



Final Status Survey Final Report Phase IV

**Appendix A5
Survey Unit Release Record
9106-0005, Discharge Canal**

November 2006



CYAPCO
FINAL STATUS SURVEY RELEASE RECORD
DISCHARGE CANAL
SURVEY UNIT 9106-0005

Prepared By: *Oak Grubbs* Date: 11-10-06
FSS Engineer

Reviewed By: *E. E. [Signature]* Date: 11/10/06
FSS Engineer

Approved By: *MAN [Signature] C. Newson* Date: 11/13/06
Technical Support Manager

DISCHARGE CANAL
SURVEY UNIT 9106-0005
RELEASE RECORD

TABLE OF CONTENTS

1. SURVEY UNIT DESCRIPTION.....	3
2. CLASSIFICATION BASIS	3
3. DATA QUALITY OBJECTIVES (DQO)	5
4. SURVEY DESIGN.....	8
5. SURVEY IMPLEMENTATION	11
6. SURVEY RESULTS.....	12
7. QUALITY CONTROL.....	14
8. INVESTIGATIONS AND RESULTS	14
9. REMEDIATION AND RESULTS.....	15
10. CHANGES FROM THE FINAL STATUS SURVEY PLAN	15
11. DATA QUALITY ASSESSMENT (DQA).....	15
12. ANOMALIES.....	16
13. CONCLUSION	16
14. ATTACHMENTS.....	17
14.1 Attachment 1 – Figures (10 pages including cover)	
14.2 Attachment 2 – Sample and Statistical Data (271 pages including covers)	

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

1. SURVEY UNIT DESCRIPTION

Survey Unit 9106-0005 (Discharge Canal) is designated as Final Status Survey (FSS) Class 2 and consists of approximately 9,632 m² (2.38 acres) of water covered sediment in an area located approximately 0.55 miles from the reference coordinate system benchmark used at the Haddam Neck Plant (HNP) (see Attachment 1, Figure 1). The Discharge Canal is a man-made mile long waterway that runs parallel to, and ultimately communicates with the Connecticut River. The Discharge Canal is subdivided into fifteen (15) survey units including two (2) permanent wetland areas for FSS purposes. The survey unit is bounded as follows: Discharge Canal Survey Unit 9106-0004 is to the north (called north as orientated with the north to south flow of the Connecticut River), Survey Area 9528 is to the east, Discharge Canal Survey Unit 9106-0006 is to the south and Survey Area 9530 is to the west. The survey unit comprises the canal sediments to the depth of three (3) feet from the top of the sediment layer or the original construction depth and it extends up the canal banks to the mean high water level.

This survey unit is bounded by reference coordinates E017 through E023 and by S100 through S115 (refer to License Termination Plan 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 historical information, scoping analyses and characterization results provided sufficient data to designate Survey Unit 9106-0005 as Class 2 in May 2006.

The "Classification Basis Summary" conducted for this survey unit 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 (HSA) Supplement,"
- c) Historic and current survey records review,
- d) Visual inspections and a "walkdown."
- e) Formal or informal interviews with cognizant personnel.

A review of the 10CFR50.75(g)(1) database report identified a number of events that may have impacted this survey unit. Several events indicated the potential for plant related contamination in the survey unit. These included a number of primary side system to secondary side system leakage events,

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

contamination found to be present in secondary side systems and components, and unmonitored spills that drained to the discharge canal. In 1986, samples were taken from the legacy dredge spoils removed in 1979 dredged spoils area and from recently dredged canal sediment. The sample analyses indicated that the concentrations of Cs-137, Co-60 and other radionuclides were a small fraction of the DCGLs for those nuclides that could be identified by gamma spectroscopy. (refer to NE-86-RA-1142 dated 11-13-86). None the available historical information reviewed would support a conclusion that any residual activity in this survey unit is likely to be present at concentrations greater than the respective DCGLs.

Additional information was provided by several historical documents, including the *"Results of Scoping Survey"*, (completed 9/1/98), the *"Historical Site Assessment"*, and the HSA Supplement (dated 6-30-00). These documents presented the results of several sediment samples taken in 1997. These sample results indicated concentrations of 0.5 pCi/g for Co-60, 0.024 pCi/g for Cs-134 and 0.722 pCi/g for Cs-137.

An initial characterization survey of the Discharge Canal was performed during April and May of 2004. However, none of these samples were taken from within the footprint of survey Unit 9106-0005.

A final characterization was performed by Site Closure personnel in April of 2006 to obtain the necessary data of sufficient data quality for Final Status Survey (FSS) planning purposes. Six (6) 3-foot core sediment samples were taken from six (6) locations. All of the samples were analyzed by gamma spectroscopy. Since Hard-to-Detect (HTD) analyses were not performed and since Sr-90 was found to be a nuclide of concern in an adjacent discharge canal Survey Unit (SU 9106-0006), for conservatism it was included as a nuclide of concern in Survey Unit 9106-0005. The Sr-90 concentration statistics were also included in the variance calculations to determine the size of the sample population for FSS. Although no additional HTD testing was performed for characterization; four (4) of the fifteen (15) samples taken to demonstrate compliance with the release criteria during FSS were tested for the full suite of HTD nuclides to provide additional assurance that all of the radionuclides of concern were appropriately addressed. As a result of characterization, the radionuclides of concern identified for FSS planning purposes were Cs-137, Co-60 and Sr-90 (refer to Table 1).

DISCHARGE CANAL
SURVEY UNIT 9106-0005
RELEASE RECORD

Table 1 – Basic Statistical Quantities for Cs-137, Co-60 and Sr-90 from the Characterization Survey			
Parameter	Cs-137 (pCi/g)	Co-60 (pCi/g)	Sr-90 (pCi/g)
Minimum Value:	6.64E-02	1.16E-01	1.14E-02
Maximum Value:	2.79E-01	5.59E-01	7.16E-02
Mean:	1.73E-01	3.08E-01	4.17E-02
Median:	1.63E-01	2.64E-01	3.94E-02
Standard Deviation:	8.09E-02	1.52E-01	2.50E-02
NOTE: The Operational DCGLs are 6.01 pCi/g for Cs-137, 2.90 pCi/g for Co-60 and 1.18 pCi/g for Sr-90; these are used in conjunction with the unity rule to achieve nineteen (19) mrem/yr TEDE			

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

Based upon the historical information and the results of radiological surveys performed during characterization, it was concluded that there was a low probability for residual radioactivity to be present in this survey unit in concentrations greater than the Operational DCGLs justifying a final survey unit classification of Class 2 (refer to Section 3).

3. DATA QUALITY OBJECTIVES (DQO)

FSS design and planning is based on 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 incorporates 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 satisfy the release criteria objective of the FSS.

The primary objective of the Final Status Survey Plan (FSSP) was to demonstrate that the level of residual radioactivity in Survey Unit 9106-0005 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).

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

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 Derived Concentration Guideline Levels (DCGLs). The DCGLs represent the concentration of radioactivity above background, equivalent to a dose-based release criterion and is 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), for existing groundwater radioactivity and for future groundwater radioactivity that will be contributed by building foundations and footings.

As described in detail in the LTP, the dose model applied to the discharge canal presumes that the canal sediments are dredged to a depth of three (3) feet below the top of the sediment layer and spread for the planting of crops per the Resident Farmer Scenario. Consequently, the soil DCGLs are directly applied to the canal sediment media.

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:

$$H_{\text{Total}} = H_{\text{Soil (sediment)}} + H_{\text{Existing GW}} + H_{\text{Future GW}}$$

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 Connecticut Yankee (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 groundwater dose values discussed above.

This survey unit is not affected by existing groundwater or by future groundwater (reference CY memo ISC 06-024). Therefore, dose contribution from existing and future groundwater is zero (0) mrem/yr TEDE, based on field data.

Equation 2:

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

The allowable dose for soil in this survey unit is nineteen (19) mrem/yr TEDE as shown by Equation 2 above. The concentration of residual radioactivity resulting in nineteen (19) mrem/yr TEDE is designated as the Operational

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

DCGL, and has been established for the radionuclides of concern as provided in Table 2.

Note: The survey design used a much smaller value for investigation than the Operational DCGL provided by Table 2 to conservatively account for the contribution to the total dose from existing and future groundwater which had not been established at the time of planning the FSS.

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⁾
H-3	4.12E+02	3.13E+02	1.65E+01
C-14	5.66E+00	4.30E+00	2.26E-01
Mn-54	1.74E+01	1.32E+01	6.96E-01
Fe-55	2.74E+04	2.08E+04	1.10E+03
Co-60	3.81E+00	2.90E+00	1.52E-01
Ni-63	7.23E+02	5.49E+02	2.89E+01
Sr-90	1.55E+00	1.18E+00	6.20E-02
Nb-94	7.12E+00	5.41E+00	2.85E-01
Tc-99	1.26E+01	9.58E+00	5.04E-01
Ag-108m	7.14E+00	5.43E+00	2.86E-01
Cs-134	4.67E+00	3.55E+00	1.87E-01
Cs-137	7.91E+00	6.01E+00	3.16E-01
Eu-152	1.01E+01	7.68E+00	4.04E-01
Eu-154	9.29E+00	7.06E+00	3.72E-01
Eu-155	3.92E+02	2.98E+02	1.57E+01
Pu-238	2.96E+01	2.25E+01	1.18E+00
Pu-239/240	2.67E+01	2.03E+01	1.07E+00
Pu-241	8.70E+02	6.61E+02	3.48E+01
Am-241 ⁽⁵⁾	2.58E+01	1.96E+01	1.03E+00
Cm-243/244	2.90E+01	2.20E+01	1.16E+00

(1) **Bold** indicates those radionuclides that are 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 twenty-five (25) mrem/yr TEDE

(3) The Operational DCGL is equivalent to nineteen (19) mrem/yr TEDE

(4) The required MDC is equivalent to one (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.

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

Another important facet of the DQO process is to identify the radionuclides of concern and determine the concentration variability. The radiological data that was used to support the DQO process, was provided by the characterization surveys performed in 2004 and 2006, as discussed in Section 2. Cs-137, Co-60 and Sr-90 were found to be the predominate radionuclides of concern. The basic statistical quantities (i.e., mean, standard deviation, median) for Cs-137, Co-60 and Sr-90 are provided in Table 1.

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"*.

This survey was initially designed to ten (10) mrem/yr TEDE. At the time when the survey was designed, the dose contribution for existing and future groundwater had not yet been determined. Consequently, a conservative value was chosen for the Operational DCGL. This approach is no longer required as the total dose from existing and future groundwater has been established. The dose for soil used for this survey unit to demonstrate compliance with the LTP criteria is nineteen (19) mrem/yr TEDE, as discussed in Section 2 of this Release Record.

The DQO process determined that Cs-137, Co-60 and Sr-90 were the radionuclides of concern (refer to Section 3). The sum of fractions or unity rule was used with the individual Operational DCGLs because multiple radionuclides (Cs-137, Co-60 and Sr-90) were considered in the survey design.

Surrogate DCGLs were not required for this survey unit based on process knowledge from FSS of nearby adjacent areas and via screening process described in LTP Section 5.4.7.3, "Gross Activity DCGLs". Sr-90 concentrations in sediment and soil were ascertained by direct analysis.

Radionuclide screening or de-selection is a process, described in LTP Section 5.4.7.2, where an individual radionuclide or aggregate 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 the aggregate of all radionuclides de-selected. This process was applied to analysis data for this survey unit.

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

The Elevated Measurement Comparison (EMC) did not apply to this survey unit since it is a Class 2 area and discrete, elevated areas of contamination were not expected.

The Sign Test was selected as the non-parametric statistical test to demonstrate that the null hypothesis was rejected. The use of the Sign Test did not require the selection or use of a background reference area, which simplified survey design and implementation. In addition, this approach is conservative since it includes background Cs-137 as part of the sample set.

The number of sediment samples for FSS was determined in accordance with Procedure RPM 5.1-12, *"Determination of the Number of Samples for Final Status Survey."* The Lower Bound of the Gray Region (LBGR) was set to 0.78 in accordance with Procedure RPM 5.1-11 to maintain the relative shift (Δ/σ) in the range of 1 and 3. The resulting 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 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. This indicates that the survey unit has a high probability of rejecting the null hypothesis, assuming that the characterization data are representative of the FSS results. Survey design specified fifteen (15) sediment core samples for non-parametric statistical testing.

The grid pattern and locations of the sediment 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 2 area.

Judgmental sampling was included as a feature of this survey design to account for any anomalies potentially identified in the field.

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.

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

Table 3 -Sample Measurement Locations with Associated GPS Coordinates

Designation	Northing	Easting
9106-0005-001F	235695.70	670974.93
9106-0005-002F	235618.98	670930.64
9106-0005-003F	235618.98	671019.23
9106-0005-004F	235618.98	671107.82
9106-0005-005F	235618.98	671196.41
9106-0005-007F	235542.25	671152.11
9106-0005-008F	235542.25	671240.70
9106-0005-009F	235542.25	671329.29
9106-0005-010F	235542.25	671417.88
9106-0005-011F	235542.25	671506.47
9106-0005-013F	235465.53	671373.59
9106-0005-014F	235465.53	671462.18
9106-0005-015F	235465.53	671550.77
9106-0005-017F	235576.64	671402.01
9106-0005-018F	235550.83	671137.60

The sample location designations of Table 3 are not sequentially inclusive because of the necessity to relocate some samples due to the accessibility of the original sample locations. Sample locations 9106-0005-006F and 9106-0005-012F were found to be on dry land. Consequently, they were randomly re-located using the VSP software to two (2) new locations designated as 9106-0005-017F and 9106-0005-018F. Since sample 9106-0005-012F was randomly selected as a Quality Control (QC) split sample, sample 9106-0005-018F was designated as the replacement QC sample. Any location(s) identified by biased methods, were not included in Table 3.

One (1) biased sample was required by the sample plan. This sample was designated as sample location 9106-0005-016F. Sample results for sample location 9106-0005-016F are presented in Section 6, "Survey Results" and are also provided in Table 6.

Four (4) sediment samples were analyzed for the full suite of radionuclides specified in Table 1, exceeding the requirement to analyze 5% of the sample population for HTD analysis specified in procedure RPM 5.1-11. Two (2) of the four (4) samples were randomly selected using the Microsoft Excel "RAND" function. The two (2) samples exhibiting the highest observed radionuclide concentrations by gamma analyses were also selected.

The implementation of quality control measures as referenced by Procedure RPM 5.1-24, "*Split Sample Assessment for Final Status Survey*," required 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

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

“RAND” function. The number of quality control samples exceeded the 5% requirement as specified by the LTP.

Section 5.7.3.2.6 of the LTP specifies that scanning is not required for the FSS of the Discharge Canal. Table 4 provides a synopsis of the survey design.

Table 4 – Synopsis of the Survey Design ⁽¹⁾		
Feature	Design Criteria	Basis
Survey Unit Land Area	9,716 m ²	Based on AutoCAD-LT and Visual Sample Plan calculations
Number of Measurements	15	Type 1 and Type 2 errors were 0.05, sigma was 0.143 the LBGR was set to 0.78 to maintain Relative Shift in the range of 1 and 3, Relative Shift was 2.0
Grid Spacing	27.4 m	Based on triangular grid
Design DCGL	3.16 pCi/g Cs-137 1.52 pCi/g Co-60 0.62 pCi/g Sr-90	To achieve ten (10) mrem/yr TEDE
Operational DCGL	6.01 pCi/g Cs-137 2.90 pCi/g Co-60 1.18 pCi/g Sr-90	To achieve nineteen (19) mrem/yr TEDE ⁽²⁾ to demonstrate compliance with Equation 2 of this Release Record
Scan Coverage	N/A	The LTP exempts this area
Sediment Investigation Level	6.01 pCi/g Cs-137 2.90 pCi/g Co-60 1.18 pCi/g Sr-90	The Operational DCGL meets the LTP criteria for a Class 2 survey unit

(1) The survey design used a much smaller value for investigation than the Operational DCGL provided by Table 2 as the total dose from existing and future groundwater had not been established at the time of planning the FSS

(2) The allowable dose for soil in this survey unit is nineteen (19) 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.)

5. SURVEY IMPLEMENTATION

Final Status Survey field activities were conducted under Work Plan and Inspection Record (WP&IR) 2006-0021. The WP&IR package included a detailed FSSP, 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.

Measurement locations were identified in North American Datum (NAD) 1927 coordinates that were supplied to the sampling vendor, Ocean Surveys, Inc. (OSI) of Old Saybrook, Connecticut. Discharge Canal sampling was accomplished using direct push technology to collect composite samples of

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

bottom and mean high water mark sediments. Sediment cores from the Discharge Canal were obtained by OSI using a vibrating corer that is platform mounted on a sampling vessel. The core barrel was a three (3) inch diameter thin-walled aluminum tube which also served as a core liner (ten (10) feet or less). A core catcher was available to prevent the sample from sliding out of the bottom of the tube. Vessel positioning and the determination of sample locations were accomplished using a GPS interfaced with a navigation and data logging system.

After extraction, water was drained from above the sample by drilling holes above the sediment. The liner was cut, capped, sealed, labeled and turned over to site personnel who processed and controlled the samples under Chain of Custody (COC) protocols in accordance with procedure RPM 5.1-5, "*Chain of Custody for Final Status Survey Samples.*" Rinsing of the barrel and associated equipment was performed between sampling events. New aluminum tubes were used for each sample to prevent cross-contamination of subsequent samples.

The fifteen (15) sediment 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 COC protocols.

Four (4) samples (9106-0005-005F, 9106-0005-009F, 9106-0005-010F and 9106-0005-014F) were selected for HTD radionuclide analysis by the off-site laboratory.

The implementation of quality control measures included the collection of two (2) split samples at locations 9106-0005-003F and 9106-0005-018F for comparative analysis by the off-site laboratory.

6. SURVEY RESULTS

The off-site laboratory employed for the radiological analyses of samples was General Engineering Laboratories (GEL) – Charleston, South Carolina. The laboratory analyzed the fifteen (15) samples taken for non-parametric statistical testing and the associated duplicates using gamma spectroscopy. Sr-90 was analyzed by gas flow proportional counting. All analyses were performed to the required MDC.

Cesium-137 was identified in twelve (12), Co-60 was identified in eight (8) and Sr-90 in four (4) of the fifteen (15) samples.

Several other radionuclides which were positively identified (i.e., a result greater than two (2) standard deviations uncertainty) could be de-selected or excluded using the 5% and 10% rule described in Section 5.4.7.2 of the LTP.

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

The off-site laboratory also processed four (4) samples for full HTD analysis as required by the sample plan. The requested analyses included alpha spectroscopy and liquid scintillation depending upon the radionuclide and the measurement method. All analyses were performed to the required MDC. Four (4) of the HTD radionuclides met the acceptance criteria for detection (i.e., a result greater than two standard deviations uncertainty) in more than one (1) sample; however, each of the positive results for HTD radionuclides could be de-selected based on the 5% and 10% rules.

None of the sample results exceeded the Operational DCGL or required further investigation. A summary of the sample results is provided in Table 5.

Table 5- Summary of Soil Sample Results				
Sample Number	Cs-137 pCi/g	Co-60 pCi/g	Sr-90 pCi/g	Fraction of the Operational DCGL (1)
9106-0005-001F	2.88E-02	1.91E-02	5.10E-03	1.57E-02
9106-0005-002F	6.60E-02	8.95E-02	8.79E-03	4.93E-02
9106-0005-003F	3.09E-01	3.15E-01	1.15E-02	1.70E-01
9106-0005-004F	1.63E-01	2.10E-01	6.21E-03	1.05E-01
9106-0005-005F	-2.55E-02	9.87E-03	9.56E-03	7.28E-03
9106-0005-007F	-5.19E-04	-7.92E-03	5.15E-03	1.55E-03
9106-0005-008F	1.86E-01	1.69E-01	-1.56E-03	8.80E-02
9106-0005-009F	1.81E-01	2.14E-02	1.30E-02	4.85E-02
9106-0005-010F	2.60E-01	1.38E+00	1.34E-02	5.31E-01
9106-0005-011F	5.76E-02	0.00E+00	1.49E-02	2.22E-02
9106-0005-013F	5.31E-02	1.55E-02	-1.93E-03	1.25E-02
9106-0005-014F	4.73E-01	1.12E+00	3.27E-03	4.68E-01
9106-0005-015F	7.09E-02	2.78E-03	6.68E-03	1.84E-02
9106-0005-017F	1.39E-01	3.43E-01	-8.59E-04	1.41E-01
9106-0005-018F	3.39E-02	4.19E-02	5.37E-02	6.57E-02

(1) The Operational DCGLs from Table 2 are 6.01 pCi/g for Cs-137, 2.90 pCi/g for Co-60 and 1.18 for Sr-90; these are used in conjunction with the unity rule to achieve nineteen (19) mrem/yr TEDE

The sample location designations of Table 5 are not sequentially inclusive because of the necessity to relocate some samples due to the accessibility of the original sample locations. Sample locations 9106-0005-006F and 9106-0005-012F were found to be on dry land. Consequently, they were randomly re-located using the VSP software to two (2) new locations designated as 9106-0005-017F and 9106-0005-018F. Since sample 9106-0005-012F was randomly selected as a Quality Control (QC) split sample, sample 9106-0005-018F was designated as the replacement QC sample.

One (1) biased sample was required by the sample plan. This sample was designated as sample location 9106-0005-016F. Sample results for sample location 9106-0005-016F are presented in Table 6 below.

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

Table 6 – Biased Sample Results				
Sample Number	Cs-137 pCi/g	Co-60 pCi/g	Sr-90 pCi/g	Fraction of the Operational DCGL ⁽¹⁾
9106-0005-016F	-1.86E-02	2.07E-03	9.07E-04	-1.61E-03

The Operational DCGLs from Table 2 are 6.01 pCi/g for Cs-137, 2.90 pCi/g for Co-60 and 1.18 for Sr-90; these are used in conjunction with the unity rule to achieve nineteen (19) mrem/yr TEDE.

7. **QUALITY CONTROL**

The two (2) split samples taken for QC were analyzed by the off-site laboratory. The data were evaluated using USNRC acceptance criteria specified in Inspection Procedure 84750 and as detailed in HNP Procedure RPM 5.1-24, "Split Sample Assessment for Final Status Survey." One (1) split-sample (9106-0005-018F/S) did not meet the comparison criterion for Co-60. A possible cause for this anomaly could be the presence of Co-60 in the form of discrete particles. Such a physical form does not lend itself to homogenous mixing in a sediment matrix and, therefore, is not necessarily an indicator of inadequate sampling or sample preparation methodology. In this sample, K-40, a natural radioisotope, was found to be present at an acceptable level of agreement, therefore, the comparison was determined to be acceptable. For the other QC split samples, there was an acceptable level of agreement between the samples for all other detectable radionuclides.

The sample analysis vendor, GEL, maintained quality control and quality assurance plans as part of normal operation. Refer to Attachment 2 for data and data quality analysis results.

8. **INVESTIGATIONS AND RESULTS**

One (1) sample result was found to exceed the design DCGL, but was below the nineteen (19) mrem/yr operational DCGL, as specified in Table 4. Confirmatory samples were collected to determine the extent of contamination. The extent was bounded by taking four (4) confirmatory samples, one (1) in each major compass direction (i.e., North, East, South, West), two (2) meters distant from the elevated sample location. The gamma spectroscopy results are included in Table 7.

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

Table 7- Confirmatory Sample Results

Original Sample Location	Sample Number (9106-0005)	Cs-137 $\mu\text{Ci/g}$	Co-60 $\mu\text{Ci/g}$	Sr-90 $\mu\text{Ci/g}$	Fraction of the Operational DCGL ⁽¹⁾
010F	010A	4.63E-02	7.70E-02	0.00442	3.80E-02
	010B	9.08E-02	1.15E-01	-0.00561	5.01E-02
	010C	1.92E-01	5.22E-01	0.00471	2.16E-01
	010D	6.30E-01	2.24E+00	0.0219	8.97E-01

- (1) The investigation of sample 010F was initiated upon a sample result greater than the original design dose of ten (10) mrem/yr, prior to finalization of the dose contribution due to groundwater. Final results were evaluated against an Operational DCGL which considered the groundwater dose contribution.
- (2) The Operational DCGLs are 6.01 $\mu\text{Ci/g}$ for Cs-137, 2.90 $\mu\text{Ci/g}$ for Co-60 and 1.18 for Sr-90; these are used in conjunction with the unity rule to achieve nineteen (19) mrem/yr TEDE.

The confirmatory results demonstrated that no measurements exceeded the nineteen (19) mrem/yr Operational DCGL, indicating that no further actions are warranted.

9. REMEDIATION AND RESULTS

Historically, no radiological remedial action as described by MARSSIM Section 5.4 was performed in this survey unit prior to or as a result of the FSS. 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 to be unnecessary and that the remaining residual radioactivity in soil was ALARA.

10. CHANGES FROM THE FINAL STATUS SURVEY PLAN

The survey was designed to ten (10) mrem/yr TEDE which was conservative and necessary at the time of FSS planning. It is no longer required as the total dose from existing and future groundwater has been established. The dose for soil used to demonstrate compliance with the LTP and CTDEP criteria is nineteen (19) mrem/yr TEDE as discussed in Section 2 of this Release Record.

11. DATA QUALITY ASSESSMENT (DQA)

The DQO sample design and data were reviewed in accordance with Procedure RPM 5.1-23, "*Data Quality Assessment*." The sample 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 indicates that the survey unit passes the unrestricted release criterion, thus, the null hypothesis is rejected.

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

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 2.

The preliminary data review consisted of calculating basic statistical quantities (e.g., mean, median, standard deviation). The standard deviation was slightly more than the value used for the survey design. This is represented by the shift in the retrospective power curve as shown in Attachment 2f. This would indicate a need to change the original LBGR in order to maintain the number of samples at fifteen (15) to meet the Operational DCGL. However, the value of LBGR is not a critical issue as the survey unit has passed the statistical test, and the mean and median values are well below the Operational DCGL when used in conjunction with the unity rule. 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 criterion with adequate power as required by the DQOs.

The range of the data, about 3.23 standard deviations, was not unusually large. The difference between the mean and median was 40.8% of the standard deviation which indicates some skewness in the data. The data was represented graphically through posting plots, a frequency plot, and a quantile plot. The frequency plot shows some positive skewness as confirmed by the calculated skew of 2.01.

All data, assessments, and graphical representations are provided in Attachment 2.

12. ANOMALIES

The anomalies associated with the disagreement between the field splits has been discussed in Section 7. The source of the disagreement for Co-60, was likely due to Co-60 being present in the form of discrete particles. Such a physical form does not lend itself to homogenous mixing in a sediment matrix.

No other anomalies were identified in this survey unit.

13. CONCLUSION

Survey Unit 9106-0005 has demonstrated compliance with the dose based, unrestricted release criterion. The sample data passed the Sign Test and the null hypothesis was rejected. The ALARA criteria for soils as specified in Chapter 4 of the LTP were achieved. Reclassification and remediation of this survey unit was not required.

Graphical representation of data indicates some positive skewness that is probably due to localized differences in particulate deposition rates, hydraulic velocity and sedimentation rates. The Retrospective Power Curve generated using COMPASS shows adequate power was achieved. The survey unit was properly designated as a Class 2 survey unit.

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

The dose contribution from sediment in this survey unit is 2.2 mrem/yr TEDE based on the average concentration of the samples used for non-parametric statistical sampling.

This survey unit is not affected by existing groundwater (reference CY memo ISC 06-024). It has been determined that the dose contribution from existing groundwater sources is bounded by zero (0) mrem/yr TEDE.

This survey unit is not considered impacted by future groundwater radioactive contamination, as there are no 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.

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 2.2 mrem/yr Total Effective Dose Equivalent (TEDE).

14. ATTACHMENTS

14.1 Attachment 1 – Figures

14.2 Attachment 2 – Sample and Statistical Data

DISCHARGE CANAL
SURVEY UNIT 9106-0005
RELEASE RECORD

Attachment 1
Figures
(9 pages)

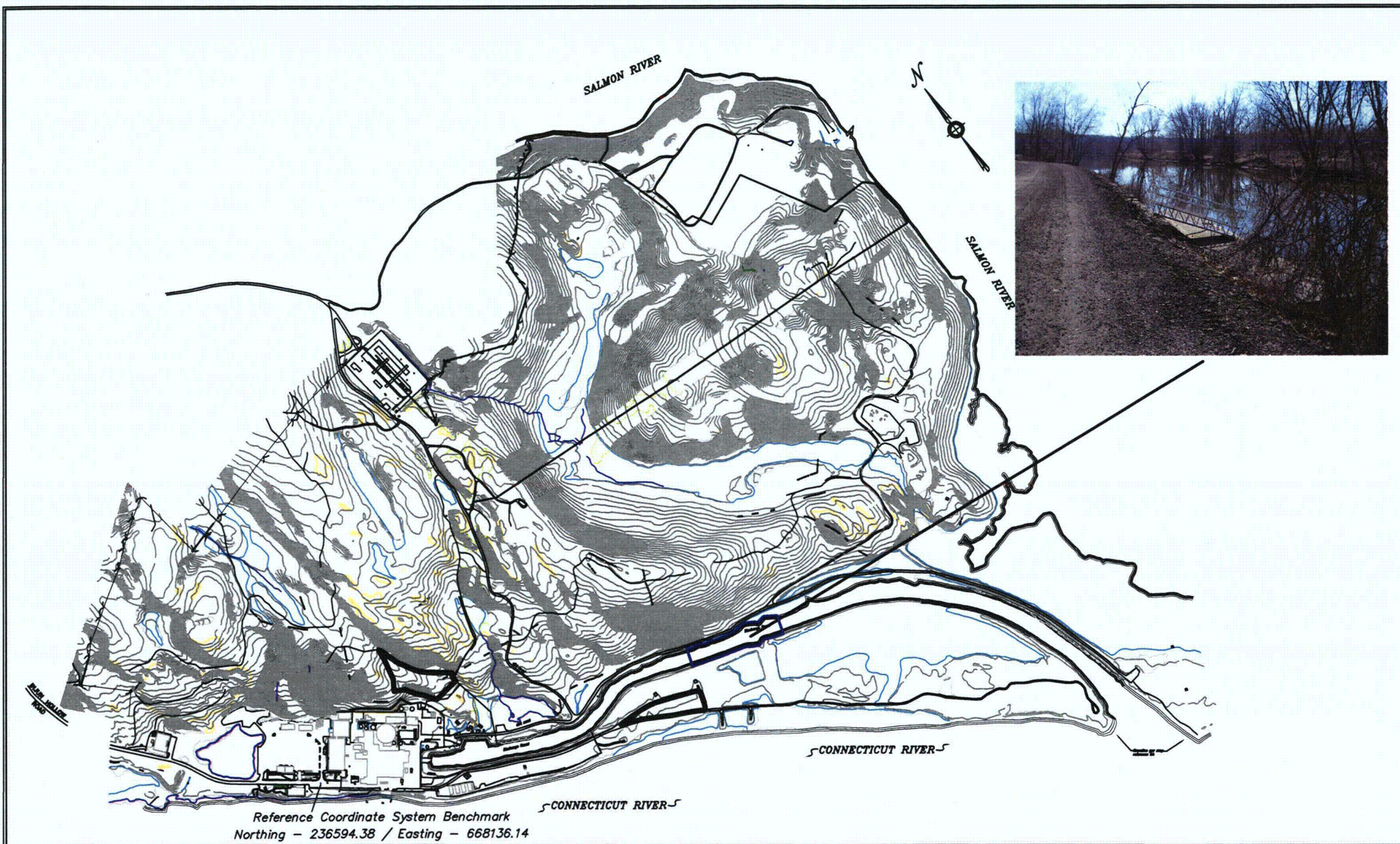


Figure 1



Connecticut Yankee Atomic Power Company
 Site Map With Reference To Survey Unit 9106-0005

Date	By
October 2006	E.E.S.

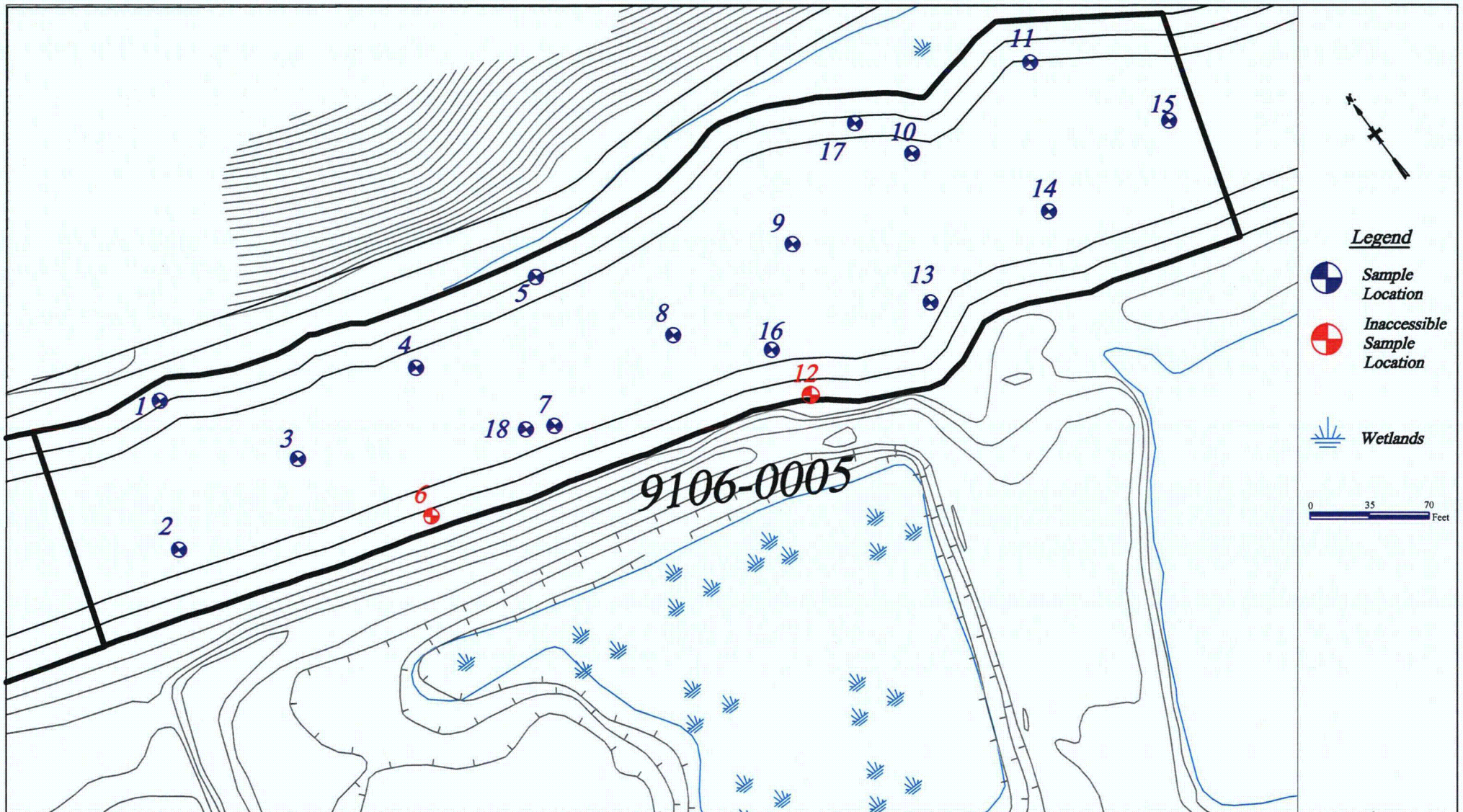


Figure 2

Connecticut Yankee Atomic Power Company
9106-0005 Final Status Survey Design

Date	By	Rev.
October 2006	E.E.S.	0

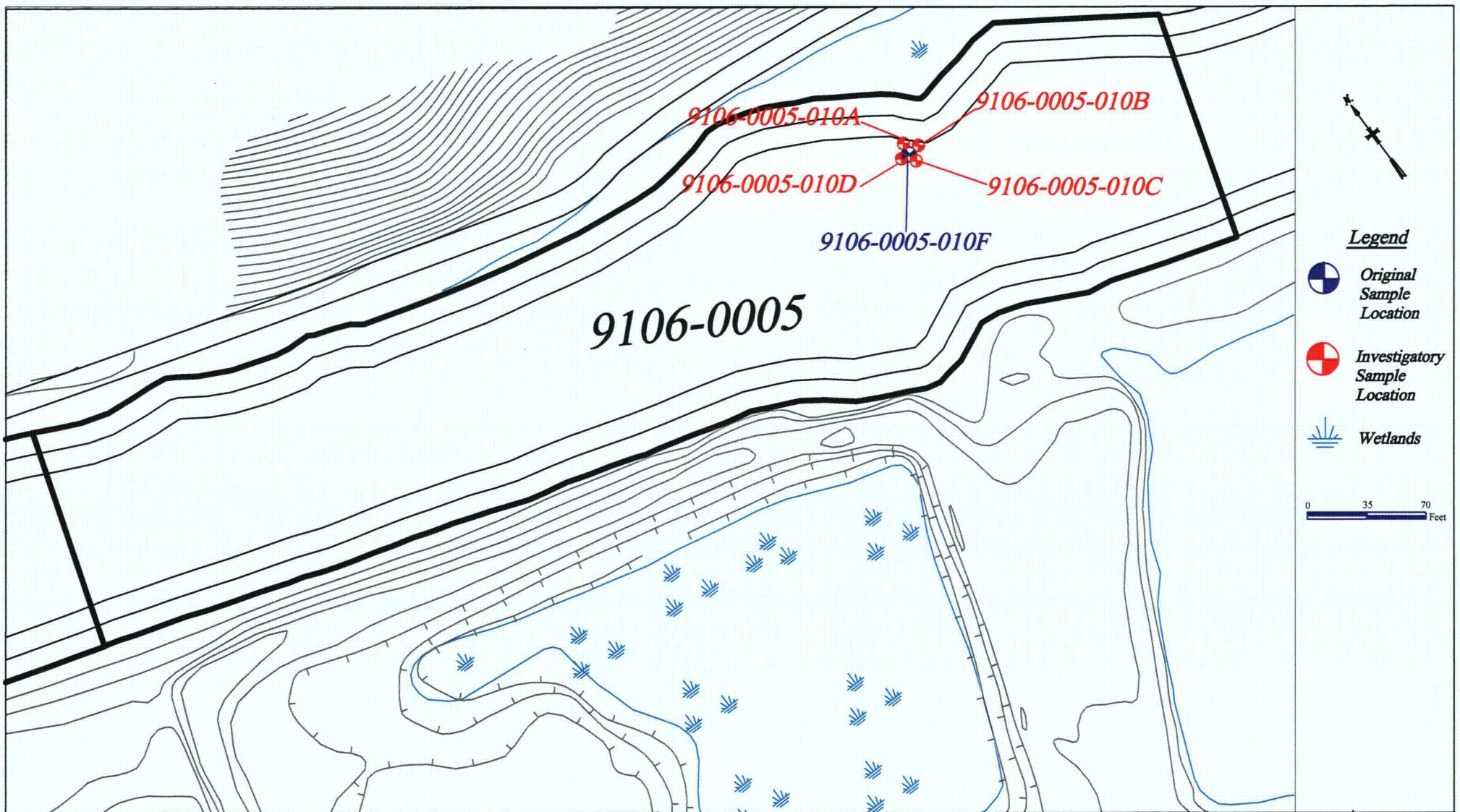


Figure 2a

Connecticut Yankee Atomic Power Company
9106-0005 Final Status Survey Design Investigation Sample Locations

