



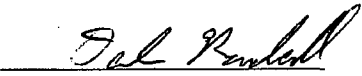
Final Status Survey Final Report Phase IV

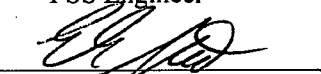
**Appendix A3
Survey Unit Release Record
9106-0003, Discharge Canal**

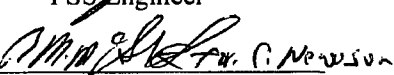
November 2006



CYAPCO
FINAL STATUS SURVEY RELEASE RECORD
DISCHARGE CANAL
SURVEY UNIT 9106-0003

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1. SURVEY UNIT DESCRIPTION

Survey Unit 9106-0003 (Discharge Canal) is designated as Final Status Survey (FSS) Class 2 and consists of approximately 8,292 m² (2.05 acres) of water covered sediment in an area located approximately 0.28 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 which includes two (2) permanent wetland areas for FSS purposes. With "called north" oriented with the north to south flow of the Connecticut River, the survey unit is bounded as follows: Discharge Canal Survey Unit 9106-0002 is to the north, land surface area Survey Unit 9521 is to the east, Discharge Canal Survey Unit 9106-0004 is to the south and Survey Area 9520 is to the west. The survey unit comprises the canal sediments to the deeper of three (3) feet or the original construction depth. It extends up the canal banks to the mean high water level.

The reference coordinates associated with this survey unit are E010 through E015 by S084 through S092 (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 9106-0003 as Class 2 in April 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 identifies 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, contamination

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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 of the available historical information reviewed would support a conclusion that any residual activity in this survey unit was 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.

A review of the *"Initial and Supplemental Characterization Reports"* as well as the previous *"Classification Basis Summaries"* provided no additional information pertinent to classification.

Characterization was performed by Site Closure personnel in April and May of 2004 to obtain the necessary data of sufficient data quality for final status survey (FSS) planning purposes. Fifteen (15) samples were initially obtained by biased sampling throughout the area. The samples were analyzed off-site using gamma spectroscopy. Hard-to-Detect analyses were also conducted on two (2) of the fifteen (15) samples. The only plant-related dosimetrically significant radionuclides identified in the samples were Cesium-137 and Cobalt-60 (refer to Table 1).

Table 1 – Basic Statistical Quantities for Cs-137 and Co-60 from the Characterization Survey		
Parameter	Cs-137 (pCi/g)	Co-60 (pCi/g)
Minimum Value:	-6.28E-03	-1.47E-02
Maximum Value:	4.44E-01	1.49E+00
Mean:	9.06E-02	1.59E-01
Median:	3.30E-02	7.46E-03
Standard Deviation:	1.32E-01	3.85E-01
NOTE: The Operational DCGLs are 5.38 pCi/g for Cs-137, 2.59 pCi/g for Co-60; these are used in conjunction with the unity rule to achieve 17 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

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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 9106-0003 did not exceed the release criteria specified in the LTP and that the potential dose from residual radioactivity is As Low As Reasonably Achievable (ALARA).

A fundamental precursor to survey design is to establish a relationship between the release criteria and some measurable quantity. This is done through the development of 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 and spread for the planting of crops per the Resident Farmer Scenario. Consequently, the soil DCGLs are directly applied to the canal sediment media which are sampled by coring to a nominal depth of three (3) feet.

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

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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 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 existing and future groundwater dose values discussed above.

This survey unit is affected by existing groundwater (reference CY memo ISC 06-024). The dose contribution from existing groundwater is bounded to be less than two (2) mrem/yr TEDE, based on field data.

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

Equation 2:

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

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

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.

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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	2.80E+02	1.65E+01
C-14	5.66E+00	3.85E+00	2.26E-01
Mn-54	1.74E+01	1.18E+01	6.96E-01
Fe-55	2.74E+04	1.86E+04	1.10E+03
Co-60	3.81E+00	2.59E+00	1.52E-01
Ni-63	7.23E+02	4.92E+02	2.89E+01
Sr-90	1.55E+00	1.05E+00	6.20E-02
Nb-94	7.12E+00	4.84E+00	2.85E-01
Tc-99	1.26E+01	8.57E+00	5.04E-01
Ag-108m	7.14E+00	4.86E+00	2.86E-01
Cs-134	4.67E+00	3.18E+00	1.87E-01
Cs-137	7.91E+00	5.38E+00	3.16E-01
Eu-152	1.01E+01	6.87E+00	4.04E-01
Eu-154	9.29E+00	6.32E+00	3.72E-01
Eu-155	3.92E+02	2.67E+02	1.57E+01
Pu-238	2.96E+01	2.01E+01	1.18E+00
Pu-239/240	2.67E+01	1.82E+01	1.07E+00
Pu-241	8.70E+02	5.92E+02	3.48E+01
Am-241 ⁽⁵⁾	2.58E+01	1.75E+01	1.03E+00
Cm-243/244	2.90E+01	1.97E+01	1.16E+00

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

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

(3) The Operational DCGL is equivalent to seventeen (17) 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.

Another important facet of the DQO process is to identify the radionuclides of concern and determine the concentration variability. Characterization was performed in April and May of 2004 as discussed in Section 2. Cesium-137 and Cobalt-60 were found to be the predominate radionuclides of concern. The basic statistical quantities (i.e., mean, standard deviation, median) for Cs-137 and Co-60 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

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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. To assist the FSS Engineers when preparing survey plans for FSS, guidance is provided in Procedure RPM 5.1-11, "*Preparation of Final Status Survey Plans*". By design, the FSSP meets the ALARA criteria for soils as specified in Chapter 4 of the LTP.

Characterization was performed by Site Closure personnel in April and May 2004 to determine existing conditions and obtain radiological data for Final Status Survey (FSS). The DQO process determined that Cs-137 and Co-60 would be the radionuclides of concern (refer to Section 3). The sum of fractions or unity rule would be used with the individual Operational DCGLs because multiple radionuclides (Cs-137 and Co-60) were considered in the survey design. Other radionuclides identified during FSS would be evaluated to ensure adequate survey design and compliance with the unity rule.

Surrogate DCGLs were not required for this survey unit based on process knowledge from FSS of nearby adjacent areas and via screening under LTP Section 5.4.7.2, "Gross Activity DCGLs". Radionuclide screening or de-selection is a process where an individual radionuclide or 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 aggregates.

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

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

The number of soil samples for FSS was determined in accordance with Procedure RPM 5.1-12, "*Determination of the Number of Samples for Final Status Survey*." The Lower Bound of the Gray Region (LBGR) was set in accordance with Procedure RPM 5.1-11 to 0.5 to maintain the relative shift (Δ/σ) in the range of 1 and 3. The resulting relative shift was 1.9. A Prospective Power Curve was generated using COMPASS, a software package developed under the sponsorship of the United States Nuclear Regulatory Commission (USNRC) for implementation of the MARSSIM in support of the decommissioning license termination rule (10 CFR 20, Subpart E). The result of the COMPASS computer run showed adequate power for the survey design.

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Survey design specified sixteen (16) sediment samples for non-parametric statistical testing.

The grid pattern and locations of the soil samples were determined using Visual Sample Plan (VSP) in accordance with Procedure RPM 5.1-14, *"Identifying, and Marking Surface Sample Locations for Final Status Survey."* Visual Sample Plan was created by Pacific Northwest National Laboratory (PNNL) for the United States Department of Energy. A systematic triangular grid pattern with a random starting point was selected for sample design, which is appropriate for a Class 2 area.

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

Table 3 -Sample Measurement Locations with Associated GPS Coordinates		
Designation	Northing	Easting
9106-0003-001F	235918.25	669524.39
9106-0003-002F	235918.25	669605.02
9106-0003-003F	235848.42	669484.07
9106-0003-004F	235848.42	669564.70
9106-0003-005F	235848.42	669645.33
9106-0003-006F	235848.42	669725.96
9106-0003-007F	235778.60	669605.02
9106-0003-008F	235778.60	669685.64
9106-0003-009F	235778.60	669766.27
9106-0003-010F	235778.60	669846.90
9106-0003-011F	235778.60	669927.53
9106-0003-012F	235778.60	670008.16
9106-0003-013F	235708.77	669806.59
9106-0003-014F	235708.77	669887.22
9106-0003-015F	235708.77	669967.85
9106-0003-016F	235708.77	670048.47

There was to be one (1) sediment core to be taken as a judgmental sample. The location was selected based on its proximity to the outfall of a culvert which drains from a low-lying area along the Independent Spent Fuel Storage Installation (ISFSI) haul road.

Although Procedure RPM 5.1-11 specifies that 5% of the samples must be selected for HTD analysis, four (4) sediment samples were analyzed for HTDs, exceeding the percentage required. Two (2) samples for statistical testing were randomly selected for HTD radionuclide analysis using the Microsoft Excel "RAND" function. In addition, two (2) samples, which were determined to contribute the greatest dose based on gamma only analyses were also selected

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for HTD analyses. This number of HTD analyses exceeded the 5% requirement. Each sample was sent off-site for a full suite analysis of the HTD radionuclides specified in Table 2.

The implementation of quality control measures as referenced by Procedure RPM 5.1-24, *"Split Sample Assessment for Final Status Survey,"* included the collection of two (2) sediment samples for "split sample" analysis by the off-site laboratory. These locations were selected randomly using the Microsoft Excel "RAND" function. The number of quality control samples exceeded the 5% requirement.

