS													
Plutonium-241	U	0.00	+/-6.56	5.51	+/-6.56	11.6	pCi/g	1	MXA1	11/02/06	0856	583313	3
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.635	+/-0.167	0.0577	+/-0.167	0.129	pCi/g		MJH1	10/31/06	0928	583389	5
Americium-241	U	0.0432	+/-0.109	0.0836	+/-0.109	0.174	pCi/g						
Bismuth-212		0.532	+/-0.302	0.151	+/-0.302	0.329	pCi/g						
Bismuth-214		0.566	+/-0.113	0.0405	+/-0.113	0.0866	pCi/g						
Cesium-134	UI	0.00	+/-0.0454	0.0264	+/-0.0454	0.0566	pCi/g						
Cesium-137		0.402	+/-0.057	0.0194	+/-0.057	0.042	pCi/g						
Cobalt-60	U	0.00339	+/-0.0231	0.0198	+/-0.0231	0.0448	pCi/g						
Europium-152	U	0.00635	+/-0.0624	0.0514	+/-0.0624	0.109	pCi/g						
Europium-154	U	-0.00961	+/-0.0889	0.0634	+/-0.0889	0.141	pCi/g						
Europium-155	U	0.0463	+/-0.0667	0.0601	+/-0.0667	0.125	pCi/g						
Lead-212		0.655	+/-0.0666	0.0278	+/-0.0666	0.0584	pCi/g						
Lead-214		0.611	+/-0.108	0.038	+/-0.108	0.0804	pCi/g						
Manganese-54	UI	0.00	+/-0.0682	0.0185	+/-0.0682	0.0405	pCi/g						
Niobium-94	U	-0.0145	+/-0.0248	0.0196	+/-0.0248	0.0421	pCi/g						
Potassium-40		10.0	+/-1.01	0.181	+/-1.01	0.414	pCi/g						
Radium-226		0.566	+/-0.113	0.0405	+/-0.113	0.0866	pCi/g						
Silver-108m	U	-0.0205	+/-0.0201	0.0159	+/-0.0201	0.0342	pCi/g						
Thallium-208		0.223	+/-0.0488	0.0181	+/-0.0488	0.0392	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.0342	+/-0.00877	0.00599	+/-0.0088	0.0126	pCi/g		KSD1	11/01/06	2100	583243	6
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9504-0-010C Project: YANK01204
Sample ID: 174936005 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													
Tritium	U	-0.632	+/-6.79	5.72	+/-6.79	11.9	pCi/g		DFA1	11/01/06	0800	583234	8
Liquid Scint C14, Solid All,FSS													
Carbon-14	U	0.0868	+/-0.115	0.0942	+/-0.115	0.193	pCi/g		AXD2	10/27/06	2245	583236	9
Liquid Scint Fe55, Solid-ALL FSS													
Iron-55	U	2.22	+/-18.6	12.4	+/-18.6	26.3	pCi/g		MXP1	11/01/06	1842	583239	10
Liquid Scint Ni63, Solid-ALL FSS													
Nickel-63	U	-4.66	+/-6.33	5.51	+/-6.33	11.5	pCi/g		MXP1	11/01/06	1619	583241	11
Liquid Scint Tc99, Solid-ALL FSS													
Technetium-99	U	0.475	+/-0.296	0.236	+/-0.296	0.486	pCi/g		KXR1	10/31/06	0310	583233	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	WXL1	10/26/06	1444	583196

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	EML HASL 300, 4.5.2.3
6	EPA 905.0 Modified
7	EPA 905.0 Modified
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified
13	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	85	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	95	(15%-125%)

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9504-0-010C Project: YANK01204
Sample ID: 174936005 Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Plutonium-241		Liquid Scint Pu241, Solid-ALL FS			102		(25%-125%)						
Strontium-90		GFPC, Sr90, solid-ALL FSS			84		(25%-125%)						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			84		(25%-125%)						
Iron-55		Liquid Scint Fe55, Solid-ALL FS			82		(15%-125%)						
Nickel-63		Liquid Scint Ni63, Solid-ALL FS			93		(25%-125%)						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			93		(25%-125%)						
Technetium-99		Liquid Scint Tc99, Solid-ALL FS			78		(15%-125%)						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-ALL FS			78		(15%-125%)						

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424 Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9504-0-013C	Project:	YANK01204
Sample ID:	174936006	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	10-OCT-06		
Receive Date:	26-OCT-06		
Collector:	Client		
Moisture:	48.5%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium-241	U	-0.0277	+/-0.0621	0.0513	+/-0.0621	0.180	pCi/g		MXA1	10/30/06	1058	583311	1
Curium-242	U	0.0786	+/-0.108	0.0396	+/-0.108	0.164	pCi/g						
Curium-243/244	U	-0.109	+/-0.0823	0.115	+/-0.0836	0.307	pCi/g						
Alphaspec Pu, Solid-ALL FSS													
Plutonium-238	U	-0.00331	+/-0.105	0.0892	+/-0.105	0.253	pCi/g		MXA1	10/30/06	1058	583312	2
Plutonium-239/240	U	0.120	+/-0.149	0.082	+/-0.150	0.239	pCi/g						
Liquid Scint Pu241, Solid-ALL FSS													
Plutonium-241	U	-0.741	+/-6.61	5.58	+/-6.61	11.7	pCi/g		MXA1	11/02/06	0913	583313	3
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.506	+/-0.193	0.0706	+/-0.193	0.151	pCi/g		MJH1	10/31/06	0929	583389	5
Americium-241	U	-0.00807	+/-0.113	0.0819	+/-0.113	0.169	pCi/g						
Bismuth-212		0.519	+/-0.319	0.151	+/-0.319	0.322	pCi/g						
Bismuth-214		0.717	+/-0.116	0.0427	+/-0.116	0.0896	pCi/g						
Cesium-134	U	0.00314	+/-0.029	0.0232	+/-0.029	0.0493	pCi/g						
Cesium-137		0.684	+/-0.076	0.0208	+/-0.076	0.044	pCi/g						
Cobalt-60	U	-0.000581	+/-0.0261	0.0212	+/-0.0261	0.0462	pCi/g						
Europium-152	U	-0.0282	+/-0.0661	0.0534	+/-0.0661	0.111	pCi/g						
Europium-154	U	0.0313	+/-0.076	0.0646	+/-0.076	0.140	pCi/g						
Europium-155	U	0.0397	+/-0.0774	0.0508	+/-0.0774	0.105	pCi/g						
Lead-212		0.596	+/-0.0656	0.0366	+/-0.0656	0.0753	pCi/g						
Lead-214		0.676	+/-0.107	0.0383	+/-0.107	0.0799	pCi/g						
Manganese-54	U	0.0203	+/-0.0251	0.0222	+/-0.0251	0.047	pCi/g						
Niobium-94	U	-0.00724	+/-0.0293	0.0199	+/-0.0293	0.042	pCi/g						
Potassium-40		5.95	+/-0.804	0.187	+/-0.804	0.412	pCi/g						
Radium-226		0.717	+/-0.116	0.0427	+/-0.116	0.0896	pCi/g						
Silver-108m	U	0.00332	+/-0.0405	0.0182	+/-0.0405	0.0383	pCi/g						
Thallium-208		0.180	+/-0.0485	0.0208	+/-0.0485	0.0439	pCi/g						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid-ALL FSS													
Strontium-90		0.178	+/-0.0136	0.00626	+/-0.0145	0.0131	pCi/g		KSD1	11/01/06	2100	583243	6
Rad Liquid Scintillation Analysis													