Date	By	Rev.
October 2006	E.E.S.	0

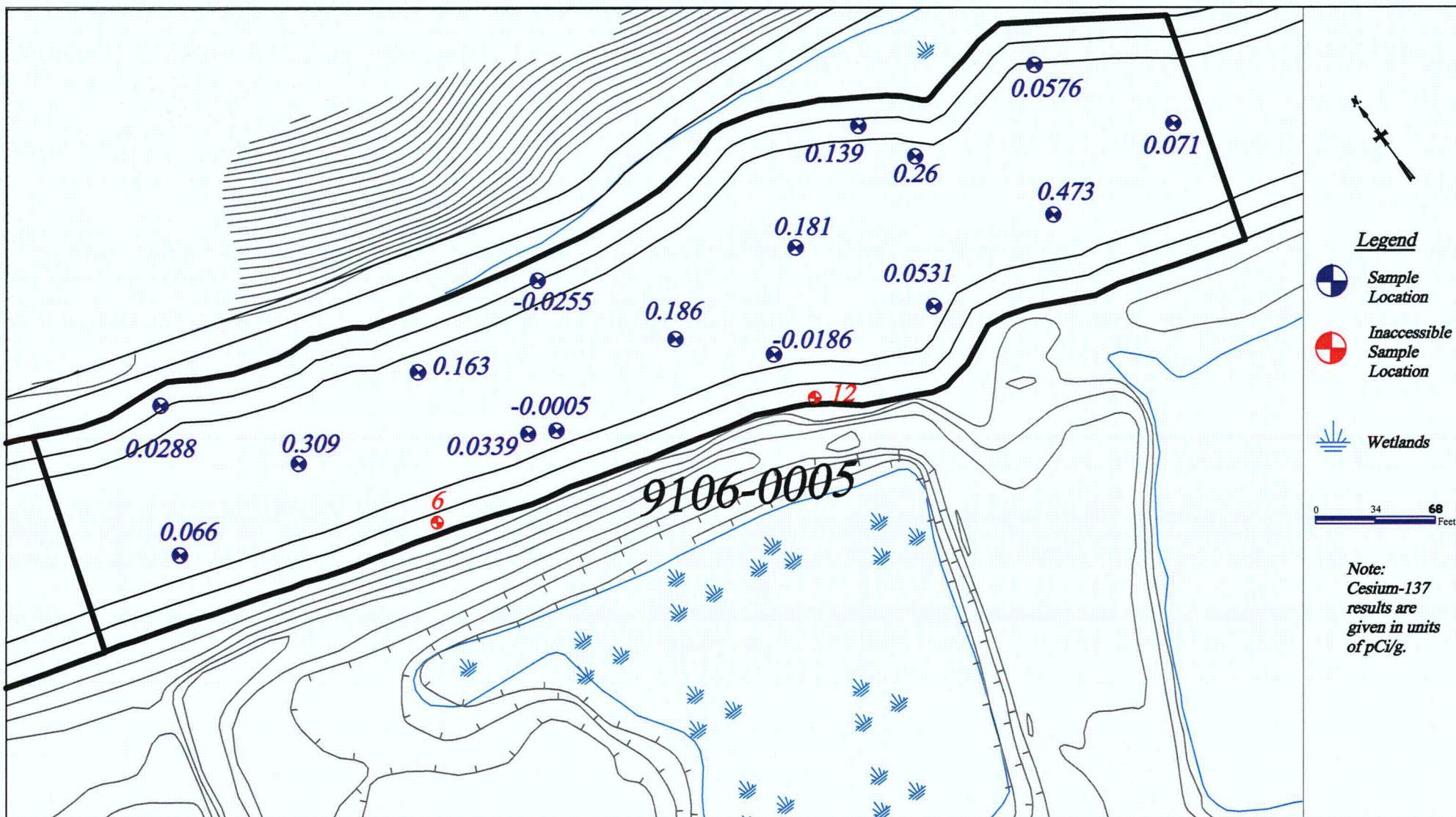


Figure 3

Connecticut Yankee Atomic Power Company
9106-0005 Final Status Survey Design
Cesium-137 Posting Plot

Date	By	Rev.
October 2006	E.E.S.	0

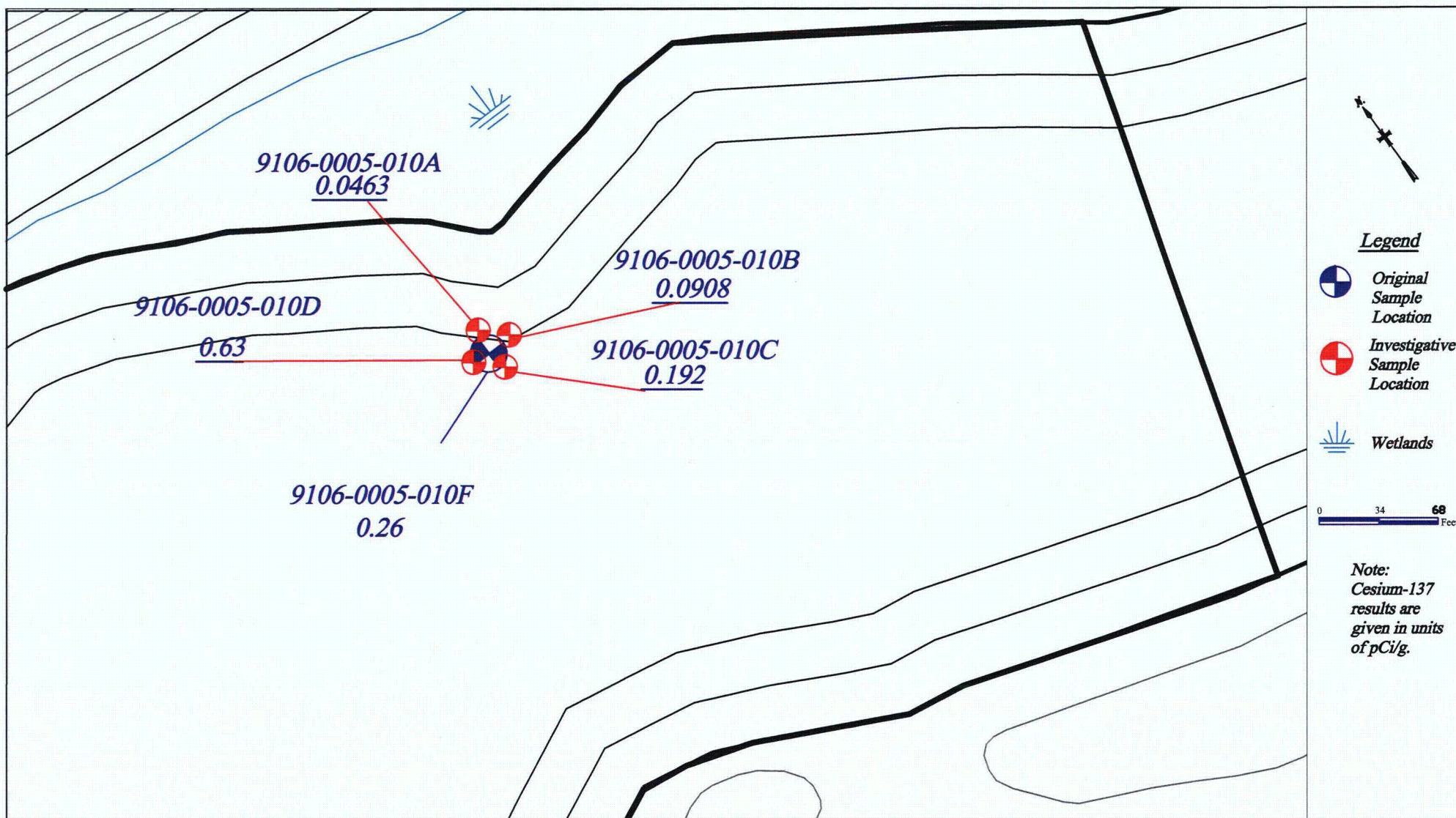


Figure 3A

Connecticut Yankee Atomic Power Company
9106-0005 (South End) Final Status Survey Investigative Samples
Cesium-137 Posting Plot

Date	By	Rev.
October 2006	E.E.S.	0

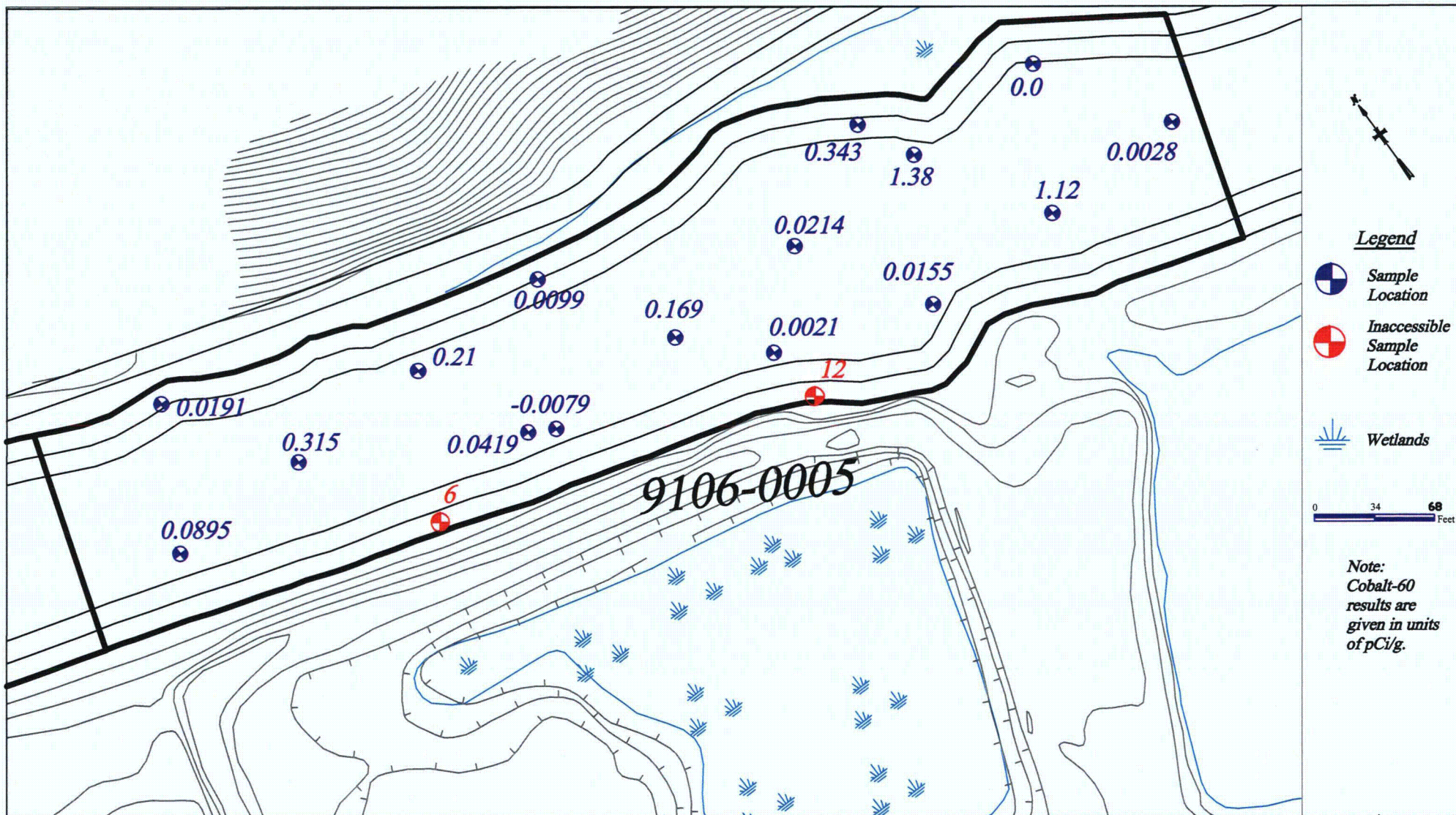


Figure 4

Connecticut Yankee Atomic Power Company
9106-0005 Final Status Survey Design
Cobalt-60 Posting Plot

Date	By	Rev.
October 2006	E.E.S.	0

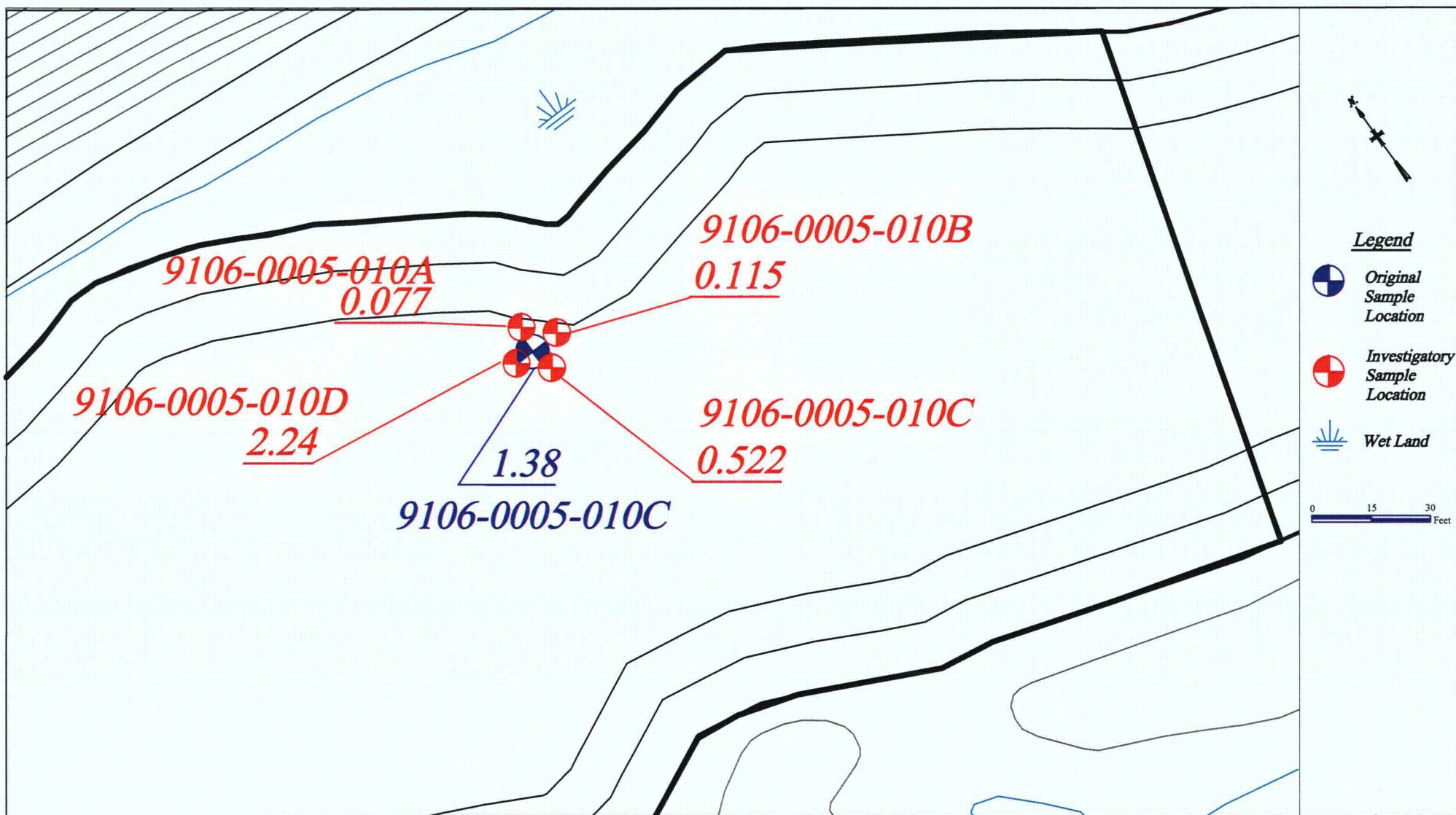


Figure 4a

Connecticut Yankee Atomic Power Company
 9106-0005 Final Status Survey Design Investigatory Samples
 Cobalt-60 Posting Plot

Date	By	Rev.
October 2006	E.E.S.	0

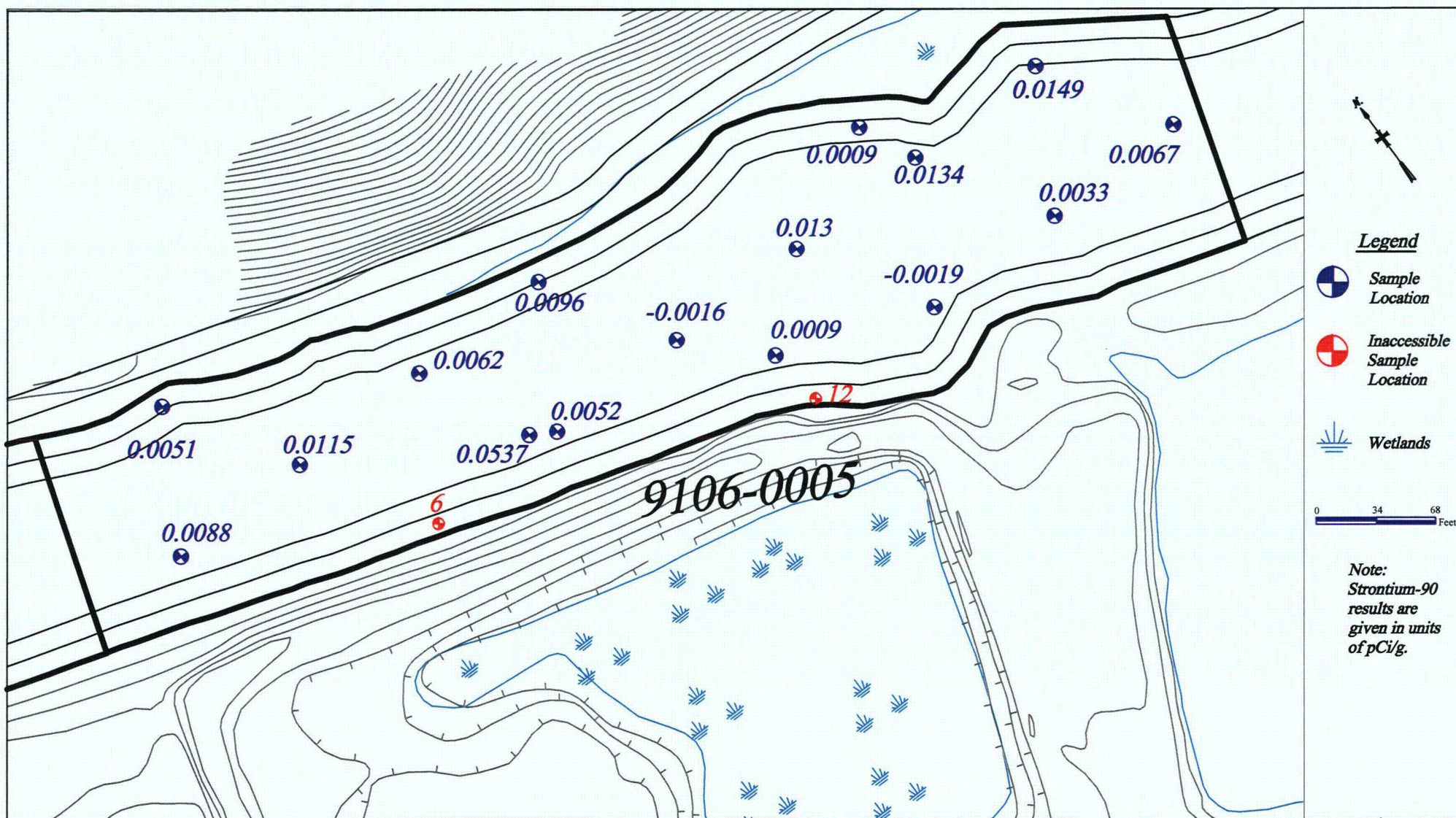


Figure 5

Connecticut Yankee Atomic Power Company
9106-0005 Final Status Survey Design
Strontium-90 Posting Plot

Date	By	Rev.
October 2006	E.E.S.	0

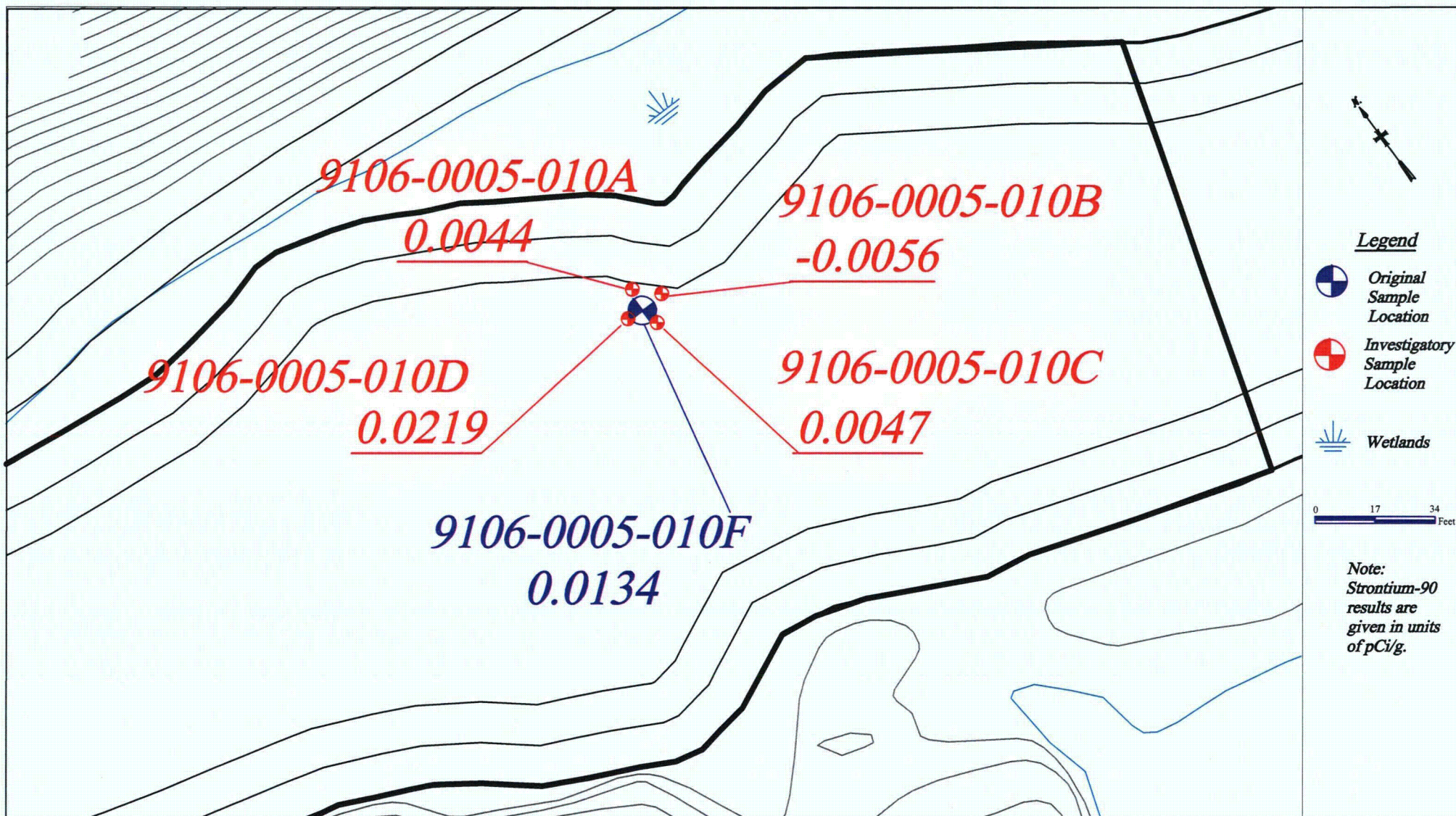


Figure 5a

Connecticut Yankee Atomic Power Company
9106-0005 Final Status Survey Investigatory Samples
Strontium-90 Posting Plot

Date	By	Rev.
October 2006	E.E.S.	0

DISCHARGE CANAL
SURVEY UNIT 9106-0005
RELEASE RECORD

Attachment 2
Sample and Statistical Data

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

Attachment 2a
Sample Data
(247 Pages)

Table of Contents

General Narrative.....	1
Chain of Custody and Supporting Documentation	4
Radiological Analysis	9
Sample Data Summary	29
Quality Control Data	69

General Narrative

**CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Sediment
PO# 002332
Work Order: 162485
SDG: MSR #06-0675**

June 7, 2006

Laboratory Identification:

General Engineering Laboratories, LLC

Mailing Address:

P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The sample(s) for this Project arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina on May 9, 2006. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following sample(s):

<u>Sample ID</u>	<u>Client Sample ID</u>
162485001	9106-0005-001F
162485002	9106-0005-002F
162485003	9106-0005-003F
162485004	9106-0005-003FS
162485005	9106-0005-004F
162485006	9106-0005-007F
162485007	9106-0005-008F
162485008	9106-0005-010F

<u>Sample ID</u>	<u>Client Sample ID</u>
162485009	9106-0005-011F
162485010	9106-0005-013F
162485011	9106-0005-014F
162485012	9106-0005-016F
162485013	9106-0005-015F
162485014	9106-0005-017F
162485015	9106-0005-018F
162485016	9106-0005-018FS
162485017	9106-0005-005F
162485018	9106-0005-009F

Items of Note:

There are no items of 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 listed below by analytical parameter.

Analytical Request:

Sixteen sediment samples were analyzed for FSSGAM and Sr-90.
Two sediment samples were analyzed for FSSALL.

Internal Chain of Custody:

Custody was maintained for the sample(s).

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody and Supporting Documentation and all analytical fractions.

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

Chain of Custody and Supporting Documentation

Connecticut Yankee Atomic Power Company362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556**Chain of Custody Form**

No. 2006-00318

1624851/

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size & Type Code	Analyses Requested					Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90					Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID		
9106-0005-001F	5/02/06	08:39	SE	C	BP	X		X			Transferred from COC 2006-00311			
9106-0005-002F	5/02/06	09:02	SE	C	BP	X		X			Transferred from COC 2006-00311			
9106-0005-003F	5/01/06	15:28	SE	C	BP	X		X			Transferred from COC 2006-00310			
9106-0005-003FS	5/01/06	15:28	SE	C	BP	X		X			Transferred from COC 2006-00310			
9106-0005-004F	5/02/06	09:33	SE	C	BP	X		X			Transferred from COC 2006-00311			
9106-0005-005F	5/02/06	09:57	SE	C	BP		X	X			Transferred from COC 2006-00311			
9106-0005-007F	5/02/06	12:58	SE	C	BP	X		X			Transferred from COC 2006-00314			
9106-0005-008F	5/02/06	10:37	SE	C	BP	X		X			Transferred from COC 2006-00311			
9106-0005-009F	5/02/06	11:10	SE	C	BP		X	X			Transferred from COC 2006-00311			
NOTES: PO #: 002332 MSR #: 06-0675 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA												Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other	Internal Container Temp: 18.2 Deg. C 19.0 Custody Sealed? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By <i>Carroll</i> Date/Time 5-8-06 1440			2) Received By <i>Bluff</i> Date/Time 5/9/06 0930			3) Relinquished By Date/Time			4) Received By Date/Time			Bill of Lading # 7920 9195 4363		

Chain of Custody Form

No. 2006-00319

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 860-267-2556 Ext. 3024

Analytical Lab (Name, City, State)

General Engineering Laboratories
2040 Savage Road, Charleston SC. 29407
843 556 8171. Attn. Cheryl JonesPriority: ☒ 30 D. ☐ 14 D. ☐ 7 D.

Analyses Requested

Lab Use Only:

Comments:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size & Type Code	FSSGAM	FSSALL	Sr-90					Comment, Preservation	Lab Sample ID
9106-0005-010F	5/02/06	13:16	SE	C	BP	X		X					Transferred from COC 2006-00314	
9106-0005-011F	5/02/06	13:39	SE	C	BP	X		X					Transferred from COC 2006-00314	
9106-0005-013F	5/02/06	14:35	SE	C	BP	X		X					Transferred from COC 2006-00314	
9106-0005-014F	5/02/06	15:04	SE	C	BP	X		X					Transferred from COC 2006-00314	
9106-0005-016F	5/02/06	13:59	SE	C	BP	X		X					Transferred from COC 2006-00314	
9106-0005-015F	5/03/06	08:03	SE	C	BP	X		X					Transferred from COC 2006-00316	
9106-0005-017F	5/03/06	08:13	SE	C	BP	X		X					Transferred from COC 2006-00316	
9106-0005-018F	5/03/06	09:09	SE	C	BP	X		X					Transferred from COC 2006-00316	
9106-0005-018FS	5/03/06	09:09	SE	C	BP	X		X					Transferred from COC 2006-00316	

NOTES: PO #: 002332 MSR #: 06-0675 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:

☒ Fed Ex
☐ UPS
☐ Hand☐ Other

Bill of Lading #

7920 9195 4352

Internal Container
Temp: _____ Deg CCustody Sealed?
Y ☐ N ☐
Custody Seal Intact?
Y ☐ N ☐

1) Relinquished By

Date/Time

5-8-06 1440

2) Received By

Date/Time

5/9/06 0930

3) Relinquished By

Date/Time

4) Received By

Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 5/9/06 0930
SDG#: MSR# 06-0675
Work Order Number: 1624851
Shipping Container ID: 7920 9195 4352, 4363 Chain of Custody #: 2006-00318/00319

1. Custody Seals on shipping container intact? Yes ☒ No ☐
2. Custody Seals dated and signed? Yes ☒ No ☐
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature 18°C, 19°C
5. Vermiculite/packing materials is: Wet ☒ Dry ☐
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

9. Samples are:

☐ in good condition ☒ leaking (some bags)
☐ broken ☐ have air bubbles

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

Sample Custodian/Laboratory: *Perle* Date: 5/9/06 0930

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>ATMC VANK CD 6/7/06</u>		SDG/ARCOC/Work Order: <u>162485</u>	
Date Received: <u>5/9/06</u>		PM(A) Review (ensure non-conforming items are resolved prior to signing):	
Received By: <u>BHC</u>		<u>Chyrl</u>	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice none other describe)
3 Chain of custody documents included with shipment?				
4 Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)				
8 Samples received within holding time?				Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?				Sample ID's affected:
11 Number of containers received match number indicated on COC?				Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?				
14 Air Bill ,Tracking #'s, & Additional Comments	<u>Fed 7920 9195 4352 → 17°C</u> <u>Ex 4363 → 18°C</u>			

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt # _____
A Radiological Classification?				*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?				Maximum Counts Observed*: <u>80 cpm</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.				Comments:
				Hazard Class Shipped:
				UN#:

PM (or PMA) review of Hazard classification:	Initials <u>CAJ</u>	Date: <u>5/9/06</u>
--	---------------------	---------------------

RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 162485**

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:	533471
Prep Batch Number:	528491
Dry Soil Prep GL-RAD-A-021 Batch Number:	528487

Sample ID	Client ID
162485017	9106-0005-005F
162485018	9106-0005-009F
1201101117	Method Blank (MB)
1201101118	162485017(9106-0005-005F) Sample Duplicate (DUP)
1201101119	162485017(9106-0005-005F) Matrix Spike (MS)
1201101120	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: 162485017 (9106-0005-005F).

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:	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:	533472
Prep Batch Number:	528491
Dry Soil Prep GL-RAD-A-021 Batch Number:	528487

Sample ID	Client ID
162485017	9106-0005-005F
162485018	9106-0005-009F
1201101121	Method Blank (MB)
1201101122	162485017(9106-0005-005F) Sample Duplicate (DUP)
1201101123	162485017(9106-0005-005F) Matrix Spike (MS)
1201101124	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: 162485017 (9106-0005-005F).

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:	533473
Prep Batch Number:	528491
Dry Soil Prep GL-RAD-A-021 Batch Number:	528487

Sample ID	Client ID
162485017	9106-0005-005F
162485018	9106-0005-009F
1201101125	Method Blank (MB)
1201101126	162485017(9106-0005-005F) Sample Duplicate (DUP)
1201101127	162485017(9106-0005-005F) Matrix Spike (MS)
1201101128	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: 162485017 (9106-0005-005F).

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 tracer yield for sample 1201101127 (9106-0005-005F) was recounted due to poor resolution.

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
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	529776
Prep Batch Number:	528487

Sample ID	Client ID
162485001	9106-0005-001F
162485002	9106-0005-002F
162485003	9106-0005-003F
162485004	9106-0005-003FS
162485005	9106-0005-004F
162485006	9106-0005-007F
162485007	9106-0005-008F
162485008	9106-0005-010F
162485009	9106-0005-011F
162485010	9106-0005-013F
162485011	9106-0005-014F
162485012	9106-0005-016F
162485013	9106-0005-015F
162485014	9106-0005-017F
162485015	9106-0005-018F
162485016	9106-0005-018FS
162485017	9106-0005-005F
162485018	9106-0005-009F
1201092332	Method Blank (MB)
1201092333	162485001(9106-0005-001F) Sample Duplicate (DUP)
1201092334	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# 11.

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: 162485001 (9106-0005-001F).

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

Samples 162485002 (9106-0005-002F), 162485003 (9106-0005-003F), 162485014 (9106-0005-017F) and 162485015 (9106-0005-018F) were recounted due to high MDAs.

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 interference.	Europium-155	162485006
			162485015
			1201092333
UI	Data rejected due to low abundance.	Manganese-54	162485008
		Cesium-134	162485001
			162485002
			162485008
			162485011
			162485012
			162485013
			162485014
			162485015
			162485017
			162485018
UI	Data rejected due to no valid peak.	Cobalt-60	1201092333
			162485016
			162485009

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:	535512
Prep Batch Number:	528491
Dry Soil Prep GL-RAD-A-021 Batch Number:	528487

Sample ID	Client ID
162485001	9106-0005-001F
162485002	9106-0005-002F
162485003	9106-0005-003F
162485004	9106-0005-003FS
162485005	9106-0005-004F
162485006	9106-0005-007F
162485007	9106-0005-008F
162485008	9106-0005-010F
162485009	9106-0005-011F
162485010	9106-0005-013F
162485011	9106-0005-014F
162485012	9106-0005-016F
162485013	9106-0005-015F
162485014	9106-0005-017F
162485015	9106-0005-018F
162485016	9106-0005-018FS
162485017	9106-0005-005F
162485018	9106-0005-009F
1201105909	Method Blank (MB)
1201105910	162335018(9106-0003-008F) Sample Duplicate (DUP)
1201105911	162335018(9106-0003-008F) Matrix Spike (MS)
1201105912	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: 162335018 (9106-0003-008F).

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.

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

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: 531704

Sample ID	Client ID
162485017	9106-0005-005F
162485018	9106-0005-009F
1201096867	Method Blank (MB)
1201096868	162583001(NOL-02-02-005-F-S) Sample Duplicate (DUP)
1201096869	162583001(NOL-02-02-005-F-S) Matrix Spike (MS)
1201096870	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: 162583001 (NOL-02-02-005-F-S).

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 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:	531618
Prep Batch Number:	528491
Dry Soil Prep GL-RAD-A-021 Batch Number:	528487

Sample ID	Client ID
162485018	9106-0005-009F
1201096631	Method Blank (MB)
1201096632	163173001(9304-0000-063RACR) Sample Duplicate (DUP)
1201096633	163173001(9304-0000-063RACR) Matrix Spike (MS)
1201096634	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: 163173001 (9304-0000-063RACR).

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 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:	535483
Prep Batch Number:	528491
Dry Soil Prep GL-RAD-A-021 Batch Number:	528487

Sample ID	Client ID
162485017	9106-0005-005F
1201105872	Method Blank (MB)
1201105873	162335018(9106-0003-008F) Sample Duplicate (DUP)
1201105874	162335018(9106-0003-008F) Matrix Spike (MS)
1201105875	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: 162335018 (9106-0003-008F).

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

Samples were reprep'd due to low/high carrier/tracer yield.

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:	531622
Prep Batch Number:	528491
Dry Soil Prep GL-RAD-A-021 Batch Number:	528487

Sample ID	Client ID
162485017	9106-0005-005F
162485018	9106-0005-009F
1201096644	Method Blank (MB)
1201096645	163173001(9304-0000-063RACR) Sample Duplicate (DUP)
1201096646	163173001(9304-0000-063RACR) Matrix Spike (MS)
1201096647	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: 163173001 (9304-0000-063RACR).

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:	531705

Sample ID	Client ID
162485017	9106-0005-005F
162485018	9106-0005-009F
1201096877	Method Blank (MB)
1201096878	162583001(NOL-02-02-005-F-S) Sample Duplicate (DUP)
1201096879	162583001(NOL-02-02-005-F-S) Matrix Spike (MS)
1201096880	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# 11.

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: 162583001 (NOL-02-02-005-F-S).

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 1201096877 (MB) 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: 534984

Sample ID	Client ID
162485017	9106-0005-005F
162485018	9106-0005-009F
1201104745	Method Blank (MB)
1201104746	163173001(9304-0000-063RACR) Sample Duplicate (DUP)
1201104747	163173001(9304-0000-063RACR) Matrix Spike (MS)
1201104748	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: 163173001 (9304-0000-063RACR).

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 reprepared 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.