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 Area	8,292 m ²	Based on AutoCAD-LT and Visual Sample Plan calculations
Number of Measurements	16	Type 1 and Type 2 errors were 0.05, sigma was 0.257 the LBGR was set to 0.5 to maintain Relative Shift in the range of 1 and 3, Relative Shift was 1.9
Grid Spacing	24.5	Based on triangular grid
Design DCGL	3.16 pCi/g Cs-137 1.52 pCi/g Co-60	To achieve 10 mrem/yr TEDE
Operational DCGL	5.38 pCi/g Cs-137 2.59 pCi/g Co-60	To achieve 17 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	5.38 pCi/g Cs-137 2.59 pCi/g Co-60	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 seventeen (17) mrem/yr TEDE as the total dose from existing and future groundwater has been established (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.

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Using GPS coordinates, sample measurement locations were identified in NAD 1927 coordinates that were supplied to the sampling vendor, Ocean Survey Inc. (OSI) of Old Saybrook, Connecticut. Discharge Canal sampling was accomplished using direct push technology to collect composite samples of bottom and average 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 serves 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 will be accomplished using a global positioning system (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 from the Ocean Surveys, Inc. to site personnel who processed and controlled the samples under Chain-of-Custody (COC). Rinsing of the barrel and associated equipment was performed between sampling events. New aluminum tubes were used to prevent cross-contamination of subsequent samples.

The sixteen (16) 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 Chain-of-Custody (COC) protocol in accordance with Procedure RPM 5.1-5, "*Chain of Custody for Final Status Survey Samples*".

Four (4) samples (9106-0003-004F, 9106-0003-008F, 9106-0003-0014 and 9106-0003-015F) were selected for HTD radionuclide analysis by the off-site laboratory. Two (2) of these samples (008F and 014F) were selected at random. The others were selected based on being the most dosimetrically significant samples from spectroscopic gamma analyses.

One (1) biased sediment sample (9106-0003-017F) was collected and analyzed by the offsite laboratory for gamma spectroscopy.

The implementation of survey specific quality control measures included the collection of two (2) split samples at locations 9106-0003-004F and 9106-0003-010F for "split sample" 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 sixteen (16) samples taken for non-parametric statistical testing and the associated duplicates using gamma spectroscopy. Gamma

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spectroscopy analysis was performed to the required MDC. Gamma spectroscopy results identified some radionuclides meeting the acceptance criteria for detection (i.e., a result greater than two standard deviations uncertainty). All could be de-selected or excluded using the 5% and 10% rule described in Section 4.

Cesium-137 was identified in fourteen (14) and Co-60 was identified in eleven (11) of the sixteen (16) samples.

None of the samples exceeded the Operational DCGL. Gamma spectroscopy sample analysis did not require further investigation. A summary of the sample results is provided in Table 5.

Table 5- Summary of Sediment Sample Results				
Sample Number	Cs-137 pCi/g	Co-60 pCi/g	Fraction of the Operational DCGL ⁽¹⁾	
			Nuclides of concern	Unity (Sign Test) ⁽²⁾
9106-0003-001F	1.28E-01	1.07E-01	1.11E-01	1.48E-01
9106-0003-002F	4.37E-02	1.89E-02	2.63E-02	6.35E-02
9106-0003-003F	3.93E-02	2.45E-02	2.86E-02	6.58E-02
9106-0003-004F	2.92E-01	7.43E-01	5.81E-01	5.95E-01
9106-0003-005F	2.10E-01	1.36E-01	1.56E-01	1.93E-01
9106-0003-006F	1.05E-01	1.86E-02	4.55E-02	8.27E-02
9106-0003-007F	2.64E-02	2.90E-02	2.74E-02	6.47E-02
9106-0003-008F	2.46E-01	1.09E-01	1.50E-01	2.41E-01
9106-0003-009F	3.18E-01	4.45E-01	3.93E-01	4.31E-01
9106-0003-010F	2.04E-01	2.28E-01	2.15E-01	2.52E-01
9106-0003-012F	4.27E-02	1.45E-02	2.31E-02	6.03E-02
9106-0003-013F	1.96E-02	2.41E-02	2.21E-02	5.93E-02
9106-0003-014F	2.91E-01	4.33E-01	3.77E-01	4.09E-01
9106-0003-015F	2.57E-01	8.05E-01	6.11E-01	6.22E-01
9106-0003-016F	3.52E-04	2.02E-02	1.34E-02	5.06E-02
9106-0003-018F	1.90E-01	1.85E-01	1.82E-01	2.19E-01

(1) The Operational DCGLs from Table 2 are 5.38 pCi/g for Cs-137 and 2.59 pCi/g for Co-60; these are used in conjunction with the unity rule to achieve 17 mrem/yr TEDE

(2) This column is the sum of the DCGL unity fraction from identified radionuclides of concern and HTD isotope (Pu-241) exceeding the 5%/10% rule for one or more FSS samples. For those samples not measured for HTD isotopes, an average calculated value of 6.1% of the DCGL was added to each sample.

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 number 9106-0003-011F could not be sampled due to an obstruction. Therefore sample number 9106-0003-018F was added as a replacement sample. Sample number 9106-0003-017F was a biased sample location; not part of the non-parametric design.

The off-site laboratory also processed four (4) samples for HTD analysis as required by the sample plan. The requested analyses included alpha

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spectroscopy, gas proportional counting, and liquid scintillation depending on the radionuclide and the measurement method. All analyses met the required MDC. Four (4) of the HTD radionuclides met the accepted criteria for detection (i.e., a result greater than two standard deviations uncertainty) in more than one (1) sample. Each of the positive results for HTD radionuclides could be de-selected based on the 5% and 10% rules, except for Pu-241. These results are presented in Table 6.

Table 6-Hard-to-Detect Sample Results		
Sample Number	Pu 241 pCi/g	Fraction of the Operational DCGL ⁽¹⁾
9106-0003-004F	8.31	0.014
9106-0003-008F	54.2	0.092
9106-0003-014F	19.0	0.032
9106-0003-015F	6.63	0.011

(1) The Operational DCGL from Table 2 is 592 pCi/g for Pu-241.

One (1) biased sample was collected at a location selected by FSS Supervision based on professional judgment and observation. Gamma spectroscopy analysis was performed by the off-site laboratory to the required MDC. The sample was at 0.8% of the Operational DCGL. No further action or investigations were required (see Table 7).

Table 7 – Biased Sample Results			
Sample Number	Cs-137 pCi/g	Co-60 pCi/g	Fraction of the Operational DCGL ⁽¹⁾
9106-0003-017F	0.00E+00	2.08E-02	0.008

(1) The Operational DCGLs from Table 2 are 5.38 pCi/g for Cs-137 and 2.59 pCi/g for Co-60 and are used in conjunction with the unity rule to achieve 17 mrem/yr TEDE

7. QUALITY CONTROL

The off-site laboratory processed the split samples and performed gamma spectroscopy analysis. Two (2) of the samples were selected for analysis, which exceeds the 5% minimum required by the LTP. The data were evaluated using USNRC acceptance criteria specified in Inspection Procedure 84750 as detailed in HNP Procedure RPM 5.1-24, "*Split Sample Assessment for Final Status Survey*." There was acceptable agreement between the field split results for both of the "split sample" pairs tested.

The sample analysis vendor, General Engineering Laboratories (GEL) – Charleston, South Carolina, maintained quality control and quality assurance plans as part of normal operation. Refer to Attachment 2 for data and data quality analysis results.

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RELEASE RECORD

8. INVESTIGATIONS AND RESULTS

Sample investigation levels were not exceeded for this unit, consequently none were performed.

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 seventeen (17) 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.

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 of the sample results was below the design value used. This is represented by a favorable shift in the retrospective power curve as shown in Attachment 2f. This would indicate the retrospective power exceeds the prospective power, indicating that the design sample population was adequate. The mean and median values are well below the Operational DCGL when used in conjunction with the unity rule. Therefore, the survey unit meets the unrestricted release criterion with adequate power as required by the DQOs.

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The range of the data, about 2.98 standard deviations, was not unusually large. The difference between the mean and median was 5.5% of the standard deviation which indicates limited 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 1.2.

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

12. ANOMALIES

An anomaly was encountered at one non-parametric sample location which could not be sampled due to an obstruction. The sample (9106-0003-011F) was replaced with another randomly generated location (9106-0003-018F). This is noted in the field notes and other documentation associated with this survey unit.

In addition, one HTD radionuclide was reported in concentrations exceeding the 5% and 10% rule for de-selection. Therefore, the individual Operational DCGLs for Pu-239 was included into sample analyses in conjunction with the unity rule to ensure adequate survey design in accordance with the DQOs. The result of the COMPASS computer run showed adequate power and maintained the original sixteen (16) sediment samples for non-parametric statistical testing.

13. CONCLUSION

Survey Unit 9106-0003 has met the final DQOs of the FSS. The ALARA criteria for soils as specified in Chapter 4 of the LTP were achieved. Elevated Measurement Comparison and remediation was not required.

The sample data passed the Sign Test. The null hypothesis was rejected. Graphical representation of data indicates some positive skewness that is probably due to the differences in terrain and the collection of runoff. The Retrospective Power Curve generated using COMPASS shows adequate power was achieved. The survey unit was properly designated as Class 2.

The dose contribution from soil is 4.3 mrem/yr TEDE based on the average concentration of the samples used for non-parametric statistical sampling.

This survey unit is affected by existing groundwater (reference CY memo ISC 06-024). Therefore, the dose contribution from existing groundwater is two (2) 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 0 mrem/yr TEDE.