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9504–0–013C
Sample ID: 174936006

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid–HTD2,ALL FSS													
Tritium	U	–1.43	+/–6.02	5.17	+/–6.02	11.2	pCi/g		DFA1	10/28/06	0738	583234	8
Liquid Scint C14, Solid All,FSS													
Carbon–14	U	0.190	+/–0.121	0.0969	+/–0.121	0.199	pCi/g		AXD2	10/27/06	2332	583236	9
Liquid Scint Fe55, Solid–ALL FSS													
Iron–55	U	4.58	+/–18.8	12.4	+/–18.8	26.2	pCi/g		MXP1	11/01/06	1858	583239	10
Liquid Scint Ni63, Solid–ALL FSS													
Nickel–63	U	–3.51	+/–7.96	6.83	+/–7.96	14.3	pCi/g		MXP1	11/01/06	1641	583241	11
Liquid Scint Tc99, Solid–ALL FSS													
Technetium–99	X	1.20	+/–0.319	0.237	+/–0.320	0.489	pCi/g		KXR1	10/31/06	0327	583233	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL–RAD–A–021	WXL1	10/26/06	1445	583196

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL–300, Am–05–RC Modified
2	DOE EML HASL–300, Pu–11–RC Modified
3	DOE EML HASL–300, Pu–11–RC Modified
4	DOE EML HASL–300, Pu–11–RC Modified
5	EML HASL 300, 4.5.2.3
6	EPA 905.0 Modified
7	EPA 905.0 Modified
8	EPA 906.0 Modified
9	EPA EERF C–01 Modified
10	DOE RESL Fe–1, Modified
11	DOE RESL Ni–1, Modified
12	DOE EML HASL–300, Tc–02–RC Modified
13	DOE EML HASL–300, Tc–02–RC Modified
14	DOE EML HASL–300, Tc–02–RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium–243	Alphaspec Am241, Cm, Solid ALL	98	(15%–125%)

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
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East Hampton, Connecticut 06424
Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9504–0–013C
Sample ID: 174936006

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Plutonium–242		Alphaspec Pu, Solid–ALL FSS			99		(15%–125%)						
Plutonium–241		Liquid Scint Pu241, Solid–ALL FS			101		(25%–125%)						
Strontium–90		GFPC, Sr90, solid–ALL FSS			95		(25%–125%)						
Carrier/Tracer Recovery		GFPC, Sr90, solid–ALL FSS			95		(25%–125%)						
Iron–55		Liquid Scint Fe55, Solid–ALL FS			88		(15%–125%)						
Nickel–63		Liquid Scint Ni63, Solid–ALL FS			86		(25%–125%)						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid–ALL FS			86		(25%–125%)						
Technetium–99		Liquid Scint Tc99, Solid–ALL FS			79		(15%–125%)						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid–ALL FS			79		(15%–125%)						

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol–condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy––Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/–RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID:	9520-0005-019F	Project:	YANK01204
Sample ID:	174936007	Client ID:	YANK001
Matrix:	TS	Vol. Recv.:	
Collect Date:	23-OCT-06		
Receive Date:	26-OCT-06		
Collector:	Client		
Moisture:	8.59%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived													
Actinium-228		0.956	+/-0.140	0.0577	+/-0.140	0.125	pCi/g		MJH1	10/31/06	0930	583389	1
Americium-241	U	-0.0344	+/-0.0932	0.0853	+/-0.0932	0.176	pCi/g						
Bismuth-212		0.469	+/-0.323	0.150	+/-0.323	0.320	pCi/g						
Bismuth-214		0.547	+/-0.0937	0.0337	+/-0.0937	0.0717	pCi/g						
Cesium-134	UI	0.00	+/-0.0287	0.0245	+/-0.0287	0.0518	pCi/g						
Cesium-137		0.128	+/-0.041	0.0183	+/-0.041	0.0391	pCi/g						
Cobalt-60	U	0.0143	+/-0.0233	0.0193	+/-0.0233	0.0426	pCi/g						
Europium-152	U	-0.0255	+/-0.0562	0.0466	+/-0.0562	0.0979	pCi/g						
Europium-154	U	-0.0349	+/-0.0722	0.0565	+/-0.0722	0.123	pCi/g						
Europium-155	U	0.0307	+/-0.0645	0.0594	+/-0.0645	0.122	pCi/g						
Lead-212		0.754	+/-0.0632	0.029	+/-0.0632	0.0601	pCi/g						
Lead-214		0.623	+/-0.085	0.0372	+/-0.085	0.0779	pCi/g						
Manganese-54	U	0.0044	+/-0.0225	0.0196	+/-0.0225	0.0417	pCi/g						
Niobium-94	U	0.00264	+/-0.0188	0.0164	+/-0.0188	0.0351	pCi/g						
Potassium-40		11.2	+/-0.971	0.126	+/-0.971	0.290	pCi/g						
Radium-226		0.547	+/-0.0937	0.0337	+/-0.0937	0.0717	pCi/g						
Silver-108m	U	0.0078	+/-0.0199	0.0172	+/-0.0199	0.0363	pCi/g						
Thallium-208		0.265	+/-0.044	0.0179	+/-0.044	0.038	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	WXL1	10/26/06	1445	583196