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: _____

 6/8/26

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#06-0675 GEL Work Order: 162485

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 reporting 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: June 8, 2006

Client Sample ID: 9106-0005-001F
Sample ID: 162485001
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 13.9%

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

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

Rad Gamma Spec Analysis

Gamma, Solid-FSS GAM & ALL FSS

Actinium-228		1.69	+/-0.251	0.0613	+/-0.251	0.131	pCi/g		MJH1	06/02/06	1701	529776	1
Americium-241	U	0.064	+/-0.113	0.0919	+/-0.113	0.188	pCi/g						
Bismuth-212		0.887	+/-0.313	0.147	+/-0.313	0.310	pCi/g						
Bismuth-214		1.15	+/-0.147	0.0343	+/-0.147	0.072	pCi/g						
Cesium-134	UUI	0.00	+/-0.0385	0.0269	+/-0.0385	0.0561	pCi/g						
Cesium-137	U	0.0288	+/-0.0259	0.020	+/-0.0259	0.042	pCi/g						
Cobalt-60	U	0.0191	+/-0.0235	0.0194	+/-0.0235	0.0418	pCi/g						
Europium-152	U	-0.0115	+/-0.0595	0.053	+/-0.0595	0.110	pCi/g						
Europium-154	U	-0.0146	+/-0.0717	0.0515	+/-0.0717	0.111	pCi/g						
Europium-155	U	0.0293	+/-0.0678	0.0581	+/-0.0678	0.119	pCi/g						
Lead-212		1.62	+/-0.145	0.0311	+/-0.145	0.0639	pCi/g						
Lead-214		1.36	+/-0.154	0.035	+/-0.154	0.0728	pCi/g						
Manganese-54	U	0.0112	+/-0.0236	0.021	+/-0.0236	0.0443	pCi/g						
Niobium-94	U	-0.00247	+/-0.0192	0.0168	+/-0.0192	0.0353	pCi/g						
Potassium-40		11.3	+/-1.05	0.148	+/-1.05	0.326	pCi/g						
Radium-226		1.15	+/-0.147	0.0343	+/-0.147	0.072	pCi/g						
Silver-108m	U	-0.000679	+/-0.0191	0.0167	+/-0.0191	0.0349	pCi/g						
Thallium-208		0.495	+/-0.0669	0.0186	+/-0.0669	0.0391	pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Sr90, solid-ALL FSS

Strontium-90	U	0.0051	+/-0.00834	0.00785	+/-0.00834	0.0162	pCi/g		BXF1	06/06/06	2315	535512	2
--------------	---	--------	------------	---------	------------	--------	-------	--	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-001F
Sample ID: 162485001

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits					
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			84		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-002F
Sample ID: 162485002
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 24.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		1.01	+/-0.158	0.0602	+/-0.158	0.128	pCi/g		MJH1	06/06/06	2111	529776	1
Americium-241	U	0.0239	+/-0.128	0.0948	+/-0.128	0.195	pCi/g						
Bismuth-212		0.970	+/-0.334	0.131	+/-0.334	0.276	pCi/g						
Bismuth-214		0.596	+/-0.0898	0.0351	+/-0.0898	0.0732	pCi/g						
Cesium-134	UUI	0.00	+/-0.040	0.0245	+/-0.040	0.0512	pCi/g						
Cesium-137		0.066	+/-0.028	0.0183	+/-0.028	0.0383	pCi/g						
Cobalt-60		0.0895	+/-0.0523	0.0192	+/-0.0523	0.0414	pCi/g						
Europium-152	U	0.00476	+/-0.0525	0.0426	+/-0.0525	0.0885	pCi/g						
Europium-154	U	-0.094	+/-0.0729	0.054	+/-0.0729	0.116	pCi/g						
Europium-155	U	0.0792	+/-0.0731	0.0478	+/-0.0731	0.0983	pCi/g						
Lead-212		1.12	+/-0.0645	0.0247	+/-0.0645	0.0511	pCi/g						
Lead-214		0.709	+/-0.0806	0.033	+/-0.0806	0.0684	pCi/g						
Manganese-54	U	0.0279	+/-0.0326	0.0165	+/-0.0326	0.035	pCi/g						
Niobium-94	U	-0.011	+/-0.0193	0.0154	+/-0.0193	0.0323	pCi/g						
Potassium-40		19.7	+/-1.00	0.165	+/-1.00	0.358	pCi/g						
Radium-226		0.596	+/-0.0898	0.0351	+/-0.0898	0.0732	pCi/g						
Silver-108m	U	-0.0068	+/-0.0174	0.0146	+/-0.0174	0.0304	pCi/g						
Thallium-208		0.351	+/-0.0455	0.0182	+/-0.0455	0.038	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00879	+/-0.0124	0.0116	+/-0.0124	0.0241	pCi/g		BXF1	06/06/06	2315	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-002F
Sample ID: 162485002

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test	Recovery%		Acceptable Limits									
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	77		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-003F
Sample ID: 162485003
Matrix: SE
Collect Date: 01-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 18%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.799	+/-0.140	0.0393	+/-0.140	0.0827	pCi/g		MJH1	06/07/06	0542	529776	1
Americium-241	U	0.0143	+/-0.0558	0.0479	+/-0.0558	0.0981	pCi/g						
Bismuth-212		0.576	+/-0.223	0.0854	+/-0.223	0.179	pCi/g						
Bismuth-214		0.558	+/-0.0789	0.0206	+/-0.0789	0.0428	pCi/g						
Cesium-134	U	0.0211	+/-0.025	0.0143	+/-0.025	0.0297	pCi/g						
Cesium-137		0.309	+/-0.0378	0.0108	+/-0.0378	0.0227	pCi/g						
Cobalt-60		0.315	+/-0.0352	0.0107	+/-0.0352	0.0228	pCi/g						
Europium-152	U	-0.036	+/-0.0336	0.0288	+/-0.0336	0.0598	pCi/g						
Europium-154	U	-0.031	+/-0.0389	0.0304	+/-0.0389	0.0648	pCi/g						
Europium-155	U	0.049	+/-0.0404	0.0382	+/-0.0404	0.0783	pCi/g						
Lead-212		0.770	+/-0.0726	0.0187	+/-0.0726	0.0384	pCi/g						
Lead-214		0.591	+/-0.072	0.0223	+/-0.072	0.046	pCi/g						
Manganese-54	U	0.0053	+/-0.0138	0.0123	+/-0.0138	0.0257	pCi/g						
Niobium-94	U	0.00488	+/-0.0117	0.0106	+/-0.0117	0.0221	pCi/g						
Potassium-40		11.1	+/-0.839	0.090	+/-0.839	0.195	pCi/g						
Radium-226		0.558	+/-0.0789	0.0206	+/-0.0789	0.0428	pCi/g						
Silver-108m	U	0.00339	+/-0.0112	0.010	+/-0.0112	0.0208	pCi/g						
Thallium-208		0.241	+/-0.036	0.00999	+/-0.036	0.0209	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.0115	+/-0.00646	0.00552	+/-0.00646	0.0116	pCi/g		BXF1	06/06/06	2315	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-003F
Sample ID: 162485003

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			80		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-003FS
Sample ID: 162485004
Matrix: SE
Collect Date: 01-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 19.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.820	+/-0.171	0.0681	+/-0.171	0.146	pCi/g		MJH1	06/02/06	1705	529776	1
Americium-241	U	-0.213	+/-0.112	0.0853	+/-0.112	0.175	pCi/g						
Bismuth-212		0.487	+/-0.330	0.145	+/-0.330	0.308	pCi/g						
Bismuth-214		0.660	+/-0.096	0.0359	+/-0.096	0.0759	pCi/g						
Cesium-134	U	0.0563	+/-0.0303	0.027	+/-0.0303	0.0569	pCi/g						
Cesium-137		0.331	+/-0.0533	0.0191	+/-0.0533	0.0406	pCi/g						
Cobalt-60		0.618	+/-0.0738	0.0204	+/-0.0738	0.0445	pCi/g						
Europium-152	U	-0.0624	+/-0.0613	0.0496	+/-0.0613	0.104	pCi/g						
Europium-154	U	0.00151	+/-0.0757	0.0543	+/-0.0757	0.119	pCi/g						
Europium-155	U	0.0473	+/-0.0801	0.058	+/-0.0801	0.120	pCi/g						
Lead-212		0.789	+/-0.0601	0.0292	+/-0.0601	0.0606	pCi/g						
Lead-214		0.663	+/-0.099	0.0392	+/-0.099	0.0816	pCi/g						
Manganese-54	U	0.0192	+/-0.0257	0.0232	+/-0.0257	0.049	pCi/g						
Niobium-94	U	-0.00129	+/-0.0203	0.0176	+/-0.0203	0.0372	pCi/g						
Potassium-40		11.6	+/-0.876	0.156	+/-0.876	0.349	pCi/g						
Radium-226		0.660	+/-0.096	0.0359	+/-0.096	0.0759	pCi/g						
Silver-108m	U	-0.00245	+/-0.0201	0.0169	+/-0.0201	0.0355	pCi/g						
Thallium-208		0.272	+/-0.0448	0.022	+/-0.0448	0.0462	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00413	+/-0.0087	0.00819	+/-0.0087	0.0171	pCi/g		BXF1	06/06/06	2315	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-003FS
Sample ID: 162485004

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits					
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			63		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-004F
Sample ID: 162485005
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 15%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.988	+/-0.223	0.0833	+/-0.223	0.167	pCi/g						
Americium-241	U	0.0868	+/-0.102	0.0899	+/-0.102	0.180	pCi/g		MJH1	06/04/06	2031	529776	1
Bismuth-212		0.795	+/-0.406	0.158	+/-0.406	0.316	pCi/g						
Bismuth-214		0.652	+/-0.118	0.044	+/-0.118	0.088	pCi/g						
Cesium-134	U	0.0438	+/-0.042	0.0264	+/-0.042	0.0527	pCi/g						
Cesium-137		0.163	+/-0.040	0.0208	+/-0.040	0.0416	pCi/g						
Cobalt-60		0.210	+/-0.0451	0.0199	+/-0.0451	0.0398	pCi/g						
Europium-152	U	0.0114	+/-0.0904	0.0574	+/-0.0904	0.115	pCi/g						
Europium-154	U	0.0148	+/-0.069	0.0549	+/-0.069	0.110	pCi/g						
Europium-155	U	0.0299	+/-0.0714	0.0676	+/-0.0714	0.135	pCi/g						
Lead-212		0.971	+/-0.110	0.0343	+/-0.110	0.0687	pCi/g						
Lead-214		0.802	+/-0.122	0.0413	+/-0.122	0.0826	pCi/g						
Manganese-54	U	0.00298	+/-0.0268	0.0209	+/-0.0268	0.0417	pCi/g						
Niobium-94	U	-0.0158	+/-0.0251	0.0187	+/-0.0251	0.0373	pCi/g						
Potassium-40		9.40	+/-0.987	0.171	+/-0.987	0.342	pCi/g						
Radium-226		0.652	+/-0.118	0.044	+/-0.118	0.088	pCi/g						
Silver-108m	U	-0.016	+/-0.0227	0.0189	+/-0.0227	0.0378	pCi/g						
Thallium-208		0.283	+/-0.0535	0.0232	+/-0.0535	0.0464	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00621	+/-0.00726	0.00668	+/-0.00726	0.0139	pCi/g		BXF1	06/06/06	2315	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-004F
Sample ID: 162485005

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			81		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-007F
Sample ID: 162485006
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 22.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.864	+/-0.211	0.0703	+/-0.211	0.150	pCi/g		MJH1	06/02/06	1814	529776	1
Americium-241	U	-0.0181	+/-0.123	0.0875	+/-0.123	0.180	pCi/g						
Bismuth-212		0.624	+/-0.357	0.151	+/-0.357	0.320	pCi/g						
Bismuth-214		0.550	+/-0.117	0.0353	+/-0.117	0.0744	pCi/g						
Cesium-134	U	0.0386	+/-0.0448	0.0249	+/-0.0448	0.0524	pCi/g						
Cesium-137	U	-0.000519	+/-0.0237	0.0194	+/-0.0237	0.0411	pCi/g						
Cobalt-60	U	-0.00792	+/-0.0276	0.0221	+/-0.0276	0.0479	pCi/g						
Europium-152	U	-0.00987	+/-0.0594	0.0468	+/-0.0594	0.0979	pCi/g						
Europium-154	U	0.0388	+/-0.0715	0.0622	+/-0.0715	0.134	pCi/g						
Europium-155	UUI	0.00	+/-0.101	0.0505	+/-0.101	0.104	pCi/g						
Lead-212		1.01	+/-0.110	0.027	+/-0.110	0.0559	pCi/g						
Lead-214		0.568	+/-0.109	0.0352	+/-0.109	0.0734	pCi/g						
Manganese-54	U	-0.00574	+/-0.025	0.0198	+/-0.025	0.0421	pCi/g						
Niobium-94	U	0.0306	+/-0.0288	0.0179	+/-0.0288	0.0377	pCi/g						
Potassium-40		15.8	+/-1.48	0.166	+/-1.48	0.370	pCi/g						
Radium-226		0.550	+/-0.117	0.0353	+/-0.117	0.0744	pCi/g						
Silver-108m	U	-0.0145	+/-0.0187	0.015	+/-0.0187	0.0317	pCi/g						
Thallium-208		0.328	+/-0.0609	0.0184	+/-0.0609	0.0389	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00515	+/-0.0113	0.0106	+/-0.0113	0.0221	pCi/g		BXF1	06/06/06	2315	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-007F
Sample ID: 162485006

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			56		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-008F
Sample ID: 162485007
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 32.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.561	+/-0.225	0.0839	+/-0.225	0.185	pCi/g		MJH1	06/02/06	1815	529776	1
Americium-241	U	0.0421	+/-0.116	0.0954	+/-0.116	0.200	pCi/g						
Bismuth-212		0.707	+/-0.249	0.146	+/-0.249	0.325	pCi/g						
Bismuth-214		0.454	+/-0.107	0.0407	+/-0.107	0.0883	pCi/g						
Cesium-134	U	0.0398	+/-0.0588	0.0274	+/-0.0588	0.0597	pCi/g						
Cesium-137		0.186	+/-0.0582	0.0245	+/-0.0582	0.0532	pCi/g						
Cobalt-60		0.169	+/-0.0693	0.0213	+/-0.0693	0.0491	pCi/g						
Europium-152	U	-0.00962	+/-0.0639	0.0552	+/-0.0639	0.118	pCi/g						
Europium-154	U	-0.0777	+/-0.0922	0.0673	+/-0.0922	0.152	pCi/g						
Europium-155	U	0.0611	+/-0.0741	0.0675	+/-0.0741	0.141	pCi/g						
Lead-212		0.622	+/-0.0943	0.0431	+/-0.0943	0.0899	pCi/g						
Lead-214		0.505	+/-0.129	0.0406	+/-0.129	0.0868	pCi/g						
Manganese-54	U	0.0275	+/-0.0446	0.0233	+/-0.0446	0.0512	pCi/g						
Niobium-94	U	-0.0153	+/-0.0267	0.0207	+/-0.0267	0.0451	pCi/g						
Potassium-40		10.4	+/-1.09	0.223	+/-1.09	0.510	pCi/g						
Radium-226		0.454	+/-0.107	0.0407	+/-0.107	0.0883	pCi/g						
Silver-108m	U	0.00991	+/-0.0259	0.0229	+/-0.0259	0.0488	pCi/g						
Thallium-208		0.210	+/-0.0495	0.0263	+/-0.0495	0.0564	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.00156	+/-0.00706	0.00692	+/-0.00706	0.0144	pCi/g		BXF1	06/06/06	2315	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-008F
Sample ID: 162485007

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			80		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-010F
Sample ID: 162485008
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 24.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		1.07	+/-0.262	0.0751	+/-0.262	0.156	pCi/g						
Americium-241	U	0.106	+/-0.119	0.0922	+/-0.119	0.189	pCi/g		MJH1	06/02/06	1816	529776	1
Bismuth-212		0.847	+/-0.369	0.139	+/-0.369	0.291	pCi/g						
Bismuth-214		0.606	+/-0.101	0.0329	+/-0.101	0.0684	pCi/g						
Cesium-134	UUI	0.00	+/-0.044	0.0243	+/-0.044	0.0504	pCi/g						
Cesium-137		0.260	+/-0.0501	0.0189	+/-0.0501	0.0393	pCi/g						
Cobalt-60		1.38	+/-0.116	0.0195	+/-0.116	0.0414	pCi/g						
Europium-152	U	-0.026	+/-0.0529	0.0437	+/-0.0529	0.0901	pCi/g						
Europium-154	U	0.00723	+/-0.0668	0.055	+/-0.0668	0.117	pCi/g						
Europium-155	U	0.0255	+/-0.0705	0.0421	+/-0.0705	0.0862	pCi/g						
Lead-212		1.10	+/-0.107	0.024	+/-0.107	0.0494	pCi/g						
Lead-214		0.667	+/-0.104	0.0308	+/-0.104	0.0637	pCi/g						
Manganese-54	UUI	0.00	+/-0.0364	0.0196	+/-0.0364	0.0409	pCi/g						
Niobium-94	U	0.00799	+/-0.0213	0.0175	+/-0.0213	0.0363	pCi/g						
Potassium-40		19.5	+/-1.58	0.162	+/-1.58	0.348	pCi/g						
Radium-226		0.606	+/-0.101	0.0329	+/-0.101	0.0684	pCi/g						
Silver-108m	U	0.00878	+/-0.0183	0.0155	+/-0.0183	0.032	pCi/g						
Thallium-208		0.381	+/-0.062	0.0159	+/-0.062	0.0332	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.0134	+/-0.00904	0.00803	+/-0.00905	0.0167	pCi/g		BXF1	06/06/06	2315	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-010F
Sample ID: 162485008

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test			Recovery%		Acceptable Limits							
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS			70		(25%-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
 - 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
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: June 8, 2006

Client Sample ID: 9106-0005-011F
Sample ID: 162485009
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 21.6%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		1.04	+/-0.322	0.158	+/-0.322	0.342	pCi/g		MJH1	06/02/06	1816	529776	1
Americium-241	U	-0.0209	+/-0.0723	0.0605	+/-0.0723	0.125	pCi/g						
Bismuth-212		0.798	+/-0.698	0.370	+/-0.698	0.793	pCi/g						
Bismuth-214		0.761	+/-0.207	0.0856	+/-0.207	0.182	pCi/g						
Cesium-134	U	0.0368	+/-0.0558	0.0494	+/-0.0558	0.107	pCi/g						
Cesium-137	U	0.0576	+/-0.053	0.0486	+/-0.053	0.104	pCi/g						
Cobalt-60	UUI	0.00	+/-0.0718	0.0351	+/-0.0718	0.0803	pCi/g						
Europium-152	U	0.0149	+/-0.126	0.106	+/-0.126	0.223	pCi/g						
Europium-154	U	0.101	+/-0.0992	0.136	+/-0.0992	0.298	pCi/g						
Europium-155	U	0.0805	+/-0.125	0.0965	+/-0.125	0.201	pCi/g						
Lead-212		0.965	+/-0.128	0.0608	+/-0.128	0.127	pCi/g						
Lead-214		0.696	+/-0.181	0.0702	+/-0.181	0.149	pCi/g						
Manganese-54	U	0.0519	+/-0.0609	0.054	+/-0.0609	0.115	pCi/g						
Niobium-94	U	-0.0229	+/-0.0502	0.0406	+/-0.0502	0.087	pCi/g						
Potassium-40		13.2	+/-1.63	0.372	+/-1.63	0.844	pCi/g						
Radium-226		0.761	+/-0.207	0.0856	+/-0.207	0.182	pCi/g						
Silver-108m	U	0.017	+/-0.046	0.0389	+/-0.046	0.0825	pCi/g						
Thallium-208		0.307	+/-0.106	0.0478	+/-0.106	0.102	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.0149	+/-0.0147	0.0134	+/-0.0147	0.028	pCi/g		BXF1	06/06/06	2315	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-011F
Sample ID: 162485009

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			58		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-013F
Sample ID: 162485010
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 28.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.845	+/-0.370	0.118	+/-0.370	0.260	pCi/g		MJH1	06/02/06	1816	529776	1
Americium-241	U	0.0182	+/-0.0393	0.0327	+/-0.0393	0.0687	pCi/g						
Bismuth-212		0.534	+/-0.723	0.226	+/-0.723	0.500	pCi/g						
Bismuth-214		0.502	+/-0.163	0.0695	+/-0.163	0.149	pCi/g						
Cesium-134	U	0.022	+/-0.0811	0.0372	+/-0.0811	0.0817	pCi/g						
Cesium-137	U	0.0531	+/-0.0476	0.0334	+/-0.0476	0.0728	pCi/g						
Cobalt-60	U	0.0155	+/-0.0421	0.0365	+/-0.0421	0.0826	pCi/g						
Europium-152	U	0.0486	+/-0.0961	0.0732	+/-0.0961	0.157	pCi/g						
Europium-154	U	-0.0487	+/-0.128	0.0981	+/-0.128	0.222	pCi/g						
Europium-155	U	0.00245	+/-0.0732	0.0575	+/-0.0732	0.121	pCi/g						
Lead-212		0.953	+/-0.0988	0.0376	+/-0.0988	0.080	pCi/g						
Lead-214		0.522	+/-0.113	0.050	+/-0.113	0.108	pCi/g						
Manganese-54	U	-0.0151	+/-0.044	0.0338	+/-0.044	0.0744	pCi/g						
Niobium-94	U	0.0023	+/-0.0308	0.0254	+/-0.0308	0.0561	pCi/g						
Potassium-40		14.6	+/-1.53	0.277	+/-1.53	0.652	pCi/g						
Radium-226		0.502	+/-0.163	0.0695	+/-0.163	0.149	pCi/g						
Silver-108m	U	0.0221	+/-0.0309	0.0278	+/-0.0309	0.0598	pCi/g						
Thallium-208		0.308	+/-0.0757	0.0286	+/-0.0757	0.0626	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.00193	+/-0.00896	0.00878	+/-0.00896	0.0183	pCi/g		BXF1	06/06/06	2315	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-013F
Sample ID: 162485010

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			69		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-014F
Sample ID: 162485011
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 22.8%

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

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

Rad Gamma Spec Analysis

Gamma, Solid-FSS GAM & ALL FSS

Actinium-228		0.767	+/-0.372	0.142	+/-0.372	0.308	pCi/g						
Americium-241	U	0.00567	+/-0.0503	0.0456	+/-0.0503	0.0945	pCi/g						
Bismuth-212		0.678	+/-0.625	0.288	+/-0.625	0.621	pCi/g						
Bismuth-214		0.568	+/-0.137	0.0579	+/-0.137	0.125	pCi/g						
Cesium-134	UUI	0.00	+/-0.123	0.0505	+/-0.123	0.108	pCi/g						
Cesium-137		0.473	+/-0.101	0.0326	+/-0.101	0.0707	pCi/g						
Cobalt-60		1.12	+/-0.136	0.027	+/-0.136	0.0629	pCi/g						
Europium-152	U	-0.0376	+/-0.092	0.0787	+/-0.092	0.167	pCi/g						
Europium-154	U	-0.0403	+/-0.128	0.103	+/-0.128	0.231	pCi/g						
Europium-155	U	-0.0272	+/-0.0791	0.0682	+/-0.0791	0.143	pCi/g						
Lead-212		0.752	+/-0.097	0.0449	+/-0.097	0.0942	pCi/g						
Lead-214		0.520	+/-0.136	0.0599	+/-0.136	0.127	pCi/g						
Manganese-54	U	-0.0183	+/-0.0478	0.0378	+/-0.0478	0.0819	pCi/g						
Niobium-94	U	0.0317	+/-0.0391	0.0351	+/-0.0391	0.0753	pCi/g						
Potassium-40		10.6	+/-1.36	0.285	+/-1.36	0.660	pCi/g						
Radium-226		0.568	+/-0.137	0.0579	+/-0.137	0.125	pCi/g						
Silver-108m	U	-0.00517	+/-0.0328	0.028	+/-0.0328	0.060	pCi/g						
Thallium-208		0.240	+/-0.0841	0.0342	+/-0.0841	0.0735	pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Sr90, solid-ALL FSS

Strontium-90	U	0.00327	+/-0.00761	0.00719	+/-0.00761	0.015	pCi/g						
--------------	---	---------	------------	---------	------------	-------	-------	--	--	--	--	--	--

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-014F
Sample ID: 162485011

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			73		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-016F
Sample ID: 162485012
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 36.9%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.892	+/-0.211	0.0546	+/-0.211	0.115	pCi/g		MJH1	06/02/06	1817	529776	1
Americium-241	U	0.036	+/-0.0698	0.0577	+/-0.0698	0.118	pCi/g						
Bismuth-212		0.921	+/-0.305	0.118	+/-0.305	0.247	pCi/g						
Bismuth-214		0.623	+/-0.110	0.0294	+/-0.110	0.0612	pCi/g						
Cesium-134	UU1	0.00	+/-0.032	0.0203	+/-0.032	0.0422	pCi/g						
Cesium-137	U	-0.0186	+/-0.0188	0.014	+/-0.0188	0.0294	pCi/g						
Cobalt-60	U	0.00207	+/-0.019	0.0155	+/-0.019	0.033	pCi/g						
Europium-152	U	0.011	+/-0.0492	0.041	+/-0.0492	0.0848	pCi/g						
Europium-154	U	0.0157	+/-0.0583	0.0481	+/-0.0583	0.102	pCi/g						
Europium-155	U	0.00321	+/-0.0586	0.0472	+/-0.0586	0.0967	pCi/g						
Lead-212		1.03	+/-0.099	0.0244	+/-0.099	0.0502	pCi/g						
Lead-214		0.733	+/-0.119	0.0269	+/-0.119	0.0559	pCi/g						
Manganese-54	U	0.0111	+/-0.0205	0.0175	+/-0.0205	0.0365	pCi/g						
Niobium-94	U	0.000839	+/-0.0174	0.0146	+/-0.0174	0.0305	pCi/g						
Potassium-40		17.2	+/-1.29	0.129	+/-1.29	0.279	pCi/g						
Radium-226		0.623	+/-0.110	0.0294	+/-0.110	0.0612	pCi/g						
Silver-108m	U	-0.00106	+/-0.0164	0.0134	+/-0.0164	0.0278	pCi/g						
Thallium-208		0.336	+/-0.0543	0.0152	+/-0.0543	0.0317	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.000907	+/-0.00836	0.00805	+/-0.00836	0.0168	pCi/g		BXF1	06/06/06	2316	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-016F
Sample ID: 162485012

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			69		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-015F
Sample ID: 162485013
Matrix: SE
Collect Date: 03-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 11.9%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.779	+/-0.111	0.0398	+/-0.111	0.0838	pCi/g		MJH1	06/04/06	2021	529776	1
Americium-241	U	0.0415	+/-0.0889	0.0568	+/-0.0889	0.116	pCi/g						
Bismuth-212		0.716	+/-0.201	0.0882	+/-0.201	0.185	pCi/g						
Bismuth-214		0.693	+/-0.0601	0.0215	+/-0.0601	0.0448	pCi/g						
Cesium-134	UU1	0.00	+/-0.0256	0.0163	+/-0.0256	0.0337	pCi/g						
Cesium-137		0.0709	+/-0.0212	0.0112	+/-0.0212	0.0234	pCi/g						
Cobalt-60	U	0.00278	+/-0.0149	0.0126	+/-0.0149	0.0269	pCi/g						
Europium-152	U	-0.0239	+/-0.0383	0.0328	+/-0.0383	0.0677	pCi/g						
Europium-154	U	-0.0182	+/-0.0424	0.0343	+/-0.0424	0.0729	pCi/g						
Europium-155	U	0.0206	+/-0.0452	0.0394	+/-0.0452	0.0803	pCi/g						
Lead-212		0.762	+/-0.0411	0.0201	+/-0.0411	0.0411	pCi/g						
Lead-214		0.764	+/-0.0661	0.0228	+/-0.0661	0.0471	pCi/g						
Manganese-54	U	-0.0066	+/-0.0146	0.0123	+/-0.0146	0.0258	pCi/g						
Niobium-94	U	-0.00534	+/-0.0121	0.0104	+/-0.0121	0.0218	pCi/g						
Potassium-40		10.6	+/-0.537	0.0994	+/-0.537	0.215	pCi/g						
Radium-226		0.693	+/-0.0601	0.0215	+/-0.0601	0.0448	pCi/g						
Silver-108m	U	0.000726	+/-0.0125	0.0108	+/-0.0125	0.0224	pCi/g						
Thallium-208		0.275	+/-0.0298	0.0109	+/-0.0298	0.0228	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00668	+/-0.00736	0.00679	+/-0.00736	0.0141	pCi/g		BXF1	06/06/06	2316	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-015F
Sample ID: 162485013

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test					Recovery%	Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS				88	(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-017F
Sample ID: 162485014
Matrix: SE
Collect Date: 03-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 16.1%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		1.34	+/-0.186	0.0567	+/-0.186	0.118	pCi/g						
Americium-241	U	0.074	+/-0.123	0.0919	+/-0.123	0.188	pCi/g						
Bismuth-212		0.895	+/-0.265	0.121	+/-0.265	0.253	pCi/g						
Bismuth-214		1.01	+/-0.0975	0.0317	+/-0.0975	0.0656	pCi/g						
Cesium-134	UU1	0.00	+/-0.0273	0.0211	+/-0.0273	0.0437	pCi/g						
Cesium-137		0.139	+/-0.0335	0.0184	+/-0.0335	0.0381	pCi/g						
Cobalt-60		0.343	+/-0.0511	0.0168	+/-0.0511	0.0355	pCi/g						
Europium-152	U	-0.0397	+/-0.0485	0.0403	+/-0.0485	0.0832	pCi/g						
Europium-154	U	-0.0218	+/-0.0616	0.049	+/-0.0616	0.103	pCi/g						
Europium-155	U	0.0712	+/-0.0622	0.0548	+/-0.0622	0.112	pCi/g						
Lead-212		1.60	+/-0.0709	0.0252	+/-0.0709	0.0518	pCi/g						
Lead-214		1.29	+/-0.094	0.0289	+/-0.094	0.0597	pCi/g						
Manganese-54	U	0.0295	+/-0.0263	0.0165	+/-0.0263	0.0344	pCi/g						
Niobium-94	U	0.00962	+/-0.0185	0.0154	+/-0.0185	0.0319	pCi/g						
Potassium-40		22.8	+/-0.878	0.140	+/-0.878	0.299	pCi/g						
Radium-226		1.01	+/-0.0975	0.0317	+/-0.0975	0.0656	pCi/g						
Silver-108m	U	-0.00158	+/-0.0168	0.0141	+/-0.0168	0.0292	pCi/g						
Thallium-208		0.487	+/-0.0422	0.0162	+/-0.0422	0.0336	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U-0.000859		+/-0.00856	0.00834	+/-0.00856	0.0173	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-017F
Sample ID: 162485014

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			81		(25%-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
- 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

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: June 8, 2006

Client Sample ID: 9106-0005-018F
Sample ID: 162485015
Matrix: SE
Collect Date: 03-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 17.6%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		1.02	+/-0.245	0.0737	+/-0.245	0.158	pCi/g		MJH1	06/06/06	2355	529776	1
Americium-241	U	-0.134	+/-0.127	0.0923	+/-0.127	0.191	pCi/g						
Bismuth-212		0.808	+/-0.337	0.155	+/-0.337	0.330	pCi/g						
Bismuth-214		0.608	+/-0.117	0.038	+/-0.117	0.0803	pCi/g						
Cesium-134	UUI	0.00	+/-0.0567	0.0308	+/-0.0567	0.0646	pCi/g						
Cesium-137	U	0.0339	+/-0.0308	0.0238	+/-0.0308	0.050	pCi/g						
Cobalt-60	U	0.0419	+/-0.0323	0.0295	+/-0.0323	0.0631	pCi/g						
Europium-152	U	-0.0249	+/-0.0653	0.0503	+/-0.0653	0.105	pCi/g						
Europium-154	U	-0.0153	+/-0.0841	0.0681	+/-0.0841	0.147	pCi/g						
Europium-155	UUI	0.00	+/-0.0972	0.0544	+/-0.0972	0.112	pCi/g						
Lead-212		1.09	+/-0.121	0.0297	+/-0.121	0.0616	pCi/g						
Lead-214		0.665	+/-0.127	0.0364	+/-0.127	0.0762	pCi/g						
Manganese-54	U	0.0255	+/-0.0288	0.0246	+/-0.0288	0.0521	pCi/g						
Niobium-94	U	0.0151	+/-0.0247	0.0209	+/-0.0247	0.044	pCi/g						
Potassium-40		18.6	+/-1.71	0.203	+/-1.71	0.447	pCi/g						
Radium-226		0.608	+/-0.117	0.038	+/-0.117	0.0803	pCi/g						
Silver-108m	U	-0.00395	+/-0.0202	0.0167	+/-0.0202	0.0353	pCi/g						
Thallium-208		0.381	+/-0.0688	0.0206	+/-0.0688	0.0436	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90		0.0537	+/-0.0144	0.011	+/-0.0145	0.023	pCi/g		BXF1	06/06/06	2316	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-018F
Sample ID: 162485015

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			49		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-018FS
Sample ID: 162485016
Matrix: SE
Collect Date: 03-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 24.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		1.15	+/-0.407	0.148	+/-0.407	0.313	pCi/g		MJH1	06/04/06	2022	529776	1
Americium-241	U	0.0465	+/-0.0698	0.0523	+/-0.0698	0.107	pCi/g						
Bismuth-212	U	0.509	+/-0.589	0.330	+/-0.589	0.693	pCi/g						
Bismuth-214		0.740	+/-0.172	0.0759	+/-0.172	0.159	pCi/g						
Cesium-134	U	0.0988	+/-0.0652	0.0488	+/-0.0652	0.103	pCi/g						
Cesium-137		0.105	+/-0.0796	0.0395	+/-0.0796	0.0829	pCi/g						
Cobalt-60	UU1	0.00	+/-0.145	0.0515	+/-0.145	0.109	pCi/g						
Europium-152	U	0.0375	+/-0.119	0.0988	+/-0.119	0.205	pCi/g						
Europium-154	U	-0.0127	+/-0.171	0.122	+/-0.171	0.260	pCi/g						
Europium-155	U	0.0362	+/-0.105	0.0853	+/-0.105	0.175	pCi/g						
Lead-212		1.25	+/-0.117	0.048	+/-0.117	0.0995	pCi/g						
Lead-214		0.924	+/-0.192	0.0659	+/-0.192	0.137	pCi/g						
Manganese-54	U	0.0155	+/-0.0534	0.0446	+/-0.0534	0.0936	pCi/g						
Niobium-94	U	-0.000986	+/-0.0449	0.0372	+/-0.0449	0.078	pCi/g						
Potassium-40		20.1	+/-1.60	0.375	+/-1.60	0.812	pCi/g						
Radium-226		0.740	+/-0.172	0.0759	+/-0.172	0.159	pCi/g						
Silver-108m	U	-0.00684	+/-0.0501	0.035	+/-0.0501	0.0729	pCi/g						
Thallium-208		0.389	+/-0.104	0.0401	+/-0.104	0.0839	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00484	+/-0.00859	0.00803	+/-0.00859	0.0168	pCi/g		BXF1	06/06/06	2316	535512	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified
3	EPA 905.0 Modified

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: June 8, 2006

Client Sample ID: 9106-0005-018FS
Sample ID: 162485016

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			69		(25%-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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-005F
Sample ID: 162485017
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 17.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.0415	+/-0.0591	0.055	+/-0.0591	0.185	pCi/g	LCW1	05/30/06	1156	533471	1	
Curium-242	U	-0.00755	+/-0.0634	0.0358	+/-0.0634	0.157	pCi/g						
Curium-243/244	U	0.00112	+/-0.0607	0.0636	+/-0.0607	0.203	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.0261	+/-0.0511	0.00	+/-0.0512	0.0707	pCi/g	LCW1	05/30/06	2129	533472	2	
Plutonium-239/240	U	0.0459	+/-0.0733	0.0297	+/-0.0734	0.130	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	-8.66	+/-8.72	7.70	+/-8.77	16.0	pCi/g	LCW1	06/03/06	0541	533473	3	
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS</i>													
Actinium-228		1.63	+/-0.304	0.0844	+/-0.304	0.169	pCi/g	MJH1	06/02/06	1826	529776	4	
Americium-241	U	0.108	+/-0.121	0.0993	+/-0.121	0.199	pCi/g						
Bismuth-212		1.23	+/-0.459	0.190	+/-0.459	0.380	pCi/g						
Bismuth-214		1.47	+/-0.188	0.0487	+/-0.188	0.0974	pCi/g						
Cesium-134	UU1	0.00	+/-0.0421	0.0364	+/-0.0421	0.0728	pCi/g						
Cesium-137	U	-0.0255	+/-0.0345	0.0274	+/-0.0345	0.0547	pCi/g						
Cobalt-60	U	0.00987	+/-0.0303	0.0263	+/-0.0303	0.0526	pCi/g						
Europium-152	U	-0.0498	+/-0.0944	0.0728	+/-0.0944	0.145	pCi/g						
Europium-154	U	-0.0234	+/-0.112	0.0779	+/-0.112	0.156	pCi/g						
Europium-155	U	0.0501	+/-0.0964	0.0839	+/-0.0964	0.168	pCi/g						
Lead-212		1.74	+/-0.170	0.0432	+/-0.170	0.0864	pCi/g						
Lead-214		1.52	+/-0.181	0.0528	+/-0.181	0.106	pCi/g						
Manganese-54	U	0.000314	+/-0.0388	0.029	+/-0.0388	0.0579	pCi/g						
Niobium-94	U	-0.0128	+/-0.0275	0.0234	+/-0.0275	0.0467	pCi/g						
Potassium-40		13.1	+/-1.29	0.222	+/-1.29	0.443	pCi/g						
Radium-226		1.47	+/-0.188	0.0487	+/-0.188	0.0974	pCi/g						
Silver-108m	U	-0.00614	+/-0.0289	0.0248	+/-0.0289	0.0495	pCi/g						
Thallium-208		0.548	+/-0.078	0.0254	+/-0.078	0.0507	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00956	+/-0.00903	0.00831	+/-0.00904	0.0172	pCi/g	BXF1	06/06/06	2316	535512	5	
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2, ALL FSS</i>													
Tritium	U	3.49	+/-6.18	5.06	+/-6.18	10.5	pCi/g	NXP1	05/28/06	0323	531705	7	
<i>Liquid Scint C14, Solid All, FSS</i>													

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: June 8, 2006

Client Sample ID: 9106-0005-005F
Sample ID: 162485017

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													
<i>Liquid Scint C14, Solid All, FSS</i> Carbon-14	U	0.048	+/-0.107	0.0885	+/-0.107	0.183	pCi/g		ATH2	06/03/06	1732	534984	8
<i>Liquid Scint Fe55, Solid-ALL FSS</i> Iron-55	U	-5.82	+/-15.5	11.7	+/-15.5	24.6	pCi/g		AF1	06/05/06	1626	535483	10
<i>Liquid Scint Ni63, Solid-ALL FSS</i> Nickel-63	U	-2.31	+/-4.11	3.49	+/-4.11	7.11	pCi/g		SLN1	05/26/06	2217	531622	12
<i>Liquid Scint Tc99, Solid-ALL FSS</i> Technetium-99	U	0.298	+/-0.271	0.218	+/-0.271	0.450	pCi/g		SXE1	05/30/06	2126	531704	13

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

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 905.0 Modified
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Fe-1, Modified
12	DOE RESL Ni-1, Modified
13	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	96	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	91	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	82	(25%-125%)

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: June 8, 2006

Client Sample ID: 9106-0005-005F
Sample ID: 162485017

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			80		(25%-125%)						
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-ALL FS			94		(15%-125%)						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			90		(25%-125%)						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-ALL FS			72		(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
 - 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

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: June 8, 2006

Client Sample ID: 9106-0005-009F
Sample ID: 162485018
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 14.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0451	+/-0.104	0.0757	+/-0.104	0.241	pCi/g		LCW1	05/30/06	1156	533471	1
Curium-242	U	0.0375	+/-0.0735	0.00	+/-0.0736	0.102	pCi/g						
Curium-243/244	U	0.0173	+/-0.0689	0.0537	+/-0.0689	0.197	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.0133	+/-0.0575	0.0447	+/-0.0575	0.165	pCi/g		LCW1	05/30/06	2129	533472	2
Plutonium-239/240	U	0.0211	+/-0.0559	0.0316	+/-0.056	0.138	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	-4.2	+/-9.77	8.38	+/-9.78	17.5	pCi/g		LCW1	06/03/06	0557	533473	3
Rad Gamma Spec Analysis													
<i>Gamma,Solid-FSS GAM & ALL FSS</i>													
Actinium-228		0.558	+/-0.165	0.0655	+/-0.165	0.131	pCi/g		MJH1	06/02/06	1827	529776	4
Americium-241	U	0.0512	+/-0.0953	0.0797	+/-0.0953	0.159	pCi/g						
Bismuth-212	U	0.288	+/-0.274	0.224	+/-0.274	0.447	pCi/g						
Bismuth-214		0.541	+/-0.106	0.0381	+/-0.106	0.0762	pCi/g						
Cesium-134	UU1	0.00	+/-0.0381	0.0252	+/-0.0381	0.0504	pCi/g						
Cesium-137		0.181	+/-0.0535	0.0218	+/-0.0535	0.0435	pCi/g						
Cobalt-60	U	0.0214	+/-0.0242	0.0239	+/-0.0242	0.0478	pCi/g						
Europium-152	U	0.0156	+/-0.0758	0.0566	+/-0.0758	0.113	pCi/g						
Europium-154	U	-0.0435	+/-0.0786	0.0615	+/-0.0786	0.123	pCi/g						
Europium-155	U	0.079	+/-0.116	0.0597	+/-0.116	0.119	pCi/g						
Lead-212		0.569	+/-0.0793	0.031	+/-0.0793	0.062	pCi/g						
Lead-214		0.445	+/-0.109	0.038	+/-0.109	0.0759	pCi/g						
Manganese-54	U	0.0259	+/-0.0233	0.0226	+/-0.0233	0.0452	pCi/g						
Niobium-94	U	0.00303	+/-0.0254	0.0218	+/-0.0254	0.0435	pCi/g						
Potassium-40		10.5	+/-1.11	0.182	+/-1.11	0.364	pCi/g						
Radium-226		0.541	+/-0.106	0.0381	+/-0.106	0.0762	pCi/g						
Silver-108m	U	0.00846	+/-0.0219	0.0198	+/-0.0219	0.0396	pCi/g						
Thallium-208		0.156	+/-0.058	0.0188	+/-0.058	0.0376	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.013	+/-0.00829	0.00722	+/-0.0083	0.0152	pCi/g		BXF1	06/06/06	2316	535512	5
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	6.86	+/-6.34	5.06	+/-6.34	10.5	pCi/g		NXP1	05/28/06	0354	531705	7
<i>Liquid Scint C14, Solid All,FSS</i>													

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: June 8, 2006

Client Sample ID: 9106-0005-009F
Sample ID: 162485018

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													
<i>Liquid Scint C14, Solid-ALL FSS</i> Carbon-14	U	0.043	+/-0.0961	0.0793	+/-0.0961	0.164	pCi/g		ATH2	06/03/06	1934	534984	8
<i>Liquid Scint Fe55, Solid-ALL FSS</i> Iron-55	U	1.25	+/-22.5	17.0	+/-22.5	35.7	pCi/g		SLN1	05/29/06	1526	531618	10
<i>Liquid Scint Ni63, Solid-ALL FSS</i> Nickel-63	U	-0.696	+/-4.99	4.21	+/-4.99	8.57	pCi/g		SLN1	05/26/06	2318	531622	11
<i>Liquid Scint Tc99, Solid-ALL FSS</i> Technetium-99	U	0.333	+/-0.298	0.239	+/-0.298	0.494	pCi/g		SXE1	05/30/06	2142	531704	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	LXM1	05/10/06	0855	528491
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	05/09/06	1829	528487

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 905.0 Modified
7	EPA 906.0 Modified
8	EPA EERF C-01 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	87	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	85	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	77	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	71	(25%-125%)

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: June 8, 2006

Client Sample ID: 9106-0005-009F
Sample ID: 162485018

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-ALL FS			72		(15%-125%)						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			67		(25%-125%)						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-ALL FS			65		(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
 - 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

Report Date: June 8, 2006

Page 1 of 9

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

Contact: East Hampton, Connecticut
Mr. Jack McCarthy

Workorder: 162485

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	533471										
QC1201101118	162485017	DUP									
Americium-241	U	-0.0415	U	-0.00249	pCi/g	177		(0% - 100%)	LCW1	05/30/06	11:55
	Uncert:	+/-0.0591		+/-0.0219							
	TPU:	+/-0.0591		+/-0.0219							
Curium-242	U	-0.00755	U	0.0283	pCi/g	346		(0% - 100%)			
	Uncert:	+/-0.0634		+/-0.0555							
	TPU:	+/-0.0634		+/-0.0556							
Curium-243/244	U	0.00112	U	0.0131	pCi/g	168		(0% - 100%)			
	Uncert:	+/-0.0607		+/-0.0521							
	TPU:	+/-0.0607		+/-0.0521							
QC1201101120	LCS										
Americium-241	12.2			10.8	pCi/g		89	(75%-125%)		05/30/06	11:55
	Uncert:			+/-0.975							
	TPU:			+/-1.73							
Curium-242			U	-0.0056	pCi/g						
	Uncert:			+/-0.047							
	TPU:			+/-0.0471							
Curium-243/244	14.9			12.4	pCi/g		83	(75%-125%)			
	Uncert:			+/-1.04							
	TPU:			+/-1.95							
QC1201101117	MB										
Americium-241			U	-0.00902	pCi/g					05/30/06	11:55
	Uncert:			+/-0.019							
	TPU:			+/-0.019							
Curium-242			U	0.0399	pCi/g						
	Uncert:			+/-0.0638							
	TPU:			+/-0.064							
Curium-243/244			U	0.0392	pCi/g						
	Uncert:			+/-0.0626							
	TPU:			+/-0.0628							
QC1201101119	162485017	MS									
Americium-241	12.7	U	-0.0415	12.5	pCi/g		98	(75%-125%)		05/30/06	11:55
	Uncert:		+/-0.0591	+/-1.06							
	TPU:		+/-0.0591	+/-1.96							
Curium-242		U	-0.00755	0.00	pCi/g						
	Uncert:		+/-0.0634	+/-0.0517							
	TPU:		+/-0.0634	+/-0.0517							
Curium-243/244	15.5	U	0.00112	12.6	pCi/g		81	(75%-125%)			
	Uncert:		+/-0.0607	+/-1.06							
	TPU:		+/-0.0607	+/-1.98							
Batch	533472										
QC1201101122	162485017	DUP									
Plutonium-238	U	0.0261	U	0.00	pCi/g			(0% - 100%)	LCW1	05/30/06	21:29