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

14. ATTACHMENTS

14.1 Attachment 1 – Figures

14.2 Attachment 2 – Sample and Statistical Data

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SURVEY UNIT 9106-0003

RELEASE RECORD

Attachment 1
Figures
(4 pages)

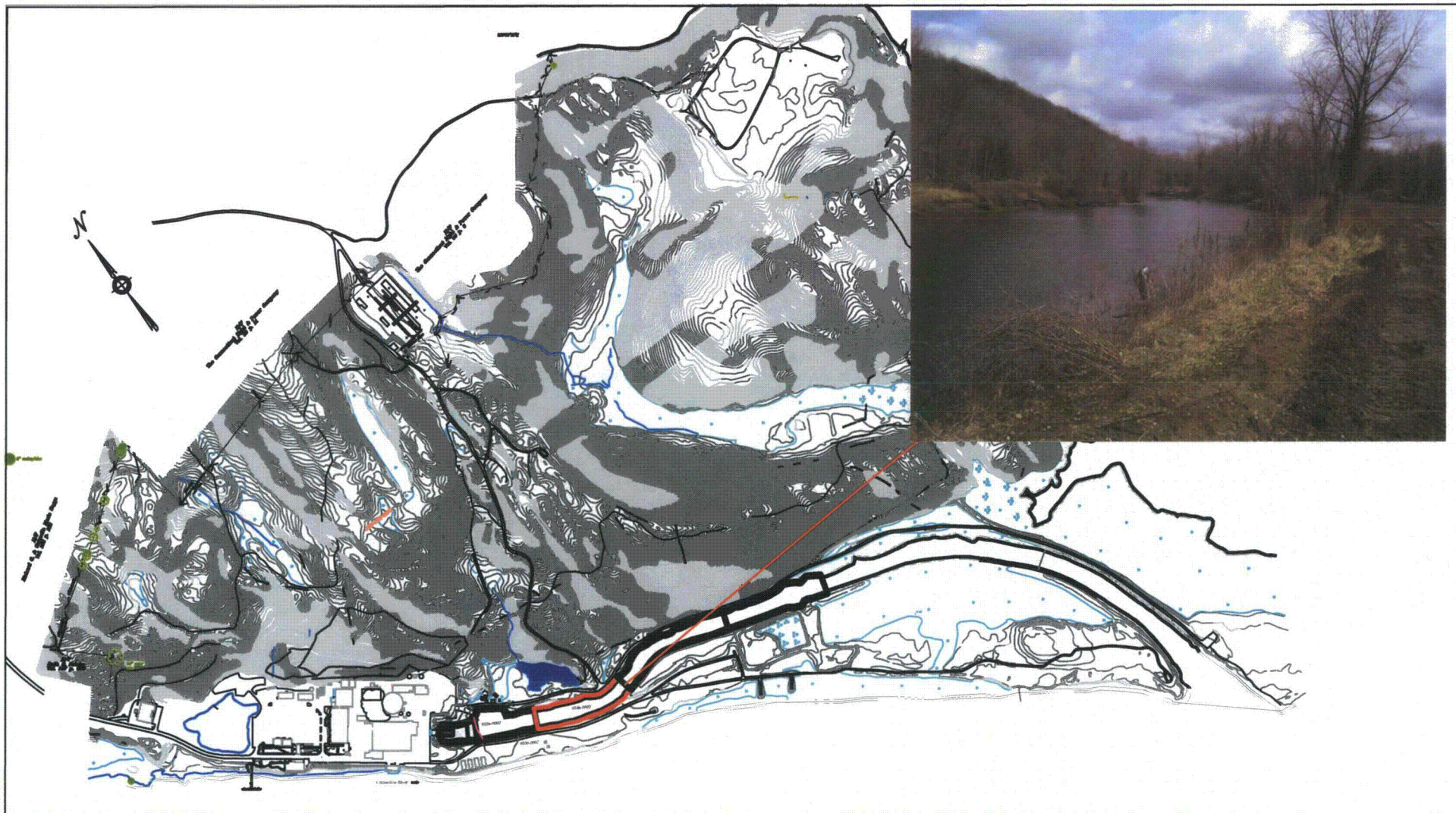


Figure 1

Connecticut Yankee Atomic Power Company
Site Map With Reference To Survey Unit 9106-0003

Date	By
October 2006	E. Sargent

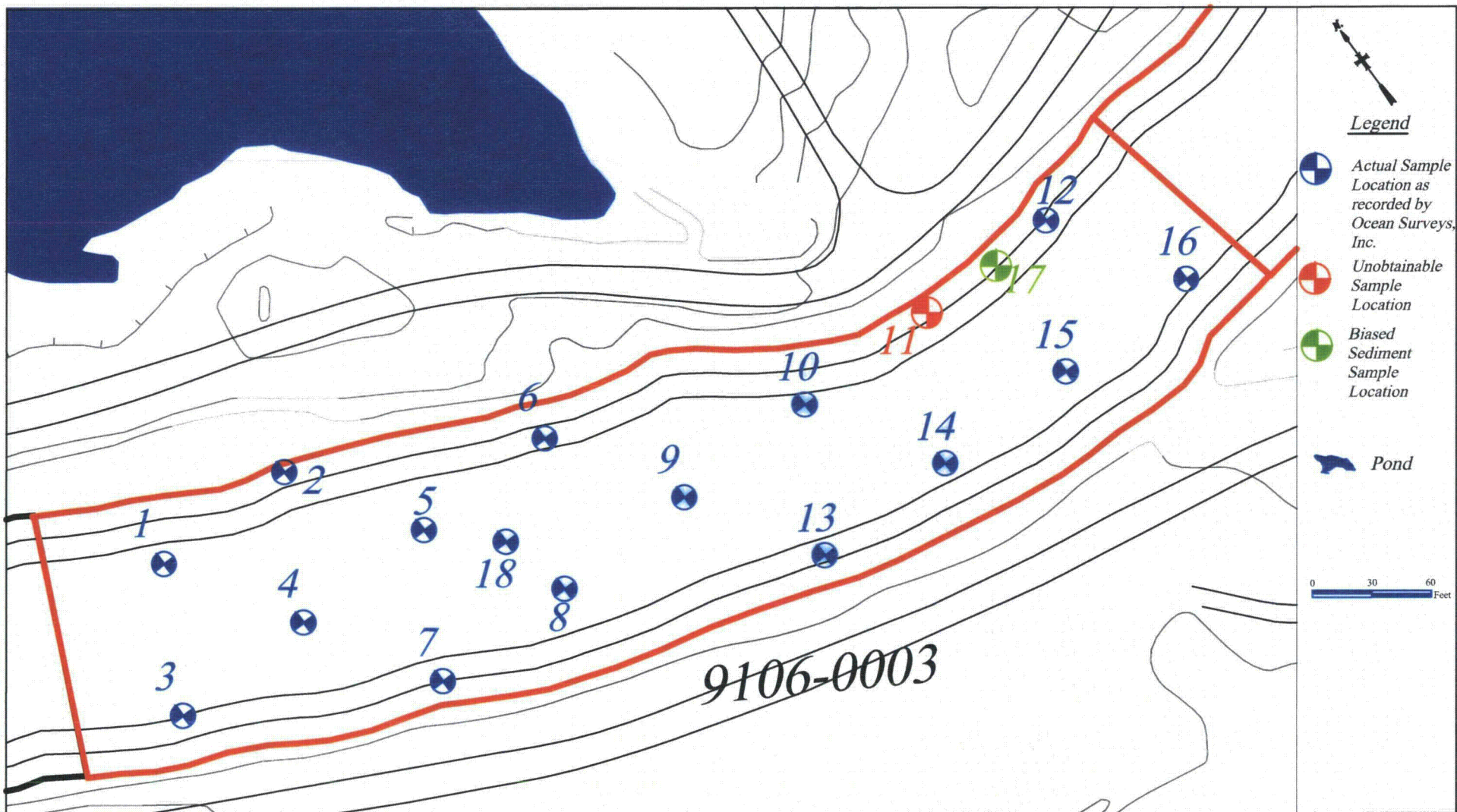


Figure 2

Connecticut Yankee Atomic Power Company
9106-0003 Final Status Survey Sample Locations