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:
The Qualifiers in this report are defined as follows :

* A quality control analyte recovery is outside of specified acceptance criteria
< Result is less than value reported

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power
Address : 362 Injun Hollow Rd
East Hampton, Connecticut 06424
Report Date: November 2, 2006
Contact: Mr. Jack McCarthy
Project: Soils PO# 002332

Client Sample ID: 9520-0005-019F
Sample ID: 174936007

Project: YANK01204
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time	Batch	Mtd

> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B Target analyte was detected in the associated blank
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
H Analytical holding time was exceeded
J Value is estimated
N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

East Hampton, Connecticut

Contact: Mr. Jack McCarthy

Workorder: 174936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch 583311											
QC1201217370 174936001 DUP											
Americium-241	U	0.00136	U	-0.0141	pCi/g	243		(0% - 100%)	MXA1	10/30/06	10:58
	Uncert:	+/-0.138		+/-0.0635							
	TPU:	+/-0.138		+/-0.0635							
Curium-242	U	0.0391	U	-0.0144	pCi/g	433		(0% - 100%)			
	Uncert:	+/-0.110		+/-0.020							
	TPU:	+/-0.110		+/-0.020							
Curium-243/244	U	-0.0385	U	0.0308	pCi/g	1800		(0% - 100%)			
	Uncert:	+/-0.139		+/-0.104							
	TPU:	+/-0.140		+/-0.104							
QC1201216891 LCS											
Americium-241	2.69			2.51	pCi/g		93	(75%-125%)		10/30/06	10:58
	Uncert:			+/-0.236							
	TPU:			+/-0.371							
Curium-242			U	-0.00394	pCi/g						
	Uncert:			+/-0.0135							
	TPU:			+/-0.0135							
Curium-243/244	3.24			2.95	pCi/g		91	(75%-125%)			
	Uncert:			+/-0.256							
	TPU:			+/-0.422							
QC1201216888 MB											
Americium-241			U	-0.0169	pCi/g					10/30/06	10:58
	Uncert:			+/-0.0283							
	TPU:			+/-0.0284							
Curium-242			U	0.0056	pCi/g						
	Uncert:			+/-0.030							
	TPU:			+/-0.030							
Curium-243/244			U	0.0146	pCi/g						
	Uncert:			+/-0.0557							
	TPU:			+/-0.0557							
QC1201216890 174936001 MS											
Americium-241	13.7 U	0.00136		13.4	pCi/g		98	(75%-125%)		10/30/06	10:58
	Uncert:	+/-0.138		+/-1.31							
	TPU:	+/-0.138		+/-2.08							
Curium-242	U	0.0391	U	0.0528	pCi/g						
	Uncert:	+/-0.110		+/-0.0991							
	TPU:	+/-0.110		+/-0.0993							
Curium-243/244	16.5 U	-0.0385		16.0	pCi/g		97	(75%-125%)			
	Uncert:	+/-0.139		+/-1.43							
	TPU:	+/-0.140		+/-2.41							
Batch 583312											
QC1201216893 174936001 DUP											
Plutonium-238	U	-0.104	U	-0.0623	pCi/g	50		(0% - 100%)	MXA1	10/30/06	10:58

QC Summary

Workorder: 174936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 583312										
	Uncert:	+/-0.112		+/-0.114						
	TPU:	+/-0.113		+/-0.114						
Plutonium-239/240	U	-0.137	U	-0.0217	pCi/g	145		(0% - 100%)		
	Uncert:	+/-0.0631		+/-0.108						
	TPU:	+/-0.0652		+/-0.108						
QC1201216895 LCS										
Plutonium-238			U	0.00501	pCi/g			(75%-125%)		10/30/06 10:58
	Uncert:			+/-0.0185						
	TPU:			+/-0.0186						
Plutonium-239/240	2.49			2.37	pCi/g		95	(75%-125%)		
	Uncert:			+/-0.239						
	TPU:			+/-0.334						
QC1201216892 MB										
Plutonium-238			U	-0.0011	pCi/g					10/30/06 10:58
	Uncert:			+/-0.0122						
	TPU:			+/-0.0122						
Plutonium-239/240			U	0.000219	pCi/g					
	Uncert:			+/-0.0119						
	TPU:			+/-0.0119						
QC1201216894 174936001 MS										
Plutonium-238	U	-0.104	U	0.0643	pCi/g			(75%-125%)		10/30/06 10:58
	Uncert:	+/-0.112		+/-0.142						
	TPU:	+/-0.113		+/-0.142						
Plutonium-239/240	12.6 U	-0.137		12.8	pCi/g		102	(75%-125%)		
	Uncert:	+/-0.0631		+/-1.22						
	TPU:	+/-0.0652		+/-1.79						
Batch 583313										
QC1201216897 174936001 DUP										
Plutonium-241	U	-5.01	U	1.93	pCi/g	0		(0% - 100%)	MXA1	11/02/06 09:45
	Uncert:	+/-7.31		+/-8.93						
	TPU:	+/-7.31		+/-8.93						
QC1201216899 LCS										
Plutonium-241	35.9			27.9	pCi/g		78	(75%-125%)		11/02/06 10:18
	Uncert:			+/-2.66						
	TPU:			+/-3.77						
QC1201216896 MB										
Plutonium-241			U	4.08	pCi/g					11/02/06 09:29
	Uncert:			+/-8.97						
	TPU:			+/-9.01						
QC1201216898 174936001 MS										
Plutonium-241	141 U	-5.01		124	pCi/g		88	(75%-125%)		11/02/06 10:01
	Uncert:	+/-7.31		+/-11.4						
	TPU:	+/-7.31		+/-16.5						
Rad Gamma Spec										
Batch 583389										
QC1201217096 174911001 DUP										
Actinium-228		0.325		0.320	pCi/g	2		(0% - 100%)	MJH1	10/31/06 10:33
	Uncert:	+/-0.119		+/-0.135						
				+/-0.135						