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 162485

Page 2 of 9

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	533472										
Plutonium-239/240	U	Uncert:	+/-0.0511	+/-0.0498	pCi/g	261	(0% - 100%)				
		TPU:	+/-0.0512	+/-0.0498							
			0.0459	-0.00609							
		Uncert:	+/-0.0733	+/-0.0511							
		TPU:	+/-0.0734	+/-0.0512							
QC1201101124	LCS			0.216	pCi/g		(75%-125%)			05/30/06	21:29
Plutonium-238											
Plutonium-239/240	11.3	Uncert:		+/-0.181	pCi/g		91	(75%-125%)			
		TPU:		+/-0.182							
				10.3							
		Uncert:		+/-1.21							
		TPU:		+/-1.76							
QC1201101121	MB										
Plutonium-238			U	-0.00623	pCi/g					05/31/06	07:44
Plutonium-239/240	U	Uncert:		+/-0.0692	pCi/g						
		TPU:		+/-0.0693							
				-0.0274							
		Uncert:		+/-0.100							
		TPU:		+/-0.100							
QC1201101123	162485017	MS									
Plutonium-238		U	0.0261	0.0634	pCi/g		(75%-125%)			05/30/06	21:29
Plutonium-239/240	U	Uncert:	+/-0.0511	+/-0.0787	pCi/g		92	(75%-125%)			
		TPU:	+/-0.0512	+/-0.079							
			0.0459	10.7							
		Uncert:	+/-0.0733	+/-0.971							
		TPU:	+/-0.0734	+/-1.52							
Batch	533473										
QC1201101126	162485017	DUP									
Plutonium-241		U	-8.66	-6.36	pCi/g	0	(0% - 100%)	LCW1		06/03/06	07:35
Plutonium-241	131	Uncert:	+/-8.72	+/-6.79	pCi/g						
		TPU:	+/-8.77	+/-6.82							
		Uncert:		+/-12.3							
QC1201101128	LCS			106	pCi/g		81	(75%-125%)		06/03/06	08:07
Plutonium-241											
Plutonium-241	U	TPU:		+/-16.4	pCi/g						
				-1.18							
		Uncert:		+/-9.02							
		TPU:		+/-9.02							
QC1201101125	MB										
Plutonium-241											
Plutonium-241	U		-8.66	146	pCi/g		108	(75%-125%)			
		Uncert:	+/-8.72	+/-14.7							
		TPU:	+/-8.77	+/-20.1							
Rad Gamma Spec											
Batch	529776										
QC1201092333	162485001	DUP									
Actinium-228			1.69	1.64	pCi/g	7	(0% - 100%)	MJH1		06/04/06	20:23
Actinium-228	U	Uncert:	+/-0.251	+/-0.254							
				+/-0.254							

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 162485

Page 3 of 9

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 529776											
Americium-241	U	TPU:	+/-0.251								
			0.064	U	-0.0181	pCi/g	137	(0% - 100%)			
		Uncert:	+/-0.113		+/-0.0823						
Bismuth-212		TPU:	+/-0.113		+/-0.0823	pCi/g	21	(0% - 100%)			
			0.887		0.973						
		Uncert:	+/-0.313		+/-0.274						
Bismuth-214		TPU:	+/-0.313		+/-0.274	pCi/g	4	(0% - 20%)			
			1.15		1.17						
		Uncert:	+/-0.147		+/-0.142						
Cesium-134	UUI	TPU:	+/-0.147		+/-0.142	pCi/g	25	(0% - 100%)			
			0.00	UUI	0.00						
		Uncert:	+/-0.0385		+/-0.0358						
Cesium-137	U	TPU:	+/-0.0385		+/-0.0358	pCi/g	78	(0% - 100%)			
			0.0288	U	0.0105						
		Uncert:	+/-0.0259		+/-0.0211						
Cobalt-60	U	TPU:	+/-0.0259		+/-0.0211	pCi/g	18	(0% - 100%)			
			0.0191	U	0.00611						
		Uncert:	+/-0.0235		+/-0.0196						
Europium-152	U	TPU:	+/-0.0235		+/-0.0196	pCi/g	1550	(0% - 100%)			
			-0.0115	U	-0.0143						
		Uncert:	+/-0.0595		+/-0.0523						
Europium-154	U	TPU:	+/-0.0595		+/-0.0523	pCi/g	515	(0% - 100%)			
			-0.0146	U	-0.0672						
		Uncert:	+/-0.0717		+/-0.0591						
Europium-155	U	TPU:	+/-0.0717		+/-0.0591	pCi/g	153	(0% - 100%)			
			0.0293	UUI	0.00						
		Uncert:	+/-0.0678		+/-0.100						
Lead-212		TPU:	+/-0.0678		+/-0.100	pCi/g	5	(0% - 20%)			
			1.62		1.68						
		Uncert:	+/-0.145		+/-0.148						
Lead-214		TPU:	+/-0.145		+/-0.148	pCi/g	6	(0% - 20%)			
			1.36		1.39						
		Uncert:	+/-0.154		+/-0.153						
Manganese-54	U	TPU:	+/-0.154		+/-0.153	pCi/g	282	(0% - 100%)			
			0.0112	U	0.0321						
		Uncert:	+/-0.0236		+/-0.0318						
Niobium-94	U	TPU:	+/-0.0236		+/-0.0318	pCi/g	54	(0% - 100%)			
			-0.00247	U	0.0167						
		Uncert:	+/-0.0192		+/-0.0171						
Potassium-40		TPU:	+/-0.0192		+/-0.0171	pCi/g	9	(0% - 20%)			
			11.3		10.7						
		Uncert:	+/-1.05		+/-0.964						
Radium-226		TPU:	+/-1.05		+/-0.964	pCi/g	4	(0% - 100%)			
			1.15		1.17						
		Uncert:	+/-0.147		+/-0.142						
Silver-108m	U	TPU:	+/-0.147		+/-0.142	pCi/g	19	(0% - 100%)			
			-0.000679	U	0.0103						
		Uncert:	+/-0.0191		+/-0.017						

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

QC Summary

Workorder: 162485

Page 4 of 9

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 529776											
Thallium-208	TPU:	+/-0.0191		+/-0.017							
		0.495		0.525	pCi/g	2		(0% - 20%)			
	Uncert:	+/-0.0669		+/-0.0635							
Actinium-228	TPU:	+/-0.0669		+/-0.0635							
			U	0.508	pCi/g					06/03/06	15:39
	Uncert:			+/-0.559							
Americium-241	TPU:			+/-0.559							
	23.4			21.0	pCi/g		90	(75%-125%)			
	Uncert:			+/-3.45							
Bismuth-212	TPU:			+/-3.45							
			U	0.361	pCi/g						
	Uncert:			+/-1.07							
Bismuth-214	TPU:			+/-1.07							
			U	0.102	pCi/g						
	Uncert:			+/-0.286							
Cesium-134	TPU:			+/-0.286							
			U	-0.0467	pCi/g						
	Uncert:			+/-0.181							
Cesium-137	TPU:			+/-0.181							
	9.64			9.06	pCi/g		94	(75%-125%)			
	Uncert:			+/-0.729							
Cobalt-60	TPU:			+/-0.729							
	15.1			15.9	pCi/g		106	(75%-125%)			
	Uncert:			+/-1.18							
Europium-152	TPU:			+/-1.18							
			U	-0.0491	pCi/g						
	Uncert:			+/-0.335							
Europium-154	TPU:			+/-0.335							
			U	-0.249	pCi/g						
	Uncert:			+/-0.328							
Europium-155	TPU:			+/-0.328							
			U	0.077	pCi/g						
	Uncert:			+/-0.360							
Lead-212	TPU:			+/-0.360							
			U	-0.00061	pCi/g						
	Uncert:			+/-0.196							
Lead-214	TPU:			+/-0.196							
			U	0.0856	pCi/g						
	Uncert:			+/-0.227							
Manganese-54	TPU:			+/-0.227							
			U	-0.0065	pCi/g						
	Uncert:			+/-0.133							
Niobium-94	TPU:			+/-0.133							
			U	0.101	pCi/g						
	Uncert:			+/-0.118							
Potassium-40	TPU:			+/-0.118							
			U	1.38	pCi/g						

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

QC Summary

Workorder: 162485

Page 5 of 9

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec										
Batch	529776									
		Uncert:	+/-1.23							
		TPU:	+/-1.23							
Radium-226		U	0.102	pCi/g			(75%-125%)			
		Uncert:	+/-0.286							
		TPU:	+/-0.286							
Silver-108m		U	0.0169	pCi/g						
		Uncert:	+/-0.119							
		TPU:	+/-0.119							
Thallium-208		U	0.0217	pCi/g						
		Uncert:	+/-0.131							
		TPU:	+/-0.131							
QC1201092332 MB										
Actinium-228		U	0.0231	pCi/g					06/04/06	20:22
		Uncert:	+/-0.0503							
		TPU:	+/-0.0503							
Americium-241		U	-0.0485	pCi/g						
		Uncert:	+/-0.0565							
		TPU:	+/-0.0565							
Bismuth-212		U	0.100	pCi/g						
		Uncert:	+/-0.114							
		TPU:	+/-0.114							
Bismuth-214		U	-0.00311	pCi/g						
		Uncert:	+/-0.0254							
		TPU:	+/-0.0254							
Cesium-134		U	0.00344	pCi/g						
		Uncert:	+/-0.0146							
		TPU:	+/-0.0146							
Cesium-137		U	0.0114	pCi/g						
		Uncert:	+/-0.0135							
		TPU:	+/-0.0135							
Cobalt-60		U	0.00208	pCi/g						
		Uncert:	+/-0.0154							
		TPU:	+/-0.0154							
Europium-152		U	0.0236	pCi/g						
		Uncert:	+/-0.0367							
		TPU:	+/-0.0367							
Europium-154		U	-0.0158	pCi/g						
		Uncert:	+/-0.0399							
		TPU:	+/-0.0399							
Europium-155		U	0.00786	pCi/g						
		Uncert:	+/-0.0328							
		TPU:	+/-0.0328							
Lead-212		U	0.0278	pCi/g						
		Uncert:	+/-0.0312							
		TPU:	+/-0.0312							
Lead-214		U	0.0263	pCi/g						
		Uncert:	+/-0.0251							
		TPU:	+/-0.0251							

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

QC Summary

Workorder: 162485

Page 6 of 9

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	529776										
Manganese-54			U	0.0016	pCi/g						
	Uncert:			+/-0.015							
	TPU:			+/-0.015							
Niobium-94			U	-0.000762	pCi/g						
	Uncert:			+/-0.0129							
	TPU:			+/-0.0129							
Potassium-40			U	0.145	pCi/g						
	Uncert:			+/-0.122							
	TPU:			+/-0.122							
Radium-226			U	-0.00311	pCi/g						
	Uncert:			+/-0.0254							
	TPU:			+/-0.0254							
Silver-108m			U	-0.00522	pCi/g						
	Uncert:			+/-0.0117							
	TPU:			+/-0.0117							
Thallium-208			U	0.00116	pCi/g						
	Uncert:			+/-0.0158							
	TPU:			+/-0.0158							
Rad Gas Flow											
Batch	535512										
QC1201105910	162335018	DUP									
Strontium-90			U	0.00669	pCi/g	0		(0% - 100%)	BXF1	06/06/06	23:16
	Uncert:			+/-0.00923							
	TPU:			+/-0.00923							
QC1201105912	LCS										
Strontium-90			1.43		1.19	pCi/g	83	(75%-125%)		06/07/06	10:08
	Uncert:				+/-0.081						
	TPU:				+/-0.0854						
QC1201105909	MB										
Strontium-90			U	0.0107	pCi/g					06/06/06	23:16
	Uncert:			+/-0.00663							
	TPU:			+/-0.00664							
QC1201105911	162335018	MS									
Strontium-90			1.54 U	0.00669	1.54	pCi/g	100	(75%-125%)		06/07/06	10:08
	Uncert:			+/-0.00923	+/-0.107						
	TPU:			+/-0.00923	+/-0.115						
Rad Liquid Scintillation											
Batch	531618										
QC1201096632	163173001	DUP									
Iron-55			U	10.3	5.38	pCi/g	0	(0% - 100%)	SLN1	05/31/06	12:49
	Uncert:			+/-20.1	+/-18.0						
	TPU:			+/-20.1	+/-18.1						
QC1201096634	LCS										
Iron-55			437		428	pCi/g	98	(75%-125%)		05/31/06	13:22
	Uncert:				+/-40.6						
	TPU:				+/-62.3						
QC1201096631	MB										
Iron-55			U	3.58	pCi/g					05/31/06	12:32

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 162485

Page 7 of 9

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch	531618										
				Uncert:							
				TPU:							
QC1201096633	163173001	MS									
Iron-55		569	U	10.3	544	pCi/g	96	(75%-125%)		05/31/06	13:05
		Uncert:		+/-20.1	+/-39.3						
		TPU:		+/-20.1	+/-69.3						
Batch	531622										
QC1201096645	163173001	DUP									
Nickel-63			U	-6.64	U	-5.49	pCi/g	0	(0% - 100%)	SLN1	05/28/06 01:38
		Uncert:		+/-7.30		+/-4.33					
		TPU:		+/-7.31		+/-4.33					
QC1201096647	LCS										
Nickel-63		362			301	pCi/g	83	(75%-125%)		05/28/06	03:40
		Uncert:			+/-7.49						
		TPU:			+/-11.1						
QC1201096644	MB										
Nickel-63			U	-1.66		pCi/g				05/28/06	00:37
		Uncert:		+/-3.41							
		TPU:		+/-3.41							
QC1201096646	163173001	MS									
Nickel-63		460	U	-6.64	395	pCi/g	86	(75%-125%)		05/28/06	02:39
		Uncert:		+/-7.30	+/-9.22						
		TPU:		+/-7.31	+/-14.9						
Batch	531704										
QC1201096868	162583001	DUP									
Technetium-99			U	0.161	U	0.239	pCi/g	0	(0% - 100%)	SXE1	05/31/06 00:27
		Uncert:		+/-0.254		+/-0.273					
		TPU:		+/-0.255		+/-0.273					
QC1201096870	LCS										
Technetium-99		12.5			11.1	pCi/g	89	(75%-125%)		05/31/06	01:00
		Uncert:			+/-0.474						
		TPU:			+/-0.545						
QC1201096867	MB										
Technetium-99			U	0.163		pCi/g				05/31/06	00:11
		Uncert:		+/-0.214							
		TPU:		+/-0.214							
QC1201096869	162583001	MS									
Technetium-99		13.1	U	0.161	11.6	pCi/g	89	(75%-125%)		05/31/06	00:44
		Uncert:		+/-0.254	+/-0.583						
		TPU:		+/-0.255	+/-0.649						
Batch	531705										
QC1201096878	162583001	DUP									
Tritium			U	1.17	U	6.01	pCi/g	0	(0% - 100%)	NXP1	05/28/06 09:10
		Uncert:		+/-4.09		+/-4.70					
		TPU:		+/-4.09		+/-4.70					
QC1201096880	LCS										
Tritium		41.4			44.8	pCi/g	108	(75%-125%)		05/28/06	10:14
		Uncert:			+/-5.68						
		TPU:			+/-5.73						

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 162485

Page 8 of 9

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch	531705										
QC1201096877	MB										
Tritium			U	0.0641	pCi/g					06/03/06	05:11
				Uncert:							
				TPU:							
QC1201096879	162583001	MS									
Tritium			45.7 U	1.17	52.3	pCi/g	114	(75%-125%)		05/28/06	09:42
				Uncert:	+/-4.09						
				TPU:	+/-4.09						
Batch	534984										
QC1201104746	163173001	DUP									
Carbon-14			U	0.00714	U	0.00246	pCi/g	0	(0% - 100%)	ATH2	06/05/06 03:00
				Uncert:	+/-0.0996						
				TPU:	+/-0.0996						
QC1201104748	LCS										
Carbon-14			12.1		11.3	pCi/g	94	(75%-125%)		06/05/06	05:20
				Uncert:	+/-0.855						
				TPU:	+/-0.873						
QC1201104745	MB										
Carbon-14			U	-0.0368	pCi/g					06/05/06	00:57
				Uncert:	+/-0.101						
				TPU:	+/-0.101						
QC1201104747	163173001	MS									
Carbon-14			12.9 U	0.00714	12.1	pCi/g	94	(75%-125%)		06/05/06	05:02
				Uncert:	+/-0.0996						
				TPU:	+/-0.0996						
Batch	535483										
QC1201105873	162335018	DUP									
Iron-55			U	-15.8	U	0.079	pCi/g	0	(0% - 100%)	AF1	06/05/06 17:00
				Uncert:	+/-16.9						
				TPU:	+/-17.0						
QC1201105875	LCS										
Iron-55			485		492	pCi/g	101	(75%-125%)		06/05/06	17:33
				Uncert:	+/-39.7						
				TPU:	+/-61.9						
QC1201105872	MB										
Iron-55			U	5.04	pCi/g					06/05/06	16:43
				Uncert:	+/-22.8						
				TPU:	+/-22.8						
QC1201105874	162335018	MS									
Iron-55			655 U	-15.8	628	pCi/g	96	(75%-125%)		06/05/06	17:16
				Uncert:	+/-16.9						
				TPU:	+/-17.0						

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

QC Summary

Workorder: 162485

Page 9 of 9

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
>	Result is greater than value reported									
A	The TIC is a suspected aldol-condensation product									
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									

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 acceptance 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.

Table of Contents

General Narrative.....	1
Chain of Custody And Supporting Dpcumentation	5
Radiological Analysis	12
Sample Data Summary	18
Quality Control Data	60

General Narrative

**CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Soil
PO# 002332
Work Order: 170256
SDG: MSR #06-1160**

September 6, 2006

Laboratory Identification:

General Engineering Laboratories, LLC

Mailing Address:

P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29407

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The sample(s) for this Project arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina on August 25, 2006. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following sample(s):

<u>Sample ID</u>	<u>Client Sample ID</u>
170256001	9106-0006-005A
170256002	9106-0006-005B
170256003	9106-0006-005C
170256004	9106-0006-005D
170256005	9106-0005-010A
170256006	9106-0005-010B
170256007	9106-0005-010C
170256008	9106-0005-010D
170256009	9106-0014-033A

GENERAL ENGINEERING LABORATORIES, LLC

a Member of THE GEL GROUP, INC.

P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

170256010	9106-0014-033B
170256011	9106-0014-033C
170256012	9106-0014-033D
170256013	9106-0004-013A
170256014	9106-0004-013B
170256015	9106-0004-013C
170256016	9106-0004-013D
170256017	9106-0004-005A
170256018	9106-0004-005B
170256019	9106-0004-005C
170256020	9106-0004-005D

Items of Note:

There are no items of 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 listed below by analytical parameter.

Analytical Request:

Twenty soil samples were analyzed for FSSGAM and Sr-90.

Internal Chain of Custody:

Custody was maintained for the sample(s).

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody and Supporting Documentation and all analytical fractions.

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 06 September 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)
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas	TX213-2006A
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	N/A
Virginia	00151
Washington	C223

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. 2006-00511			
Project Name: Haddam Neck Decommissioning						Analyses Requested					Lab Use Only				
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL	Sr-90					Comments: 170256%		
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road. Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones															
Priority: <input type="checkbox"/> 30 D. <input checked="" type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.															
Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- & Type Code										
9106-0006-005A	8/8/06	14:35	SE	C	BP	X		X							
9106-0006-005B	8/8/06	15:08	SE	C	BP	X		X							
9106-0006-005C	8/9/06	07:46	SE	C	BP	X		X							
9106-0006-005D	8/9/06	08:18	SE	C	BP	X		X							
NOTES: PO #: 002332 MSR #: 06-1/60 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA												Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: ____ Deg. C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By _____ Date/Time _____ JAYME RICARTE 8-24-06/1340				2) Received By _____ Date/Time _____ [Signature] 8/25/06 0900				Bill of Lading # 7900 4639 6427							
3) Relinquished By _____ Date/Time _____				4) Received By _____ Date/Time _____											

Connecticut Yankee Atomic Power Company362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556**Chain of Custody Form**

No. 2006-00512

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL	Sr-90					Comments:		
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones															
Priority: <input type="checkbox"/> 30 D. <input checked="" type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.															
Sample Designation	Date	Time										Comment, Preservation	Lab Sample ID		
9106-0005-010A	8/9/06	09:03	SE	C	BP	X			X			Transferred from COC # 2006-00489			
9106-0005-010B	8/9/06	09:33	SE	C	BP	X			X			Transferred from COC # 2006-00489			
9106-0005-010C	8/9/06	10:04	SE	C	BP	X			X			Transferred from COC # 2006-00489			
9106-0005-010D	8/9/06	10:56	SE	C	BP	X			X			Transferred from COC # 2006-00489			
NOTES: PO #: 002332 MSR #: 06-1160 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA												Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: ____ Deg. C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By JAMIE RACARTE			Date/Time 8-24-06 / 1340		2) Received By <i>Maurice Galt</i>			Date/Time 8/25/06 0900			Bill of Lading # 7900 4639 6427				
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. 2006-00513			
Project Name: Haddam Neck Decommissioning						Analyses Requested					Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL	Sr-90					Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input type="checkbox"/> 30 D. <input checked="" type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size & Type Code						Comment, Preservation	Lab Sample ID		
9106-0014-033A	8/11/06	07:58	SE	C	BP	X		X			Transferred from COC # 2006-00493			
9106-0014-033B	8/11/06	08:24	SE	C	BP	X		X			Transferred from COC # 2006-00493			
9106-0014-033C	8/11/06	08:45	SE	C	BP	X		X			Transferred from COC # 2006-00493			
9106-0014-033D	8/11/06	09:16	SE	C	BP	X		X			Transferred from COC # 2006-00493			
NOTES: PO #: 002332 MSR #: 06-1160 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA											Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: ____ Deg. C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By JAME RICARTE			Date/Time 8-24-06/1340		2) Received By <i>Maria S. [Signature]</i>			Date/Time 8/25/06 0900			Bill of Lading # 7900 4639 6449			
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. 2006-00520			
Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size & Type Code	Analyses Requested					Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-3924						FSSGAM	FSSALL	Sr-90					Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input type="checkbox"/> 30 D. <input checked="" type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID		
9106-0004-013A	8/9/06	12:53	SE	C	BP	X		X			Transferred from COC 2006-00490			
9106-0004-013B	8/9/06	13:27	SE	C	BP	X		X			Transferred from COC 2006-00490			
9106-0004-013C	8/9/06	13:57	SE	C	BP	X		X			Transferred from COC 2006-00490			
9106-0004-013D	8/9/06	14:28	SE	C	BP	X		X			Transferred from COC 2006-00490			
9106-0004-005A	8/9/06	14:58	SE	C	BP	X		X			Transferred from COC 2006-00490			
9106-0004-005B	8/10/06	07:41	SE	C	BP	X		X			Transferred from COC 2006-00491			
9106-0004-005C	8/10/06	08:09	SE	C	BP	X		X			Transferred from COC 2006-00491			
9106-0004-005D	8/10/06	08:49	SE	C	BP	X		X			Transferred from COC 2006-00491			
NOTES: PO #: 002332 MSR #: 06-1160 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA										Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: ____ Deg. C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>		
1) Relinquished By JAMIE RICHARTE			Date/Time 8-24-06 / 1340		2) Received By <i>Maria Gathas</i>			Date/Time 8/25/06 0900		Bill of Lading # 7900 4639 6449				
3) Relinquished By			Date/Time		4) Received By			Date/Time						

Figure 1. Sample Check-in List

Date/Time Received: 8/25/06

SDG#: NSR#06-1160

Work Order Number: 170236

Shipping Container ID: 7900 4639 6449 Chain of Custody # 2006 00513, 00520

1. Custody Seals on shipping container intact? Yes ☒ No ☐

2. Custody Seals dated and signed? Yes ☒ No ☐

3. Chain-of-Custody record present? Yes ☒ No ☐

4. Cooler temperature 92°

5. Vermiculite/packing materials is: Wet ☒ Dry ☐

6. Number of samples in shipping container: 12

7. Sample holding times exceeded? Yes ☒ No ☐

8. Samples have:

☒ tape ☐ hazard labels
☒ custody seals ☐ appropriate sample labels

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: Marianne Estess Date: 8/25/06 0900

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 8/25/06

SDG#: MSR# 06-1160

Work Order Number: 170256

Shipping Container ID: 790046396 Chain of Custody #: 2006-00511
2006-00512

1. Custody Seals on shipping container intact? Yes ☒ No ☐

2. Custody Seals dated and signed? Yes ☒ No ☐

3. Chain-of-Custody record present? Yes ☒ No ☐

4. Cooler temperature 22°

5. Vermiculite/packing materials is: Wet ☒ Dry ☐

6. Number of samples in shipping container: 8

7. Sample holding times exceeded? Yes ☒ No ☐

8. Samples have:

☒ tape ☐ hazard labels
☒ custody seals ☐ appropriate sample labels

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): ID # 9106-0005 - 10D was leaking
and had a hole in the bag

Sample Custodian/Laboratory: Marian Lathrop Date: 8/25/06 0900

Telephoned to: _____ On _____ By _____

RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 170256**

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: 563436
Prep Batch Number: 562444

Sample ID	Client ID
170256001	9106-0006-005A
170256002	9106-0006-005B
170256003	9106-0006-005C
170256004	9106-0006-005D
170256005	9106-0005-010A
170256006	9106-0005-010B
170256007	9106-0005-010C
170256008	9106-0005-010D
170256009	9106-0014-033A
170256010	9106-0014-033B
170256011	9106-0014-033C
170256012	9106-0014-033D
170256013	9106-0004-013A
170256014	9106-0004-013B
170256015	9106-0004-013C
170256016	9106-0004-013D
170256017	9106-0004-005A
170256018	9106-0004-005B
170256019	9106-0004-005C
170256020	9106-0004-005D
1201171525	Method Blank (MB)
1201171526	170256001(9106-0006-005A) Sample Duplicate (DUP)
1201171527	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# 12.

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: 170256001 (9106-0006-005A).

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 170256007 (9106-0005-010C), 170256016 (9106-0004-013D) and 170256019 (9106-0004-005C) were recounted due to high MDAs.

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	170256009
UI	Data rejected due to interference.	Europium-155	170256003
			170256009
			170256019
			170256020
UI	Data rejected due to low abundance.	Bismuth-214	170256008
		Cesium-134	170256005
			170256007
			170256008
			170256012
			170256013
			170256019
			1201171526
		Europium-155	170256018

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:	562563
Prep Batch Number:	562478
Dry Soil Prep GL-RAD-A-021 Batch Number:	562444

Sample ID	Client ID
170256001	9106-0006-005A
170256002	9106-0006-005B
170256003	9106-0006-005C
170256004	9106-0006-005D
170256005	9106-0005-010A
170256006	9106-0005-010B
170256007	9106-0005-010C
170256008	9106-0005-010D
170256009	9106-0014-033A
170256010	9106-0014-033B
170256011	9106-0014-033C
170256012	9106-0014-033D
170256013	9106-0004-013A
170256014	9106-0004-013B
170256015	9106-0004-013C
170256016	9106-0004-013D
170256017	9106-0004-005A
170256018	9106-0004-005B
170256019	9106-0004-005C
170256020	9106-0004-005D
1201169421	Method Blank (MB)
1201169422	170256002(9106-0006-005B) Sample Duplicate (DUP)
1201169423	170256002(9106-0006-005B) Matrix Spike (MS)
1201169424	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: 170256002 (9106-0006-005B).

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.

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

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: _____

 9/8/06

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#06-1160 GEL Work Order: 170256

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: September 8, 2006

Client Sample ID: 9106-0006-005A
Sample ID: 170256001
Matrix: SE
Collect Date: 08-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 15.8%

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

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		0.966	+/-0.192	0.0743	+/-0.192	0.149	pCi/g		MJH1	09/01/06	1057	563436	1
Americium-241	U	0.0375	+/-0.0387	0.0329	+/-0.0387	0.0658	pCi/g						
Bismuth-212		0.366	+/-0.306	0.175	+/-0.306	0.350	pCi/g						
Bismuth-214		0.650	+/-0.135	0.042	+/-0.135	0.0839	pCi/g						
Cesium-134	U	0.0366	+/-0.0355	0.0288	+/-0.0355	0.0576	pCi/g						
Cesium-137		0.0666	+/-0.0355	0.0236	+/-0.0355	0.0472	pCi/g						
Cobalt-60		0.104	+/-0.0726	0.0286	+/-0.0726	0.0573	pCi/g						
Europium-152	U	0.00636	+/-0.0728	0.0538	+/-0.0728	0.108	pCi/g						
Europium-154	U	-0.0788	+/-0.0938	0.0718	+/-0.0938	0.143	pCi/g						
Europium-155	U	0.0672	+/-0.0554	0.0518	+/-0.0554	0.104	pCi/g						
Lead-212		0.871	+/-0.0971	0.0305	+/-0.0971	0.061	pCi/g						
Lead-214		0.727	+/-0.105	0.0379	+/-0.105	0.0757	pCi/g						
Manganese-54	U	-0.00916	+/-0.0319	0.0232	+/-0.0319	0.0465	pCi/g						
Niobium-94	U	0.0101	+/-0.0244	0.0223	+/-0.0244	0.0445	pCi/g						
Potassium-40		11.3	+/-0.986	0.201	+/-0.986	0.403	pCi/g						
Radium-226		0.650	+/-0.135	0.042	+/-0.135	0.0839	pCi/g						
Silver-108m	U	-0.0067	+/-0.0208	0.018	+/-0.0208	0.036	pCi/g						
Thallium-208		0.283	+/-0.0618	0.0212	+/-0.0618	0.0423	pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Sr90, solid-ALL FSS

Strontium-90	U	0.0254	+/-0.0193	0.0126	+/-0.0193	0.0298	pCi/g		KSD1	09/07/06	1742	562563	2
--------------	---	--------	-----------	--------	-----------	--------	-------	--	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

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: September 8, 2006

Client Sample ID: 9106-0006-005A
Sample ID: 170256001

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			96		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0006-005B
Sample ID: 170256002
Matrix: SE
Collect Date: 08-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 14.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.606	+/-0.152	0.0599	+/-0.152	0.131	pCi/g						
Americium-241	U	0.101	+/-0.114	0.0861	+/-0.114	0.179	pCi/g		MJH1	09/01/06	1220	563436	1
Bismuth-212		0.685	+/-0.232	0.134	+/-0.232	0.290	pCi/g						
Bismuth-214		0.435	+/-0.0852	0.0332	+/-0.0852	0.0708	pCi/g						
Cesium-134	U	0.0313	+/-0.0286	0.0238	+/-0.0286	0.0507	pCi/g						
Cesium-137		0.114	+/-0.0348	0.0206	+/-0.0348	0.0438	pCi/g						
Cobalt-60		0.436	+/-0.0586	0.0151	+/-0.0586	0.0345	pCi/g						
Europium-152	U	-0.0448	+/-0.0525	0.0416	+/-0.0525	0.0882	pCi/g						
Europium-154	U	-0.0186	+/-0.0685	0.0562	+/-0.0685	0.124	pCi/g						
Europium-155	U	0.0423	+/-0.0579	0.0552	+/-0.0579	0.114	pCi/g						
Lead-212		0.643	+/-0.0623	0.0268	+/-0.0623	0.056	pCi/g						
Lead-214		0.462	+/-0.0885	0.033	+/-0.0885	0.0696	pCi/g						
Manganese-54	U	-0.0167	+/-0.0261	0.0174	+/-0.0261	0.0377	pCi/g						
Niobium-94	U	0.00909	+/-0.0195	0.0173	+/-0.0195	0.0369	pCi/g						
Potassium-40		11.1	+/-0.983	0.179	+/-0.983	0.399	pCi/g						
Radium-226		0.435	+/-0.0852	0.0332	+/-0.0852	0.0708	pCi/g						
Silver-108m	U	-0.00194	+/-0.0168	0.0149	+/-0.0168	0.0317	pCi/g						
Thallium-208		0.243	+/-0.0457	0.0176	+/-0.0457	0.0377	pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Sr90, solid-ALL FSS

Strontium-90	U	0.00501	+/-0.0149	0.0117	+/-0.0149	0.0278	pCi/g	KSD1	09/07/06	1742	562563	2
--------------	---	---------	-----------	--------	-----------	--------	-------	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0006-005B
Sample ID: 170256002

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test	Recovery%		Acceptable Limits									
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	101		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0006-005C
Sample ID: 170256003
Matrix: SE
Collect Date: 09-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 31.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.07	+/-0.284	0.101	+/-0.284	0.215	pCi/g						
Americium-241	U	0.0251	+/-0.0367	0.0332	+/-0.0367	0.0683	pCi/g		MJH1	09/01/06	1221	563436	1
Bismuth-212		0.684	+/-0.424	0.178	+/-0.424	0.383	pCi/g						
Bismuth-214		0.673	+/-0.121	0.0445	+/-0.121	0.0947	pCi/g						
Cesium-134	U	0.0516	+/-0.0548	0.0344	+/-0.0548	0.0729	pCi/g						
Cesium-137		0.317	+/-0.0544	0.0247	+/-0.0544	0.0528	pCi/g						
Cobalt-60		0.821	+/-0.0911	0.0294	+/-0.0911	0.064	pCi/g						
Europium-152	U	-0.049	+/-0.0652	0.0539	+/-0.0652	0.114	pCi/g						
Europium-154	U	0.0883	+/-0.0913	0.0839	+/-0.0913	0.182	pCi/g						
Europium-155	UI	0.00	+/-0.0926	0.0506	+/-0.0926	0.105	pCi/g						
Lead-212		1.01	+/-0.0819	0.0329	+/-0.0819	0.0685	pCi/g						
Lead-214		0.828	+/-0.117	0.0423	+/-0.117	0.089	pCi/g						
Manganese-54	U	-0.0228	+/-0.0296	0.0238	+/-0.0296	0.0513	pCi/g						
Niobium-94	U	-0.0353	+/-0.0279	0.0205	+/-0.0279	0.044	pCi/g						
Potassium-40		12.4	+/-1.15	0.189	+/-1.15	0.431	pCi/g						
Radium-226		0.673	+/-0.121	0.0445	+/-0.121	0.0947	pCi/g						
Silver-108m	U	0.00475	+/-0.0263	0.0227	+/-0.0263	0.0477	pCi/g						
Thallium-208		0.382	+/-0.0567	0.0242	+/-0.0567	0.0515	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00738	+/-0.0142	0.0107	+/-0.0142	0.0255	pCi/g		KSD1	09/07/06	1745	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0006-005C
Sample ID: 170256003

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			104		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0006-005D
Sample ID: 170256004
Matrix: SE
Collect Date: 09-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 28.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.01	+/-0.197	0.0659	+/-0.197	0.143	pCi/g		MJH1	09/01/06	1221	563436	1
Americium-241	U	0.0605	+/-0.132	0.088	+/-0.132	0.182	pCi/g						
Bismuth-212		0.534	+/-0.328	0.168	+/-0.328	0.358	pCi/g						
Bismuth-214		0.594	+/-0.105	0.0384	+/-0.105	0.0813	pCi/g						
Cesium-134	U	0.0478	+/-0.046	0.0253	+/-0.046	0.0537	pCi/g						
Cesium-137		0.103	+/-0.0401	0.0181	+/-0.0401	0.0389	pCi/g						
Cobalt-60		0.148	+/-0.0644	0.0204	+/-0.0644	0.045	pCi/g						
Europium-152	U	0.00143	+/-0.0589	0.0517	+/-0.0589	0.109	pCi/g						
Europium-154	U	0.0154	+/-0.0766	0.0653	+/-0.0766	0.142	pCi/g						
Europium-155	U	0.0625	+/-0.0643	0.0586	+/-0.0643	0.121	pCi/g						
Lead-212		0.900	+/-0.0831	0.0345	+/-0.0831	0.0714	pCi/g						
Lead-214		0.854	+/-0.106	0.0372	+/-0.106	0.078	pCi/g						
Manganese-54	U	-0.013	+/-0.0244	0.0203	+/-0.0244	0.0434	pCi/g						
Niobium-94	U	0.0144	+/-0.022	0.0192	+/-0.022	0.0408	pCi/g						
Potassium-40		11.6	+/-0.886	0.177	+/-0.886	0.396	pCi/g						
Radium-226		0.594	+/-0.105	0.0384	+/-0.105	0.0813	pCi/g						
Silver-108m	U	0.0118	+/-0.0187	0.0169	+/-0.0187	0.0357	pCi/g						
Thallium-208		0.310	+/-0.0591	0.0199	+/-0.0591	0.0422	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.000446	+/-0.0198	0.0166	+/-0.0198	0.0376	pCi/g		KSD1	09/07/06	1740	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0006-005D
Sample ID: 170256004

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			50		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0005-010A
Sample ID: 170256005
Matrix: SE
Collect Date: 09-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 60.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.22	+/-0.394	0.120	+/-0.394	0.255	pCi/g						
Americium-241	U	0.0503	+/-0.0522	0.0424	+/-0.0522	0.0872	pCi/g		MJH1	09/01/06	1221	563436	1
Bismuth-212		0.628	+/-0.547	0.277	+/-0.547	0.584	pCi/g						
Bismuth-214		0.834	+/-0.160	0.0633	+/-0.160	0.133	pCi/g						
Cesium-134	UI	0.00	+/-0.0832	0.0429	+/-0.0832	0.0903	pCi/g						
Cesium-137	U	0.0463	+/-0.0542	0.0333	+/-0.0542	0.0703	pCi/g						
Cobalt-60	U	0.077	+/-0.0516	0.0472	+/-0.0516	0.100	pCi/g						
Europium-152	U	0.00822	+/-0.0958	0.0766	+/-0.0958	0.160	pCi/g						
Europium-154	U	-0.000512	+/-0.129	0.0917	+/-0.129	0.199	pCi/g						
Europium-155	U	0.0659	+/-0.115	0.0674	+/-0.115	0.139	pCi/g						
Lead-212		0.933	+/-0.111	0.0593	+/-0.111	0.122	pCi/g						
Lead-214		0.787	+/-0.146	0.0602	+/-0.146	0.125	pCi/g						
Manganese-54	U	-0.0199	+/-0.0442	0.0342	+/-0.0442	0.0725	pCi/g						
Niobium-94	U	-0.0359	+/-0.0364	0.0275	+/-0.0364	0.0583	pCi/g						
Potassium-40		20.0	+/-1.50	0.288	+/-1.50	0.634	pCi/g						
Radium-226		0.834	+/-0.160	0.0633	+/-0.160	0.133	pCi/g						
Silver-108m	U	-0.00415	+/-0.0338	0.0282	+/-0.0338	0.0591	pCi/g						
Thallium-208		0.347	+/-0.0918	0.0332	+/-0.0918	0.0698	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00442	+/-0.0146	0.0116	+/-0.0146	0.0274	pCi/g		KSD1	09/07/06	1745	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0005-010A
Sample ID: 170256005

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			103		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0005-010B
Sample ID: 170256006
Matrix: SE
Collect Date: 09-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 61.3%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.10	+/-0.245	0.0778	+/-0.245	0.168	pCi/g						
Americium-241	U	-0.00576	+/-0.0366	0.0263	+/-0.0366	0.0543	pCi/g		MJH1	09/01/06	1221	563436	1
Bismuth-212		0.760	+/-0.351	0.189	+/-0.351	0.402	pCi/g						
Bismuth-214		0.576	+/-0.139	0.0442	+/-0.139	0.0936	pCi/g						
Cesium-134	U	0.0332	+/-0.0438	0.0314	+/-0.0438	0.0665	pCi/g						
Cesium-137		0.0908	+/-0.0468	0.0231	+/-0.0468	0.0493	pCi/g						
Cobalt-60		0.115	+/-0.0522	0.0225	+/-0.0522	0.0499	pCi/g						
Europium-152	U	0.00833	+/-0.068	0.0546	+/-0.068	0.115	pCi/g						
Europium-154	U	-0.0828	+/-0.106	0.0808	+/-0.106	0.175	pCi/g						
Europium-155	U	0.0871	+/-0.0591	0.0504	+/-0.0591	0.104	pCi/g						
Lead-212		1.08	+/-0.0778	0.0306	+/-0.0778	0.0636	pCi/g						
Lead-214		0.812	+/-0.0928	0.0385	+/-0.0928	0.081	pCi/g						
Manganese-54	U	0.0145	+/-0.0313	0.0262	+/-0.0313	0.0557	pCi/g						
Niobium-94	U	0.00876	+/-0.0271	0.0226	+/-0.0271	0.0479	pCi/g						
Potassium-40		19.3	+/-1.35	0.236	+/-1.35	0.521	pCi/g						
Radium-226		0.576	+/-0.139	0.0442	+/-0.139	0.0936	pCi/g						
Silver-108m	U	-0.00887	+/-0.0232	0.0191	+/-0.0232	0.0403	pCi/g						
Thallium-208		0.282	+/-0.0641	0.0224	+/-0.0641	0.0475	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.00561	+/-0.0185	0.0162	+/-0.0185	0.0368	pCi/g		KSD1	09/07/06	1746	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0005-010B
Sample ID: 170256006