Date	By
October 2006	E. Sergent

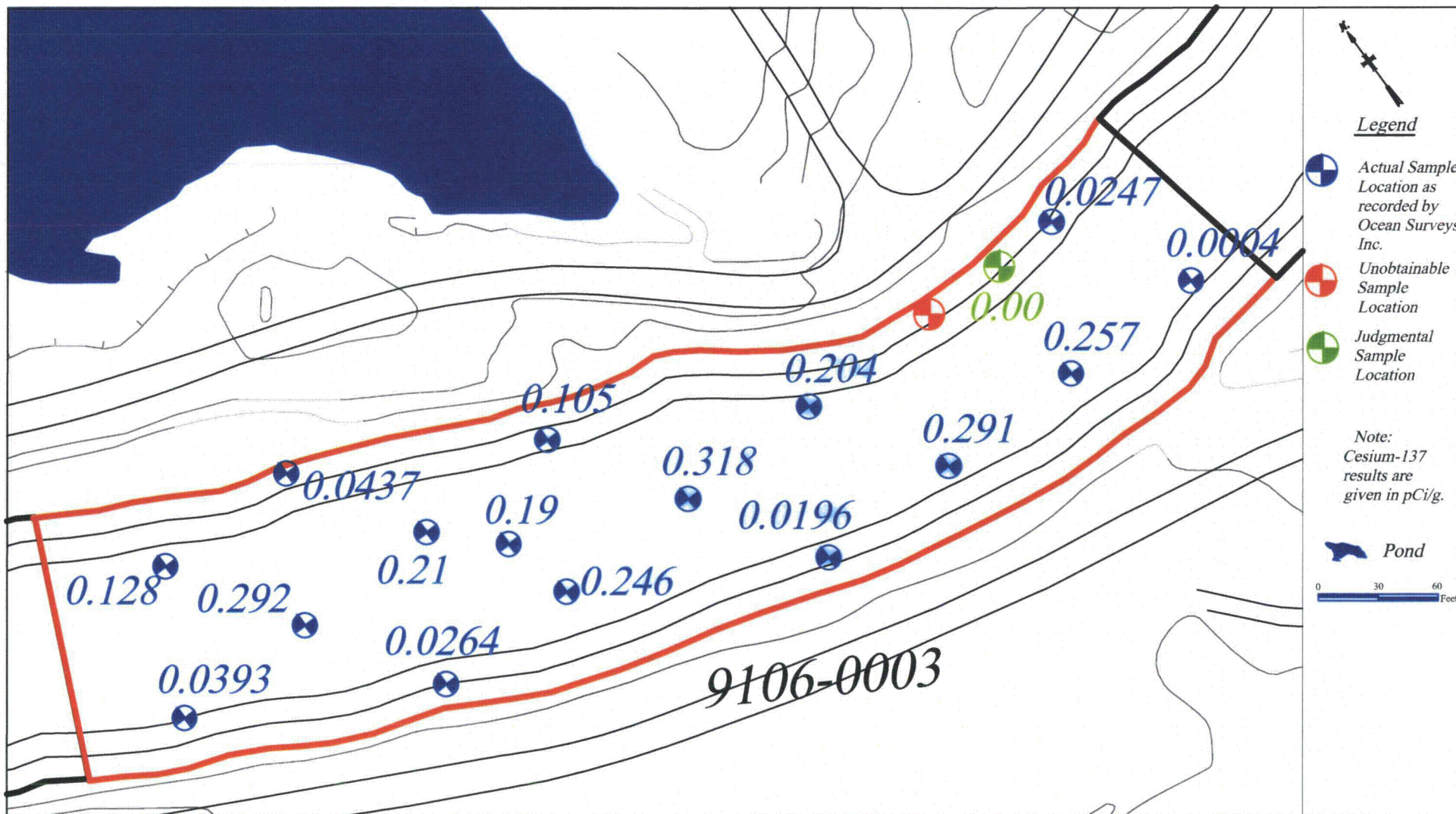


Figure 3

Connecticut Yankee Atomic Power Company
9106-0003 Final Status Survey
Cesium-137 Posting Plot

Date	By
October 2006	E. Sergent

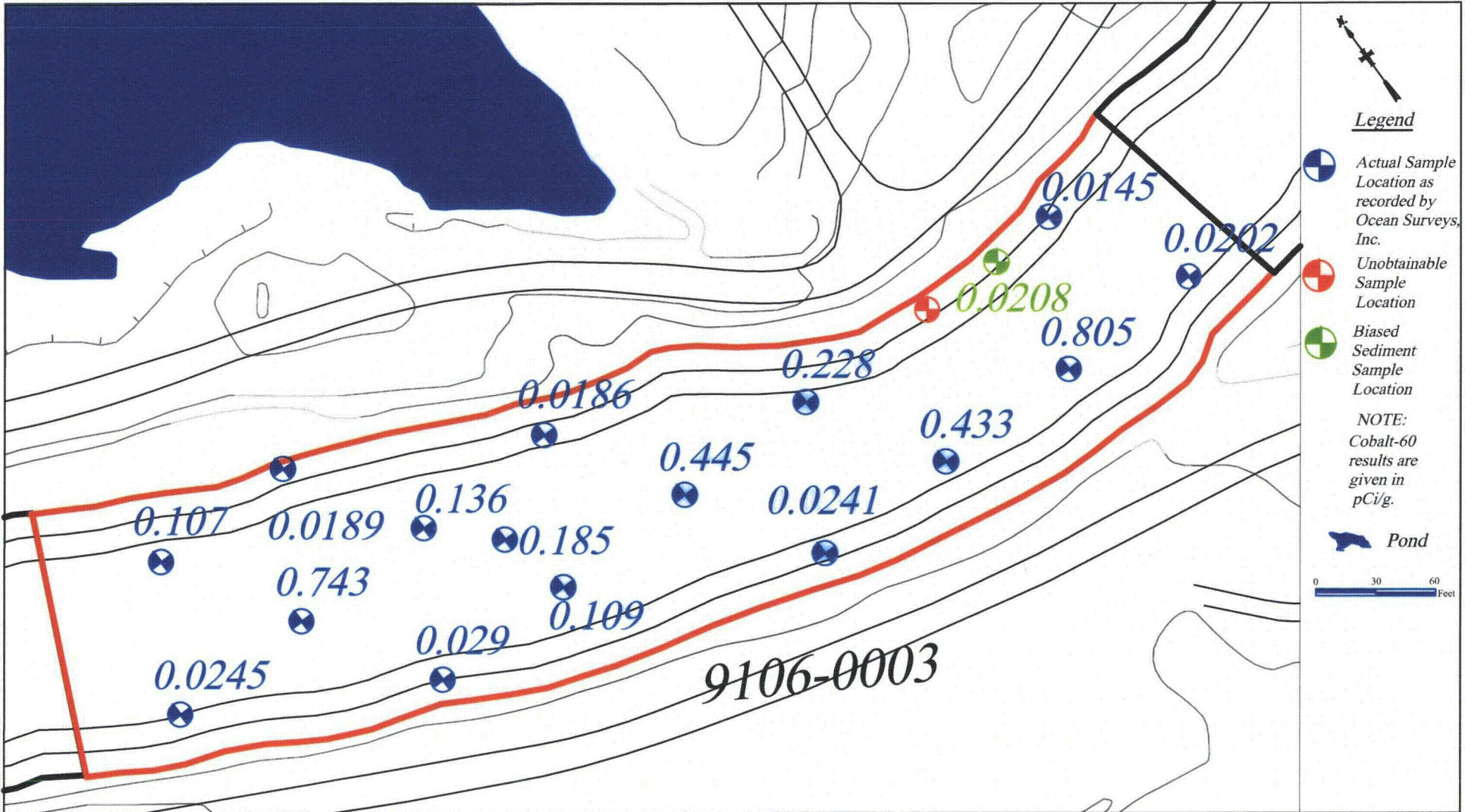


Figure 4	Connecticut Yankee Atomic Power Company 9106-0003 Final Status Survey Sample Locations Cobalt-60 Posting Plot	Date	By
		October 2006	E. Sergent

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Attachment 2
Sample and Statistical Data

DISCHARGE CANAL
SURVEY UNIT 9106-0003

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Attachment 2a
Sample Data
(186 Pages)

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Radiological Analysis	1
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General Narrative

**CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Sediment
PO# 002332
Work Order: 162335
SDG: MSR #06-0652**

June 2, 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, 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>
162335001	9106-0003-001F
162335002	9106-0003-002F
162335003	9106-0003-003F
162335004	9106-0003-004F
162335005	9106-0003-004FS
162335006	9106-0003-005F
162335007	9106-0003-006F

<u>Sample ID</u>	<u>Client Sample ID</u>
162335008	9106-0003-007F
162335009	9106-0003-009F
162335010	9106-0003-010F
162335011	9106-0003-010FS
162335012	9106-0003-012F
162335013	9106-0003-013F
162335014	9106-0003-015F
162335015	9106-0003-016F
162335016	9106-0003-017F
162335017	9106-0003-018F
162335018	9106-0003-008F
162335019	9106-0003-014F

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:

Seventeen sediment samples were analyzed for FSSGAM.
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. 2006-00313

~~162334~~ 162335

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	
9106-0003-009F	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: <input type="checkbox"/> <input type="checkbox"/> 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 PICARTE			Date/Time 5-4-06 / 1330		2) Received By C. Derricott			Date/Time 5/5/06 / 1015		Bill of Lading # 7920-8920-0261			
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. 2006-00312

162334% 162335% 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 JAMIE 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					

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. Derri cutto Date: 5/5/06

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only 162335

Client: <u>Yankel</u>	SDG/ARCO/Work Order:
Date Received: <u>COA 5/5/06</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>ASJ</u> Date: <u>5/5/06</u>

RADIOLOGICAL ANALYSIS

**Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 162335**

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:	530940
Prep Batch Number:	527706
Dry Soil Prep GL-RAD-A-021 Batch Number:	527705

Sample ID	Client ID
162335018	9106-0003-008F
162335019	9106-0003-014F
1201095113	Method Blank (MB)
1201095114	162335018(9106-0003-008F) Sample Duplicate (DUP)
1201095115	162335018(9106-0003-008F) Matrix Spike (MS)
1201095116	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: 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.

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:	530942
Prep Batch Number:	527706
Dry Soil Prep GL-RAD-A-021 Batch Number:	527705

Sample ID	Client ID
162335018	9106-0003-008F
162335019	9106-0003-014F
1201095121	Method Blank (MB)
1201095122	162335018(9106-0003-008F) Sample Duplicate (DUP)
1201095123	162335018(9106-0003-008F) Matrix Spike (MS)
1201095124	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: 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.

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:	530943
Prep Batch Number:	527706
Dry Soil Prep GL-RAD-A-021 Batch Number:	527705

Sample ID	Client ID
162335018	9106-0003-008F
162335019	9106-0003-014F
1201095125	Method Blank (MB)
1201095126	162335018(9106-0003-008F) Sample Duplicate (DUP)
1201095127	162335018(9106-0003-008F) Matrix Spike (MS)
1201095128	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: 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.