QC Summary

Workorder: 174936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 583389											
	TPU:	+/-0.119									
Americium-241	U	0.018	U	0.0192	pCi/g	6		(0% - 100%)			
	Uncert:	+/-0.0921		+/-0.058							
	TPU:	+/-0.0921		+/-0.058							
Bismuth-212		0.274	UI	0.00	pCi/g	36		(0% - 100%)			
	Uncert:	+/-0.157		+/-0.192							
	TPU:	+/-0.157		+/-0.192							
Bismuth-214		0.423		0.448	pCi/g	6		(0% - 100%)			
	Uncert:	+/-0.070		+/-0.0781							
	TPU:	+/-0.070		+/-0.0781							
Cesium-134	UI	0.00	UI	0.00	pCi/g	16		(0% - 100%)			
	Uncert:	+/-0.033		+/-0.0327							
	TPU:	+/-0.033		+/-0.0327							
Cesium-137	UI	0.00	U	-0.00065	pCi/g	208		(0% - 100%)			
	Uncert:	+/-0.0281		+/-0.0206							
	TPU:	+/-0.0281		+/-0.0206							
Cobalt-60	U	-0.013	U	0.00792	pCi/g	827		(0% - 100%)			
	Uncert:	+/-0.0169		+/-0.0186							
	TPU:	+/-0.0169		+/-0.0186							
Europium-152	U	0.024	U	0.0167	pCi/g	36		(0% - 100%)			
	Uncert:	+/-0.041		+/-0.0509							
	TPU:	+/-0.041		+/-0.0509							
Europium-154	U	0.00185	U	-0.0485	pCi/g	216		(0% - 100%)			
	Uncert:	+/-0.0495		+/-0.0647							
	TPU:	+/-0.0495		+/-0.0647							
Europium-155	U	0.0651	U	-0.033	pCi/g	612		(0% - 100%)			
	Uncert:	+/-0.0432		+/-0.0473							
	TPU:	+/-0.0432		+/-0.0473							
Lead-212		0.285		0.346	pCi/g	19		(0% - 100%)			
	Uncert:	+/-0.0477		+/-0.0549							
	TPU:	+/-0.0477		+/-0.0549							
Lead-214		0.402		0.419	pCi/g	4		(0% - 100%)			
	Uncert:	+/-0.0695		+/-0.0777							
	TPU:	+/-0.0695		+/-0.0777							
Manganese-54	U	0.000309	U	0.014	pCi/g	191		(0% - 100%)			
	Uncert:	+/-0.0169		+/-0.0173							
	TPU:	+/-0.0169		+/-0.0173							
Niobium-94	U	0.00718	U	0.0089	pCi/g	21		(0% - 100%)			
	Uncert:	+/-0.0145		+/-0.0158							
	TPU:	+/-0.0145		+/-0.0158							
Potassium-40		7.04		7.61	pCi/g	8		(0% - 20%)			
	Uncert:	+/-0.674		+/-0.836							
	TPU:	+/-0.674		+/-0.836							
Radium-226		0.423		0.448	pCi/g	6		(0% - 100%)			
	Uncert:	+/-0.070		+/-0.0781							
	TPU:	+/-0.070		+/-0.0781							
Silver-108m	U	0.00582	U	-0.00782	pCi/g	1360		(0% - 100%)			
	Uncert:	+/-0.0134		+/-0.0162							

QC Summary

Workorder: 174936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 583389											
	TPU:	+/-0.0134		+/-0.0162							
Thallium-208		0.107		0.108	pCi/g	2		(0% - 100%)			
	Uncert:	+/-0.031		+/-0.036							
	TPU:	+/-0.031		+/-0.036							
QC1201217097 LCS											
Actinium-228			U	0.166	pCi/g					10/31/06	10:56
	Uncert:			+/-0.579							
	TPU:			+/-0.579							
Americium-241	23.4			25.2	pCi/g		108	(75%-125%)			
	Uncert:			+/-1.33							
	TPU:			+/-1.33							
Bismuth-212			U	0.169	pCi/g						
	Uncert:			+/-0.989							
	TPU:			+/-0.989							
Bismuth-214			U	0.208	pCi/g						
	Uncert:			+/-0.235							
	TPU:			+/-0.235							
Cesium-134			U	0.0196	pCi/g						
	Uncert:			+/-0.149							
	TPU:			+/-0.149							
Cesium-137	9.54			10.1	pCi/g		106	(75%-125%)			
	Uncert:			+/-0.474							
	TPU:			+/-0.474							
Cobalt-60	14.2			14.4	pCi/g		101	(75%-125%)			
	Uncert:			+/-0.640							
	TPU:			+/-0.640							
Europium-152			U	-0.0221	pCi/g						
	Uncert:			+/-0.301							
	TPU:			+/-0.301							
Europium-154			U	-0.0891	pCi/g						
	Uncert:			+/-0.300							
	TPU:			+/-0.300							
Europium-155			U	0.246	pCi/g						
	Uncert:			+/-0.296							
	TPU:			+/-0.296							
Lead-212			U	0.0927	pCi/g						
	Uncert:			+/-0.160							
	TPU:			+/-0.160							
Lead-214			U	-0.0668	pCi/g						
	Uncert:			+/-0.216							
	TPU:			+/-0.216							
Manganese-54			U	0.0637	pCi/g						
	Uncert:			+/-0.141							
	TPU:			+/-0.141							
Niobium-94			U	-0.0941	pCi/g						
	Uncert:			+/-0.131							
	TPU:			+/-0.131							
Potassium-40			U	0.512	pCi/g						