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			89		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0005-010C
Sample ID: 170256007
Matrix: SE
Collect Date: 09-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 49.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.05	+/-0.196	0.0698	+/-0.196	0.148	pCi/g						
Americium-241	U	0.00111	+/-0.108	0.0862	+/-0.108	0.177	pCi/g		MJH1	09/05/06	2124	563436	1
Bismuth-212		0.539	+/-0.392	0.142	+/-0.392	0.300	pCi/g						
Bismuth-214		0.626	+/-0.101	0.0371	+/-0.101	0.0775	pCi/g						
Cesium-134	UI	0.00	+/-0.0318	0.025	+/-0.0318	0.0524	pCi/g						
Cesium-137		0.192	+/-0.0408	0.0197	+/-0.0408	0.0414	pCi/g						
Cobalt-60		0.522	+/-0.0639	0.0211	+/-0.0639	0.0453	pCi/g						
Europium-152	U	-0.0379	+/-0.0596	0.0464	+/-0.0596	0.0966	pCi/g						
Europium-154	U	-0.0318	+/-0.0732	0.0585	+/-0.0732	0.126	pCi/g						
Europium-155	U	0.0641	+/-0.0925	0.0488	+/-0.0925	0.100	pCi/g						
Lead-212		1.14	+/-0.0696	0.0264	+/-0.0696	0.0544	pCi/g						
Lead-214		0.753	+/-0.0911	0.0337	+/-0.0911	0.070	pCi/g						
Manganese-54	U	0.0134	+/-0.0217	0.0193	+/-0.0217	0.0408	pCi/g						
Niobium-94	U	0.0073	+/-0.0216	0.0181	+/-0.0216	0.038	pCi/g						
Potassium-40		17.9	+/-1.02	0.190	+/-1.02	0.412	pCi/g						
Radium-226		0.626	+/-0.101	0.0371	+/-0.101	0.0775	pCi/g						
Silver-108m	U	0.00496	+/-0.0191	0.0165	+/-0.0191	0.0344	pCi/g						
Thallium-208		0.354	+/-0.0504	0.0183	+/-0.0504	0.0384	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00471	+/-0.0144	0.0114	+/-0.0145	0.027	pCi/g		KSD1	09/07/06	1758	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0005-010C
Sample ID: 170256007

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			101		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0005-010D
Sample ID: 170256008
Matrix: SE
Collect Date: 09-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 58.1%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.920	+/-0.431	0.163	+/-0.431	0.345	pCi/g						
Americium-241	U	0.159	+/-0.0868	0.0423	+/-0.0868	0.0871	pCi/g		MJH1	09/01/06	1222	563436	1
Bismuth-212		0.975	+/-0.615	0.310	+/-0.615	0.654	pCi/g						
Bismuth-214	UI	0.00	+/-0.170	0.126	+/-0.170	0.259	pCi/g						
Cesium-134	UI	0.00	+/-0.0619	0.0563	+/-0.0619	0.118	pCi/g						
Cesium-137		0.630	+/-0.105	0.037	+/-0.105	0.0784	pCi/g						
Cobalt-60		2.24	+/-0.161	0.0361	+/-0.161	0.0793	pCi/g						
Europium-152	U	0.0801	+/-0.100	0.0874	+/-0.100	0.182	pCi/g						
Europium-154	U	0.159	+/-0.180	0.124	+/-0.180	0.267	pCi/g						
Europium-155	U	0.0923	+/-0.117	0.0649	+/-0.117	0.134	pCi/g						
Lead-212		1.10	+/-0.108	0.0414	+/-0.108	0.086	pCi/g						
Lead-214		0.707	+/-0.194	0.0578	+/-0.194	0.121	pCi/g						
Manganese-54	U	0.0291	+/-0.050	0.0419	+/-0.050	0.0886	pCi/g						
Niobium-94	U	0.0114	+/-0.0446	0.0367	+/-0.0446	0.0774	pCi/g						
Potassium-40		16.4	+/-1.57	0.341	+/-1.57	0.753	pCi/g						
Radium-226		0.761	+/-0.170	0.0744	+/-0.170	0.156	pCi/g						
Silver-108m	U	0.00643	+/-0.0377	0.0316	+/-0.0377	0.0662	pCi/g						
Thallium-208		0.396	+/-0.103	0.0362	+/-0.103	0.0763	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.0219	+/-0.0196	0.0135	+/-0.0196	0.0315	pCi/g		KSD1	09/07/06	1805	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0005-010D
Sample ID: 170256008

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			97		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0014-033A
Sample ID: 170256009
Matrix: SE
Collect Date: 11-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 26.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.28	+/-0.272	0.0796	+/-0.272	0.171	pCi/g						
Americium-241	U	0.0199	+/-0.0632	0.0541	+/-0.0632	0.112	pCi/g		MJH1	09/01/06	1223	563436	1
Bismuth-212	UI	0.00	+/-0.484	0.171	+/-0.484	0.363	pCi/g						
Bismuth-214		0.920	+/-0.139	0.0421	+/-0.139	0.089	pCi/g						
Cesium-134	U	0.0188	+/-0.0338	0.0298	+/-0.0338	0.0628	pCi/g						
Cesium-137		0.709	+/-0.0983	0.0246	+/-0.0983	0.0519	pCi/g						
Cobalt-60		0.697	+/-0.0935	0.0267	+/-0.0935	0.0577	pCi/g						
Europium-152	U	-0.0119	+/-0.0643	0.0538	+/-0.0643	0.113	pCi/g						
Europium-154	U	0.0763	+/-0.0741	0.0675	+/-0.0741	0.147	pCi/g						
Europium-155	UI	0.00	+/-0.0951	0.052	+/-0.0951	0.108	pCi/g						
Lead-212		1.13	+/-0.134	0.0457	+/-0.134	0.0938	pCi/g						
Lead-214		1.04	+/-0.151	0.0416	+/-0.151	0.0871	pCi/g						
Manganese-54	U	-0.0049	+/-0.0275	0.023	+/-0.0275	0.049	pCi/g						
Niobium-94	U	0.014	+/-0.0236	0.0211	+/-0.0236	0.0446	pCi/g						
Potassium-40		14.3	+/-1.30	0.185	+/-1.30	0.412	pCi/g						
Radium-226		0.920	+/-0.139	0.0421	+/-0.139	0.089	pCi/g						
Silver-108m	U	3.080E-05	+/-0.0263	0.0202	+/-0.0263	0.0424	pCi/g						
Thallium-208		0.405	+/-0.066	0.0235	+/-0.066	0.0495	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90		0.0366	+/-0.0205	0.0124	+/-0.0205	0.0291	pCi/g		KSD1	09/07/06	1807	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0014-033A
Sample ID: 170256009

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			99		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0014-033B
Sample ID: 170256010
Matrix: SE
Collect Date: 11-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 16.3%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.03	+/-0.272	0.113	+/-0.272	0.225	pCi/g						
Americium-241	U	0.037	+/-0.0519	0.0353	+/-0.0519	0.0705	pCi/g		MJH1	09/01/06	1559	563436	1
Bismuth-212		0.897	+/-0.563	0.237	+/-0.563	0.473	pCi/g						
Bismuth-214		0.681	+/-0.143	0.057	+/-0.143	0.114	pCi/g						
Cesium-134	U	0.062	+/-0.0748	0.0371	+/-0.0748	0.0742	pCi/g						
Cesium-137		0.862	+/-0.117	0.0301	+/-0.117	0.0601	pCi/g						
Cobalt-60		0.944	+/-0.113	0.0281	+/-0.113	0.0562	pCi/g						
Europium-152	U	0.00733	+/-0.118	0.0695	+/-0.118	0.139	pCi/g						
Europium-154	U	0.00812	+/-0.115	0.0959	+/-0.115	0.192	pCi/g						
Europium-155	U	0.0592	+/-0.0677	0.0595	+/-0.0677	0.119	pCi/g						
Lead-212		0.896	+/-0.109	0.0377	+/-0.109	0.0754	pCi/g						
Lead-214		0.773	+/-0.141	0.0491	+/-0.141	0.0981	pCi/g						
Manganese-54	U	-0.0465	+/-0.0487	0.032	+/-0.0487	0.0639	pCi/g						
Niobium-94	U	0.00334	+/-0.0333	0.029	+/-0.0333	0.0579	pCi/g						
Potassium-40		11.6	+/-1.25	0.247	+/-1.25	0.494	pCi/g						
Radium-226		0.681	+/-0.143	0.057	+/-0.143	0.114	pCi/g						
Silver-108m	U	-0.00313	+/-0.0324	0.0274	+/-0.0324	0.0548	pCi/g						
Thallium-208		0.278	+/-0.0682	0.0296	+/-0.0682	0.0592	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00794	+/-0.015	0.0113	+/-0.015	0.0268	pCi/g		KSD1	09/07/06	1807	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0014-033B
Sample ID: 170256010

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			103		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0014-033C
Sample ID: 170256011
Matrix: SE
Collect Date: 11-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 14.2%

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

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		0.841	+/-0.277	0.100	+/-0.277	0.212	pCi/g						
Americium-241	U	0.028	+/-0.048	0.0331	+/-0.048	0.068	pCi/g		MJH1	09/01/06	1829	563436	1
Bismuth-212		0.476	+/-0.345	0.223	+/-0.345	0.468	pCi/g						
Bismuth-214		0.628	+/-0.128	0.0439	+/-0.128	0.0928	pCi/g						
Cesium-134	U	0.0398	+/-0.0385	0.0344	+/-0.0385	0.0721	pCi/g						
Cesium-137		0.609	+/-0.0698	0.0277	+/-0.0698	0.0581	pCi/g						
Cobalt-60		0.916	+/-0.0989	0.0255	+/-0.0989	0.0552	pCi/g						
Europium-152	U	-0.0803	+/-0.0732	0.0581	+/-0.0732	0.121	pCi/g						
Europium-154	U	-0.0175	+/-0.0895	0.0738	+/-0.0895	0.159	pCi/g						
Europium-155	U	0.0335	+/-0.0642	0.0553	+/-0.0642	0.114	pCi/g						
Lead-212		0.710	+/-0.0819	0.0392	+/-0.0819	0.0808	pCi/g						
Lead-214		0.810	+/-0.110	0.0428	+/-0.110	0.0895	pCi/g						
Manganese-54	U	-0.0149	+/-0.0338	0.0272	+/-0.0338	0.0575	pCi/g						
Niobium-94	U	-0.00772	+/-0.0304	0.0254	+/-0.0304	0.0533	pCi/g						
Potassium-40		11.0	+/-1.00	0.220	+/-1.00	0.484	pCi/g						
Radium-226		0.628	+/-0.128	0.0439	+/-0.128	0.0928	pCi/g						
Silver-108m	U	0.0295	+/-0.0254	0.0239	+/-0.0254	0.0499	pCi/g						
Thallium-208		0.237	+/-0.0761	0.0244	+/-0.0761	0.0513	pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Sr90, solid-ALL FSS

Strontium-90	U	-0.0326	+/-0.013	0.0158	+/-0.013	0.0359	pCi/g		KSD1	09/07/06	1842	562563	2
--------------	---	---------	----------	--------	----------	--------	-------	--	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

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: September 8, 2006

Client Sample ID: 9106-0014-033C
Sample ID: 170256011

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			90		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0014-033D
Sample ID: 170256012
Matrix: SE
Collect Date: 11-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 11.9%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.800	+/-0.169	0.0584	+/-0.169	0.125	pCi/g		MJH1	09/05/06	0531	563436	1
Americium-241	U	-0.00757	+/-0.0849	0.0733	+/-0.0849	0.151	pCi/g						
Bismuth-212		0.514	+/-0.239	0.125	+/-0.239	0.265	pCi/g						
Bismuth-214		0.496	+/-0.079	0.0289	+/-0.079	0.0614	pCi/g						
Cesium-134	UI	0.00	+/-0.0333	0.0215	+/-0.0333	0.0454	pCi/g						
Cesium-137		0.240	+/-0.0466	0.0172	+/-0.0466	0.0365	pCi/g						
Cobalt-60		0.329	+/-0.0616	0.0159	+/-0.0616	0.0349	pCi/g						
Europium-152	U	-0.0221	+/-0.047	0.0418	+/-0.047	0.0875	pCi/g						
Europium-154	U	-0.0277	+/-0.0651	0.0444	+/-0.0651	0.0974	pCi/g						
Europium-155	U	0.0409	+/-0.050	0.0464	+/-0.050	0.0959	pCi/g						
Lead-212		0.618	+/-0.0549	0.0246	+/-0.0549	0.0511	pCi/g						
Lead-214		0.582	+/-0.0773	0.0304	+/-0.0773	0.0635	pCi/g						
Manganese-54	U	0.0209	+/-0.0191	0.0165	+/-0.0191	0.0352	pCi/g						
Niobium-94	U	0.0124	+/-0.0174	0.0157	+/-0.0174	0.0331	pCi/g						
Potassium-40		10.8	+/-0.796	0.144	+/-0.796	0.320	pCi/g						
Radium-226		0.496	+/-0.079	0.0289	+/-0.079	0.0614	pCi/g						
Silver-108m	U	-0.00363	+/-0.0168	0.0148	+/-0.0168	0.0312	pCi/g						
Thallium-208		0.222	+/-0.040	0.0156	+/-0.040	0.033	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.020	+/-0.0174	0.0117	+/-0.0174	0.0276	pCi/g		KSD1	09/07/06	1842	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0014-033D
Sample ID: 170256012

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			103		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0004-013A
Sample ID: 170256013
Matrix: SE
Collect Date: 09-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 17.1%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.15	+/-0.162	0.0511	+/-0.162	0.109	pCi/g						
Americium-241	U	0.0596	+/-0.0865	0.0665	+/-0.0865	0.136	pCi/g						
Bismuth-212		0.731	+/-0.295	0.115	+/-0.295	0.242	pCi/g						
Bismuth-214		0.959	+/-0.0845	0.0284	+/-0.0845	0.0597	pCi/g						
Cesium-134	UI	0.00	+/-0.0287	0.0195	+/-0.0287	0.041	pCi/g						
Cesium-137	U	-0.00113	+/-0.0196	0.0162	+/-0.0196	0.034	pCi/g						
Cobalt-60	U	-0.00569	+/-0.0174	0.0139	+/-0.0174	0.0301	pCi/g						
Europium-152	U	-0.0275	+/-0.0539	0.0402	+/-0.0539	0.0837	pCi/g						
Europium-154	U	-0.0292	+/-0.0495	0.0385	+/-0.0495	0.0835	pCi/g						
Europium-155	U	0.0375	+/-0.0594	0.0534	+/-0.0594	0.110	pCi/g						
Lead-212		1.19	+/-0.0671	0.0261	+/-0.0671	0.0537	pCi/g						
Lead-214		1.08	+/-0.090	0.0305	+/-0.090	0.0634	pCi/g						
Manganese-54	U	0.0199	+/-0.0202	0.0165	+/-0.0202	0.0347	pCi/g						
Niobium-94	U	-6.020E-05	+/-0.0164	0.0143	+/-0.0164	0.030	pCi/g						
Potassium-40		14.3	+/-0.771	0.130	+/-0.771	0.283	pCi/g						
Radium-226		0.959	+/-0.0845	0.0284	+/-0.0845	0.0597	pCi/g						
Silver-108m	U	-0.00566	+/-0.0152	0.0128	+/-0.0152	0.0268	pCi/g						
Thallium-208		0.423	+/-0.0539	0.0142	+/-0.0539	0.030	pCi/g						

Rad Gas Flow Proportional Counting

GFPC, Sr90, solid-ALL FSS

Strontium-90	U	-0.00331	+/-0.0151	0.0131	+/-0.0151	0.0304	pCi/g	KSD1	09/07/06	1842	562563	2
--------------	---	----------	-----------	--------	-----------	--------	-------	------	----------	------	--------	---

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

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: September 8, 2006

Client Sample ID: 9106-0004-013A
Sample ID: 170256013

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			101		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0004-013B
Sample ID: 170256014
Matrix: SE
Collect Date: 09-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 19.6%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.23	+/-0.302	0.0948	+/-0.302	0.190	pCi/g						
Americium-241	U	0.0581	+/-0.0456	0.0383	+/-0.0456	0.0765	pCi/g		MJH1	09/01/06	2110	563436	1
Bismuth-212		0.606	+/-0.361	0.199	+/-0.361	0.399	pCi/g						
Bismuth-214		0.990	+/-0.154	0.046	+/-0.154	0.0919	pCi/g						
Cesium-134	U	0.0447	+/-0.0383	0.033	+/-0.0383	0.066	pCi/g						
Cesium-137		0.0831	+/-0.037	0.0286	+/-0.037	0.0571	pCi/g						
Cobalt-60		0.196	+/-0.0645	0.0258	+/-0.0645	0.0515	pCi/g						
Europium-152	U	0.0248	+/-0.116	0.061	+/-0.116	0.122	pCi/g						
Europium-154	U	0.0401	+/-0.106	0.0809	+/-0.106	0.162	pCi/g						
Europium-155	U	0.067	+/-0.0826	0.0584	+/-0.0826	0.117	pCi/g						
Lead-212		1.32	+/-0.136	0.0337	+/-0.136	0.0674	pCi/g						
Lead-214		0.989	+/-0.153	0.0431	+/-0.153	0.0862	pCi/g						
Manganese-54	U	-0.00696	+/-0.0306	0.0262	+/-0.0306	0.0523	pCi/g						
Niobium-94	U	0.00306	+/-0.0256	0.0228	+/-0.0256	0.0455	pCi/g						
Potassium-40		9.89	+/-0.996	0.207	+/-0.996	0.414	pCi/g						
Radium-226		0.990	+/-0.154	0.046	+/-0.154	0.0919	pCi/g						
Silver-108m	U	-0.017	+/-0.0253	0.0211	+/-0.0253	0.0422	pCi/g						
Thallium-208		0.456	+/-0.084	0.0253	+/-0.084	0.0505	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00221	+/-0.0172	0.0143	+/-0.0172	0.0316	pCi/g		KSD1	09/07/06	1843	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0004-013B
Sample ID: 170256014

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			103		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0004-013C
Sample ID: 170256015
Matrix: SE
Collect Date: 09-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 17.3%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.07	+/-0.236	0.0703	+/-0.236	0.154	pCi/g		MJH1	09/01/06	2118	563436	1
Americium-241	U	-0.00337	+/-0.0367	0.034	+/-0.0367	0.0701	pCi/g						
Bismuth-212		0.808	+/-0.311	0.157	+/-0.311	0.341	pCi/g						
Bismuth-214		0.614	+/-0.118	0.0422	+/-0.118	0.0899	pCi/g						
Cesium-134	U	0.0481	+/-0.0502	0.033	+/-0.0502	0.0699	pCi/g						
Cesium-137		0.0789	+/-0.0569	0.0226	+/-0.0569	0.0484	pCi/g						
Cobalt-60		0.074	+/-0.0564	0.0239	+/-0.0564	0.0531	pCi/g						
Europium-152	U	-0.0203	+/-0.0622	0.0547	+/-0.0622	0.115	pCi/g						
Europium-154	U	-0.0129	+/-0.0828	0.0688	+/-0.0828	0.152	pCi/g						
Europium-155	U	0.0479	+/-0.0527	0.0529	+/-0.0527	0.109	pCi/g						
Lead-212		0.903	+/-0.0714	0.0332	+/-0.0714	0.069	pCi/g						
Lead-214		0.651	+/-0.103	0.0431	+/-0.103	0.0904	pCi/g						
Manganese-54	U	-0.0163	+/-0.0298	0.0235	+/-0.0298	0.0506	pCi/g						
Niobium-94	U	-0.022	+/-0.0284	0.0226	+/-0.0284	0.0481	pCi/g						
Potassium-40		12.9	+/-1.11	0.250	+/-1.11	0.553	pCi/g						
Radium-226		0.614	+/-0.118	0.0422	+/-0.118	0.0899	pCi/g						
Silver-108m	U	0.00256	+/-0.0199	0.0177	+/-0.0199	0.0378	pCi/g						
Thallium-208		0.248	+/-0.0569	0.0239	+/-0.0569	0.0508	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.00157	+/-0.0143	0.0123	+/-0.0143	0.0289	pCi/g		KSD1	09/07/06	1845	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0004-013C
Sample ID: 170256015

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			98		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0004-013D
Sample ID: 170256016
Matrix: SE
Collect Date: 09-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 25.9%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		1.03	+/-0.160	0.0664	+/-0.160	0.142	pCi/g		MJH1	09/05/06	0521	563436	1
Americium-241	U	0.0216	+/-0.0981	0.0845	+/-0.0981	0.174	pCi/g						
Bismuth-212		0.420	+/-0.350	0.142	+/-0.350	0.301	pCi/g						
Bismuth-214		0.689	+/-0.0898	0.0339	+/-0.0898	0.0715	pCi/g						
Cesium-134	U	0.0488	+/-0.0307	0.0247	+/-0.0307	0.0519	pCi/g						
Cesium-137		0.170	+/-0.0491	0.019	+/-0.0491	0.0402	pCi/g						
Cobalt-60		0.566	+/-0.0694	0.0198	+/-0.0694	0.0431	pCi/g						
Europium-152	U	0.0265	+/-0.0524	0.0453	+/-0.0524	0.0946	pCi/g						
Europium-154	U	0.0628	+/-0.0639	0.0591	+/-0.0639	0.127	pCi/g						
Europium-155	U	0.0541	+/-0.0561	0.0528	+/-0.0561	0.109	pCi/g						
Lead-212		0.958	+/-0.0653	0.0265	+/-0.0653	0.055	pCi/g						
Lead-214		0.784	+/-0.0896	0.0297	+/-0.0896	0.0623	pCi/g						
Manganese-54	U	0.00917	+/-0.0221	0.019	+/-0.0221	0.0403	pCi/g						
Niobium-94	U	0.0056	+/-0.019	0.0164	+/-0.019	0.0347	pCi/g						
Potassium-40		12.6	+/-0.931	0.166	+/-0.931	0.367	pCi/g						
Radium-226		0.689	+/-0.0898	0.0339	+/-0.0898	0.0715	pCi/g						
Silver-108m	U	-0.00656	+/-0.0175	0.0151	+/-0.0175	0.0318	pCi/g						
Thallium-208		0.314	+/-0.0426	0.0189	+/-0.0426	0.0398	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00738	+/-0.0147	0.0112	+/-0.0147	0.0265	pCi/g		KSD1	09/07/06	1846	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0004-013D
Sample ID: 170256016

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			106		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0004-005A
Sample ID: 170256017
Matrix: SE
Collect Date: 09-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 17.9%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.975	+/-0.164	0.0814	+/-0.164	0.174	pCi/g						
Americium-241	U	0.0504	+/-0.0306	0.030	+/-0.0306	0.0616	pCi/g		MJH1	09/01/06	2119	563436	1
Bismuth-212		0.804	+/-0.393	0.165	+/-0.393	0.351	pCi/g						
Bismuth-214		0.647	+/-0.112	0.0371	+/-0.112	0.0787	pCi/g						
Cesium-134	U	0.0288	+/-0.0288	0.0271	+/-0.0288	0.0574	pCi/g						
Cesium-137		0.249	+/-0.0491	0.0255	+/-0.0491	0.0537	pCi/g						
Cobalt-60		0.682	+/-0.0884	0.0206	+/-0.0884	0.0453	pCi/g						
Europium-152	U	0.0893	+/-0.0683	0.0526	+/-0.0683	0.110	pCi/g						
Europium-154	U	0.0167	+/-0.0707	0.0611	+/-0.0707	0.134	pCi/g						
Europium-155	U	0.00619	+/-0.0524	0.0476	+/-0.0524	0.0982	pCi/g						
Lead-212		0.912	+/-0.0658	0.0281	+/-0.0658	0.0584	pCi/g						
Lead-214		0.747	+/-0.0939	0.036	+/-0.0939	0.0755	pCi/g						
Manganese-54	U	0.0235	+/-0.0494	0.0228	+/-0.0494	0.0486	pCi/g						
Niobium-94	U	-0.00608	+/-0.0244	0.0201	+/-0.0244	0.0426	pCi/g						
Potassium-40		10.5	+/-0.910	0.155	+/-0.910	0.351	pCi/g						
Radium-226		0.647	+/-0.112	0.0371	+/-0.112	0.0787	pCi/g						
Silver-108m	U	0.00189	+/-0.0202	0.0178	+/-0.0202	0.0376	pCi/g						
Thallium-208		0.322	+/-0.0462	0.0209	+/-0.0462	0.0442	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.00262	+/-0.0137	0.012	+/-0.0137	0.0286	pCi/g		KSD1	09/07/06	1857	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0004-005A
Sample ID: 170256017

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits					
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			92		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0004-005B
Sample ID: 170256018
Matrix: SE
Collect Date: 10-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 14%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.787	+/-0.187	0.0725	+/-0.187	0.153	pCi/g		MJH1	09/02/06	1713	563436	1
Americium-241	U	0.0759	+/-0.0649	0.0382	+/-0.0649	0.0789	pCi/g						
Bismuth-212		0.403	+/-0.233	0.139	+/-0.233	0.294	pCi/g						
Bismuth-214		0.636	+/-0.108	0.0306	+/-0.108	0.0647	pCi/g						
Cesium-134	U	0.0378	+/-0.0274	0.0229	+/-0.0274	0.0482	pCi/g						
Cesium-137		0.181	+/-0.0421	0.019	+/-0.0421	0.040	pCi/g						
Cobalt-60		0.710	+/-0.0716	0.0155	+/-0.0716	0.034	pCi/g						
Europium-152	U	0.0183	+/-0.0466	0.0421	+/-0.0466	0.0881	pCi/g						
Europium-154	U	0.0204	+/-0.0516	0.0449	+/-0.0516	0.0982	pCi/g						
Europium-155	UI	0.00	+/-0.0804	0.0458	+/-0.0804	0.0944	pCi/g						
Lead-212		0.722	+/-0.086	0.0317	+/-0.086	0.0651	pCi/g						
Lead-214		0.832	+/-0.115	0.0288	+/-0.115	0.0605	pCi/g						
Manganese-54	U	0.0204	+/-0.0232	0.0192	+/-0.0232	0.0406	pCi/g						
Niobium-94	U	0.0129	+/-0.0173	0.0161	+/-0.0173	0.0339	pCi/g						
Potassium-40		9.30	+/-0.895	0.130	+/-0.895	0.291	pCi/g						
Radium-226		0.636	+/-0.108	0.0306	+/-0.108	0.0647	pCi/g						
Silver-108m	U	0.0081	+/-0.0194	0.0154	+/-0.0194	0.0324	pCi/g						
Thallium-208		0.299	+/-0.0505	0.0157	+/-0.0505	0.0332	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.0109	+/-0.0167	0.0123	+/-0.0167	0.0293	pCi/g		KSD1	09/07/06	1857	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0004-005B
Sample ID: 170256018

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			95		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0004-005C
Sample ID: 170256019
Matrix: SE
Collect Date: 10-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 24.6%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.810	+/-0.116	0.0431	+/-0.116	0.090	pCi/g						
Americium-241	U	0.0147	+/-0.0176	0.0169	+/-0.0176	0.0345	pCi/g		MJH1	09/05/06	2143	563436	1
Bismuth-212		0.365	+/-0.171	0.099	+/-0.171	0.206	pCi/g						
Bismuth-214		0.623	+/-0.0633	0.0212	+/-0.0633	0.044	pCi/g						
Cesium-134	UI	0.00	+/-0.0297	0.0166	+/-0.0297	0.0343	pCi/g						
Cesium-137		0.113	+/-0.0242	0.0124	+/-0.0242	0.0257	pCi/g						
Cobalt-60		0.268	+/-0.0379	0.012	+/-0.0379	0.0254	pCi/g						
Europium-152	U	-0.00617	+/-0.0317	0.0284	+/-0.0317	0.0585	pCi/g						
Europium-154	U	-0.0248	+/-0.0417	0.0337	+/-0.0417	0.0714	pCi/g						
Europium-155	UI	0.00	+/-0.0407	0.0265	+/-0.0407	0.054	pCi/g						
Lead-212		0.840	+/-0.0404	0.0162	+/-0.0404	0.0332	pCi/g						
Lead-214		0.686	+/-0.0505	0.0197	+/-0.0505	0.0406	pCi/g						
Manganese-54	U	0.00306	+/-0.0143	0.0127	+/-0.0143	0.0265	pCi/g						
Niobium-94	U	0.0053	+/-0.013	0.0112	+/-0.013	0.0232	pCi/g						
Potassium-40		10.2	+/-0.535	0.0857	+/-0.535	0.186	pCi/g						
Radium-226		0.623	+/-0.0633	0.0212	+/-0.0633	0.044	pCi/g						
Silver-108m	U	-0.0071	+/-0.0113	0.00971	+/-0.0113	0.0201	pCi/g						
Thallium-208		0.288	+/-0.031	0.0115	+/-0.031	0.0239	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.0082	+/-0.0158	0.012	+/-0.0158	0.0284	pCi/g		KSD1	09/07/06	1857	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0004-005C
Sample ID: 170256019

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			96		(25%-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.

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: September 8, 2006

Client Sample ID: 9106-0004-005D
Sample ID: 170256020
Matrix: SE
Collect Date: 10-AUG-06
Receive Date: 25-AUG-06
Collector: Client
Moisture: 19.1%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Gamma Spec Analysis													
<i>Gamma, Solid-FSS GAM & ALL FSS 226 Ingrowth</i>													
<i>Waived</i>													
Actinium-228		0.995	+/-0.411	0.146	+/-0.411	0.291	pCi/g						
Americium-241	U	0.0557	+/-0.0479	0.0365	+/-0.0479	0.0729	pCi/g		MJH1	09/02/06	1725	563436	1
Bismuth-212		0.635	+/-0.589	0.261	+/-0.589	0.521	pCi/g						
Bismuth-214		0.760	+/-0.165	0.0601	+/-0.165	0.120	pCi/g						
Cesium-134	U	0.0627	+/-0.0504	0.0463	+/-0.0504	0.0926	pCi/g						
Cesium-137		0.503	+/-0.0894	0.0338	+/-0.0894	0.0676	pCi/g						
Cobalt-60		1.72	+/-0.132	0.0307	+/-0.132	0.0614	pCi/g						
Europium-152	U	0.00265	+/-0.0988	0.0745	+/-0.0988	0.149	pCi/g						
Europium-154	U	0.0538	+/-0.114	0.0996	+/-0.114	0.199	pCi/g						
Europium-155	UI	0.00	+/-0.119	0.0591	+/-0.119	0.118	pCi/g						
Lead-212		1.09	+/-0.126	0.0386	+/-0.126	0.0772	pCi/g						
Lead-214		0.802	+/-0.135	0.0517	+/-0.135	0.103	pCi/g						
Manganese-54	U	0.0185	+/-0.0434	0.0383	+/-0.0434	0.0766	pCi/g						
Niobium-94	U	-0.0168	+/-0.0366	0.0309	+/-0.0366	0.0618	pCi/g						
Potassium-40		10.7	+/-1.11	0.276	+/-1.11	0.551	pCi/g						
Radium-226		0.760	+/-0.165	0.0601	+/-0.165	0.120	pCi/g						
Silver-108m	U	-0.021	+/-0.0301	0.0247	+/-0.0301	0.0494	pCi/g						
Thallium-208		0.343	+/-0.0887	0.0298	+/-0.0887	0.0595	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.00322	+/-0.0146	0.0127	+/-0.0146	0.0299	pCi/g		KSD1	09/07/06	1857	562563	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/27/06	1545	562444

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3
2	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
---------------------------	------	-----------	-------------------

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: September 8, 2006

Client Sample ID: 9106-0004-005D
Sample ID: 170256020

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Surrogate/Tracer recovery	Test				Recovery%		Acceptable Limits						
Carrier/Tracer Recovery		GFPC, Sr90, solid-ALL FSS			99		(25%-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.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: September 8, 2006

Page 1 of 5

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

Contact: East Hampton, Connecticut
Mr. Jack McCarthy

Workorder: 170256

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	563436										
QC1201171526	170256001	DUP									
Actinium-228		0.966		1.01	pCi/g	4		(0% - 100%)	MJH1	09/02/06	17:26
	Uncert:	+/-0.192		+/-0.200							
	TPU:	+/-0.192		+/-0.200							
Americium-241	U	0.0375	U	0.0258	pCi/g	37		(0% - 100%)			
	Uncert:	+/-0.0387		+/-0.075							
	TPU:	+/-0.0387		+/-0.075							
Bismuth-212		0.366		0.592	pCi/g	47		(0% - 100%)			
	Uncert:	+/-0.306		+/-0.276							
	TPU:	+/-0.306		+/-0.276							
Bismuth-214		0.650		0.690	pCi/g	6		(0% - 100%)			
	Uncert:	+/-0.135		+/-0.0955							
	TPU:	+/-0.135		+/-0.0955							
Cesium-134	U	0.0366	UI	0.00	pCi/g	56		(0% - 100%)			
	Uncert:	+/-0.0355		+/-0.035							
	TPU:	+/-0.0355		+/-0.035							
Cesium-137		0.0666		0.0611	pCi/g	9		(0% - 100%)			
	Uncert:	+/-0.0355		+/-0.0415							
	TPU:	+/-0.0355		+/-0.0415							
Cobalt-60		0.104		0.159	pCi/g	41		(0% - 100%)			
	Uncert:	+/-0.0726		+/-0.0325							
	TPU:	+/-0.0726		+/-0.0325							
Europium-152	U	0.00636	U	-0.00858	pCi/g	1350		(0% - 100%)			
	Uncert:	+/-0.0728		+/-0.0624							
	TPU:	+/-0.0728		+/-0.0624							
Europium-154	U	-0.0788	U	0.00919	pCi/g	253		(0% - 100%)			
	Uncert:	+/-0.0938		+/-0.0602							
	TPU:	+/-0.0938		+/-0.0602							
Europium-155	U	0.0672	U	0.0817	pCi/g	20		(0% - 100%)			
	Uncert:	+/-0.0554		+/-0.0557							
	TPU:	+/-0.0554		+/-0.0557							
Lead-212		0.871		0.847	pCi/g	3		(0% - 20%)			
	Uncert:	+/-0.0971		+/-0.0867							
	TPU:	+/-0.0971		+/-0.0867							
Lead-214		0.727		0.699	pCi/g	4		(0% - 20%)			
	Uncert:	+/-0.105		+/-0.102							
	TPU:	+/-0.105		+/-0.102							
Manganese-54	U	-0.00916	U	-0.00665	pCi/g	32		(0% - 100%)			
	Uncert:	+/-0.0319		+/-0.0225							
	TPU:	+/-0.0319		+/-0.0225							
Niobium-94	U	0.0101	U	-0.00339	pCi/g	402		(0% - 100%)			
	Uncert:	+/-0.0244		+/-0.0176							
	TPU:	+/-0.0244		+/-0.0176							

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

QC Summary

Workorder: 170256

Page 2 of 5

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	563436										
Potassium-40		11.3		11.7	pCi/g	3		(0% - 20%)			
	Uncert:	+/-0.986		+/-1.03							
	TPU:	+/-0.986		+/-1.03							
Radium-226		0.650		0.690	pCi/g	6		(0% - 100%)			
	Uncert:	+/-0.135		+/-0.0955							
	TPU:	+/-0.135		+/-0.0955							
Silver-108m	U	-0.0067	U	0.000104	pCi/g	206		(0% - 100%)			
	Uncert:	+/-0.0208		+/-0.018							
	TPU:	+/-0.0208		+/-0.018							
Thallium-208		0.283		0.283	pCi/g	0		(0% - 100%)			
	Uncert:	+/-0.0618		+/-0.048							
	TPU:	+/-0.0618		+/-0.048							
QC1201171527 LCS											
Actinium-228			U	0.254	pCi/g					09/03/06	22:31
	Uncert:			+/-0.565							
	TPU:			+/-0.565							
Americium-241	23.4			24.1	pCi/g		103	(75%-125%)			
	Uncert:			+/-1.28							
	TPU:			+/-1.28							
Bismuth-212			U	0.575	pCi/g						
	Uncert:			+/-0.944							
	TPU:			+/-0.944							
Bismuth-214			U	0.0248	pCi/g						
	Uncert:			+/-0.213							
	TPU:			+/-0.213							
Cesium-134			U	0.00032	pCi/g						
	Uncert:			+/-0.147							
	TPU:			+/-0.147							
Cesium-137	9.58			9.84	pCi/g		103	(75%-125%)			
	Uncert:			+/-0.487							
	TPU:			+/-0.487							
Cobalt-60	14.5			14.7	pCi/g		101	(75%-125%)			
	Uncert:			+/-0.660							
	TPU:			+/-0.660							
Europium-152			U	0.125	pCi/g						
	Uncert:			+/-0.292							
	TPU:			+/-0.292							
Europium-154			U	0.0779	pCi/g						
	Uncert:			+/-0.277							
	TPU:			+/-0.277							
Europium-155			U	-0.0876	pCi/g						
	Uncert:			+/-0.277							
	TPU:			+/-0.277							
Lead-212			U	0.0524	pCi/g						
	Uncert:			+/-0.155							
	TPU:			+/-0.155							
Lead-214			U	-0.103	pCi/g						
	Uncert:			+/-0.212							

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

QC Summary

Workorder: 170256

Page 3 of 5

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	563436										
Manganese-54	TPU:			+/-0.212							
			U	0.0306	pCi/g						
	Uncert:			+/-0.135							
Niobium-94	TPU:			+/-0.135							
			U	-0.0513	pCi/g						
	Uncert:			+/-0.115							
Potassium-40	TPU:			+/-0.115							
			U	0.769	pCi/g						
	Uncert:			+/-1.10							
Radium-226	TPU:			+/-1.10							
			U	0.0248	pCi/g			(75%-125%)			
	Uncert:			+/-0.213							
Silver-108m	TPU:			+/-0.213							
			U	0.0782	pCi/g						
	Uncert:			+/-0.105							
Thallium-208	TPU:			+/-0.105							
			U	0.180	pCi/g						
	Uncert:			+/-0.177							
QC1201171525 MB Actinium-228	TPU:			+/-0.177							
			U	0.0216	pCi/g					09/02/06	17:16
	Uncert:			+/-0.0479							
Americium-241	TPU:			+/-0.0479							
			U	-0.0654	pCi/g						
	Uncert:			+/-0.0396							
Bismuth-212	TPU:			+/-0.0396							
			U	0.110	pCi/g						
	Uncert:			+/-0.0705							
Bismuth-214	TPU:			+/-0.0705							
			U	0.00843	pCi/g						
	Uncert:			+/-0.0317							
Cesium-134	TPU:			+/-0.0317							
			U	-0.00203	pCi/g						
	Uncert:			+/-0.012							
Cesium-137	TPU:			+/-0.012							
			U	-0.00757	pCi/g						
	Uncert:			+/-0.0117							
Cobalt-60	TPU:			+/-0.0117							
			U	-0.00589	pCi/g						
	Uncert:			+/-0.0128							
Europium-152	TPU:			+/-0.0128							
			U	-0.0169	pCi/g						
	Uncert:			+/-0.0308							
Europium-154	TPU:			+/-0.0308							
			U	0.00802	pCi/g						
	Uncert:			+/-0.0305							
Europium-155	TPU:			+/-0.0305							
			U	-0.00342	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 170256

Page 4 of 5

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	563436										
		Uncert:		+/-0.0294							
		TPU:		+/-0.0294							
Lead-212			U	0.0151	pCi/g						
		Uncert:		+/-0.028							
		TPU:		+/-0.028							
Lead-214			U	0.00738	pCi/g						
		Uncert:		+/-0.0252							
		TPU:		+/-0.0252							
Manganese-54			U	0.0127	pCi/g						
		Uncert:		+/-0.0111							
		TPU:		+/-0.0111							
Niobium-94			U	-0.00293	pCi/g						
		Uncert:		+/-0.012							
		TPU:		+/-0.012							
Potassium-40			U	0.112	pCi/g						
		Uncert:		+/-0.173							
		TPU:		+/-0.173							
Radium-226			U	0.00843	pCi/g						
		Uncert:		+/-0.0317							
		TPU:		+/-0.0317							
Silver-108m			U	0.00354	pCi/g						
		Uncert:		+/-0.0115							
		TPU:		+/-0.0115							
Thallium-208			U	-0.011	pCi/g						
		Uncert:		+/-0.0157							
		TPU:		+/-0.0157							
Rad Gas Flow											
Batch	562563										
QC1201169422	170256002	DUP									
Strontium-90			U	0.00501	U	0.00534	pCi/g	0	(0% - 100%) KSD1	09/07/06	18:59
		Uncert:		+/-0.0149		+/-0.0155					
		TPU:		+/-0.0149		+/-0.0155					
QC1201169424	LCS										
Strontium-90			1.74			1.57	pCi/g	90	(75%-125%)	09/07/06	19:16
		Uncert:				+/-0.140					
		TPU:				+/-0.147					
QC1201169421	MB										
Strontium-90				U	0.0172		pCi/g			09/07/06	18:59
		Uncert:				+/-0.0185					
		TPU:				+/-0.0185					
QC1201169423	170256002	MS									
Strontium-90			1.74	U	0.00501		1.32	pCi/g	76	(75%-125%)	09/07/06 19:16
		Uncert:			+/-0.0149		+/-0.124				
		TPU:			+/-0.0149		+/-0.130				

Notes:

The Qualifiers in this report are defined as follows:

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 170256

Page 5 of 5

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

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 acceptance 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

**CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Soil
PO# 002332**

Work Order: 168404

SDG: MSR #06-0652, 06-0675, 06-0687, 06-0688, 06-0707, 06-0743, 06-0755

August 15, 2006

Laboratory Identification:

General Engineering Laboratories, LLC

Mailing Address:

P.O. Box 30712

Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road

Charleston, South Carolina 29407

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The sample(s) for this Project arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina on May 5, May 9, May 12, May 17, May 26, June 2, June 8, 2006. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following sample(s):

<u>Sample ID</u>	<u>Client Sample ID</u>
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F

GENERAL ENGINEERING LABORATORIES, LLC

a Member of THE GEL GROUP, INC.