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:	528196
Prep Batch Number:	527705

Sample ID	Client ID
162335001	9106-0003-001F
162335002	9106-0003-002F
162335003	9106-0003-003F
162335004	9106-0003-004F
162335005	9106-0003-004FS
162335006	9106-0003-005F
162335007	9106-0003-006F
162335008	9106-0003-007F
162335009	9106-0003-009F
162335010	9106-0003-010F
162335011	9106-0003-010FS
162335012	9106-0003-012F
162335013	9106-0003-013F
162335014	9106-0003-015F
162335015	9106-0003-016F
162335016	9106-0003-017F
162335017	9106-0003-018F
162335018	9106-0003-008F
162335019	9106-0003-014F
1201088599	Method Blank (MB)
1201088600	162335001(9106-0003-001F) Sample Duplicate (DUP)
1201088601	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: 162335001 (9106-0003-001F).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation

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

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high Full-Width Half-Maximum.	Bismuth-214	1201088599
		Cesium-137	162335016
		Manganese-54	162335019
UI	Data rejected due to interference.	Europium-155	162335018
UI	Data rejected due to low abundance.	Cesium-134	162335002
			162335003
			162335004
			162335006
			162335007
			162335009
			162335010
			162335011
			162335012
			162335015
			162335016
			162335019
		Cobalt-60	162335011
		Radium-226	1201088599

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:	527706
Dry Soil Prep GL-RAD-A-021 Batch Number:	527705

Sample ID	Client ID
162335018	9106-0003-008F
162335019	9106-0003-014F
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
162335018	9106-0003-008F
162335019	9106-0003-014F
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

Sample 162335018 (9106-0003-008F) 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 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:	527706
Dry Soil Prep GL-RAD-A-021 Batch Number:	527705

Sample ID	Client ID
162335018	9106-0003-008F
162335019	9106-0003-014F
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 re-prepped 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:	527978
Prep Batch Number:	527706
Dry Soil Prep GL-RAD-A-021 Batch Number:	527705

Sample ID	Client ID
162335018	9106-0003-008F
162335019	9106-0003-014F
1201088147	Method Blank (MB)
1201088148	162335018(9106-0003-008F) Sample Duplicate (DUP)
1201088149	162335018(9106-0003-008F) Matrix Spike (MS)
1201088150	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: 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.

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG: NCR 321720 was generated due to Container scanning event for custody missed. 1. The analyst did not scan the samples 162335018 and 162335019 into the batch prior to analysis, however the samples did remain in their custody at all times. The error has been corrected and the analyst has been instructed on the proper scanning procedures. 1. Reporting results.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product: LSC, Tritium Dist, Solid-HTD2,ALL FSS
Analytical Method: EPA 906.0 Modified
Analytical Batch Number: 531705

Sample ID	Client ID
162335018	9106-0003-008F
162335019	9106-0003-014F
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: 534837

Sample ID	Client ID
162335018	9106-0003-008F
162335019	9106-0003-014F
1201104384	Method Blank (MB)
1201104385	162335019(9106-0003-014F) Sample Duplicate (DUP)
1201104386	162335019(9106-0003-014F) Matrix Spike (MS)
1201104387	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: 162335019 (9106-0003-014F).

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 1201104385 (9106-0003-014F), 162335018 (9106-0003-008F) and 162335019 (9106-0003-014F) were recounted due to high MDAs. 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: K. B. Bell 6/7/06

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr. 01-JUN-06	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: BIOASSAY LSC	Test / Method: DOE RESL Ni-1, Modified	Matrix Type: Solid	Client Code: YANK
Batch ID: 527978	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 162335(MSR#06-0652) Application Issues: Container scanning event for custody missed			
Specification and Requirements		NRG Disposition:	
Nonconformance Description:			
1. The analyst did not scan the samples 162335018 and 162335019 into the batch prior to analysis, however the samples did remain in their custody at all times. The error has been corrected and the analyst has been instructed on the proper scanning procedures.		1. Reporting results.	

Originator's Name:

Melanie Aycock 01-JUN-06

Data Validator/Group Leader:

Heather Anderson 08-JUN-06

Quality Review:

Director:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#06-0652 GEL Work Order: 162335

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

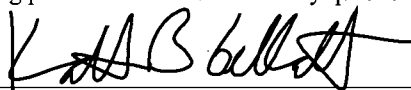
ND The analyte concentration is not detected above the reporting limit.

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 7, 2006

Client Sample ID: 9106 0003 001F
Sample ID: 162335001
Matrix: Soil
Collect Date: 24 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 15.7%

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		0.640	+/- 0.149	0.0501	+/- 0.149	0.106	pCi/g						
Americium 241	U	0.00555	+/- 0.0707	0.0612	+/- 0.0707	0.126	pCi/g						
Bismuth 212		0.351	+/- 0.281	0.0993	+/- 0.281	0.211	pCi/g						
Bismuth 214		0.462	+/- 0.0847	0.0266	+/- 0.0847	0.0557	pCi/g						
Cesium 134	U	0.00674	+/- 0.0184	0.0164	+/- 0.0184	0.0346	pCi/g						
Cesium 137		0.128	+/- 0.0361	0.0135	+/- 0.0361	0.0285	pCi/g						
Cobalt 60		0.107	+/- 0.0311	0.0144	+/- 0.0311	0.0312	pCi/g						
Europium 152	U	0.00641	+/- 0.043	0.0342	+/- 0.043	0.0713	pCi/g						
Europium 154	U	0.015	+/- 0.0505	0.0422	+/- 0.0505	0.0909	pCi/g						
Europium 155	U	0.0713	+/- 0.0618	0.0381	+/- 0.0618	0.0785	pCi/g						
Lead 212		0.670	+/- 0.0714	0.0212	+/- 0.0714	0.0439	pCi/g						
Lead 214		0.562	+/- 0.0771	0.0248	+/- 0.0771	0.0517	pCi/g						
Manganese 54	U	0.0119	+/- 0.0207	0.0145	+/- 0.0207	0.0307	pCi/g						
Niobium 94	U	0.0123	+/- 0.0151	0.0139	+/- 0.0151	0.0292	pCi/g						
Potassium 40		10.9	+/- 0.996	0.131	+/- 0.996	0.285	pCi/g						
Radium 226		0.462	+/- 0.0847	0.0266	+/- 0.0847	0.0557	pCi/g						
Silver 108m	U	0.0049	+/- 0.0138	0.0123	+/- 0.0138	0.0258	pCi/g						
Thallium 208		0.229	+/- 0.0399	0.0131	+/- 0.0399	0.0277	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 001F
Sample ID: 162335001

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

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

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 7, 2006

Client Sample ID: 9106 0003 002F
Sample ID: 162335002
Matrix: Soil
Collect Date: 24 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 24.9%

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		0.816	+/- 0.163	0.0714	+/- 0.163	0.153	pCi/g						
Americium 241	U	0.00658	+/- 0.123	0.0837	+/- 0.123	0.172	pCi/g						
Bismuth 212		0.668	+/- 0.340	0.141	+/- 0.340	0.302	pCi/g						
Bismuth 214		0.737	+/- 0.107	0.0333	+/- 0.107	0.0707	pCi/g						
Cesium 134	UUI	0.00	+/- 0.0349	0.0284	+/- 0.0349	0.0597	pCi/g						
Cesium 137		0.0437	+/- 0.0291	0.0186	+/- 0.0291	0.0396	pCi/g						
Cobalt 60	U	0.0189	+/- 0.0258	0.0235	+/- 0.0258	0.0509	pCi/g						
Europium 152	U	0.03	+/- 0.0655	0.0538	+/- 0.0655	0.112	pCi/g						
Europium 154	U	0.0149	+/- 0.0654	0.0546	+/- 0.0654	0.120	pCi/g						
Europium 155	U	0.0749	+/- 0.080	0.0496	+/- 0.080	0.102	pCi/g						
Lead 212		1.06	+/- 0.0751	0.0297	+/- 0.0751	0.0615	pCi/g						
Lead 214		0.789	+/- 0.0858	0.0373	+/- 0.0858	0.0779	pCi/g						
Manganese 54	U	0.0111	+/- 0.0254	0.0206	+/- 0.0254	0.0439	pCi/g						
Niobium 94	U	0.0103	+/- 0.0214	0.0189	+/- 0.0214	0.0399	pCi/g						
Potassium 40		12.5	+/- 0.989	0.148	+/- 0.989	0.334	pCi/g						
Radium 226		0.737	+/- 0.107	0.0333	+/- 0.107	0.0707	pCi/g						
Silver 108m	U	0.00613	+/- 0.0206	0.0174	+/- 0.0206	0.0366	pCi/g						
Thallium 208		0.340	+/- 0.0571	0.0182	+/- 0.0571	0.0387	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
I	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 002F
Sample ID: 162335002

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

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

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 7, 2006

Client Sample ID: 9106 0003 003F
Sample ID: 162335003
Matrix: Soil
Collect Date: 24 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 12.6%

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		0.691	+/- 0.118	0.0423	+/- 0.118	0.0912	pCi/g						
Americium 241	U	0.0567	+/- 0.087	0.0631	+/- 0.087	0.130	pCi/g						
Bismuth 212		0.546	+/- 0.249	0.102	+/- 0.249	0.218	pCi/g						
Bismuth 214		0.557	+/- 0.0675	0.0257	+/- 0.0675	0.0542	pCi/g						
Cesium 134	UUI	0.00	+/- 0.027	0.0184	+/- 0.027	0.0387	pCi/g						
Cesium 137		0.0393	+/- 0.0252	0.0139	+/- 0.0252	0.0293	pCi/g						
Cobalt 60	U	0.0245	+/- 0.0188	0.018	+/- 0.0188	0.0385	pCi/g						
Europium 152	U	0.0141	+/- 0.0403	0.0369	+/- 0.0403	0.0769	pCi/g						
Europium 154	U	0.0796	+/- 0.0517	0.0374	+/- 0.0517	0.0818	pCi/g						
Europium 155	U	0.0703	+/- 0.0578	0.0397	+/- 0.0578	0.0816	pCi/g						
Lead 212		0.715	+/- 0.0498	0.0219	+/- 0.0498	0.0453	pCi/g						
Lead 214		0.693	+/- 0.0729	0.0281	+/- 0.0729	0.0583	pCi/g						
Manganese 54	U	0.00312	+/- 0.0175	0.0153	+/- 0.0175	0.0323	pCi/g						
Niobium 94	U	0.00416	+/- 0.0165	0.0123	+/- 0.0165	0.026	pCi/g						
Potassium 40		9.93	+/- 0.658	0.110	+/- 0.658	0.246	pCi/g						
Radium 226		0.557	+/- 0.0675	0.0257	+/- 0.0675	0.0542	pCi/g						
Silver 108m	U	0.0208	+/- 0.015	0.0121	+/- 0.015	0.0253	pCi/g						
Thallium 208		0.197	+/- 0.037	0.0139	+/- 0.037	0.0293	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 003F
Sample ID: 162335003