QC Summary

Workorder: 174936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 583389											
	Uncert:			+/-1.01							
	TPU:			+/-1.01							
Radium-226			U	0.208	pCi/g			(75%-125%)			
	Uncert:			+/-0.235							
	TPU:			+/-0.235							
Silver-108m			U	0.00145	pCi/g						
	Uncert:			+/-0.116							
	TPU:			+/-0.116							
Thallium-208			U	0.109	pCi/g						
	Uncert:			+/-0.124							
	TPU:			+/-0.124							
QC1201217095 MB											
Actinium-228			U	0.017	pCi/g					10/31/06	09:31
	Uncert:			+/-0.0424							
	TPU:			+/-0.0424							
Americium-241			U	0.00734	pCi/g						
	Uncert:			+/-0.0106							
	TPU:			+/-0.0106							
Bismuth-212			U	0.000324	pCi/g						
	Uncert:			+/-0.0883							
	TPU:			+/-0.0883							
Bismuth-214			U	0.0233	pCi/g						
	Uncert:			+/-0.033							
	TPU:			+/-0.033							
Cesium-134			UI	0.00	pCi/g						
	Uncert:			+/-0.0377							
	TPU:			+/-0.0377							
Cesium-137			U	-0.00239	pCi/g						
	Uncert:			+/-0.0102							
	TPU:			+/-0.0102							
Cobalt-60			U	0.0115	pCi/g						
	Uncert:			+/-0.0112							
	TPU:			+/-0.0112							
Europium-152			U	-0.00208	pCi/g						
	Uncert:			+/-0.0274							
	TPU:			+/-0.0274							
Europium-154			U	0.0176	pCi/g						
	Uncert:			+/-0.030							
	TPU:			+/-0.030							
Europium-155			U	0.00314	pCi/g						
	Uncert:			+/-0.0186							
	TPU:			+/-0.0186							
Lead-212			U	0.0227	pCi/g						
	Uncert:			+/-0.0166							
	TPU:			+/-0.0166							
Lead-214			UI	0.00	pCi/g						
	Uncert:			+/-0.0396							
	TPU:			+/-0.0396							

QC Summary

Workorder: 174936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 583389										
Manganese-54			U	-0.00543	pCi/g					
	Uncert:			+/-0.0113						
	TPU:			+/-0.0113						
Niobium-94			U	0.00493	pCi/g					
	Uncert:			+/-0.0109						
	TPU:			+/-0.0109						
Potassium-40			U	0.356	pCi/g					
	Uncert:			+/-0.179						
	TPU:			+/-0.179						
Radium-226			U	0.0233	pCi/g					
	Uncert:			+/-0.033						
	TPU:			+/-0.033						
Silver-108m			U	-0.00346	pCi/g					
	Uncert:			+/-0.00831						
	TPU:			+/-0.00831						
Thallium-208			U	0.0108	pCi/g					
	Uncert:			+/-0.0183						
	TPU:			+/-0.0183						
Rad Gas Flow										
Batch 583243										
QC1201216718 174936001 DUP										
Strontium-90		0.0263		0.0557	pCi/g	72		(0% - 100%)	KSD1	11/02/06 09:35
	Uncert:	+/-0.0109		+/-0.019						
	TPU:	+/-0.011		+/-0.019						
QC1201216720 LCS										
Strontium-90	1.64			1.34	pCi/g		82	(75%-125%)		11/02/06 09:35
	Uncert:			+/-0.0863						
	TPU:			+/-0.0946						
QC1201216717 MB										
Strontium-90				0.0333	pCi/g					11/02/06 09:35
	Uncert:			+/-0.0137						
	TPU:			+/-0.0137						
QC1201216719 174936001 MS										
Strontium-90	5.18	0.0263		4.66	pCi/g		89	(75%-125%)		11/02/06 09:35
	Uncert:	+/-0.0109		+/-0.304						
	TPU:	+/-0.011		+/-0.330						
Rad Liquid Scintillation										
Batch 583233										
QC1201216690 174936001 DUP										
Technetium-99	U	0.320	U	0.321	pCi/g	0		(0% - 100%)	KXR1	10/31/06 04:00
	Uncert:	+/-0.221		+/-0.291						
	TPU:	+/-0.221		+/-0.291						
QC1201216692 LCS										
Technetium-99	13.0			12.9	pCi/g		99	(75%-125%)		10/31/06 04:32
	Uncert:			+/-0.501						
	TPU:			+/-0.601						
QC1201216689 MB										
Technetium-99			U	0.047	pCi/g					10/31/06 03:43