P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)

Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F

Items of Note:

At the request of Dale Randall on July 20, 2006, GEL analyzed the above samples according to the spreadsheet in the attached email.

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 listed below by analytical parameter.

Analytical Request:

Seven soil samples were reanalyzed for FSSALL, except gamma and Sr-90.
Four soil samples were reanalyzed for FSSALL, except gamma and Ni-63.
Two soil samples were reanalyzed for FSSALL, except gamma.
Two soil samples were reanalyzed for FSALL, except gamma, Sr-90 and Ni-63.

Internal Chain of Custody:

Custody was maintained for the sample(s).

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody and Supporting Documentation and all analytical fractions.

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

1684041

Subject: Additional HTD analyses

From: "Dale Randall" <randall@cyapco.com>

Date: Thu, 20 Jul 2006 11:04:54 -0400

To: "Cheryl Jones" <cj@gel.com>

CC: "Clyde Newson" <Newson@CYAPCO.com>, "John McCarthy" <McCarthy@CYAPCO.com>

Cheryl:

Per our earlier discussion, attached is a list of samples that we would like to have analyzed to the FSSALL protocol. I have included a list of test protocols performed on each sample to date. Once you have had an opportunity to determine our options for each sample please call or e-mail me at your convenience.

Thank You,

Dale

(860) 267-3133

GEL FSSALL analyses request.xls

Content-Description: GEL FSSALL analyses request.xls

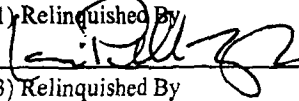
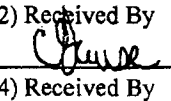
Content-Type: application/vnd.ms-excel

Content-Encoding: base64

Previous GEL ID	CY sample location IDs	Done			To be done								
		FSS Gam	Sr-90	Ni-63	Am	Pu	Sr90	Pu241	Fe55	Ni63	Tc99	H3	C14
164220008	9106-0002-007F	x	x		x	x		x	x	x	x	x	x
164220012	9106-0002-011F	x	x		x	x		x	x	x	x	x	x
162335004	9106-0003-004F	x			x	x	x	x	x	x	x	x	x
162335014	9106-0003-015F	x			x	x	x	x	x	x	x	x	x
162832015	9106-0004-005F	x	x		x	x		x	x	x	x	x	x
162832009	9106-0004-015F	x	x		x	x		x	x	x	x	x	x
162485008	9106-0005-010F	x	x		x	x		x	x	x	x	x	x
162485011	9106-0005-014F	x	x		x	x		x	x	x	x	x	x
162850014	9106-0006-005F	x	x		x	x		x	x	x	x	x	x
163741005	9106-0008-006F	x	x	x	x	x		x	x		x	x	x
163741009	9106-0008-008F	x	x	x	x	x		x	x		x	x	x
164542008	9106-0009-002F	x		x	x	x	x	x	x		x	x	x
164542003	9106-0009-017F	x		x	x	x	x	x	x		x	x	x
163105009	9106-0010-001F	x		x	x	x	x	x	x		x	x	x
163105016	9106-0010-012F	x		x	x	x	x	x	x		x	x	x

Chain of Custody and Supporting Documentation

Project Name: Haddam Neck Decommissioning															
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024															
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road. Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones															
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.															
		Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested						Lab Use Only				
FSSGAM	FSSALL				Sr-90					Comments:					
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID			
9106-0002-001F	5/17/06	10:42	SE	C	BP	X		X			Transferred from COC 2006-00357				
9106-0002-002F	5/18/06	09:43	SE	C	BP		X				Transferred from COC 2006-00361				
9106-0002-003F	5/18/06	10:14	SE	C	BP	X		X			Transferred from COC 2006-00361				
9106-0002-004F	5/18/06	10:39	SE	C	BP	X		X			Transferred from COC 2006-00361				
9106-0002-005F	5/18/06	12:49	SE	C	BP	X		X			Transferred from COC 2006-00364				
9106-0002-006F	5/18/06	13:14	SE	C	BP	X		X			Transferred from COC 2006-00364				
9106-0002-006FS	5/18/06	13:14	SE	C	BP	X		X			Transferred from COC 2006-00364				
9106-0002-007F	5/18/06	13:37	SE	C	BP	X		X			Transferred from COC 2006-00364				
9106-0002-008F	5/18/06	14:04	SE	C	BP	X		X			Transferred from COC 2006-00364				
NOTES: PO #: 002332 MSR #: 06- SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA 0755											Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: _____ Deg. C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact?		
1) Relinquished By [Signature]			Date/Time 6-06-0815			2) Received By [Signature]			Date/Time 6-02-06 9:20			Bill of Lading # 7909 4145 5710			
3) Relinquished By [Signature]			Date/Time			4) Received By			Date/Time						
5) Relinquished By			Date/Time			6) Received By			Date/Time						

Connecticut Yankee Atomic Power Company						Chain of Custody Form						No. 2006-00372		
362 Injun Hollow Road, East Hampton, CT 06424 860-267-2556														
Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use Only		
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALI	Sr-90					Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time										Comment, Preservation	Lab Sample ID	
9106-0002-009F	5/18/06	14:28	SE	C	BP		X					Transferred from COC 2006-00364		
9106-0002-010F	5/18/06	14:50	SE	C	BP	X		X				Transferred from COC 2006-00364		
9106-0002-011F	5/19/06	08:10	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-012F	5/19/06	08:31	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-013F	5/19/06	09:00	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-014F	5/19/06	09:58	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-014FS	5/19/06	09:58	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-015F	5/19/06	10:29	SE	C	BP	X		X				Transferred from COC 2006-00365		
9106-0002-016F	5/19/06	13:19	SE	C	BP	X		X				Transferred from COC 2006-00365		
NOTES: PO #: 002332 MSR #: 06- SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA 0755											Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: _____ Deg. C Custody Sealed? Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By 			Date/Time 6/10/06 0815			2) Received By 			Date/Time 6-2-06 9:20			Bill of Lading # 7909 4145 5709		
3) Relinquished By			Date/Time			4) Received By			Date/Time					
5) Relinquished By			Date/Time			6) Received By			Date/Time					

Chem

Figure 1. Sample Check-in List

Date/Time Received: 6-2-06 9:20

SDG#: MSR# 06-0755

Work Order Number: 1642201

Shipping Container ID: 7909 41455110 Chain of Custody #: 2006-00321

1. Custody Seals on shipping container intact? Yes ☒ No ☐

2. Custody Seals dated and signed? Yes ☒ No ☐

3. Chain-of-Custody record present? Yes ☒ No ☐

4. Cooler temperature 23°

5. Vermiculite/packing materials is: Wet ☐ Dry ☐ no packing Bot wet

6. Number of samples in shipping container: 9

7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

☐ tape ☐ hazard labels
☒ custody seals ☐ appropriate sample labels

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: *Chase* Date: 6-2-06

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 6-2-06 9:20

SDG#: MSR#06-0755

Work Order Number: 1642201

Shipping Container ID: 1909 4145 5109 Chain of Custody #: 2006-00372

1. Custody Seals on shipping container intact? Yes ☒ No ☐

2. Custody Seals dated and signed? Yes ☒ No ☐

3. Chain-of-Custody record present? Yes ☒ No ☐

4. Cooler temperature 23°

5. Vermiculite/packing materials is: Wet ☐ Dry ☐ no packing
bot wet

6. Number of samples in shipping container: 9

7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

☒ tape ☐ hazard labels
☐ custody seals ☐ appropriate sample labels

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: Custer Date: 6-2-06

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Connecticut Yankee</u>	SDG/ARCOC/Work Order: <u>164220</u>
Date Received: <u>6/2/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>[Signature]</u>	<u>[Signature]</u>

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice none other (describe)
3 Chain of custody documents included with shipment?				
4 Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)				
8 Samples received within holding time?				ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?				Sample ID's affected:
11 Number of containers received match number indicated on COC?				Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?				<u>COC # 2006-00371</u>
14 Air Bill, Tracking #'s, & Additional Comments				

Suspected Hazard Information		Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A	Radiological Classification?				*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B	PCB Regulated?				Maximum Counts Observed*: <u>20 CPM</u>
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.				Comments:
					Hazard Class Shipped:
					UN#:
PM (or PMA) review of Hazard classification:					Initials <u>[Signature]</u> Date: <u>6/2/06</u>



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Connecticut Yankee</u>	SDG/ARCOC/Work Order: <u>164220</u>
Date Received: <u>6-2-06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>cg</u>	<i>[Signature]</i>

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice none other (describe)
3 Chain of custody documents included with shipment?				
4 Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)				
8 Samples received within holding time?				ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?				Sample ID's affected:
11 Number of containers received match number indicated on COC?				Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?				COC # <u>2006-00372</u> <u>00372</u> <u>adg</u> <u>6/2/06</u>
14 Air Bill, Tracking #'s, & Additional Comments				

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification?				*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?				Maximum Counts Observed*: <u>200 CPM</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.				Comments:
				Hazard Class Shipped:
				UN#:
PM (or PMA) review of Hazard classification:				Initials <u>adg</u> Date: <u>6/2/06</u>

Connecticut Yankee Atomic Power Company362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556**Chain of Custody Form**

No. 2006-00312

~~162334~~ 162335-1 CD 5/8/06

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested					Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90					Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID		
9106-0003-001F	4/24/06	14:13	SE	C	BP	X					Transferred from COC2006-00221			
9106-0003-002F	4/24/06	14:39	SE	C	BP	X					Transferred from COC2006-00221			
9106-0003-003F	4/24/06	15:01	SE	C	BP	X					Transferred from COC2006-00221			
9106-0003-004F	4/25/06	08:41	SE	C	BP	X					Transferred from COC2006-00223			
9106-0003-004FS	4/25/06	08:41	SE	C	BP	X					Transferred from COC2006-00223			
9106-0003-005F	4/25/06	09:21	SE	C	BP	X					Transferred from COC2006-00223			
9106-0003-006F	4/25/06	09:46	SE	C	BP	X					Transferred from COC2006-00223			
9106-0003-007F	4/25/06	10:28	SE	C	BP	X					Transferred from COC2006-00223			
9106-0003-008F	4/25/06	11:15	SE	C	BP		X				Transferred from COC2006-00223			
NOTES: PO #: 002332 MSR #: 06- ⁰⁶⁵² SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA Combined samples 9106-0003-003F taken on 4/25/06 @08:19 and 9106-0003-003FB taken on 4/25/06 @ 08:19 in order to have sufficient sample for counting.											Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: _____ Deg. C. Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By JAIME RICARTE			Date/Time 5-4-06/13:30			2) Received By C. Demicatto			Date/Time 5/5/06/1015			Bill of Lading # 7920-8920-0240		
3) Relinquished By			Date/Time			4) Received By			Date/Time					
5) Relinquished By			Date/Time			6) Received By			Date/Time					

Page 14 of 105

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00313

009
010
011
012
013
014
015
016
017
018

Project Name: Haddam Neck Decommissioning						Analyses Requested			Lab Use Only	
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90	Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones										
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.										
Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size- & Type Code				Comment, Preservation	Lab Sample ID
9106-0003-009F	4/25/06	13:00	SE	C	BP	X			Transferred from COC 2006-00236	
9106-0003-010F	4/25/06	13:23	SE	C	BP	X			Transferred from COC 2006-00236	
9106-0003-010FS	4/25/06	13:23	SE	C	BP	X			Transferred from COC 2006-00236	
9106-0003-012F	4/25/06	15:12	SE	C	BP	X			Transferred from COC 2006-00236	
9106-0003-013F	4/25/06	14:21	SE	C	BP	X			Transferred from COC 2006-00236	
9106-0003-014F	4/25/06	14:48	SE	C	BP		X		Transferred from COC 2006-00236	
9106-0003-015F	4/26/06	08:16	SE	C	BP	X			Transferred from COC 2006-00237	
9106-0003-016F	4/26/06	09:41	SE	C	BP	X			Transferred from COC 2006-00237	
9106-0003-017F	4/26/06	09:18	SE	C	BP	X			Transferred from COC 2006-00237	
9106-0003-018F	4/26/06	08:59	SE	C	BP	X			Transferred from COC 2006-00237	

NOTES: PO #: 002332 MSR #: 06- ⁰⁶⁵² SSWP#NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA			Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp. _____ Deg C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>		
1) Relinquished By JAMES RICARTE		Date/Time 5-1-06 / 1330		2) Received By C. Derricott		Date/Time 5/5/06 / 1015	
3) Relinquished By		Date/Time		4) Received By		Date/Time	
				Bill of Lading # 7920-8920-0261			

Cheryl

162335

Connecticut Yankee
Statement of Work for Analytical Lab Services

CY-ISC-SOW-001

Figure 1. Sample Check-in List

Date/Time Received: 5/5/06 1015.

SDG#: MSR#06-0652

Work Order Number: 162335

Shipping Container ID: 7920 8920 0241 Chain of Custody #: 2006-00312
" " " 0240 2006-00313

1. Custody Seals on shipping container intact? Yes ☐ No ☒
2. Custody Seals dated and signed? Yes ☐ No ☒
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature 19°C
5. Vermiculite/packing materials is: Wet ☐ Dry ☐ N/A
6. Number of samples in shipping container: [10] ten / [9] nine
7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

- ☒ tape ☐ hazard labels
☒ custody seals ☐ appropriate sample labels

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: C. Derricotte Date: 5/5/06

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only 162335

Client: <u>Yankel</u>	SDG/ARCOC/Work Order:
Date Received: <u>05/5/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>C. Derricotte</u>	<u>Clyde</u>

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		<input checked="" type="checkbox"/>		Circle Coolant # ice bags blue ice dry ice none <u>other describe</u> <u>1900</u> <u>Peanutts</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?		<input checked="" type="checkbox"/>		Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			<input checked="" type="checkbox"/>	
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Sample ID's affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			
14 Air Bill ,Tracking #'s, & Additional Comments				<u>FedEx #</u> <u>7920 8920 0261</u> <u>0240</u>

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification?		<input checked="" type="checkbox"/>		*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?	<input checked="" type="checkbox"/>			Maximum Counts Observed*: <u>30 CPM</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Comments: Hazard Class Shipped: UN#:
PM (or PMA) review of Hazard classification:				Initials <u>DAJ</u> Date: <u>5/5/06</u>

Page 17

Chain of Custody Form

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

No. 2006-00336

Project Name: Haddam Neck Decommissioning Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024 Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested					Lab Use Only	
FSSGAM	FSSALL	Sr-90							Comments			
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID
9106-0004-001F	05/3/06	09:37	SE	C	BP		X	X			Transferred from COC 2006-00316	
9106-0004-002F	05/3/06	09:56	SE	C	BP	X		X			Transferred from COC 2006-00316	
9106-0004-003F	05/3/06	10:28	SE	C	BP	X		X			Transferred from COC 2006-00316	
9106-0004-004F	05/3/06	10:48	SE	C	BP	X		X			Transferred from COC 2006-00316	
9106-0004-004FS	05/3/06	10:48	SE	C	BP	X		X			Transferred from COC 2006-00316	
9106-0004-005F	05/3/06	11:07	SE	C	BP	X		X			Transferred from COC 2006-00316	
9106-0004-006F	05/3/06	12:46	SE	C	BP	X		X			Transferred from COC 2006-00317	
9106-0004-007F	05/4/06	07:55	SE	C	BP	X		X			Transferred from COC 2006-00320	
9106-0004-017F	05/4/06	09:27	SE	C	BP	X		X			Transferred from COC 2006-00320	

NOTES: PO #: 002332 MSR #: 06-0688 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

1) Relinquished By	Date/Time	2) Received By	Date/Time
		<i>C. Demicott</i>	<i>5/12/06 0920</i>
3) Relinquished By	Date/Time	4) Received By	Date/Time

Samples Shipped Via:

☒ Fed Ex

☐ UPS

☐ Hand

☐ Other

Bill of Lading #

7919-3895-8881

Internal Container Temp: *72* Deg. C

Custody Sealed? *YES*

Custody Seal Intact? *YES*

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00337

Page 18 of 100

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size & Type Code	Analyses Requested				Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90					Comments
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC, 29407 843 556 8171. Attn. Cheryl Jones													
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.													
Sample Designation	Date	Time											
9106-0004-008F ✓	5/04/06	08:58	SE	C	BP	X		X			Transferred from COC 2006-00320		
9106-0004-009F ✓	5/04/06	08:23	SE	C	BP	X		X			Transferred from COC 2006-00320		
9106-0004-010F ✓	5/03/06	15:11	SE	C	BP	X		X			Transferred from COC 2006-00317		
9106-0004-010FS ✓	5/03/06	15:11	SE	C	BP	X		X			Transferred from COC 2006-00317		
9106-0004-011F ✓	5/03/06	13:08	SE	C	BP	X		X			Transferred from COC 2006-00317		
9106-0004-012F ✓	5/03/06	13:33	SE	C	BP	X		X			Transferred from COC 2006-00317		
9106-0004-013F ✓	5/03/06	13:54	SE	C	BP	X		X			Transferred from COC 2006-00317		
9106-0004-014F ✓	5/03/06	14:43	SE	C	BP		X	X			Transferred from COC 2006-00317		
9106-0004-015F ✓	5/03/06	14:18	SE	C	BP	X		X			Transferred from COC 2006-00317		
NOTES: PO #: 002332 MSR #: 06-0688 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA													
1) Relinquished By			Date/Time			2) Received By			Date/Time				
3) Relinquished By			Date/Time			4) Received By			Date/Time				
Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other													
Bill of Lading # 7919 3875 8892													
Internal Container Temp: 17 Deg. C Custody Sealed? <input checked="" type="checkbox"/> Custody Seal Intact? <input checked="" type="checkbox"/>													

Figure 1. Sample Check-in List

Date/Time Received: 5.12.06 09:20

SDG#: MSR#06-0688

Work Order Number: 1628321

Shipping Container ID: 7919 3895 8892 Chain of Custody # 2006-00337

1. Custody Seals on shipping container intact? Yes ☒ No ☐
2. Custody Seals dated and signed? Yes ☒ No ☐
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature N/A
5. Vermiculite/packing materials is: Wet ☒ Dry ☐
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

☒ tape ☐ hazard labels
☒ custody seals ☐ appropriate sample labels

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: Emily Martin Date: 5.12.06 09:20

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 5/12/06 @ 0920

SDG#: NSR #06-0688

Work Order Number: 1628321

Shipping Container ID: 7919 3895 8892 Chain of Custody # 2006-00337

1. Custody Seals on shipping container intact? Yes ☐ No ☒
2. Custody Seals dated and signed? Yes ☐ No ☒
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature 17°C
5. Vermiculite/packing materials is: Wet ☒ Dry ☐
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

☒ tape ☐ hazard labels
☒ custody seals ☐ appropriate sample labels

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): Seal was busting out
of container bag

Sample Custodian/Laboratory: C. Demicco Date: 5/12/06
Telephoned to: _____ On _____ By _____

Page 21 of 105



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>CT Yankee</u>	SDG/ARCO/Work Order: <u>162832</u>
Date Received: <u>5.12.06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>E. Martin</u>	<u>[Signature]</u>

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		X		Circle Coolant # ice bags blue ice dry ice none other (describe)
3 Chain of custody documents included with shipment?	X			
4 Sample containers intact and sealed?			X	Circle Applicable: seals broken damaged container <u>leaking container</u> other (describe) <u>SN: 9106-0007-014F</u>
5 Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			X	
8 Samples received within holding time?	X			ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	X			Sample ID's affected:
11 Number of containers received match number indicated on COC?	X			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?			X	<u>Coc not relinquished</u>
14 Air Bill ,Tracking #'s, & Additional Comments				<u>7919 3895 8892</u>

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification?		X		*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?	X			Maximum Counts Observed*: <u>< Bkgd.</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	X			Comments: <u>Bkgd = 40 cpm</u> Hazard Class Shipped: <u>N/A</u> UN#: <u>N/A</u>
PM (or PM A) review of Hazard classification:				Initials <u>[Signature]</u> Date: <u>5/12/06</u>



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Vankel</u>	SDG/ARCOC/Work Order: <u>162832</u>
Date Received: <u>5/12/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>C. Derricotte</u>	<u>[Signature]</u>

Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		<input checked="" type="checkbox"/>		Circle Coolant # ice bags blue ice dry ice <u>none</u> other (describe) <u>17°C</u>
3	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			<u>COCs are wet</u>
4	Sample containers intact and sealed?			<input checked="" type="checkbox"/>	Circle Applicable: seals broken damaged container leaking container other (describe) <u>busted bag w/ RSOs</u>
5	Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample ID's, containers affected and observed pH: <u>7970 9480 6088 8892</u>
6	VOA vials free of headspace (defined as < 6mm bubble)?		<input checked="" type="checkbox"/>		Sample ID's and containers affected:
7	Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			<input checked="" type="checkbox"/>	
8	Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Sample ID's affected:
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?			<input checked="" type="checkbox"/>	<u>no COCs are relinquished</u>
14	Air Bill, Tracking #'s, & Additional Comments	<u>FedEx #'s</u> <u>see continuation sheet</u>			
Suspected Hazard Information		Non-Regulated	Regulated	High Level	RSO RAD Receipt # _____ *If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
A	Radiological Classification?		<input checked="" type="checkbox"/>		Maximum Counts Observed*: <u>10000 40 CPA</u>
B	PCB Regulated?	<input checked="" type="checkbox"/>			Comments:
C	Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Hazard Class Shipped: UN#:
PM (or PMA) review of Hazard classification:		Initials		Date: <u>5/12/06</u>	

Page 24 of 105

Chain of Custody Form

No. 2006-00319

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 860-267-2556 Ext. 3024

Analytical Lab (Name, City, State)

General Engineering Laboratories
2040 Savage Road, Charleston SC. 29407
843 556 8171. Attn. Cheryl JonesPriority: ☒ 30 D. ☐ 14 D. ☐ 7 D.

Analyses Requested

Lab Use Only

Comments

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size & Type Code	FSSGAM	FSSALL	Sr-90				Comment, Preservation	Lab Sample ID
9106-0005-010F	5/02/06	13:16	SE	C	BP	X		X				Transferred from COC 2006-00314	
9106-0005-011F	5/02/06	13:39	SE	C	BP	X		X				Transferred from COC 2006-00314	
9106-0005-013F	5/02/06	14:35	SE	C	BP	X		X				Transferred from COC 2006-00314	
9106-0005-014F	5/02/06	15:04	SE	C	BP	X		X				Transferred from COC 2006-00314	
9106-0005-016F	5/02/06	13:59	SE	C	BP	X		X				Transferred from COC 2006-00314	
9106-0005-015F	5/03/06	08:03	SE	C	BP	X		X				Transferred from COC 2006-00316	
9106-0005-017F	5/03/06	08:13	SE	C	BP	X		X				Transferred from COC 2006-00316	
9106-0005-018F	5/03/06	09:09	SE	C	BP	X		X				Transferred from COC 2006-00316	
9106-0005-018FS	5/03/06	09:09	SE	C	BP	X		X				Transferred from COC 2006-00316	

NOTES: PO #: 002332 MSR #: 06-0675

SSWP# NA

☒ LTP QA☐ Radwaste QA☐ Non QA

Samples Shipped Via:

☒ Fed Ex☐ UPS☐ Hand☐ Other

Bill of Lading #

7920 9195 4352

1) Relinquished By

Date/Time

5-8-06 1440

2) Received By

Date/Time

5/9/06 0930

3) Relinquished By

Date/Time

4) Received By

Date/Time

Internal Container

Temp. Deg. C

Custody Sealed?

Y ☒ N ☐

Custody Seal Intact?

Y ☒ N ☐Y ☒ N ☐Y ☒ N ☐Y ☒ N ☐Y ☒ N ☐

Figure 1. Sample Check-in List

Date/Time Received: 5/9/06 0930

SDG#: MSR# 06-0675

Work Order Number: 1624851

Shipping Container ID: 7420 9195 4352, 4363 Chain of Custody #: 2006-00318/20319

1. Custody Seals on shipping container intact? Yes ☒ No ☐
2. Custody Seals dated and signed? Yes ☒ No ☐
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature 18°C, 19°C
5. Vermiculite/packing materials is: Wet ☒ Dry ☐
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

9. Samples are:

☐ in good condition ☒ leaking (some bags)
☐ broken ☐ have air bubbles

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

Sample Custodian/Laboratory: Perle Date: 5/9/06 0930

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>ATMC</u>	SDG/ARCOC/Work Order: <u>162485</u>
Date Received: <u>5/9/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>BHC</u>	<u>[Signature]</u>

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice none other describe)
3 Chain of custody documents included with shipment?				
4 Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)				<u>BHC 5/9/06</u>
8 Samples received within holding time?				ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?				Sample ID's affected:
11 Number of containers received match number indicated on COC?				Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?				
14 Air Bill ,Tracking #'s, & Additional Comments				<u>Fed 7920 9195 4352 → 19°C</u> <u>Ex 4363 → 18°C</u>

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification?				*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?				Maximum Counts Observed*: <u>80 cpm</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.				Comments:
				Hazard Class Shipped:
				UN#:

PM (or PMA) review of Hazard classification:

Initials

Date:

5/9/06

Page 27 of 27

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00332

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested					Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90					Comments	
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID		
9106-0006-004F	4/28/06	12:46	SE	C	BP	X		X			Transferred from COC 2006-00317			
9106-0006-005F	4/28/06	13:03	SE	C	BP	X		X			Transferred from COC 2006-00317			
9106-0006-006F	4/28/06	13:22	SE	C	BP	X		X			Transferred from COC 2006-00317			
9106-0006-007F	4/28/06	13:41	SE	C	BP	X		X			Transferred from COC 2006-00317			
9106-0006-007FS	4/28/06	13:41	SE	C	BP	X		X			Transferred from COC 2006-00317			
9106-0006-012F	5/01/06	13:40	SE	C	BP	X		X			Transferred from COC 2006-00317			
9106-0006-017F	5/01/06	14:03	SE	C	BP	X		X			Transferred from COC 2006-00317			
NOTES: PO #: 002332 MSR #: 06-0687 SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA												Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other	Internal Container Temp: 129 Deg. C Custody Sealed? Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By			Date/Time		2) Received By			Date/Time						
					C. Desjardins			5/12/06 0920						
3) Relinquished By			Date/Time		4) Received By			Date/Time						
Bill of Lading #												7920-9480-6688		

Figure 1. Sample Check-in List

Date/Time Received: 5/12/06 @ 0920
SDG#: MSR#06-0687
Work Order Number: 1628501
Shipping Container ID: See cont sheet Chain of Custody #: See cont sheet

1. Custody Seals on shipping container intact? Yes [] No ☒
2. Custody Seals dated and signed? Yes [] No ☒
3. Chain-of-Custody record present? Yes ☒ No []
4. Cooler temperature 17°C
5. Vermiculite/packing materials is: Wet ☒ Dry []
6. Number of samples in shipping container: See: cont sheet
7. Sample holding times exceeded? Yes [] No ☒

8. Samples have:

☒ tape ☐ hazard labels
☒ custody seals ☐ appropriate sample labels

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): N/A

Sample Custodian/Laboratory: C. D. Sullivan Date: 5/12/06
Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Vankel</u>	SDG/ARCOC/Work Order: <u>162832, 162850</u>
Date Received: <u>5/12/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>C. Derricotte</u>	<u>[Signature]</u>

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		<input checked="" type="checkbox"/>		Circle Coolant # ice bags blue ice dry ice <u>none</u> other (describe) <u>17°C</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			<u>COCs are wet</u>
4 Sample containers intact and sealed?			<input checked="" type="checkbox"/>	Circle Applicable: seals broken damaged container leaking container other (describe) <u>busted bag w/ RSOs cooler 7970 9480 6038 (C)</u>
5 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample ID's, containers affected and observed pH: <u>8.892</u>
6 VOA vials free of headspace (defined as < 6mm bubble)?		<input checked="" type="checkbox"/>		Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			<input checked="" type="checkbox"/>	
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Sample ID's affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?			<input checked="" type="checkbox"/>	<u>no COCs are relinquished</u>

14 Air Bill ,Tracking #'s, & Additional Comments	<u>FedEx #'s</u> <u>see continuation sheet</u>
--	---

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt # *If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
A Radiological Classification?		<input checked="" type="checkbox"/>		Maximum Counts Observed*: <u>100 @ 40 cpm</u>
B PCB Regulated?	<input checked="" type="checkbox"/>			Comments:
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Hazard Class Shipped: UN#:

PM (or PMA) review of Hazard classification:	Initials <u>[Signature]</u>	Date: <u>5/12/06</u>
--	-----------------------------	----------------------



<u>Fed Ex Trk #</u>	<u>COG #</u>	<u># of containers</u>
7920 9480 6688	2006-00332	(7) Seven
- - 6611	2006-00331	(6) Six
- - 6655	2006-00330	(6) Six
7919 3895 8881	2006-00336	(9) nine
- - 8892	2006-00337	(9) nine
(this cooler had a busted sample cooler & COG is w/ RSO Emily Martin)		

Connecticut Yankee Atomic Power Company 362 Injun Hollow Road, East Hampton, CT 06424 860-267-2556						Chain of Custody Form 163741%						No. 2006-00367			
Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested						Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90	Ni-63	Comments:					
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road. Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones															
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.															
Sample Designation	Date	Time										Comment, Preservation	Lab Sample ID		
9106-0008-001F	5/05/06	11:13	SE	C	BP	X		X	X			Transferred from COC # 2006-00324			
9106-0008-003F	5/5/06	13:35	SE	C	BP	X		X	X			Transferred from COC # 2006-00325			
9106-0008-004F	5/5/06	13:51	SE	C	BP	X		X	X			Transferred from COC # 2006-00325			
9106-0008-005F	5/5/06	14:17	SE	C	BP	X		X	X			Transferred from COC # 2006-00325			
9106-0008-006F	5/5/06	14:36	SE	C	BP	X		X	X			Transferred from COC # 2006-00325			
9106-0008-006FS	5/5/06	14:36	SE	C	BP	X		X	X			Transferred from COC # 2006-00325			
9106-0008-007F	5/5/06	15:03	SE	C	BP		X					Transferred from COC # 2006-00325			
9106-0008-002F	5/5/06	13:10	SE	C	BP	X		X	X			Transferred from COC # 2006-00325			
NOTES: PO #: 002332 MSR #: 06-0743 SSWP#NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA										Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: ____ Deg. C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>			
1) Relinquished By			Date/Time 5-25-06 09:50		2) Received By			Date/Time 5/26/06 09:30		Bill of Lading # R275154 1162					
3) Relinquished By			Date/Time		4) Received By			Date/Time							

Chain of Custody Form

No. 2006-00366

Connecticut Yankee Atomic Power Company

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

163741%

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested					Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90	Ni-63	Comments:				
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road, Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones														
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.														
Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID		
9106-0008-008F	5/08/06	08:01	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
9106-0008-009F	5/08/06	08:32	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
9106-0008-010F	5/08/06	09:09	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
9106-0008-010FS	5/08/06	09:09	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
9106-0008-011F	5/08/06	09:30	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
9106-0008-012F	5/08/06	09:53	SE	C	BP		X				Transferred from COC # 2006-00327			
9106-0008-013F	5/08/06	10:16	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
9106-0008-014F	5/08/06	10:47	SE	C	BP	X		X	X		Transferred from COC # 2006-00327			
NOTES: PO #: 002332 MSR #: 06-0743 SSWP#NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA												Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other	Internal Container Temp.: <u>21</u> Deg. C Custody Sealed? Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Custody Seal Intact? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By			Date/Time		2) Received By			Date/Time		Bill of Lading #				
3) Relinquished By			Date/Time		4) Received By			Date/Time						

163741%

Figure 1. Sample Check-in List

Date/Time Received: 5/24/06 0930

SDG#: _____

Work Order Number: _____

Shipping Container ID: 79275154 1162 Chain of Custody # 2006-00367

1. Custody Seals on shipping container intact? Yes ☒ No ☐
2. Custody Seals dated and signed? Yes ☐ No ☒
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature 19°C
5. Vermiculite/packing materials is: Wet ☐ Dry ☐ NA
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

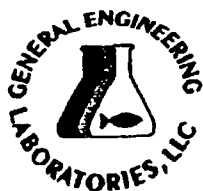
- | | |
|---|---|
| <input checked="" type="checkbox"/> tape | <input type="checkbox"/> hazard labels |
| <input checked="" type="checkbox"/> custody seals | <input checked="" type="checkbox"/> appropriate sample labels |

9. Samples are:

- | | |
|---|---|
| <input checked="" type="checkbox"/> in good condition | <input type="checkbox"/> leaking |
| <input type="checkbox"/> broken | <input type="checkbox"/> have air bubbles |

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

Sample Custodian/Laboratory: K. L. [Signature] Date: 5/24/06
Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Conn. Yankee</u>	SDG/ARCOC/Work Order: <u>1637417</u>
Date Received: <u>5/26/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing): <u>[Signature]</u>
Received By: <u>[Signature]</u>	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	/			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		/		Circle Coolant # ice bags blue ice dry ice <u>none</u> other describe <u>19°C</u>
3 Chain of custody documents included with shipment?	/			
4 Sample containers intact and sealed?	/			Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?		/		Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?		/		Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			/	
8 Samples received within holding time?	/			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	/			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	/			Sample ID's affected:
11 Number of containers received match number indicated on COC?	/			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?	/			

14 Air Bill, Tracking #'s, & Additional Comments	<u>7927 SF54 1162</u>
--	-----------------------

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification? <u>4/24/06</u>	/	/		*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?	/			Maximum Counts Observed*: <u>apm 20 Pac R50</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	/			Comments: Hazard Class Shipped: UN#:

PM (or PMA) review of Hazard classification: EM Initials 5/26/06 Date:



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Yankee</u>	SDG/ARCOC/Work Order: <u>1637417</u>
Date Received: <u>5/26/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing): <u>EM</u>
Received By: <u>C. Duricich</u>	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		<input checked="" type="checkbox"/>		Circle Coolant # ice bags blue ice dry ice <u>none</u> other (describe) <u>21°C</u>
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			
4 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?		<input checked="" type="checkbox"/>		Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			<input checked="" type="checkbox"/>	
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Sample ID's affected:
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<u>not relinquished</u>
14 Air Bill ,Tracking #'s, & Additional Comments	<u>7927 5154 1173</u> <u>COC # 2604 - 00364</u>			

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt # *If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
A Radiological Classification?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Maximum Counts Observed*: <u>40 cpm</u>
B PCB Regulated?	<input checked="" type="checkbox"/>			Comments:
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Hazard Class Shipped: UN#:
PM (or PMA) review of Hazard classification: <u>EM</u> Initials <u>5/26/06</u> Date:				

1637417

Figure 1. Sample Check-in List

Date/Time Received: 5/26/06 @ 0930

SDG#: _____

Work Order Number: _____

Shipping Container ID: 7925541173 Chain of Custody #: 2006-003666

1. Custody Seals on shipping container intact? Yes ☒ No ☐
2. Custody Seals dated and signed? Yes ☒ No ☐
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature 21°
5. Vermiculite/packing materials is: Wet ☒ Dry ☐
6. Number of samples in shipping container: (8) eight
7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

- | | |
|---|---------------------------------|
| <input checked="" type="checkbox"/> tape | _____ hazard labels |
| <input checked="" type="checkbox"/> custody seals | _____ appropriate sample labels |

9. Samples are:

- | | |
|---|------------------------|
| <input checked="" type="checkbox"/> 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: C. Quicchio Date: 5/26/06

Telephoned to: _____ On _____ By _____

Chain of Custody Form

No. 2006-00380

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

[illegible]

NOTES: PO #: 002332 MSR #: 06-0818 SSWP# NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:

<input checked="" type="checkbox"/>	Fed Ex
<input type="checkbox"/>	UPS
<input type="checkbox"/>	Hand

☐ Other

Bill of Lading #

Internal Container
Temp.: _____ Deg. C

Custody Sealed?
Y ☐ N ☐
Custody Seal Intact?

Y ☐ N ☐

1) Relinquished By JANE RICARTE Date/Time 6-7-06/11:00

2) Received By Date/Time

 4) Received By Date/Time

3) Relinquished By _____ Date/Time _____

4) Received By _____ Date/Time _____

7921.1915 2869

164542-1.

Page 38 of 105

Connecticut Yankee Atomic Power Company362 Injun Hollow Road, East Hampton, CT 06424
860-267-2556**Chain of Custody Form**

No. 2006-00381

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size & Type Code	Analyses Requested						Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Ni-63					Comments:		
Analytical Lab (Name, City, State) General Engineering Laboratories 2040 Savage Road. Charleston SC. 29407 843 556 8171. Attn. Cheryl Jones															
Priority: <input checked="" type="checkbox"/> 30 D. <input type="checkbox"/> 14 D. <input type="checkbox"/> 7 D.															
Sample Designation	Date	Time										Comment, Preservation	Lab Sample ID		
9106-0009-001F	5/11/06	13:22	SE	C	BP	X		X				Transferred from COC 2006-00347			
9106-0009-002F	5/11/06	13:46	SE	C	BP	X		X				Transferred from COC 2006-00347			
9106-0009-003F	5/11/06	14:06	SE	C	BP	X		X				Transferred from COC 2006-00347			
9106-0009-004F	5/11/06	14:30	SE	C	BP	X		X				Transferred from COC 2006-00347			
9106-0009-005F	5/11/06	14:55	SE	C	BP	X		X				Transferred from COC 2006-00347			
9106-0009-007F	5/12/06	07:44	SE	C	BP	X		X				Transferred from COC 2006-00348			
9106-0009-008F	5/12/06	08:16	SE	C	BP	X		X				Transferred from COC 2006-00348			
9106-0009-009F	5/12/06	08:35	SE	C	BP	X		X				Transferred from COC 2006-00348			
9106-0009-010F	5/12/06	09:07	SE	C	BP	X		X				Transferred from COC 2006-00348			
NOTES: PO #: 002332 MSR #: 06- SSWP# NA <input checked="" type="checkbox"/> LTP QA <input type="checkbox"/> Radwaste QA <input type="checkbox"/> Non QA												Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		Internal Container Temp.: ____ Deg. C Custody Sealed? Y <input type="checkbox"/> N <input type="checkbox"/> Custody Seal Intact? Y <input type="checkbox"/> N <input type="checkbox"/>	
1) Relinquished By JAMIE RICARTE			Date/Time 6-7-06/11:00			2) Received By AMoly			Date/Time 6/9/06 900			Bill of Lading # 7921 1915 2858			
3) Relinquished By			Date/Time			4) Received By			Date/Time						

Cheryl

100421.
164551%

CPM 40

Connecticut Yankee
Statement of Work for Analytical Lab Services

CY-ISC-SOW-001

Figure 1. Sample Check-in List

Date/Time Received: 6-8-06 900

SDG#: MSR# 06-0819, 0818

Work Order Number: 7921-1915-2858

Shipping Container ID: 11-11-8756 Chain of Custody #: 2006-00382
2006-00380
2006-00381

1. Custody Seals on shipping container intact? Yes ☒ No ☐
2. Custody Seals dated and signed? Yes ☐ No ☒
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature 20°C
5. Vermiculite/packing materials is: Wet ☐ Dry ☒
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? Yes ☒ No ☐

8. Samples have:

☒ tape ☐ hazard labels
☒ custody seals ☐ appropriate sample labels

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: A. Maly Date: 6-8-06 900

Telephoned to: On By

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00349

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:

Jack McCarthy 860-267-2556 Ext. 3024

Analytical Lab (Name, City, State)

General Engineering Laboratories
2040 Savage Road, Charleston SC. 29407
843 556 8171. Attn. Cheryl JonesPriority: ☒ 30 D. ☐ 14 D. ☐ 7 D.