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

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

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power

Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: June 7, 2006

Client Sample ID: 9106 0003 004F

Sample ID: 162335004

Matrix: Soil

Collect Date: 25 APR 06

Receive Date: 05 MAY 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 Gamma Spec Analysis													
<i>Gamma, Solid FSS GAM & ALL FSS</i>													
Actinium 228		0.743	+/- 0.177	0.0741	+/- 0.177	0.157	pCi/g						
Americium 241	U	0.080	+/- 0.0848	0.0694	+/- 0.0848	0.143	pCi/g		MJH1	05/31/06	1022	528196	1
Bismuth 212		0.561	+/- 0.246	0.143	+/- 0.246	0.303	pCi/g						
Bismuth 214		0.467	+/- 0.0843	0.0338	+/- 0.0843	0.0712	pCi/g						
Cesium 134	UUI	0.00	+/- 0.0421	0.0235	+/- 0.0421	0.0495	pCi/g						
Cesium 137		0.292	+/- 0.050	0.0179	+/- 0.050	0.0379	pCi/g						
Cobalt 60		0.743	+/- 0.0722	0.0177	+/- 0.0722	0.0386	pCi/g						
Europium 152	U	0.0383	+/- 0.0535	0.0426	+/- 0.0535	0.0893	pCi/g						
Europium 154	U	0.0175	+/- 0.0552	0.0481	+/- 0.0552	0.105	pCi/g						
Europium 155	U	0.0679	+/- 0.050	0.0475	+/- 0.050	0.098	pCi/g						
Lead 212		0.744	+/- 0.0622	0.0253	+/- 0.0622	0.0525	pCi/g						
Lead 214		0.632	+/- 0.0994	0.0331	+/- 0.0994	0.069	pCi/g						
Manganese 54	U	0.00494	+/- 0.0237	0.0193	+/- 0.0237	0.0409	pCi/g						
Niobium 94	U	0.0149	+/- 0.019	0.0178	+/- 0.019	0.0374	pCi/g						
Potassium 40		10.5	+/- 0.878	0.149	+/- 0.878	0.332	pCi/g						
Radium 226		0.467	+/- 0.0843	0.0338	+/- 0.0843	0.0712	pCi/g						
Silver 108m	U	0.0156	+/- 0.0165	0.0137	+/- 0.0165	0.0288	pCi/g						
Thallium 208		0.239	+/- 0.0385	0.0155	+/- 0.0385	0.0329	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Connecticut Yankee Atomic Power

Address : 362 Injun Hollow Rd

East Hampton, Connecticut 06424

Contact: Mr. Jack McCarthy

Project: Soils PO# 002332

Report Date: June 7, 2006

Client Sample ID: 9106 0003 004F
Sample ID: 162335004

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

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 004FS
Sample ID: 162335005
Matrix: Soil
Collect Date: 25 APR 06
Receive Date: 05 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		0.904	+/- 0.210	0.0771	+/- 0.210	0.162	pCi/g						
Americium 241	U	0.0871	+/- 0.147	0.0818	+/- 0.147	0.167	pCi/g						
Bismuth 212	U	0.233	+/- 0.344	0.161	+/- 0.344	0.336	pCi/g						
Bismuth 214		0.577	+/- 0.095	0.033	+/- 0.095	0.069	pCi/g						
Cesium 134	U	0.0183	+/- 0.0318	0.0242	+/- 0.0318	0.0505	pCi/g						
Cesium 137		0.314	+/- 0.046	0.0197	+/- 0.046	0.0412	pCi/g						
Cobalt 60		0.984	+/- 0.103	0.019	+/- 0.103	0.0409	pCi/g						
Europium 152	U	0.025	+/- 0.0537	0.0467	+/- 0.0537	0.0968	pCi/g						
Europium 154	U	0.0144	+/- 0.0724	0.0606	+/- 0.0724	0.129	pCi/g						
Europium 155	U	0.0585	+/- 0.0663	0.052	+/- 0.0663	0.106	pCi/g						
Lead 212		0.872	+/- 0.0947	0.0264	+/- 0.0947	0.0544	pCi/g						
Lead 214		0.636	+/- 0.102	0.0326	+/- 0.102	0.0677	pCi/g						
Manganese 54	U	0.0163	+/- 0.0262	0.0211	+/- 0.0262	0.0443	pCi/g						
Niobium 94	U	0.0151	+/- 0.0212	0.0187	+/- 0.0212	0.039	pCi/g						
Potassium 40		12.7	+/- 1.23	0.163	+/- 1.23	0.356	pCi/g						
Radium 226		0.577	+/- 0.095	0.033	+/- 0.095	0.069	pCi/g						
Silver 108m	U	0.0178	+/- 0.0154	0.0166	+/- 0.0154	0.0345	pCi/g						
Thallium 208		0.271	+/- 0.0547	0.0184	+/- 0.0547	0.0384	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 004FS
Sample ID: 162335005

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

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 005F
Sample ID: 162335006
Matrix: Soil
Collect Date: 25 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 19.4%

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		0.810	+/- 0.183	0.0752	+/- 0.183	0.159	pCi/g						
Americium 241	U	0.0234	+/- 0.036	0.0312	+/- 0.036	0.0638	pCi/g						
Bismuth 212		0.648	+/- 0.358	0.164	+/- 0.358	0.344	pCi/g						
Bismuth 214		0.637	+/- 0.112	0.0383	+/- 0.112	0.080	pCi/g						
Cesium 134	UUI	0.00	+/- 0.0379	0.0262	+/- 0.0379	0.0547	pCi/g						
Cesium 137		0.210	+/- 0.0415	0.0214	+/- 0.0415	0.0447	pCi/g						
Cobalt 60		0.136	+/- 0.0507	0.0187	+/- 0.0507	0.0404	pCi/g						
Europium 152	U	0.0439	+/- 0.0596	0.0513	+/- 0.0596	0.106	pCi/g						
Europium 154	U	0.0179	+/- 0.0729	0.0616	+/- 0.0729	0.131	pCi/g						
Europium 155	U	0.0147	+/- 0.0557	0.051	+/- 0.0557	0.105	pCi/g						
Lead 212		0.757	+/- 0.0591	0.0304	+/- 0.0591	0.0627	pCi/g						
Lead 214		0.714	+/- 0.0897	0.038	+/- 0.0897	0.0788	pCi/g						
Manganese 54	U	0.00687	+/- 0.026	0.0227	+/- 0.026	0.0476	pCi/g						
Niobium 94	U	0.0014	+/- 0.0222	0.0194	+/- 0.0222	0.0406	pCi/g						
Potassium 40		11.2	+/- 0.854	0.194	+/- 0.854	0.418	pCi/g						
Radium 226		0.637	+/- 0.112	0.0383	+/- 0.112	0.080	pCi/g						
Silver 108m	U	0.00275	+/- 0.0221	0.0191	+/- 0.0221	0.0397	pCi/g						
Thallium 208		0.273	+/- 0.0491	0.0204	+/- 0.0491	0.0427	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 005F
Sample ID: 162335006

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

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 006F
Sample ID: 162335007
Matrix: Soil
Collect Date: 25 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 27.9%

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		0.808	+/- 0.189	0.0619	+/- 0.189	0.132	pCi/g						
Americium 241	U	0.0509	+/- 0.111	0.0797	+/- 0.111	0.164	pCi/g						
Bismuth 212		0.562	+/- 0.324	0.130	+/- 0.324	0.276	pCi/g						
Bismuth 214		0.562	+/- 0.106	0.0306	+/- 0.106	0.0645	pCi/g						
Cesium 134	UUI	0.00	+/- 0.0388	0.0232	+/- 0.0388	0.0487	pCi/g						
Cesium 137		0.105	+/- 0.0477	0.0187	+/- 0.0477	0.0393	pCi/g						
Cobalt 60	U	0.0186	+/- 0.0229	0.0204	+/- 0.0229	0.0441	pCi/g						
Europium 152	U	0.0255	+/- 0.0547	0.043	+/- 0.0547	0.0896	pCi/g						
Europium 154	U	0.0125	+/- 0.068	0.0575	+/- 0.068	0.124	pCi/g						
Europium 155	U	0.0834	+/- 0.0936	0.0445	+/- 0.0936	0.0917	pCi/g						
Lead 212		0.894	+/- 0.0948	0.0256	+/- 0.0948	0.0529	pCi/g						
Lead 214		0.686	+/- 0.102	0.0313	+/- 0.102	0.0652	pCi/g						
Manganese 54	U	0.0168	+/- 0.0254	0.0173	+/- 0.0254	0.0367	pCi/g						
Niobium 94	U	0.00862	+/- 0.0187	0.0149	+/- 0.0187	0.0315	pCi/g						
Potassium 40		14.6	+/- 1.33	0.110	+/- 1.33	0.252	pCi/g						
Radium 226		0.562	+/- 0.106	0.0306	+/- 0.106	0.0645	pCi/g						
Silver 108m	U	0.00453	+/- 0.0169	0.0146	+/- 0.0169	0.0307	pCi/g						
Thallium 208		0.285	+/- 0.0542	0.0162	+/- 0.0542	0.0342	pCi/g						

MJH1 05/31/06 1112 528196 1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 006F
Sample ID: 162335007

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

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

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 007F
Sample ID: 162335008
Matrix: Soil
Collect Date: 25 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 10.9%