QC Summary

Workorder: 174936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 583233										
	Uncert:			+/-0.238						
	TPU:			+/-0.238						
QC1201216691 174936001 MS										
Technetium-99	13.1 U	0.320		12.5	pCi/g		96	(75%-125%)		10/31/06 04:16
	Uncert:	+/-0.221		+/-0.543						
	TPU:	+/-0.221		+/-0.631						
Batch 583234										
QC1201216694 174936001 DUP										
Tritium	U	3.72	U	-6.31	pCi/g	0		(0% - 100%)	DFA1	10/28/06 08:10
	Uncert:	+/-5.94		+/-6.86						
	TPU:	+/-5.94		+/-6.86						
QC1201216696 LCS										
Tritium	51.5			45.3	pCi/g		88	(75%-125%)		10/28/06 08:42
	Uncert:			+/-8.97						
	TPU:			+/-9.01						
QC1201216693 MB										
Tritium			U	-0.82	pCi/g					10/28/06 07:54
	Uncert:			+/-5.74						
	TPU:			+/-5.74						
QC1201216695 174936001 MS										
Tritium	60.3 U	3.72		48.1	pCi/g		80	(75%-125%)		10/28/06 08:26
	Uncert:	+/-5.94		+/-10.1						
	TPU:	+/-5.94		+/-10.1						
Batch 583236										
QC1201216702 174936001 DUP										
Carbon-14	U	0.179	U	0.0712	pCi/g	0		(0% - 100%)	AXD2	10/28/06 01:06
	Uncert:	+/-0.112		+/-0.108						
	TPU:	+/-0.112		+/-0.108						
QC1201216704 LCS										
Carbon-14	6.78			6.63	pCi/g		98	(75%-125%)		10/28/06 02:40
	Uncert:			+/-0.229						
	TPU:			+/-0.251						
QC1201216701 MB										
Carbon-14			U	0.0836	pCi/g					10/28/06 00:19
	Uncert:			+/-0.109						
	TPU:			+/-0.109						
QC1201216703 174936001 MS										
Carbon-14	7.17 U	0.179		6.59	pCi/g		92	(75%-125%)		10/28/06 01:53
	Uncert:	+/-0.112		+/-0.237						
	TPU:	+/-0.112		+/-0.258						
Batch 583239										
QC1201216710 174936001 DUP										
Iron-55	U	14.2	U	-3.35	pCi/g	0		(0% - 100%)	MXP1	11/01/06 19:15
	Uncert:	+/-19.7		+/-19.4						
	TPU:	+/-19.7		+/-19.4						
QC1201216712 LCS										
Iron-55	57.2			54.5	pCi/g		95	(75%-125%)		11/01/06 19:47
	Uncert:			+/-3.71						
	TPU:			+/-5.38						

QC Summary

Workorder: 174936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 583239										
QC1201216709 MB										
Iron-55			U	-0.337	pCi/g					11/01/06 16:51
	Uncert:			+/-1.02						
	TPU:			+/-1.02						
QC1201216711 174936001 MS										
Iron-55	611 U	14.2		593	pCi/g		97	(75%-125%)		11/01/06 19:31
	Uncert:	+/-19.7		+/-37.3						
	TPU:	+/-19.7		+/-58.7						
Batch 583241										
QC1201216714 174936001 DUP										
Nickel-63	U	-0.799	U	0.571	pCi/g	0		(0% - 100%)	MXP1	11/01/06 17:24
	Uncert:	+/-7.83		+/-7.52						
	TPU:	+/-7.83		+/-7.52						
QC1201216716 LCS										
Nickel-63	179			160	pCi/g		90	(75%-125%)		11/01/06 18:07
	Uncert:			+/-6.78						
	TPU:			+/-8.10						
QC1201216713 MB										
Nickel-63			U	1.12	pCi/g					11/01/06 17:02
	Uncert:			+/-2.38						
	TPU:			+/-2.38						
QC1201216715 174936001 MS										
Nickel-63	535 U	-0.799		448	pCi/g		84	(75%-125%)		11/01/06 17:45
	Uncert:	+/-7.83		+/-19.0						
	TPU:	+/-7.83		+/-24.7						

Notes:
The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound

RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL

QC Summary

Workorder: 174936

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

^

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

ATTACHMENT 4 (DQA RESULTS)

ATTACHMENT 4A (PRELIMINARY DATA REVIEW)

PRELIMINARY DATA REVIEW FORM

Survey Unit :	9520-0004
Survey Unit Name :	Southwest Site Storage area
Classification :	1
Survey Media :	Soil
Type of Survey :	Final Status Survey
Type of Measurement :	Radionuclide Specific
Number of Measurements :	15

BASIC STATISTICAL QUANTITIES

	Cs-137
Target Level (pCi/g) :	5.38E+00
Minimum Value :	-9.59E-03
Maximum Value :	1.20E-01
Mean :	4.64E-02
Median :	4.11E-02
Standard Deviation :	2.79E-02

Sample Identification	Reported Results Cs-137 Concentration (pCi/g)	Detect?	Fraction of Target Level
9520-0004-001F	3.19E-02		0.006
9520-0004-002F	2.85E-02	+	0.005
9520-0004-003F	3.94E-02	+	0.007
9520-0004-004F	5.92E-02	+	0.011
9520-0004-005F	3.15E-02	+	0.006
9520-0004-006F	-9.59E-03		-----
9520-0004-007F	3.22E-02	+	0.006
9520-0004-008F	5.20E-02	+	0.010
9520-0004-009F	4.11E-02	+	0.008
9520-0004-010F	3.46E-02	+	0.006
9520-0004-011F	5.69E-02	+	0.011
9520-0004-012F	1.20E-01	+	0.022
9520-0004-013F	7.37E-02	+	0.014
9520-0004-014F	4.71E-02	+	0.009
9520-0004-015F	5.71E-02	+	0.011

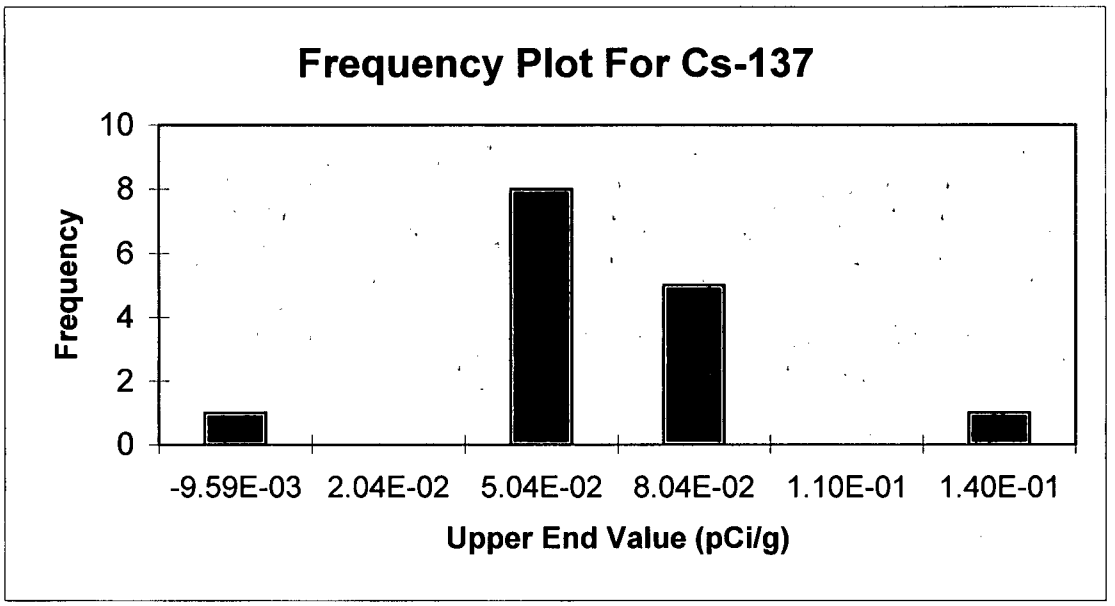
Jack McCarthy 11/13/06

Submitted by/Date

ATTACHMENT 4B (GRAPHICAL REPRESENTATION OF DATA)