Analyses Requested

Lab Use Only

Comments:

163105%

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size & Type Code	FSSGAM	FSSALL	Ni-63				Comment, Preservation	Lab Sample ID
9106-0010-001F	5/04/06	10:49	SE	C	BP	X		X				Transferred from COC 2006-00321	
9106-0010-002F	5/04/06	11:12	SE	C	BP	X		X				Transferred from COC 2006-00321	
9106-0010-004F	5/04/06	12:48	SE	C	BP	X		X				Transferred from COC 2006-00321	
9106-0010-006F	5/04/06	13:34	SE	C	BP	X		X				Transferred from COC 2006-00321	
9106-0010-007F	5/04/06	13:21	SE	C	BP	X		X				Transferred from COC 2006-00321	
9106-0010-009F	5/04/06	14:01	SE	C	BP	X		X				Transferred from COC 2006-00321	
9106-0010-010F	5/04/06	14:21	SE	C	BP	X		X				Transferred from COC 2006-00321	
9106-0010-012F	5/04/06	14:44	SE	C	BP	X		X				Transferred from COC 2006-00321	
9106-0010-013F	5/04/06	15:06	SE	C	BP		X					Transferred from COC 2006-00321	

NOTES: PO #: 002332 MSR #: 06- 0707 SSWP#NA ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:

- ☒ Fed Ex
☐ UPS
☐ Hand

☐ Other

Internal Container Temp.: 17 Deg. C

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

Bill of Lading #

7904-3 113-8541

1) Relinquished By

Date/Time

JAMES RUADE

5-16-06 / 1150

2) Received By

Date/Time

AM Moley

5/17/06 945

3) Relinquished By

Date/Time

4) Received By

Date/Time

Figure 1. Sample Check-in List

Date/Time Received: 945 5/17/06

SDG#: MARK 06-0707

Work Order Number: 1631051

Shipping Container ID: 7904 3113 8541 Chain of Custody #: 2006-00349

1. Custody Seals on shipping container intact? Yes ☒ No ☐
2. Custody Seals dated and signed? Yes ☒ No ☐
3. Chain-of-Custody record present? Yes ☒ No ☐
4. Cooler temperature 17°C
5. Vermiculite/packing materials is: Wet ☒ Dry ☐
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? Yes ☐ No ☒

8. Samples have:

☐ tape ☐ hazard labels
☒ custody seals ☐ appropriate sample labels

9. Samples are:

☒ in good condition ☒ ^{AM} leaking
☐ broken ☐ have air bubbles

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

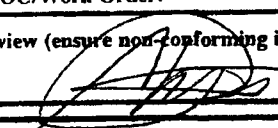
Sample Custodian/Laboratory: AMaly Date: 5-17-06
Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

CHERYL

PM use only

Client: <u>CONN. YANKEE</u>				SDG/ARCOC/Work Order:	
Date Received: <u>5-17-06</u>				PM(A) Review (ensure non-conforming items are resolved prior to signing):	
Received By: <u>ALM</u>					

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)	
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)	
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		<input checked="" type="checkbox"/>		Circle Coolant # ice bags blue ice dry ice <u>none</u> other (describe)	
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>				
4 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: seals broken damaged container leaking container other (describe)	
5 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>		Sample ID's, containers affected and observed pH:	
6 VOA vials free of headspace (defined as < 6mm bubble)?		<input checked="" type="checkbox"/>		Sample ID's and containers affected:	
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			<input checked="" type="checkbox"/>		
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Id's and tests affected:	
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			Sample ID's and containers affected:	
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Sample ID's affected:	
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Sample ID's affected:	
12 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>				
14 Air Bill ,Tracking #'s, & Additional Comments	<u>7904 3113 8541</u>				

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?	<input checked="" type="checkbox"/>			Maximum Counts Observed*: <u>CPM 60</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	<input checked="" type="checkbox"/>			Comments: Hazard Class Shipped: UN#:

PM (or PMA) review of Hazard classification:	Initials <u>CD</u>	Date: <u>5/17/06</u>
--	--------------------	----------------------

List of current GEL Certifications as of 15 August 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)
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas	TX213-2006A
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	N/A
Virginia	00151
Washington	C223

RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 168404**

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:	555696
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201153129	Method Blank (MB)
1201153130	168340011(9304-01-005C) Sample Duplicate (DUP)
1201153131	168340011(9304-01-005C) Matrix Spike (MS)
1201153132	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: 168340011 (9304-01-005C).

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 168404003 (9106-0003-004F) 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.

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 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:	557837
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404009	9106-0006-005F
168404010	9106-0008-006F
1201158316	Method Blank (MB)
1201158317	168404009(9106-0006-005F) Sample Duplicate (DUP)
1201158318	168404009(9106-0006-005F) Matrix Spike (MS)
1201158319	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: 168404009 (9106-0006-005F).

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:	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:	555697
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201153133	Method Blank (MB)
1201153134	168340011(9304-01-005C) Sample Duplicate (DUP)
1201153135	168340011(9304-01-005C) Matrix Spike (MS)
1201153136	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: 168340011 (9304-01-005C).

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:	555698
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201153137	Method Blank (MB)
1201153138	168340011(9304-01-005C) Sample Duplicate (DUP)
1201153139	168340011(9304-01-005C) Matrix Spike (MS)
1201153140	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: 168340011 (9304-01-005C).

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:	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:	556350
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404003	9106-0003-004F
168404004	9106-0003-015F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201154644	Method Blank (MB)
1201154645	168404003(9106-0003-004F) Sample Duplicate (DUP)
1201154646	168404003(9106-0003-004F) Matrix Spike (MS)
1201154647	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: 168404003 (9106-0003-004F).

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.

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

Samples 1201154644 (MB), 1201154645 (9106-0003-004F), 1201154646 (9106-0003-004F), 1201154647 (LCS), 168404003 (9106-0003-004F), 168404004 (9106-0003-015F), 168404012 (9106-0009-002F), 168404013 (9106-0009-017F), 168404014 (9106-0010-001F) and 168404015 (9106-0010-012F) were dried and reweighed due to low matrix spike/laboratory control sample recovery.

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:	554580

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201150561	Method Blank (MB)
1201150562	168340012(9304-02-003C) Sample Duplicate (DUP)
1201150563	168340012(9304-02-003C) Matrix Spike (MS)
1201150564	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: 168340012 (9304-02-003C).

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 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:	555722
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201153222	Method Blank (MB)
1201153223	168340012(9304-02-003C) Sample Duplicate (DUP)
1201153224	168340012(9304-02-003C) Matrix Spike (MS)
1201153225	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: 168340012 (9304-02-003C).

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:	555723
Prep Batch Number:	554650
Dry Soil Prep GL-RAD-A-021 Batch Number:	554649

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
1201153226	Method Blank (MB)
1201153227	168340012(9304-02-003C) Sample Duplicate (DUP)
1201153228	168340012(9304-02-003C) Matrix Spike (MS)
1201153229	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: 168340012 (9304-02-003C).

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: 554582

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201150569	Method Blank (MB)
1201150570	168340011(9304-01-005C) Sample Duplicate (DUP)
1201150571	168340011(9304-01-005C) Matrix Spike (MS)
1201150572	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# 12.

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: 168340011 (9304-01-005C).

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 168404010 (9106-0008-006F) 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: 554583

Sample ID	Client ID
168404001	9106-0002-007F
168404002	9106-0002-011F
168404003	9106-0003-004F
168404004	9106-0003-015F
168404005	9106-0004-005F
168404006	9106-0004-015F
168404007	9106-0005-010F
168404008	9106-0005-014F
168404009	9106-0006-005F
168404010	9106-0008-006F
168404011	9106-0008-008F
168404012	9106-0009-002F
168404013	9106-0009-017F
168404014	9106-0010-001F
168404015	9106-0010-012F
1201150573	Method Blank (MB)
1201150574	168404003(9106-0003-004F) Sample Duplicate (DUP)
1201150575	168404003(9106-0003-004F) Matrix Spike (MS)
1201150576	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: 168404003 (9106-0003-004F).

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:

Kath Bellatt 8/22/66

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: 168404 GEL Work Order: 168404

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.
- 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: August 21, 2006

Client Sample ID: 9106-0002-007F
Sample ID: 168404001
Matrix: SE
Collect Date: 18-MAY-06
Receive Date: 02-JUN-06
Collector: Client
Moisture: 20.9%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0762	+/-0.102	0.00	+/-0.102	0.0956	pCi/g		BXL1	08/11/06	1336	555696	1
Curium-242	U	0.00	+/-0.0995	0.00	+/-0.0995	0.138	pCi/g						
Curium-243/244	U	-0.00853	+/-0.0717	0.0405	+/-0.0717	0.177	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.199	+/-0.228	0.181	+/-0.229	0.444	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	0.0341	+/-0.129	0.120	+/-0.129	0.323	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	10.0	+/-6.64	5.08	+/-6.72	10.7	pCi/g		BXL1	08/16/06	1220	555698	3
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	4.17	+/-6.67	5.28	+/-6.67	11.4	pCi/g		DFA1	08/09/06	1128	554582	4
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0813	+/-0.0797	0.0634	+/-0.0797	0.132	pCi/g		ATH2	08/09/06	0324	554583	5
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	9.90	+/-48.1	32.0	+/-48.1	65.9	pCi/g		MXPI	08/12/06	1633	555722	6
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	7.02	+/-6.39	5.18	+/-6.40	10.6	pCi/g		MXPI	08/11/06	0738	555723	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.139	+/-0.213	0.173	+/-0.213	0.360	pCi/g		EGD1	08/11/06	2027	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified

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: August 21, 2006

Client Sample ID: 9106-0002-007F
Sample ID: 168404001

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
5	EPA EERF C-01 Modified												
6	DOE RESL Fe-1, Modified												
7	DOE RESL Ni-1, Modified												
8	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	80	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	100	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	98	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	75	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	76	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	74	(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.

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: August 21, 2006

Client Sample ID: 9106-0002-011F
Sample ID: 168404002
Matrix: SE
Collect Date: 19-MAY-06
Receive Date: 02-JUN-06
Collector: Client
Moisture: 17.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.120	+/-0.154	0.0683	+/-0.155	0.251	pCi/g		BXL1	08/11/06	1336	555696	1
Curium-242	U	-0.0146	+/-0.122	0.0692	+/-0.123	0.303	pCi/g						
Curium-243/244	U	-0.0103	+/-0.0861	0.0487	+/-0.0862	0.213	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.0121	+/-0.125	0.127	+/-0.125	0.344	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	0.0254	+/-0.0675	0.0381	+/-0.0675	0.167	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	6.72	+/-7.02	5.56	+/-7.05	11.7	pCi/g		BXL1	08/16/06	1237	555698	3
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2, ALL FSS</i>													
Tritium	U	-0.521	+/-7.03	5.94	+/-7.03	12.8	pCi/g		DFA1	08/09/06	1143	554582	4
<i>Liquid Scint C14, Solid All, FSS</i>													
Carbon-14	U	0.023	+/-0.0828	0.0685	+/-0.0828	0.143	pCi/g		ATH2	08/09/06	0426	554583	5
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	3.93	+/-47.7	31.9	+/-47.7	65.7	pCi/g		MXP1	08/12/06	1649	555722	6
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	7.52	+/-5.81	4.68	+/-5.81	9.60	pCi/g		MXP1	08/11/06	0825	555723	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.173	+/-0.203	0.164	+/-0.203	0.341	pCi/g		EGD1	08/11/06	2043	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified

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

Contact: East Hampton, Connecticut 06424
Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: August 21, 2006

Client Sample ID: 9106-0002-011F
Sample ID: 168404002

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
6		DOE RESL Fe-1, Modified											
7		DOE RESL Ni-1, Modified											
8		DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	76	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	100	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	88	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	72	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	76	(25%-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.

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

Contact: East Hampton, Connecticut 06424
Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: August 21, 2006

Client Sample ID: 9106-0003-004F
Sample ID: 168404003
Matrix: SE
Collect Date: 25-APR-06
Receive Date: 05-MAY-06
Collector: Client
Moisture: 23.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.027	+/-0.117	0.153	+/-0.117	0.488	pCi/g		BXL1	08/13/06	0819	555696	1
Curium-242	U	0.112	+/-0.315	0.245	+/-0.315	0.781	pCi/g						
Curium-243/244	U	0.0217	+/-0.206	0.205	+/-0.206	0.594	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.061	+/-0.189	0.176	+/-0.189	0.449	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	0.0551	+/-0.103	0.0584	+/-0.103	0.215	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	8.31	+/-5.73	4.40	+/-5.78	9.25	pCi/g		BXL1	08/16/06	1253	555698	3
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.00343	+/-0.0203	0.0172	+/-0.0203	0.036	pCi/g		BXF1	08/14/06	0834	556350	4
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.603	+/-8.25	6.87	+/-8.25	14.8	pCi/g		DFA1	08/09/06	1159	554582	5
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0937	+/-0.0813	0.0642	+/-0.0813	0.134	pCi/g		ATH2	08/09/06	0529	554583	6
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	7.68	+/-51.2	34.2	+/-51.2	70.4	pCi/g		MXP1	08/12/06	1706	555722	7
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	5.74	+/-7.12	6.58	+/-7.13	13.6	pCi/g		MXP1	08/11/06	0912	555723	8
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	-0.0643	+/-0.198	0.169	+/-0.198	0.351	pCi/g		EGD1	08/11/06	2059	554580	9

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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

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: August 21, 2006

Client Sample ID: 9106-0003-004F
Sample ID: 168404003

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
3		DOE EML HASL-300, Pu-11-RC Modified											
4		EPA 905.0 Modified											
5		EPA 906.0 Modified											
6		EPA EERF C-01 Modified											
7		DOE RESL Fe-1, Modified											
8		DOE RESL Ni-1, Modified											
9		DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	42	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	92	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	113	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	59	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	71	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	83	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	76	(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

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: August 21, 2006

Client Sample ID: 9106-0003-004F
Sample ID: 168404003

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

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

The above sample is reported on a dry weight basis.

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: August 21, 2006

Client Sample ID: 9106-0003-015F
Sample ID: 168404004
Matrix: SE
Collect Date: 25-APR-06
Receive Date: 05-MAY-06
Collector: Client
Moisture: 22.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0456	+/-0.155	0.139	+/-0.155	0.387	pCi/g	BXL1	08/11/06	1434	555696	1	
Curium-242	U	0.113	+/-0.181	0.0733	+/-0.182	0.321	pCi/g						
Curium-243/244	U	0.180	+/-0.239	0.181	+/-0.240	0.472	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.0196	+/-0.121	0.118	+/-0.121	0.324	pCi/g	BXL1	08/11/06	1633	555697	2	
Plutonium-239/240	U	0.0326	+/-0.0639	0.00	+/-0.064	0.0884	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	6.63	+/-6.19	4.86	+/-6.22	10.2	pCi/g	BXL1	08/16/06	1309	555698	3	
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.00477	+/-0.0216	0.0179	+/-0.0216	0.0375	pCi/g	BXF1	08/14/06	0834	556350	4	
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	1.03	+/-7.06	5.85	+/-7.06	12.6	pCi/g	DFA1	08/09/06	1215	554582	5	
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14		0.156	+/-0.0912	0.0699	+/-0.0913	0.146	pCi/g	ATH2	08/09/06	0632	554583	6	
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-9.99	+/-42.7	28.7	+/-42.7	59.2	pCi/g	MXP1	08/12/06	1722	555722	7	
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	0.939	+/-10.1	10.3	+/-10.1	21.6	pCi/g	MXP1	08/11/06	1001	555723	8	
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.237	+/-0.213	0.170	+/-0.213	0.353	pCi/g	EGD1	08/11/06	2115	554580	9	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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

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: August 21, 2006

Client Sample ID: 9106-0003-015F
Sample ID: 168404004

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
3		DOE EML HASL-300, Pu-11-RC Modified											
4		EPA 905.0 Modified											
5		EPA 906.0 Modified											
6		EPA EERF C-01 Modified											
7		DOE RESL Fe-1, Modified											
8		DOE RESL Ni-1, Modified											
9		DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	78	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	94	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	101	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	58	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	75	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	62	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	75	(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

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: August 21, 2006

Client Sample ID: 9106-0003-015F
Sample ID: 168404004

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

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

The above sample is reported on a dry weight basis.

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: August 21, 2006

Client Sample ID: 9106-0004-005F
Sample ID: 168404005
Matrix: SE
Collect Date: 03-MAY-06
Receive Date: 12-MAY-06
Collector: Client
Moisture: 15.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.036	+/-0.123	0.157	+/-0.123	0.437	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	-0.0169	+/-0.033	0.080	+/-0.0331	0.350	pCi/g						
Curium-243/244	U	-0.0129	+/-0.227	0.247	+/-0.227	0.619	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.0217	+/-0.163	0.181	+/-0.163	0.444	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	-0.0708	+/-0.0791	0.128	+/-0.0795	0.337	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	9.52	+/-6.00	4.57	+/-6.07	9.61	pCi/g		BXL1	08/16/06	1326	555698	3
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.854	+/-5.88	4.87	+/-5.88	10.5	pCi/g		DFA1	08/09/06	1231	554582	4
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14		0.347	+/-0.097	0.0674	+/-0.0972	0.141	pCi/g		ATH2	08/09/06	0734	554583	5
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-1.57	+/-46.0	30.7	+/-46.0	63.2	pCi/g		MXP1	08/12/06	1738	555722	6
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	6.39	+/-7.62	7.40	+/-7.62	15.5	pCi/g		MXP1	08/11/06	1017	555723	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.0198	+/-0.187	0.156	+/-0.187	0.324	pCi/g		EGD1	08/11/06	2131	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified

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: August 21, 2006

Client Sample ID: 9106-0004-005F
Sample ID: 168404005

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
6	DOE RESL Fe-I, Modified												
7	DOE RESL Ni-I, Modified												
8	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	65	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	95	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	105	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	78	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	80	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	80	(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.

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: August 21, 2006

Client Sample ID: 9106-0004-015F
Sample ID: 168404006
Matrix: SE
Collect Date: 03-MAY-06
Receive Date: 12-MAY-06
Collector: Client
Moisture: 26.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0823	+/-0.203	0.178	+/-0.203	0.469	pCi/g	BXL1	08/11/06	1434	555696	1	
Curium-242	U	-0.0154	+/-0.0301	0.0729	+/-0.0302	0.319	pCi/g						
Curium-243/244	U	-0.0994	+/-0.251	0.300	+/-0.251	0.713	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.0466	+/-0.213	0.210	+/-0.213	0.521	pCi/g	BXL1	08/11/06	1633	555697	2	
Plutonium-239/240	U	-0.142	+/-0.108	0.191	+/-0.109	0.483	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	6.64	+/-6.53	5.16	+/-6.57	10.8	pCi/g	BXL1	08/16/06	1342	555698	3	
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	-2.9	+/-7.59	6.60	+/-7.59	14.2	pCi/g	DFA1	08/09/06	1247	554582	4	
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0352	+/-0.0868	0.0713	+/-0.0868	0.149	pCi/g	ATH2	08/09/06	0837	554583	5	
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	1.88	+/-46.8	31.3	+/-46.8	64.4	pCi/g	MXP1	08/12/06	1754	555722	6	
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	3.88	+/-7.46	7.40	+/-7.46	15.5	pCi/g	MXP1	08/11/06	1033	555723	7	
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.0894	+/-0.198	0.163	+/-0.198	0.338	pCi/g	EGD1	08/11/06	2147	554580	8	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified

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: August 21, 2006

Client Sample ID: 9106-0004-015F
Sample ID: 168404006

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
6		DOE RESL Fe-1, Modified											
7		DOE RESL Ni-1, Modified											
8		DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	72	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	72	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	94	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	73	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	80	(25%-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.

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

Contact: East Hampton, Connecticut 06424
Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: August 21, 2006

Client Sample ID: 9106-0005-010F
Sample ID: 168404007
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 56.2%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.128	+/-0.0939	0.142	+/-0.0942	0.385	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	-0.0115	+/-0.128	0.147	+/-0.128	0.450	pCi/g						
Curium-243/244	U	-0.0333	+/-0.122	0.149	+/-0.122	0.401	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.0548	+/-0.169	0.158	+/-0.170	0.403	pCi/g		BXL1	08/11/06	1633	555697	2
Plutonium-239/240	U	0.0195	+/-0.121	0.117	+/-0.121	0.322	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	10.4	+/-6.89	5.27	+/-6.97	11.1	pCi/g		BXL1	08/16/06	1358	555698	3
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.00	+/-6.86	5.76	+/-6.86	12.4	pCi/g		DFA1	08/09/06	1303	554582	4
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0636	+/-0.0801	0.0644	+/-0.0801	0.135	pCi/g		ATH2	08/09/06	1017	554583	5
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	36.1	+/-44.1	28.7	+/-44.1	59.0	pCi/g		MXP1	08/12/06	1811	555722	6
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	7.26	+/-10.2	10.0	+/-10.2	20.9	pCi/g		MXP1	08/11/06	1049	555723	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	-0.05	+/-0.199	0.169	+/-0.199	0.351	pCi/g		EGD1	08/11/06	2203	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified

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: August 21, 2006

Client Sample ID: 9106-0005-010F
Sample ID: 168404007

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
6		DOE RESL Fe-1, Modified											
7		DOE RESL Ni-1, Modified											
8		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	91	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	92	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	81	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	64	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	77	(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.

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: August 21, 2006

Client Sample ID: 9106-0005-014F
Sample ID: 168404008
Matrix: SE
Collect Date: 02-MAY-06
Receive Date: 09-MAY-06
Collector: Client
Moisture: 32.3%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.00591	+/-0.219	0.231	+/-0.219	0.608	pCi/g	BXL1	08/11/06	1434	555696	1	
Curium-242	U	-0.04	+/-0.0554	0.134	+/-0.0557	0.494	pCi/g						
Curium-243/244	U	0.0634	+/-0.261	0.249	+/-0.261	0.646	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.0694	+/-0.106	0.160	+/-0.106	0.434	pCi/g	BXL1	08/11/06	1633	555697	2	
Plutonium-239/240	U	-0.0287	+/-0.098	0.127	+/-0.0981	0.369	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	4.68	+/-8.01	6.48	+/-8.02	13.6	pCi/g	BXL1	08/16/06	1415	555698	3	
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2, ALL FSS</i>													
Tritium	U	6.02	+/-6.38	4.90	+/-6.38	10.6	pCi/g	DFA1	08/09/06	1319	554582	4	
<i>Liquid Scint C14, Solid All, FSS</i>													
Carbon-14	U	0.0892	+/-0.0827	0.0655	+/-0.0827	0.137	pCi/g	ATH2	08/09/06	1424	554583	5	
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	19.8	+/-46.3	30.6	+/-46.3	62.9	pCi/g	MXP1	08/12/06	1827	555722	6	
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	5.41	+/-7.91	7.77	+/-7.91	16.2	pCi/g	MXP1	08/11/06	1106	555723	7	
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	-0.134	+/-0.192	0.167	+/-0.192	0.346	pCi/g	EGD1	08/11/06	2218	554580	8	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified

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: August 21, 2006

Client Sample ID: 9106-0005-014F
Sample ID: 168404008

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
6		DOE RESL Fe-1, Modified											
7		DOE RESL Ni-1, Modified											
8		DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	50	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	61	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	74	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	76	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	76	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	75	(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.

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

Contact: East Hampton, Connecticut 06424
Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: August 21, 2006

Client Sample ID: 9106-0006-005F
Sample ID: 168404009
Matrix: SE
Collect Date: 28-APR-06
Receive Date: 12-MAY-06
Collector: Client
Moisture: 16.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.0851	+/-0.136	0.106	+/-0.136	0.390	pCi/g		BXL1	08/16/06	0949	557837	1
Curium-242	U	-0.0253	+/-0.0495	0.120	+/-0.0496	0.525	pCi/g						
Curium-243/244	U	-0.0479	+/-0.0542	0.131	+/-0.0545	0.443	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.0183	+/-0.113	0.110	+/-0.113	0.303	pCi/g		BXL1	08/11/06	1633	555697	3
Plutonium-239/240	U	0.00122	+/-0.0662	0.0694	+/-0.0662	0.221	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	4.43	+/-5.83	4.67	+/-5.85	9.82	pCi/g		BXL1	08/16/06	1431	555698	4
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	-2.02	+/-6.67	5.76	+/-6.67	12.4	pCi/g		DFA1	08/09/06	1335	554582	5
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14		0.142	+/-0.0798	0.061	+/-0.0799	0.127	pCi/g		ATH2	08/09/06	1719	554583	6
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	12.6	+/-47.6	31.7	+/-47.6	65.3	pCi/g		MXP1	08/12/06	1843	555722	7
<i>Liquid Scint Ni63, Solid-ALL FSS</i>													
Nickel-63	U	7.70	+/-9.56	9.31	+/-9.56	19.5	pCi/g		MXP1	08/11/06	1122	555723	8
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	-0.00659	+/-0.185	0.156	+/-0.185	0.323	pCi/g		EGD1	08/11/06	2234	554580	9

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified

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: August 21, 2006

Client Sample ID: 9106-0006-005F
Sample ID: 168404009

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
6	EPA EERF C-01 Modified												
7	DOE RESL Fe-1, Modified												
8	DOE RESL Ni-1, Modified												
9	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	76	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	93	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	105	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	72	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid-ALL FS	64	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	81	(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.

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: August 21, 2006

Client Sample ID: 9106-0008-006F
Sample ID: 168404010
Matrix: SE
Collect Date: 05-MAY-06
Receive Date: 26-MAY-06
Collector: Client
Moisture: 34.8%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.129	+/-0.195	0.0758	+/-0.196	0.332	pCi/g	BXL1	08/16/06	0949	557837	1	
Curium-242	U	0.103	+/-0.202	0.00	+/-0.203	0.280	pCi/g						
Curium-243/244	U	-0.0161	+/-0.0316	0.0766	+/-0.0317	0.335	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.0276	+/-0.0711	0.0967	+/-0.0712	0.275	pCi/g	BXL1	08/11/06	1633	555697	3	
Plutonium-239/240	U	0.00359	+/-0.113	0.118	+/-0.113	0.317	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241		14.9	+/-6.37	4.64	+/-6.51	9.75	pCi/g	BXL1	08/16/06	1447	555698	4	
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.00	+/-6.06	5.09	+/-6.06	10.7	pCi/g	DFA1	08/10/06	2150	554582	5	
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.107	+/-0.0846	0.0664	+/-0.0846	0.139	pCi/g	ATH2	08/09/06	1822	554583	6	
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	15.1	+/-41.4	27.5	+/-41.4	56.6	pCi/g	MXPI	08/12/06	1900	555722	7	
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.258	+/-0.225	0.179	+/-0.225	0.373	pCi/g	EGD1	08/11/06	2251	554580	8	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
6	EPA EERF C-01 Modified
7	DOE RESL Fe-1, Modified

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: August 21, 2006

Client Sample ID: 9106-0008-006F
Sample ID: 168404010

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
8		DOE EML HASL-300, Tc-02-RC Modified											
Surrogate/Tracer recovery	Test	Recovery%		Acceptable Limits									
Americium-243	Alphaspec Am241, Cm, Solid ALL	77		(15%-125%)									
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	94		(15%-125%)									
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	103		(25%-125%)									
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	72		(15%-125%)									
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	71		(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.

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: August 21, 2006

Client Sample ID: 9106-0008-008F
Sample ID: 168404011
Matrix: SE
Collect Date: 08-MAY-06
Receive Date: 26-MAY-06
Collector: Client
Moisture: 35.7%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0969	+/-0.192	0.152	+/-0.193	0.426	pCi/g	BXL1	08/11/06	1434	555696	1	
Curium-242	U	-0.0482	+/-0.142	0.132	+/-0.142	0.446	pCi/g						
Curium-243/244	U	-0.0576	+/-0.202	0.240	+/-0.203	0.603	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.0397	+/-0.096	0.125	+/-0.096	0.328	pCi/g	BXL1	08/11/06	1633	555697	2	
Plutonium-239/240	U	-0.0315	+/-0.114	0.137	+/-0.114	0.353	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241		11.5	+/-6.72	5.08	+/-6.80	10.7	pCi/g	BXL1	08/16/06	1504	555698	3	
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2, ALL FSS</i>													
Tritium	U	0.00	+/-5.92	4.97	+/-5.92	10.7	pCi/g	DFA1	08/09/06	1407	554582	4	
<i>Liquid Scint C14, Solid All, FSS</i>													
Carbon-14	U	-0.0238	+/-0.0745	0.0636	+/-0.0745	0.133	pCi/g	ATH2	08/09/06	1924	554583	5	
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-10.7	+/-40.9	27.5	+/-40.9	56.8	pCi/g	MXPI	08/12/06	1916	555722	6	
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.0956	+/-0.211	0.174	+/-0.211	0.361	pCi/g	EGD1	08/11/06	2307	554580	7	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 906.0 Modified
5	EPA EERF C-01 Modified
6	DOE RESL Fe-1, Modified

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: August 21, 2006

Client Sample ID: 9106-0008-008F
Sample ID: 168404011

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time Batch	Mtd
7		DOE EML HASL-300, Tc-02-RC Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	65	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	98	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	96	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	76	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	74	(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.

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

Contact: East Hampton, Connecticut 06424
Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: August 21, 2006

Client Sample ID: 9106-0009-002F
Sample ID: 168404012
Matrix: SE
Collect Date: 11-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 33%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	-0.00144	+/-0.155	0.166	+/-0.155	0.458	pCi/g	BXL1	08/11/06	1434	555696	1	
Curium-242	U	0.0192	+/-0.145	0.135	+/-0.145	0.455	pCi/g						
Curium-243/244	U	0.013	+/-0.268	0.281	+/-0.268	0.687	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.00587	+/-0.0493	0.0279	+/-0.0494	0.122	pCi/g	BXL1	08/11/06	1632	555697	2	
Plutonium-239/240	U	0.0186	+/-0.0492	0.0278	+/-0.0493	0.122	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241		13.6	+/-6.90	5.13	+/-7.01	10.8	pCi/g	BXL1	08/16/06	1520	555698	3	
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.0151	+/-0.0146	0.0114	+/-0.0146	0.0242	pCi/g	BXF1	08/14/06	0834	556350	4	
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	4.12	+/-8.36	6.70	+/-8.36	14.5	pCi/g	DFA1	08/09/06	1422	554582	5	
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.046	+/-0.0755	0.0613	+/-0.0755	0.128	pCi/g	ATH2	08/09/06	2027	554583	6	
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	12.9	+/-40.6	26.8	+/-40.6	55.2	pCi/g	MXP1	08/12/06	1932	555722	7	
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.078	+/-0.203	0.168	+/-0.203	0.348	pCi/g	EGD1	08/11/06	2323	554580	8	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 905.0 Modified

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: August 21, 2006

Client Sample ID: 9106-0009-002F
Sample ID: 168404012

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
5	EPA 906.0 Modified												
6	EPA EERF C-01 Modified												
7	DOE RESL Fe-1, Modified												
8	DOE EML HASL-300, Tc-02-RC Modified												

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	61	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	98	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	94	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	69	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	81	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	75	(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.

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: August 21, 2006

Client Sample ID: 9106-0009-017F
Sample ID: 168404013
Matrix: SE
Collect Date: 15-MAY-06
Receive Date: 08-JUN-06
Collector: Client
Moisture: 28.4%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.0755	+/-0.242	0.230	+/-0.243	0.574	pCi/g	BXL1	08/11/06	1434	555696	1	
Curium-242	U	0.0957	+/-0.220	0.171	+/-0.220	0.509	pCi/g						
Curium-243/244	U	-0.073	+/-0.214	0.256	+/-0.214	0.627	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.00629	+/-0.0529	0.0299	+/-0.0529	0.131	pCi/g	BXL1	08/11/06	1632	555697	2	
Plutonium-239/240	U	0.0262	+/-0.0513	0.00	+/-0.0514	0.0709	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241		13.3	+/-6.66	4.95	+/-6.77	10.4	pCi/g	BXL1	08/16/06	1536	555698	3	
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	0.0205	+/-0.0151	0.0116	+/-0.0151	0.0246	pCi/g	BXF1	08/14/06	0833	556350	4	
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.583	+/-7.98	6.65	+/-7.98	14.4	pCi/g	DFA1	08/09/06	1438	554582	5	
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0271	+/-0.0759	0.0625	+/-0.0759	0.131	pCi/g	ATH2	08/09/06	2129	554583	6	
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-61.9	+/-150	102	+/-150	210	pCi/g	MXP1	08/12/06	1949	555722	7	
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.0628	+/-0.200	0.165	+/-0.200	0.343	pCi/g	EGD1	08/11/06	2338	554580	8	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 905.0 Modified

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: August 21, 2006

Client Sample ID: 9106-0009-017F
Sample ID: 168404013

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time Batch	Mtd
5	EPA 906.0 Modified											
6	EPA EERF C-01 Modified											
7	DOE RESL Fe-1, Modified											
8	DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	64	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	91	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	96	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	72	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	73	(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.

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: August 21, 2006

Client Sample ID: 9106-0010-001F
Sample ID: 168404014
Matrix: SE
Collect Date: 04-MAY-06
Receive Date: 17-MAY-06
Collector: Client
Moisture: 27.3%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.00677	+/-0.227	0.238	+/-0.227	0.628	pCi/g		BXL1	08/11/06	1434	555696	1
Curium-242	U	0.0854	+/-0.167	0.00	+/-0.168	0.231	pCi/g						
Curium-243/244	U	0.0361	+/-0.242	0.241	+/-0.242	0.634	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	0.173	+/-0.181	0.143	+/-0.182	0.331	pCi/g		BXL1	08/11/06	2250	555697	2
Plutonium-239/240	U	-0.0342	+/-0.0865	0.0951	+/-0.0866	0.235	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241		13.0	+/-6.44	4.78	+/-6.54	10.0	pCi/g		BXL1	08/16/06	1553	555698	3
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.0128	+/-0.0141	0.0125	+/-0.0141	0.0262	pCi/g		BXF1	08/14/06	0833	556350	4
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.548	+/-7.50	6.25	+/-7.50	13.5	pCi/g		DFA1	08/09/06	1454	554582	5
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0555	+/-0.0809	0.0655	+/-0.0809	0.137	pCi/g		ATH2	08/09/06	2232	554583	6
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	-18.1	+/-47.6	32.3	+/-47.6	66.6	pCi/g		MXP1	08/12/06	2005	555722	7
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.134	+/-0.205	0.167	+/-0.205	0.347	pCi/g		EGD1	08/11/06	2354	554580	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 905.0 Modified

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: August 21, 2006

Client Sample ID: 9106-0010-001F
Sample ID: 168404014

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
5		EPA 906.0 Modified											
6		EPA EERF C-01 Modified											
7		DOE RESL Fe-1, Modified											
8		DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	50	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	85	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	99	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	74	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	70	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	75	(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.

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

Contact: East Hampton, Connecticut 06424
Mr. Jack McCarthy
Project: Soils PO# 002332

Report Date: August 21, 2006

Client Sample ID: 9106-0010-012F
Sample ID: 168404015
Matrix: SE
Collect Date: 04-MAY-06
Receive Date: 17-MAY-06
Collector: Client
Moisture: 28.1%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
Rad Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium-241	U	0.110	+/-0.184	0.140	+/-0.184	0.386	pCi/g	BXL1	08/11/06	1434	555696	1	
Curium-242	U	-0.0547	+/-0.141	0.192	+/-0.141	0.544	pCi/g						
Curium-243/244	U	-0.126	+/-0.184	0.245	+/-0.185	0.597	pCi/g						
<i>Alphaspec Pu, Solid-ALL FSS</i>													
Plutonium-238	U	-0.00157	+/-0.126	0.122	+/-0.126	0.291	pCi/g	BXL1	08/11/06	2250	555697	2	
Plutonium-239/240	U	0.0867	+/-0.0869	0.0406	+/-0.0872	0.128	pCi/g						
<i>Liquid Scint Pu241, Solid-ALL FSS</i>													
Plutonium-241	U	8.31	+/-6.16	4.77	+/-6.21	10.0	pCi/g	BXL1	08/16/06	1609	555698	3	
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid-ALL FSS</i>													
Strontium-90	U	-0.00771	+/-0.0144	0.0124	+/-0.0144	0.0263	pCi/g	BXF1	08/14/06	0833	556350	4	
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid-HTD2,ALL FSS</i>													
Tritium	U	0.896	+/-6.17	5.11	+/-6.17	11.0	pCi/g	DFA1	08/09/06	1510	554582	5	
<i>Liquid Scint C14, Solid All,FSS</i>													
Carbon-14	U	0.0162	+/-0.0763	0.0633	+/-0.0763	0.132	pCi/g	ATH2	08/09/06	2334	554583	6	
<i>Liquid Scint Fe55, Solid-ALL FSS</i>													
Iron-55	U	23.3	+/-49.3	32.5	+/-49.3	67.0	pCi/g	MXPI	08/12/06	2021	555722	7	
<i>Liquid Scint Tc99, Solid-ALL FSS</i>													
Technetium-99	U	0.0577	+/-0.206	0.171	+/-0.206	0.354	pCi/g	EGD1	08/12/06	0010	554580	8	

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	LXM2	08/03/06	1534	554649

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	EPA 905.0 Modified

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: August 21, 2006

Client Sample ID: 9106-0010-012F
Sample ID: 168404015

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time Batch	Mtd
5	EPA 906.0 Modified											
6	EPA EERF C-01 Modified											
7	DOE RESL Fe-I, Modified											
8	DOE EML HASL-300, Tc-02-RC Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	81	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	91	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	99	(25%-125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid-ALL FSS	68	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid-ALL FS	74	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid-ALL FS	75	(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.