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		0.517	+/- 0.112	0.0452	+/- 0.112	0.0971	pCi/g						
Americium 241	U	0.000336	+/- 0.0951	0.0786	+/- 0.0951	0.163	pCi/g						
Bismuth 212		0.382	+/- 0.238	0.090	+/- 0.238	0.193	pCi/g						
Bismuth 214		0.481	+/- 0.0661	0.025	+/- 0.0661	0.0528	pCi/g						
Cesium 134	U	0.0215	+/- 0.0213	0.018	+/- 0.0213	0.038	pCi/g						
Cesium 137	U	0.0264	+/- 0.0204	0.0141	+/- 0.0204	0.0298	pCi/g						
Cobalt 60	U	0.029	+/- 0.0355	0.0161	+/- 0.0355	0.0347	pCi/g						
Europium 152	U	0.0144	+/- 0.0384	0.034	+/- 0.0384	0.0712	pCi/g						
Europium 154	U	0.0132	+/- 0.0495	0.0434	+/- 0.0495	0.0938	pCi/g						
Europium 155	U	0.0317	+/- 0.0496	0.0411	+/- 0.0496	0.0848	pCi/g						
Lead 212		0.628	+/- 0.0457	0.0187	+/- 0.0457	0.039	pCi/g						
Lead 214		0.510	+/- 0.0692	0.0242	+/- 0.0692	0.0508	pCi/g						
Manganese 54	U	0.00489	+/- 0.0168	0.0139	+/- 0.0168	0.0296	pCi/g						
Niobium 94	U	0.00332	+/- 0.0141	0.0124	+/- 0.0141	0.0262	pCi/g						
Potassium 40		9.43	+/- 0.672	0.129	+/- 0.672	0.283	pCi/g						
Radium 226		0.481	+/- 0.0661	0.025	+/- 0.0661	0.0528	pCi/g						
Silver 108m	U	0.000625	+/- 0.0127	0.0115	+/- 0.0127	0.0243	pCi/g						
Thallium 208		0.176	+/- 0.0378	0.0115	+/- 0.0378	0.0246	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 007F
Sample ID: 162335008

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

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

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.

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 009F
Sample ID: 162335009
Matrix: Soil
Collect Date: 25 APR 06
Receive Date: 05 MAY 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</i>													
Actinium 228		0.719	+/- 0.154	0.0493	+/- 0.154	0.105	pCi/g						
Americium 241	U	0.0062	+/- 0.0182	0.0173	+/- 0.0182	0.0355	pCi/g						
Bismuth 212	U	0.229	+/- 0.253	0.114	+/- 0.253	0.239	pCi/g						
Bismuth 214		0.434	+/- 0.0714	0.0244	+/- 0.0714	0.0515	pCi/g						
Cesium 134	UII	0.00	+/- 0.0227	0.0193	+/- 0.0227	0.0405	pCi/g						
Cesium 137		0.318	+/- 0.0367	0.0145	+/- 0.0367	0.0305	pCi/g						
Cobalt 60		0.445	+/- 0.0475	0.0139	+/- 0.0475	0.0303	pCi/g						
Europium 152	U	0.013	+/- 0.0375	0.0335	+/- 0.0375	0.0697	pCi/g						
Europium 154	U	0.0143	+/- 0.054	0.0469	+/- 0.054	0.100	pCi/g						
Europium 155	U	0.0386	+/- 0.0411	0.0284	+/- 0.0411	0.0585	pCi/g						
Lead 212		0.666	+/- 0.0419	0.0209	+/- 0.0419	0.0431	pCi/g						
Lead 214		0.507	+/- 0.0629	0.0244	+/- 0.0629	0.0508	pCi/g						
Manganese 54	U	0.0112	+/- 0.0181	0.0146	+/- 0.0181	0.031	pCi/g						
Niobium 94	U	0.00588	+/- 0.0152	0.0128	+/- 0.0152	0.0269	pCi/g						
Potassium 40		10.9	+/- 0.688	0.133	+/- 0.688	0.291	pCi/g						
Radium 226		0.434	+/- 0.0714	0.0244	+/- 0.0714	0.0515	pCi/g						
Silver 108m	U	0.00469	+/- 0.0128	0.0115	+/- 0.0128	0.0241	pCi/g						
Thallium 208		0.196	+/- 0.0361	0.0123	+/- 0.0361	0.026	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 009F
Sample ID: 162335009

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

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

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.

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 010F
Sample ID: 162335010
Matrix: Soil
Collect Date: 25 APR 06
Receive Date: 05 MAY 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													
<i>Gamma, Solid FSS GAM & ALL FSS</i>													
Actinium 228		0.848	+/- 0.169	0.0514	+/- 0.169	0.103	pCi/g						
Americium 241	U	0.00399	+/- 0.0658	0.0526	+/- 0.0658	0.105	pCi/g						
Bismuth 212		0.626	+/- 0.223	0.110	+/- 0.223	0.219	pCi/g						
Bismuth 214		0.658	+/- 0.0977	0.0271	+/- 0.0977	0.0542	pCi/g						
Cesium 134	UUI	0.00	+/- 0.0242	0.0187	+/- 0.0242	0.0374	pCi/g						
Cesium 137		0.204	+/- 0.0415	0.0166	+/- 0.0415	0.0332	pCi/g						
Cobalt 60		0.228	+/- 0.0508	0.0151	+/- 0.0508	0.0302	pCi/g						
Europium 152	U	0.0348	+/- 0.0545	0.0416	+/- 0.0545	0.0831	pCi/g						
Europium 154	U	0.032	+/- 0.058	0.0511	+/- 0.058	0.102	pCi/g						
Europium 155	U	0.0754	+/- 0.0616	0.043	+/- 0.0616	0.086	pCi/g						
Lead 212		0.881	+/- 0.0859	0.0248	+/- 0.0859	0.0497	pCi/g						
Lead 214		0.840	+/- 0.100	0.029	+/- 0.100	0.058	pCi/g						
Manganese 54	U	0.00224	+/- 0.0189	0.0164	+/- 0.0189	0.0329	pCi/g						
Niobium 94	U	0.00778	+/- 0.0157	0.0143	+/- 0.0157	0.0286	pCi/g						
Potassium 40		12.4	+/- 1.01	0.102	+/- 1.01	0.203	pCi/g						
Radium 226		0.658	+/- 0.0977	0.0271	+/- 0.0977	0.0542	pCi/g						
Silver 108m	U	0.00435	+/- 0.0158	0.0141	+/- 0.0158	0.0282	pCi/g						
Thallium 208		0.267	+/- 0.0454	0.015	+/- 0.0454	0.030	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 010F
Sample ID: 162335010

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

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

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.

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 010FS
Sample ID: 162335011
Matrix: Soil
Collect Date: 25 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 15.5%

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

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd
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Rad Gamma Spec Analysis

Gamma, Solid FSS GAM & ALL FSS

Actinium 228		0.731	+/- 0.148	0.0534	+/- 0.148	0.113	pCi/g						
Americium 241	U	0.0861	+/- 0.0773	0.0637	+/- 0.0773	0.131	pCi/g						
Bismuth 212		0.464	+/- 0.253	0.116	+/- 0.253	0.245	pCi/g						
Bismuth 214		0.736	+/- 0.101	0.0282	+/- 0.101	0.0589	pCi/g						
Cesium 134	UUI	0.00	+/- 0.0312	0.0199	+/- 0.0312	0.0416	pCi/g						
Cesium 137		0.169	+/- 0.0358	0.0153	+/- 0.0358	0.0321	pCi/g						
Cobalt 60	UUI	0.00	+/- 0.0404	0.0303	+/- 0.0404	0.063	pCi/g						
Europium 152	U	0.00825	+/- 0.0439	0.0397	+/- 0.0439	0.0823	pCi/g						
Europium 154	U	0.0128	+/- 0.0532	0.0448	+/- 0.0532	0.0961	pCi/g						
Europium 155	U	0.0139	+/- 0.0539	0.045	+/- 0.0539	0.0923	pCi/g						
Lead 212		0.841	+/- 0.0842	0.0226	+/- 0.0842	0.0467	pCi/g						
Lead 214		0.851	+/- 0.102	0.0272	+/- 0.102	0.0565	pCi/g						
Manganese 54	U	0.0134	+/- 0.020	0.0165	+/- 0.020	0.0348	pCi/g						
Niobium 94	U	0.0167	+/- 0.0157	0.0146	+/- 0.0157	0.0306	pCi/g						
Potassium 40		11.3	+/- 0.982	0.143	+/- 0.982	0.310	pCi/g						
Radium 226		0.736	+/- 0.101	0.0282	+/- 0.101	0.0589	pCi/g						
Silver 108m	U	0.00529	+/- 0.0156	0.0134	+/- 0.0156	0.028	pCi/g						
Thallium 208		0.266	+/- 0.0396	0.0142	+/- 0.0396	0.0298	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 010FS
Sample ID: 162335011

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

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

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 012F
Sample ID: 162335012
Matrix: Soil
Collect Date: 25 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 10.5%