FREQUENCY PLOT FOR CESIUM-137

Survey Unit: 9520-0004
Survey Unit Name: Southwest Site Storage Area
Mean: 4.64E-02 pCi/g



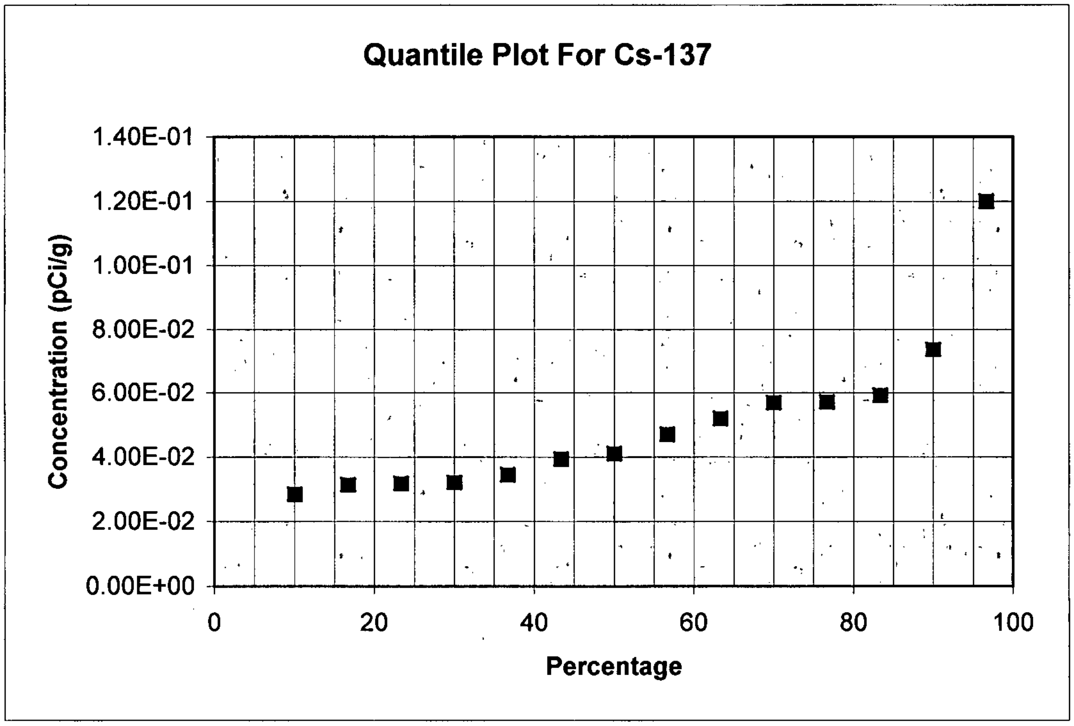
Upper End Value	Observation Frequency	Observation Frequency
-9.59E-03	1	7%
2.04E-02	0	0%
5.04E-02	8	53%
8.04E-02	5	33%
1.10E-01	0	0%
1.40E-01	1	7%
Total:	15	100%

Submitted by/Date 11/9/06

Reviewed by/Date 11-9-06

QUANTILE PLOT FOR CESIUM-137

Survey Unit: 9520-0004
Survey Unit Name: Southwest Site Storage Area
Mean: 4.64E-02 pCi/g



Cs-137	Rank	Percentage
-9.59E-03	1	3%
2.85E-02	2	10%
3.15E-02	3	17%
3.19E-02	4	23%
3.22E-02	5	30%
3.46E-02	6	37%
3.94E-02	7	43%
4.11E-02	8	50%
4.71E-02	9	57%
5.20E-02	10	63%
5.69E-02	11	70%
5.71E-02	12	77%
5.92E-02	13	83%
7.37E-02	14	90%
1.20E-01	15	97%

Jack McLaughlin 11/9/06
Submitted by/Date

11-9-06
Reviewed by/Date

ATTACHMENT 4C (SIGN TEST)

Sign Test Calculation Sheet For A Single Radionuclide or Gross Activity Measurements

Survey Area Number: 9520		
Survey Unit Number: 0004		
Survey Area Name: Southwest Site Storage Area		
WPIR#: 2006-0038		
Classification: 1	Type I (α error): 0.05	(N): 15
Radionuclide: Cs-137	DCGL: 5.38	
Results (pCi/g)	DCGL - Results	Sign
3.19E-02	5.35E+00	1
2.85E-02	5.35E+00	1
3.94E-02	5.34E+00	1
5.92E-02	5.32E+00	1
3.15E-02	5.35E+00	1
-9.59E-03	5.39E+00	1
3.22E-02	5.35E+00	1
5.20E-02	5.33E+00	1
4.11E-02	5.34E+00	1
3.46E-02	5.35E+00	1
5.69E-02	5.32E+00	1
1.20E-01	5.26E+00	1
7.37E-02	5.31E+00	1
4.71E-02	5.33E+00	1
5.71E-02	5.32E+00	1
Number of positive differences (S+): 15		

Critical Value: 11 Survey Unit Meets Acceptance Criterion

Performed by: Jack McCarthy Date: 11/10/06

Independent Review by: Date: 11/13/06

ATTACHMENT 4D (QC SPLIT RESULTS)

Split Sample Assessment Form

Survey Area#: 9520	Survey Unit #: 0004	Survey Unit name: Southwest Site Storage Area
Sample Plan or WPIR#: 2005-0038		SML#: 9520-0002-004

Sample Description: Comparison of split samples collected from sample measurement location #4 and analyzed using gamma spectroscopy by off-site Vendor Laboratory. The standard sample was 9520-0004-004F, the comparison sample was 9520-0004-004FS.