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

Report Date: August 21, 2006
Page 1 of 6

Contact: East Hampton, Connecticut
Mr. Jack McCarthy

Workorder: 168404

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	555696										
QC1201153130	168340011	DUP									
Americium-241		U	-0.000522	U	0.0578	pCi/g	204	(0% - 100%)	BXL1	08/11/06	14:34
		Uncert:	+/-0.0385		+/-0.278						
		TPU:	+/-0.0385		+/-0.279						
Curium-242		U	0.00	U	-0.0405	pCi/g	200	(0% - 100%)			
		Uncert:	+/-0.0756		+/-0.0562						
		TPU:	+/-0.0756		+/-0.0565						
Curium-243/244		U	-0.0177	U	-0.0517	pCi/g	98	(0% - 100%)			
		Uncert:	+/-0.0764		+/-0.257						
		TPU:	+/-0.0765		+/-0.257						
QC1201153132	LCS										
Americium-241		12.8			12.8	pCi/g		100 (75%-125%)			
		Uncert:			+/-1.84						
		TPU:			+/-2.70						
Curium-242				U	-0.0328	pCi/g					
		Uncert:			+/-0.0454						
		TPU:			+/-0.0457						
Curium-243/244		15.5			14.3	pCi/g		92 (75%-125%)			
		Uncert:			+/-1.94						
		TPU:			+/-2.92						
QC1201153129	MB										
Americium-241				U	0.0471	pCi/g					
		Uncert:			+/-0.157						
		TPU:			+/-0.157						
Curium-242				U	-0.0469	pCi/g					
		Uncert:			+/-0.0459						
		TPU:			+/-0.0464						
Curium-243/244				U	-0.00385	pCi/g					
		Uncert:			+/-0.210						
		TPU:			+/-0.210						
QC1201153131	168340011	MS									
Americium-241		13.3 U	-0.000522		12.0	pCi/g		91 (75%-125%)			
		Uncert:	+/-0.0385		+/-1.38						
		TPU:	+/-0.0385		+/-2.08						
Curium-242		U	0.00	U	0.0427	pCi/g					
		Uncert:	+/-0.0756		+/-0.0837						
		TPU:	+/-0.0756		+/-0.0839						
Curium-243/244		16.1 U	-0.0177		15.9	pCi/g		99 (75%-125%)			
		Uncert:	+/-0.0764		+/-1.58						
		TPU:	+/-0.0765		+/-2.61						
Batch	555697										
QC1201153134	168340011	DUP									
Plutonium-238		U	-0.0155	U	0.0237	pCi/g	956	(0% - 100%)	BXL1	08/11/06	22:51

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

QC Summary

Workorder: 168404

Page 2 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time	
Rad Alpha Spec												
Batch	555697											
Plutonium-239/240	U	Uncert:	+/-0.0215	+/-0.0465	pCi/g	2410	(0% - 100%)					
		TPU:	+/-0.0216	+/-0.0466								
		0.0414	-0.0489									
		Uncert:	+/-0.0934	+/-0.124								
QC1201153136	LCS	TPU:	+/-0.0935	+/-0.124								
Plutonium-238			U	0.155	pCi/g		(75%-125%)					
Plutonium-239/240	11.8	Uncert:		+/-0.141	pCi/g		98	(75%-125%)				
		TPU:		+/-0.142								
		Uncert:		+/-0.856								
		TPU:		+/-1.32								
QC1201153133	MB											
Plutonium-238			U	0.0552	pCi/g					08/11/06	22:50	
Plutonium-239/240		Uncert:		+/-0.186	pCi/g							
		TPU:		+/-0.186								
		Uncert:		-0.0978								
		TPU:		+/-0.0892								
QC1201153135	168340011	MS		+/-0.0899								
Plutonium-238		U	-0.0155	U	0.0539	pCi/g		(75%-125%)		08/11/06	22:51	
Plutonium-239/240	12.3	Uncert:	+/-0.0215	+/-0.112	pCi/g		84	(75%-125%)				
		TPU:	+/-0.0216	+/-0.112								
		Uncert:	+/-0.0934	+/-0.796								
		TPU:	+/-0.0935	+/-1.19								
Batch	555698											
QC1201153138	168340011	DUP										
Plutonium-241		U	7.28	U	10.1	pCi/g	0	(0% - 100%)	BXL1	08/16/06	16:41	
Plutonium-241		Uncert:	+/-6.30	+/-6.39	pCi/g		106	(75%-125%)				
		TPU:	+/-6.35	+/-6.46								
		137		145								
		Uncert:		+/-12.5								
QC1201153140	LCS			+/-19.9						08/16/06	17:14	
Plutonium-241												
Plutonium-241		Uncert:		8.57	pCi/g						08/16/06	16:25
		TPU:		+/-6.93								
		Uncert:		+/-6.98								
		TPU:										
QC1201153137	MB											
Plutonium-241		U										
Plutonium-241	138	Uncert:		142	pCi/g		103	(75%-125%)			08/16/06	16:58
		TPU:		+/-12.4								
		Uncert:	+/-6.30	+/-19.7								
		TPU:	+/-6.35									
Batch	557837											
QC1201158317	168404009	DUP										
Americium-241		U	-0.0851	U	0.167	pCi/g	616	(0% - 100%)	BXL1	08/16/06	09:49	
Curium-242		Uncert:	+/-0.136	+/-0.220	pCi/g	247	(0% - 100%)					
		TPU:	+/-0.136	+/-0.221								
		Uncert:	-0.0253	0.241								
		TPU:										

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 168404

Page 3 of 6

Parmname		NOM		Sample	Qual		QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec														
Batch	557837													

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

QC Summary

Workorder: 168404

Page 4 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	556350										
QC120115466	168404003	MS									
Strontium-90	1.58	U	-0.00343	1.29	pCi/g		82	(75%-125%)			
	Uncert:		+/-0.0203	+/-0.0535							
	TPU:		+/-0.0203	+/-0.0813							
Rad Liquid Scintillation											
Batch	554580										
QC1201150562	168340012	DUP									
Technetium-99		U	0.0338	U 0.266	pCi/g	0		(0% - 100%) EGD1		08/12/06	00:42
	Uncert:		+/-0.192	+/-0.226							
	TPU:		+/-0.192	+/-0.226							
QC1201150564	LCS										
Technetium-99	13.1			13.6	pCi/g		103	(75%-125%)		08/12/06	01:14
	Uncert:			+/-0.496							
	TPU:			+/-0.599							
QC1201150561	MB										
Technetium-99				U 0.0311	pCi/g					08/12/06	00:26
	Uncert:			+/-0.177							
	TPU:			+/-0.177							
QC1201150563	168340012	MS									
Technetium-99	13.0	U	0.0338	12.0	pCi/g		92	(75%-125%)		08/12/06	00:58
	Uncert:		+/-0.192	+/-0.523							
	TPU:		+/-0.192	+/-0.602							
Batch	554582										
QC1201150570	168340011	DUP									
Tritium		U	1.77	U 1.62	pCi/g	0		(0% - 100%) DFA1		08/09/06	15:42
	Uncert:		+/-8.20	+/-7.47							
	TPU:		+/-8.20	+/-7.47							
QC1201150572	LCS										
Tritium	68.3			76.2	pCi/g		111	(75%-125%)		08/09/06	16:14
	Uncert:			+/-14.0							
	TPU:			+/-14.1							
QC1201150569	MB										
Tritium				U 0.586	pCi/g					08/09/06	15:26
	Uncert:			+/-8.01							
	TPU:			+/-8.01							
QC1201150571	168340011	MS									
Tritium	61.3	U	1.77	61.8	pCi/g		101	(75%-125%)		08/09/06	15:58
	Uncert:		+/-8.20	+/-12.2							
	TPU:		+/-8.20	+/-12.3							
Batch	554583										
QC1201150574	168404003	DUP									
Carbon-14		U	0.0937	U 0.0422	pCi/g	0		(0% - 100%) ATH2		08/10/06	01:39
	Uncert:		+/-0.0813	+/-0.075							
	TPU:		+/-0.0813	+/-0.0751							
QC1201150576	LCS										
Carbon-14	7.27			7.14	pCi/g		98	(75%-125%)		08/10/06	03:00
	Uncert:			+/-0.508							
	TPU:			+/-0.520							
QC1201150573	MB										

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 168404

Page 5 of 6

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch	554583										
Carbon-14			U	-0.0315	pCi/g						
		Uncert:		+/-0.0776							
		TPU:		+/-0.0776							
QC1201150575	168404003	MS									
Carbon-14		15.1	U	0.0937	13.8	pCi/g		92 (75%-125%)		08/10/06	02:43
		Uncert:		+/-0.0813	+/-1.00						
		TPU:		+/-0.0813	+/-1.03						
Batch	555722										
QC1201153223	168340012	DUP									
Iron-55			U	-26.5	U	5.83	pCi/g	0	(0% - 100%) vLXP1	08/12/06	20:54
		Uncert:		+/-65.1	+/-36.9						
		TPU:		+/-65.1	+/-36.9						
QC1201153225	LCS										
Iron-55		641			660	pCi/g		103 (75%-125%)		08/12/06	21:27
		Uncert:			+/-56.2						
		TPU:			+/-67.2						
QC1201153222	MB										
Iron-55			U	18.2	pCi/g					08/12/06	20:38
		Uncert:		+/-39.6							
		TPU:		+/-39.6							
QC1201153224	168340012	MS									
Iron-55		717	U	-26.5	688	pCi/g		96 (75%-125%)		08/12/06	21:11
		Uncert:		+/-65.1	+/-60.2						
		TPU:		+/-65.1	+/-71.6						
Batch	555723										
QC1201153227	168340012	DUP									
Nickel-63			U	3.79	U	6.68	pCi/g	0	(0% - 100%) vLXP1	08/11/06	11:55
		Uncert:		+/-5.39	+/-7.43						
		TPU:		+/-5.40	+/-7.43						
QC1201153229	LCS										
Nickel-63		512			479	pCi/g		94 (75%-125%)		08/11/06	12:27
		Uncert:			+/-22.4						
		TPU:			+/-27.1						
QC1201153226	MB										
Nickel-63			U	15.7	pCi/g					08/11/06	11:38
		Uncert:		+/-9.92							
		TPU:		+/-9.93							
QC1201153228	168340012	MS									
Nickel-63		530	U	3.79	511	pCi/g		96 (75%-125%)		08/11/06	12:11
		Uncert:		+/-5.39	+/-23.5						
		TPU:		+/-5.40	+/-28.7						

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

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Workorder: 168404

Page 6 of 6

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
>										
A										
B										
BD										
C										
D										
H										
J										
N/A										
R										
U										
UI										
X										
Y										
^										
h										

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 acceptance 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.


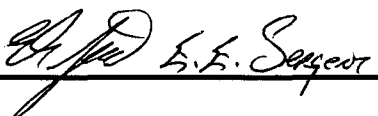
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

Attachment 2b
Split Sample Assessment Forms
(2 Pages)


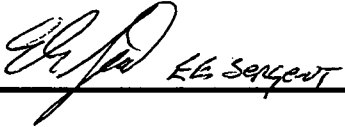
Split Sample Assessment Form

Survey Area #: 9106	Survey Unit #: 0005	Survey Unit Name: Discharge Canal							
Sample Plan or WPIR#: 2006-021		SML #: 9106-0005-003							
<p>Sample Description: Comparison of split samples collected from sample measurement location #03 and analyzed using gamma spectroscopy by an off-site vendor laboratory. The standard sample was <u>9106-0005-003F</u> the comparison sample was <u>9106-0005-003FS</u>.</p>									
STANDARD					COMPARISON				
Radionuclide	Activity Value	Standard Error	Resolution	Agreement Range	Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N)	
Cs-137	3.39E-02	1.89E-02	2	NONE -	3.31E-01	2.67E-02	9.76	N/A	
Co-60	3.15E-01	1.76E-02	18	0.75 - 1.33	6.18E-01	3.69E-02	1.96	N	
Sr-90	1.15E-02	3.23E-03	4	0.50- 2.00	4.13E-03	4.35E-03	0.36	N/A	
K-40	1.11E+01	4.20E-01	26	0.75 1.33	1.16E+01	4.38E-01	1.05	Y	
<p>Comments/Corrective Actions: In consideration of Cs-137 results, guidance for agreement ranges, obtained from USNRC Inspection Procedure 84750, does not address resolution ratios less than 4, therefore, a determination of acceptability for such ratios is not appropriate. Since Co-60 has a likelihood to be present in the sample matrix in particulate form, one would not necessarily expect it to be homogeneously mixed from processing of the sample-split aliquot. Regarding Sr-90 results, the guidance is primarily intended for use with gamma spectroscopy (Sr-90 was measured using liquid scintillation). Consequently, a much smaller quantity of media was used for the analyses from the sample and its split (on the order of 1 gram). A much higher level of sample homogenization than is routinely performed would be required to achieve consistent agreement. While the measurement and sample preparation methodology is appropriate for FSS purposes, the cited guidance considers that the sample methodology may not be well suited for sample analyses by means other than gamma spectroscopy. As K-40 was found to be present in both samples at an acceptable level of agreement, no further action is warranted.</p>									
					Table is provided to show acceptance criteria used to assess split samples.				
					Resolution		Agreement Range		
					4	7	0.50	2.00	
					8	15	0.60	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:	
			10-30-06					10/30/06	

WPIR – Work Plan and Inspection Record

SML – Sample Measurement Location designation

Split Sample Assessment Form

Survey Area#:	9106	Survey Unit #:	0005	Survey Unit Name: Discharge Canal																												
Sample Plan or WPIR#: 2006-0021				SML #: 9106-0005-018																												
<p>Sample Description: Comparison of split samples collected from sample measurement location #18 and analyzed using gamma spectroscopy by an off-site vendor laboratory. The standard sample was <u>9106-0005-018F</u>, the comparison sample was <u>9106-0005-018FS</u>.</p>																																
STANDARD					COMPARISON																											
Radionuclide	Activity Value	Standard Error	Resolution	Agreement Range	Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N)																								
Cs-137	3.39E-02	1.54E-02	2	N/A	1.05E-01	3.98E-02	3.10	N/A																								
Co-60	4.19E-02	1.62E-02	3	N/A	0.00E+00	7.25E-02	0.00	N/A																								
Sr-90	5.37E-02	7.20E-03	8	0.60- 1.66	4.84E-03	4.30E-03	0.09	N/A																								
K-40	1.11E+01	4.20E-01	26	0.75 - 1.33	1.16E+01	4.38E-01	1.05	Y																								
<p>Comments/Corrective Actions: In consideration of Cs-137 and Co-60 results, guidance for agreement ranges, obtained from USNRC Inspection Procedure 84750, does not address resolution ratios less than 4, therefore, a determination of acceptability for such ratios is not appropriate. K-40 was found to be present in both samples at an acceptable level of agreement. Regarding Sr-90 results, the guidance is primarily intended for use with gamma spectroscopy (Sr-90 was measured using liquid scintillation). Consequently, a much smaller quantity of media was used for the analyses from the sample and its split (on the order of 1 gram). A much higher level of sample homogenization than is routinely performed would be required to achieve consistent agreement. While the measurement and sample preparation methodology is appropriate for FSS purposes, the cited guidance considers that the sample methodology may not be well suited for sample analyses by means other than gamma spectroscopy. No further action is warranted.</p>																																
					<p>Table is provided to show acceptance criteria used to assess split samples.</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Resolution</th> <th colspan="2">Agreement Range</th> </tr> <tr> <td>4</td> <td>7</td> <td>0.50</td> <td>2.00</td> </tr> <tr> <td>8</td> <td>15</td> <td>0.60</td> <td>1.66</td> </tr> <tr> <td>16</td> <td>50</td> <td>0.75</td> <td>1.33</td> </tr> <tr> <td>51</td> <td>200</td> <td>0.80</td> <td>1.25</td> </tr> <tr> <td></td> <td>> 200</td> <td>0.85</td> <td>1.18</td> </tr> </table>				Resolution		Agreement Range		4	7	0.50	2.00	8	15	0.60	1.66	16	50	0.75	1.33	51	200	0.80	1.25		> 200	0.85	1.18
Resolution		Agreement Range																														
4	7	0.50	2.00																													
8	15	0.60	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:																										
		10-30-06				10/30/06																										

WPIR – Work Plan and Inspection Record

SML – Sample Measurement Location designation

DISCHARGE CANAL
SURVEY UNIT 9106-0005
RELEASE RECORD

Attachment 2c
Preliminary Data Forms
(2 Pages)

Preliminary Data Review Form - Samples for the Sign Test

Survey Unit: 9106- 0005
 Survey Unit Name: Discharge Canal

Classification: 2
 Survey Media: Soil
 Type of Survey: Final Status Survey
 Type of Measurement: Radionuclide Specific
 Number of Measurements: 15
 Operational DCGL: 1

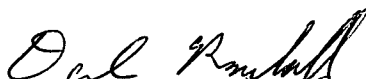
BASIC STATISTICAL QUANTITIES

	Cs-137	Co-60	Sr-90
Minimum Value:	-2.55E-02	-7.92E-03	-1.93E-03
Maximum Value:	4.73E-01	1.38E+00	5.37E-02
Mean:	1.33E-01	2.49E-01	9.79E-03
Median:	7.09E-02	4.19E-02	6.68E-03
Standard Deviation:	1.34E-01	4.25E-01	1.33E-02

RADIONUCLIDE CONCENTRATION (pCi/g)

NUMBER	Cs-137	Co-60	Sr-90	Identified?	Identified?	Identified?
9106-0005-001F	2.88E-02	1.91E-02	5.10E-03	Y	N	N
9106-0005-002F	6.60E-02	8.95E-02	8.79E-03	Y	Y	N
9106-0005-003F	3.09E-01	3.15E-01	1.15E-02	Y	Y	Y
9106-0005-004F	1.63E-01	2.10E-01	6.21E-03	Y	Y	N
9106-0005-005F	-2.55E-02	9.87E-03	9.56E-03	N	N	Y
9106-0005-007F	-5.19E-04	-7.92E-03	5.15E-03	N	N	N
9106-0005-008F	1.86E-01	1.69E-01	-1.56E-03	Y	Y	N
9106-0005-009F	1.81E-01	2.14E-02	1.30E-02	Y	N	Y
9106-0005-010F	2.60E-01	1.38E+00	1.34E-02	Y	Y	Y
9106-0005-011F	5.76E-02	0.00E+00	1.49E-02	Y	N	Y
9106-0005-013F	5.31E-02	1.55E-02	-1.93E-03	Y	N	N
9106-0005-014F	4.73E-01	1.12E+00	3.27E-03	Y	Y	N
9106-0005-015F	7.09E-02	2.78E-03	6.68E-03	Y	N	N
9106-0005-017F	1.39E-01	3.43E-01	-8.59E-04	Y	Y	N
9106-0005-018F	3.39E-02	4.19E-02	5.37E-02	Y	Y	Y

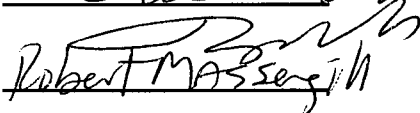
Performed By:



Date:

10-26-06

Independent Review:



Date:

10-26-06

Preliminary Data Review Form - Judgemental Samples

Survey Unit: 9106- 0005
Survey Unit Name: Discharge Canal
Classification: 2
Survey Media: Soil
Type of Survey: Final Status Survey
Type of Measurement: Radionuclide Specific
Number of Measurements: 1
Operational DCGL: 1

BASIC STATISTICAL QUANTITIES

	Cs-137	Co-60	Sr-90
Minimum Value:	-1.86E-02	2.07E-03	9.07E-04
Maximum Value:	-1.86E-02	2.07E-03	9.07E-04
Mean:	-1.86E-02	2.07E-03	9.07E-04
Median:	-1.86E-02	2.07E-03	9.07E-04
Standard Deviation:	1.36E-01	4.55E-02	3.01E-02

RADIONUCLIDE CONCENTRATION (pCi/g)

NUMBER	Cs-137	Co-60	Sr-90		Identified?	
9106-0005-016F	-1.86E-02	2.07E-03	9.07E-04	N	N	N

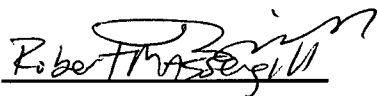
Performed By:



Date:

10-26-06

Independent Review:



Date:

10-26-06

DISCHARGE CANAL
SURVEY UNIT 9106-0005
RELEASE RECORD

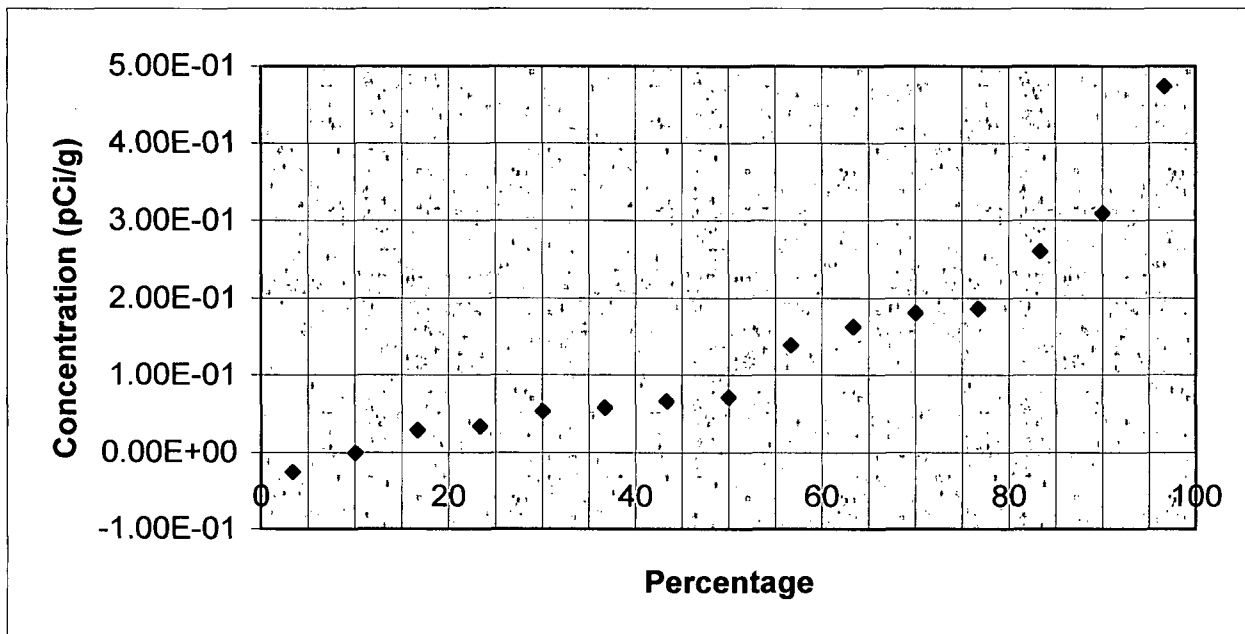
Attachment 2d
Graphical Representation of Data
(6 Pages)

Quantile Plot For Cesium - 137

Survey Unit: 9106-0005

Survey Unit Name: Discharge Canal

Mean: 1.33E-01 pCi/g

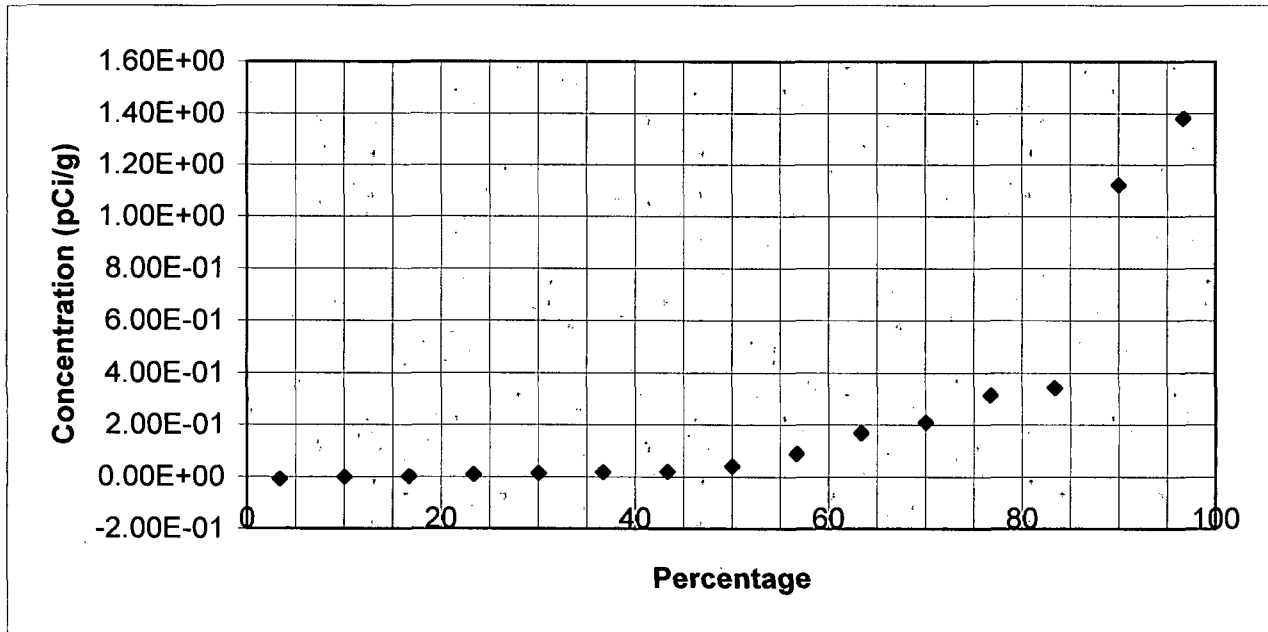


Cs-137	Rank	Percentage
-2.55E-02	1	3 %
-5.19E-04	2	10 %
2.88E-02	3	17 %
3.39E-02	4	23 %
5.31E-02	5	30 %
5.76E-02	6	37 %
6.60E-02	7	43 %
7.09E-02	8	50 %
1.39E-01	9	57 %
1.63E-01	10	63 %
1.81E-01	11	70 %
1.86E-01	12	77 %
2.60E-01	13	83 %
3.09E-01	14	90 %
4.73E-01	15	97 %

Prepared By: Dan MarshallReviewed By: Robert MassieDate: 10-26-06Date: 102606

Quantile Plot For Cobalt - 60

Survey Unit: 9106-0005
Survey Unit Name: Discharge Canal
Mean: 2.49E-01 pCi/g



Co-60	Rank	Percentage
-7.92E-03	1	3 %
0.00E+00	2	10 %
2.78E-03	3	17 %
9.87E-03	4	23 %
1.55E-02	5	30 %
1.91E-02	6	37 %
2.14E-02	7	43 %
4.19E-02	8	50 %
8.95E-02	9	57 %
1.69E-01	10	63 %
2.10E-01	11	70 %
3.15E-01	12	77 %
3.43E-01	13	83 %
1.12E+00	14	90 %
1.38E+00	15	97 %

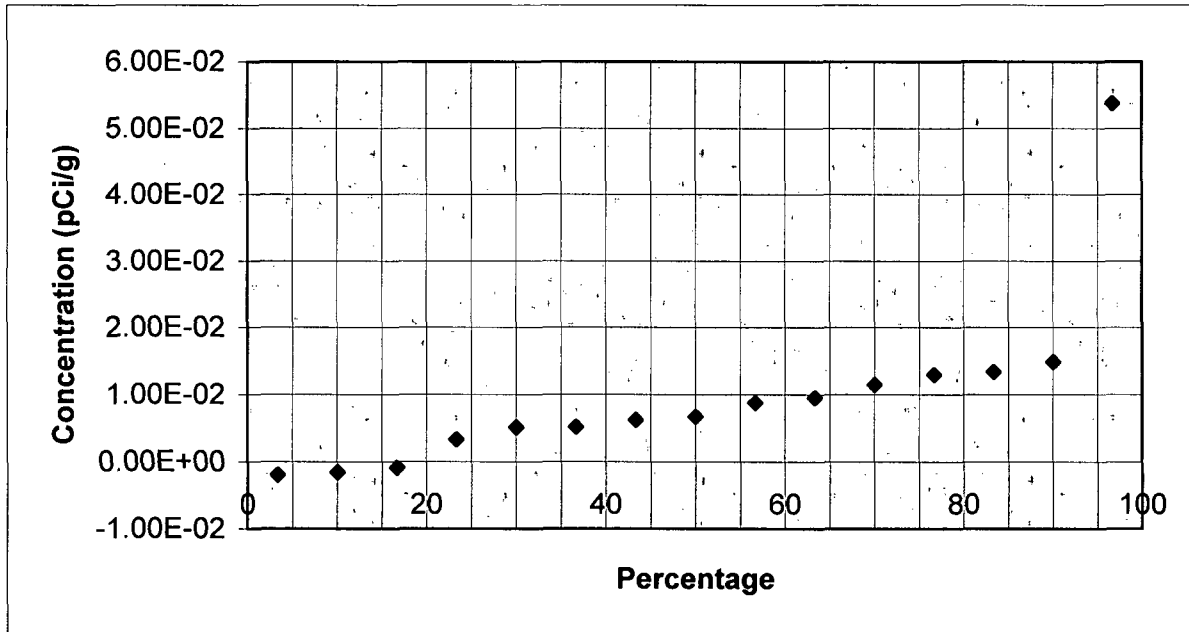
Prepared By: Orin Marshall
Reviewed By: Robert Massengill

Date: 10-26-06
Date: 12-28-06

Quantile Plot For Strontium - 90

Survey Unit: 9106-0005

Survey Unit Name: Discharge Canal

Mean: $9.79\text{E-}03$ pCi/g

Sr-90	Rank	Percentage
-1.93E-03	1	3 %
-1.56E-03	2	10 %
-8.59E-04	3	17 %
3.27E-03	4	23 %
5.10E-03	5	30 %
5.15E-03	6	37 %
6.21E-03	7	43 %
6.68E-03	8	50 %
8.79E-03	9	57 %
9.56E-03	10	63 %
1.15E-02	11	70 %
1.30E-02	12	77 %
1.34E-02	13	83 %
1.49E-02	14	90 %
5.37E-02	15	97 %

Prepared By:

Oil Kuntz

Date:

10-26-06

Reviewed By:

Robert Masserelli

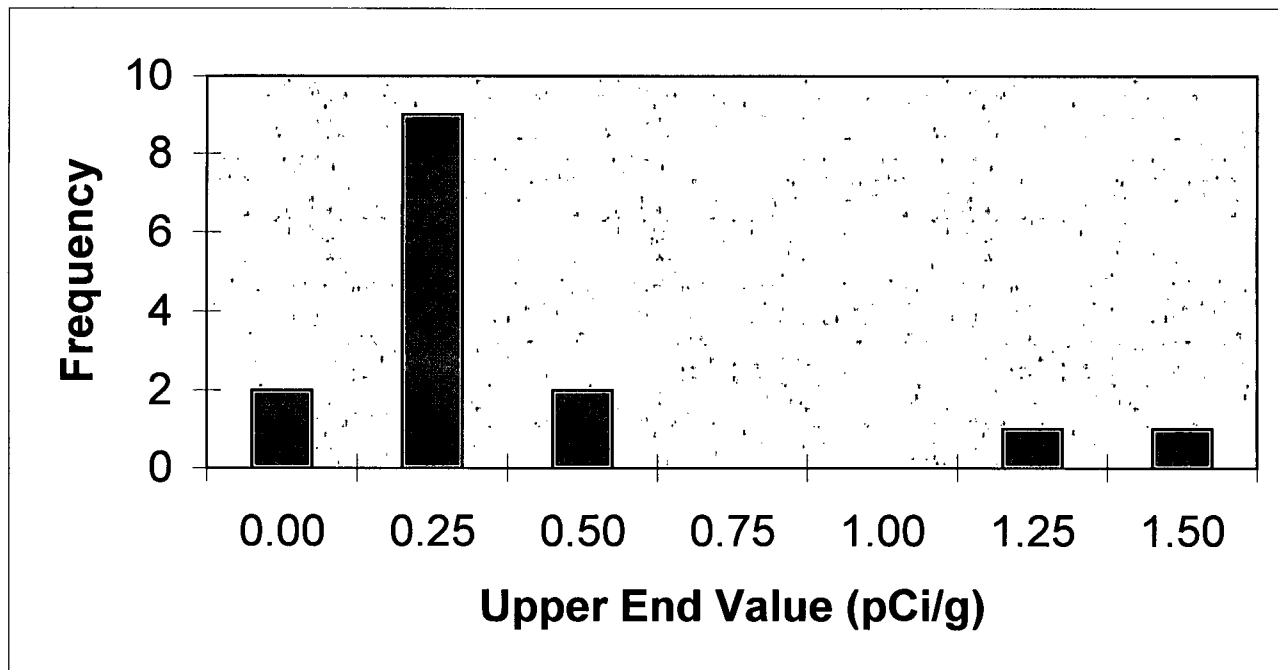
Date:

12-26-06

Frequency Plot For Cobalt-60

Survey Unit: 9106-0005
Survey Unit Name: Discharge Canal

Mean: 0.249 pCi/g



Upper End Value	Observation Frequency	Observation % Frequency
0.00	2	13%
0.25	9	60%
0.50	2	13%
0.75	0	0%
1.00	0	0%
1.25	1	7%
1.50	1	7%
Total	15	100%

Prepared By: Paul Randall

Date: 10-30-06

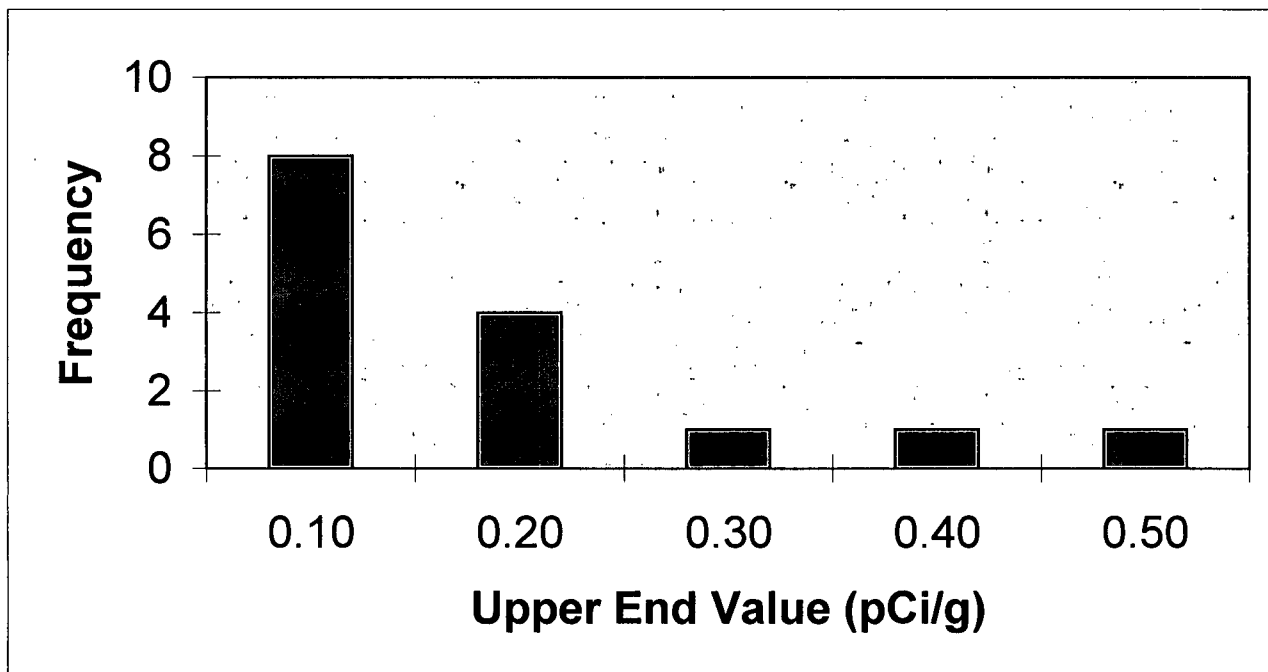
Reviewed By: Robert Massengill

Date: 10-30-06

Frequency Plot For Cs - 137

Survey Unit: 9106-0005
Survey Unit Name: Discharge Canal

Mean: 0.133 pCi/g



Upper End Value	Observation Frequency	Observation % Frequency
0.10	8	53%
0.20	4	27%
0.30	1	7%
0.40	1	7%
0.50	1	7%
Total	15	100%

Prepared By: Paul Runkel

Date: 10-30-06

Reviewed By: Robert Massengill

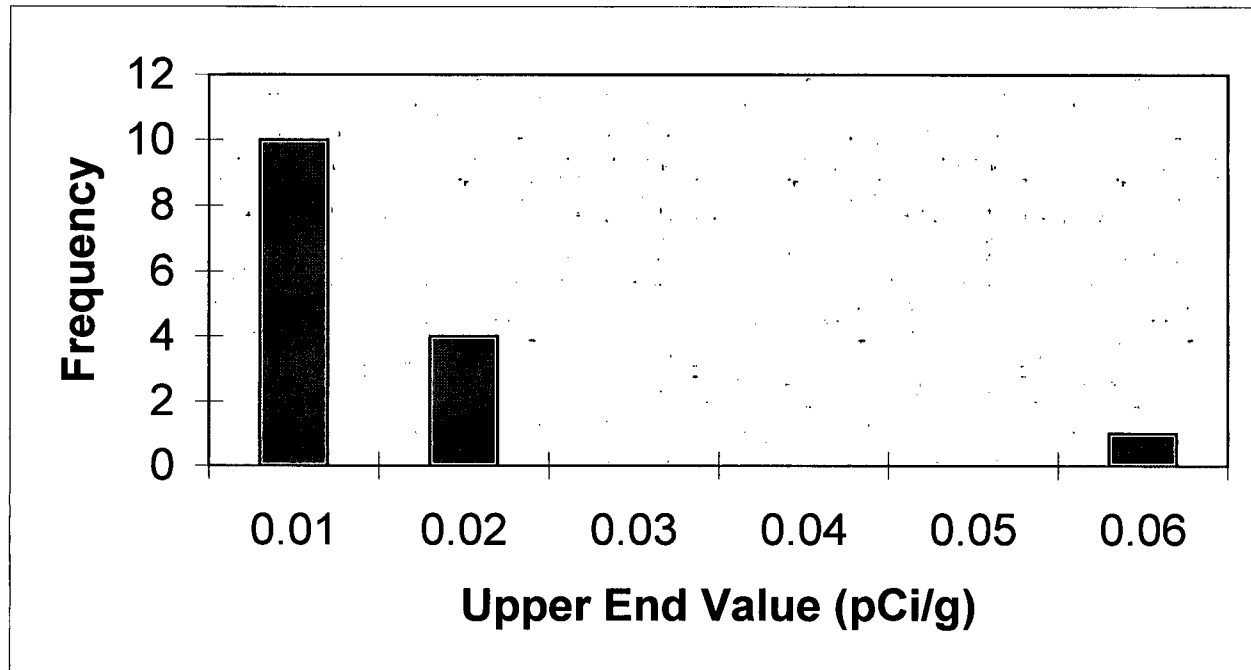
Date: 10-30-06

Frequency Plot For Sr -90

Survey Unit: 9106-0005

Survey Unit Name: Discharge Canal

Mean: 0.010 pCi/g



Upper End Value	Observation Frequency	Observation % Frequency
0.01	10	67%
0.02	4	27%
0.03	0	0%
0.04	0	0%
0.05	0	0%
0.06	1	7%
Total	15	100%

Prepared By: Oral KumballDate: 10-30-06Reviewed By: Robert MassengillDate: 10-30-06

DISCHARGE CANAL
SURVEY UNIT 9106-0005
RELEASE RECORD

Attachment 2e
Sign Test Calculation
(1 Page)

Sign Test Calculation Sheet For Multiple Radionuclides

Survey Unit Number: 9106-0005				
Survey Unit Name: Discharge Canal				
WP&IR#: 2006-021				
Classification : 2	TYPE I (α error):0.05		TYPE I (β error):0.05	
Radionuclides: Cs-137 Co-60 Survey Design DCGL (pCi/g): 6.0116 2.8956				
Results Cs-137	Results Co-60	Weighted Sum (W_s)	DCGL-Result	Sign
2.88E-02	1.91E-02	1.57E-02	9.84E-01	1
6.60E-02	8.95E-02	4.93E-02	9.51E-01	1
3.09E-01	3.15E-01	1.70E-01	8.30E-01	1
1.63E-01	2.10E-01	1.05E-01	8.95E-01	1
-2.55E-02	9.87E-03	7.28E-03	9.93E-01	1
-5.19E-04	-7.92E-03	1.55E-03	9.98E-01	1
1.86E-01	1.69E-01	8.80E-02	9.12E-01	1
1.81E-01	2.14E-02	4.85E-02	9.51E-01	1
2.60E-01	1.38E+00	5.31E-01	4.69E-01	1
5.76E-02	0.00E+00	2.22E-02	9.78E-01	1
5.31E-02	1.55E-02	1.25E-02	9.87E-01	1
4.73E-01	1.12E+00	4.68E-01	5.32E-01	1
7.09E-02	2.78E-03	1.84E-02	9.82E-01	1
1.39E-01	3.43E-01	1.41E-01	8.59E-01	1
3.39E-02	4.19E-02	6.57E-02	9.34E-01	1
Number of Positive Differences (S+):			15	

Critical Value: 11Survey Unit: Meets Acceptance CriterionPerformed By: *Don Markoff*Date: 10-26-06Independent Review: *Robert Massengill*Date: 10-26-06

DISCHARGE CANAL
SURVEY UNIT 9106-0005

RELEASE RECORD

Attachment 2f
COMPASS DQA Surface Soil Report with
Retrospective Power Curve
(3 Pages)

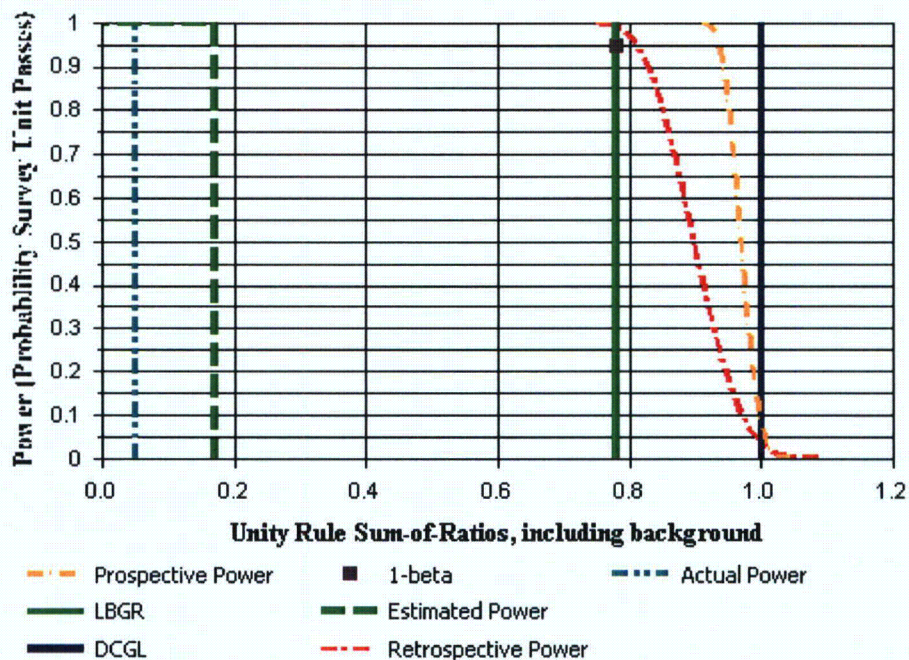


DQA Surface Soil Report

Assessment Summary

Site:	9106-0005 (19 mrem/yr)		
Planner(s):	Dale Randall		
Survey Unit Name:	9106-0005		
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:	<i>Reject Null Hypothesis (Survey Unit PASSES)</i>		

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	Co-60 (pCi/g)	Cs-137 (pCi/g)	SrY-90 (pCi/g)
9106-0005-001F	S	0.02	0.03	0.01
9106-0005-002F	S	0.09	0.07	0.01
9106-0005-003F	S	0.32	0.31	0.01
9106-0005-004F	S	0.21	0.16	0.01
9106-0005-005F	S	0.01	-0.03	0.01
9106-0005-007F	S	-0.01	0	0.01
9106-0005-008F	S	0.17	0.19	0
9106-0005-009F	S	0.02	0.18	0.01
9106-0005-010F	S	1.38	0.26	0.01
9106-0005-011F	S	0	0.06	0.01
9106-0005-013F	S	0.02	0.05	0
9106-0005-014F	S	1.12	0.47	0
9106-0005-015F	S	0	0.07	0.01
9106-0005-017F	S	0.34	0.14	0
9106-0005-018F	S	0.04	0.03	0.05

Modified Data (Unity Rule SOR)

NOTE: Type = "S" indicates survey unit sample.
Type = "R" indicates reference area sample.

Sample Number	Type	Sum-of-Ratios (SOR)
9106-0005-001F	S	0.02
9106-0005-002F	S	0.05
9106-0005-003F	S	0.17
9106-0005-004F	S	0.1
9106-0005-005F	S	0.01
9106-0005-007F	S	0
9106-0005-008F	S	0.09
9106-0005-009F	S	0.05
9106-0005-010F	S	0.53
9106-0005-011F	S	0.02
9106-0005-013F	S	0.01
9106-0005-014F	S	0.47
9106-0005-015F	S	0.02
9106-0005-017F	S	0.14
9106-0005-018F	S	0.07



DQA Surface Soil Report

Basic Statistical Quantities Summary

Statistic	Survey Unit	Background	DQO Results
Sample Number	15	N/A	N=13
Mean (SOR)	0.12	N/A	0.17
Median (SOR)	0.05	N/A	N/A
Std Dev (SOR)	0.16	N/A	0.06
High Value (SOR)	0.53	N/A	N/A
Low Value (SOR)	0.00	N/A	N/A