	STANDARD				COMPARISON			
Radionuclide	Activity Value	Standard Error	Resolution	Agreement Range	Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N)
K-40	12.0	4.22E-1	28	0.75 – 1.33	11.8	4.93E-1	0.98	Y

Comments/Corrective Actions: Not enough Cs-137 to evaluate

Table is provided to show acceptance criteria used to assess split samples.

Resolution	Agreement Range
4 - 7	0.5 - 2.0
8 - 15	0.6 - 1.66
16 - 50	0.75 - 1.33
51 - 200	0.80 - 1.25
>200	0.85 - 1.18

Performed By:	Date	Reviewed By:	Date:
Jack McCurley	11/9/06		11/13/06

Split Sample Assessment Form

Survey Area#: 9520	Survey Unit #: 0004	Survey Unit name: Southwest Site Storage Area
Sample Plan or WPIR#: 2005-0038		SML#: 9520-0004-012

Sample Description: Comparison of split samples collected from sample measurement location #12 and analyzed using gamma spectroscopy by off-site Vendor Laboratory. The standard sample was 9520-0004-012F, the comparison sample was 9520-0004-012FS.

	STANDARD				COMPARISON			
Radionuclide	Activity Value	Standard Error	Resolution	Agreement Range	Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N)
Cs-137	1.20E-1	1.84E-2	7	0.5 – 2.0	1.55E-1	2.36E-2	1.29	Y

Comments/Corrective Actions: N/A

Table is provided to show acceptance criteria used to assess split samples.

Resolution	Agreement Range
4 - 7	0.5 - 2.0
8 - 15	0.6 - 1.66
16 - 50	0.75 - 1.33
51 - 200	0.80 - 1.25
>200	0.85 - 1.18

Performed By:	Date	Reviewed By:	Date:
JACK McCRARY	11/9/06		11/13/06

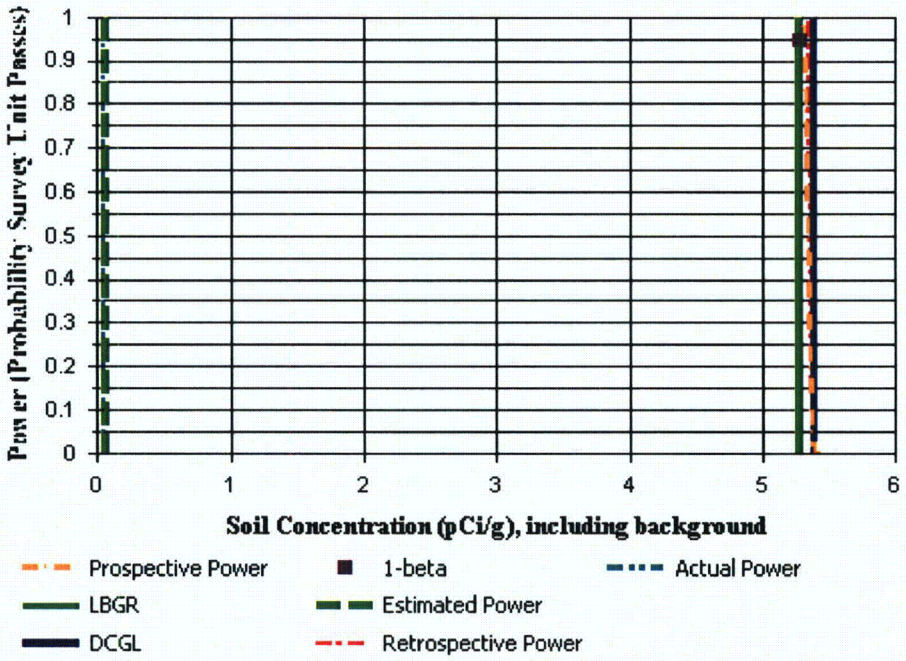
ATTACHMENT 4E (COMPASS DQA WITH POWER CURVE)

DQA Surface Soil Report

Assessment Summary

Site:	9520-0004 FSS		
Planner(s):	McCarthy		
Survey Unit Name:	Southwest Site Storage Area		
Report Number:	1		
Survey Unit Samples:	15		
Reference Area Samples:	0		
Test Performed:	Sign	Test Result:	Not Performed
Judgmental Samples:	0	EMC Result:	Not Performed
Assessment Conclusion:	***Reject Null Hypothesis (Survey Unit PASSES)***		

Retrospective Power Curve



DQA Surface Soil Report

Survey Unit Data

NOTE: Type = "S" indicates survey unit sample.
Type = "R" indicates reference area sample.

Sample Number	Type	Cs-137 (pCi/g)
9520-0004-001F	S	0.03
9520-0004-002F	S	0.03
9520-0004-003F	S	0.04
9520-0004-004F	S	0.06
9520-0004-005F	S	0.03
9520-0004-006F	S	-0.01
9520-0004-007F	S	0.03
9520-0004-008F	S	0.05
9520-0004-009F	S	0.04
9520-0004-010F	S	0.03
9520-0004-011F	S	0.06
9520-0004-012F	S	0.12
9520-0004-013F	S	0.07
9520-0004-014F	S	0.05
9520-0004-015F	S	0.06

Basic Statistical Quantities Summary

Statistic	Survey Unit	Background	DQO Results
Sample Number	15	N/A	N=15
Mean (pCi/g)	0.05	N/A	0.06
Median (pCi/g)	0.04	N/A	N/A
Std Dev (pCi/g)	0.03	N/A	0.0551
High Value (pCi/g)	0.12	N/A	N/A
Low Value (pCi/g)	-0.01	N/A	N/A