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		0.944	+/- 0.128	0.0471	+/- 0.128	0.101	pCi/g						
Americium 241	U	0.108	+/- 0.105	0.0811	+/- 0.105	0.168	pCi/g						
Bismuth 212		0.686	+/- 0.178	0.110	+/- 0.178	0.233	pCi/g						
Bismuth 214		0.573	+/- 0.0696	0.0259	+/- 0.0696	0.0546	pCi/g						
Cesium 134	UUI	0.00	+/- 0.0249	0.0192	+/- 0.0249	0.0404	pCi/g						
Cesium 137		0.0427	+/- 0.0245	0.0126	+/- 0.0245	0.0269	pCi/g						
Cobalt 60	U	0.0145	+/- 0.0186	0.017	+/- 0.0186	0.0367	pCi/g						
Europium 152	U	0.00296	+/- 0.0424	0.0362	+/- 0.0424	0.0757	pCi/g						
Europium 154	U	0.0379	+/- 0.0639	0.0431	+/- 0.0639	0.0935	pCi/g						
Europium 155	U	0.0158	+/- 0.0486	0.0466	+/- 0.0486	0.0958	pCi/g						
Lead 212		0.871	+/- 0.0541	0.0223	+/- 0.0541	0.0462	pCi/g						
Lead 214		0.606	+/- 0.0738	0.0284	+/- 0.0738	0.0592	pCi/g						
Manganese 54	U	0.0177	+/- 0.0179	0.0163	+/- 0.0179	0.0344	pCi/g						
Niobium 94	U	0.000997	+/- 0.0157	0.0134	+/- 0.0157	0.0283	pCi/g						
Potassium 40		10.3	+/- 0.691	0.135	+/- 0.691	0.298	pCi/g						
Radium 226		0.573	+/- 0.0696	0.0259	+/- 0.0696	0.0546	pCi/g						
Silver 108m	U	0.00211	+/- 0.0133	0.0119	+/- 0.0133	0.0251	pCi/g						
Thallium 208		0.287	+/- 0.036	0.0127	+/- 0.036	0.027	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 012F
Sample ID: 162335012

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

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

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 013F
Sample ID: 162335013
Matrix: Soil
Collect Date: 25 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 35.4%

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		0.950	+/- 0.267	0.0693	+/- 0.267	0.150	pCi/g						
Americium 241	U	0.0155	+/- 0.124	0.0897	+/- 0.124	0.185	pCi/g						
Bismuth 212		0.769	+/- 0.384	0.196	+/- 0.384	0.414	pCi/g						
Bismuth 214		0.689	+/- 0.128	0.0464	+/- 0.128	0.0975	pCi/g						
Cesium 134	U	0.0358	+/- 0.0353	0.0295	+/- 0.0353	0.0622	pCi/g						
Cesium 137	U	0.0196	+/- 0.0262	0.023	+/- 0.0262	0.0488	pCi/g						
Cobalt 60	U	0.0241	+/- 0.0353	0.0265	+/- 0.0353	0.0573	pCi/g						
Europium 152	U	0.0728	+/- 0.0763	0.0585	+/- 0.0763	0.122	pCi/g						
Europium 154	U	0.0364	+/- 0.0868	0.0759	+/- 0.0868	0.164	pCi/g						
Europium 155	U	0.0211	+/- 0.0691	0.0597	+/- 0.0691	0.123	pCi/g						
Lead 212		1.22	+/- 0.0914	0.0359	+/- 0.0914	0.0741	pCi/g						
Lead 214		0.763	+/- 0.131	0.0439	+/- 0.131	0.0915	pCi/g						
Manganese 54	U	0.00992	+/- 0.0283	0.0226	+/- 0.0283	0.0482	pCi/g						
Niobium 94	U	0.00629	+/- 0.0335	0.0206	+/- 0.0335	0.0436	pCi/g						
Potassium 40		19.6	+/- 1.23	0.227	+/- 1.23	0.499	pCi/g						
Radium 226		0.689	+/- 0.128	0.0464	+/- 0.128	0.0975	pCi/g						
Silver 108m	U	0.019	+/- 0.0249	0.0189	+/- 0.0249	0.0397	pCi/g						
Thallium 208		0.339	+/- 0.0682	0.0232	+/- 0.0682	0.0489	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 013F
Sample ID: 162335013

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

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

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.

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 015F
Sample ID: 162335014
Matrix: Soil
Collect Date: 26 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 19.9%

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		0.682	+/- 0.213	0.0694	+/- 0.213	0.147	pCi/g						
Americium 241	U	0.0444	+/- 0.0952	0.076	+/- 0.0952	0.156	pCi/g						
Bismuth 212		0.651	+/- 0.327	0.143	+/- 0.327	0.304	pCi/g						
Bismuth 214		0.446	+/- 0.0833	0.0339	+/- 0.0833	0.0714	pCi/g						
Cesium 134	U	0.0335	+/- 0.0326	0.0241	+/- 0.0326	0.0507	pCi/g						
Cesium 137		0.257	+/- 0.0479	0.0172	+/- 0.0479	0.0365	pCi/g						
Cobalt 60		0.805	+/- 0.0828	0.0204	+/- 0.0828	0.0442	pCi/g						
Europium 152	U	0.0503	+/- 0.0545	0.0447	+/- 0.0545	0.0934	pCi/g						
Europium 154	U	0.00444	+/- 0.0697	0.0591	+/- 0.0697	0.127	pCi/g						
Europium 155	U	0.0251	+/- 0.0558	0.0498	+/- 0.0558	0.102	pCi/g						
Lead 212		0.741	+/- 0.0638	0.0269	+/- 0.0638	0.0556	pCi/g						
Lead 214		0.638	+/- 0.0878	0.0329	+/- 0.0878	0.0687	pCi/g						
Manganese 54	U	0.00149	+/- 0.0272	0.023	+/- 0.0272	0.0482	pCi/g						
Niobium 94	U	0.00431	+/- 0.0214	0.0181	+/- 0.0214	0.038	pCi/g						
Potassium 40		11.3	+/- 0.805	0.141	+/- 0.805	0.315	pCi/g						
Radium 226		0.446	+/- 0.0833	0.0339	+/- 0.0833	0.0714	pCi/g						
Silver 108m	U	0.00188	+/- 0.0197	0.0165	+/- 0.0197	0.0346	pCi/g						
Thallium 208		0.246	+/- 0.0422	0.020	+/- 0.0422	0.042	pCi/g						

MJH1 05/31/06 1724 528196 1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 015F
Sample ID: 162335014

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

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 016F
Sample ID: 162335015
Matrix: Soil
Collect Date: 26 APR 06
Receive Date: 05 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 Gamma Spec Analysis													
<i>Gamma, Solid FSS GAM & ALL FSS</i>													
Actinium 228		0.485	+/- 0.112	0.0433	+/- 0.112	0.0936	pCi/g						
Americium 241	U	0.0196	+/- 0.0623	0.0518	+/- 0.0623	0.107	pCi/g						
Bismuth 212		0.348	+/- 0.142	0.115	+/- 0.142	0.243	pCi/g						
Bismuth 214		0.403	+/- 0.0668	0.0219	+/- 0.0668	0.0467	pCi/g						
Cesium 134	UUI	0.00	+/- 0.0237	0.0173	+/- 0.0237	0.0367	pCi/g						
Cesium 137	U	0.000352	+/- 0.0154	0.0133	+/- 0.0154	0.0283	pCi/g						
Cobalt 60	U	0.0202	+/- 0.020	0.0142	+/- 0.020	0.0312	pCi/g						
Europium 152	U	0.0118	+/- 0.0424	0.0314	+/- 0.0424	0.0661	pCi/g						
Europium 154	U	0.0276	+/- 0.060	0.0374	+/- 0.060	0.0822	pCi/g						
Europium 155	U	0.00266	+/- 0.037	0.0351	+/- 0.037	0.0726	pCi/g						
Lead 212		0.488	+/- 0.0437	0.0199	+/- 0.0437	0.0414	pCi/g						
Lead 214		0.390	+/- 0.0686	0.0231	+/- 0.0686	0.0487	pCi/g						
Manganese 54	U	0.00955	+/- 0.015	0.0134	+/- 0.015	0.0287	pCi/g						
Niobium 94	U	0.0164	+/- 0.0146	0.0136	+/- 0.0146	0.0287	pCi/g						
Potassium 40		8.00	+/- 0.691	0.118	+/- 0.691	0.264	pCi/g						
Radium 226		0.403	+/- 0.0668	0.0219	+/- 0.0668	0.0467	pCi/g						
Silver 108m	U	0.0079	+/- 0.0126	0.0109	+/- 0.0126	0.023	pCi/g						
Thallium 208		0.170	+/- 0.0404	0.0119	+/- 0.0404	0.0253	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 016F
Sample ID: 162335015

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

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

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 017F
Sample ID: 162335016
Matrix: Soil
Collect Date: 26 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 18.5%

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		1.25	+/- 0.253	0.0616	+/- 0.253	0.131	pCi/g						
Americium 241	U	0.0391	+/- 0.146	0.0859	+/- 0.146	0.176	pCi/g						
Bismuth 212		0.847	+/- 0.246	0.131	+/- 0.246	0.277	pCi/g						
Bismuth 214		0.880	+/- 0.115	0.0333	+/- 0.115	0.0697	pCi/g						
Cesium 134	UUI	0.00	+/- 0.0443	0.0252	+/- 0.0443	0.0525	pCi/g						
Cesium 137	UUI	0.00	+/- 0.0357	0.0203	+/- 0.0357	0.0424	pCi/g						
Cobalt 60	U	0.0208	+/- 0.0239	0.0217	+/- 0.0239	0.0464	pCi/g						
Europium 152	U	0.0194	+/- 0.053	0.0462	+/- 0.053	0.0958	pCi/g						
Europium 154	U	0.00332	+/- 0.0714	0.0609	+/- 0.0714	0.130	pCi/g						
Europium 155	U	0.069	+/- 0.0628	0.0529	+/- 0.0628	0.108	pCi/g						
Lead 212		1.24	+/- 0.122	0.0279	+/- 0.122	0.0573	pCi/g						
Lead 214		1.02	+/- 0.130	0.0335	+/- 0.130	0.0694	pCi/g						
Manganese 54	U	0.00696	+/- 0.0258	0.0191	+/- 0.0258	0.0404	pCi/g						
Niobium 94	U	0.00448	+/- 0.0306	0.0178	+/- 0.0306	0.0372	pCi/g						
Potassium 40		13.2	+/- 1.27	0.163	+/- 1.27	0.356	pCi/g						
Radium 226		0.880	+/- 0.115	0.0333	+/- 0.115	0.0697	pCi/g						
Silver 108m	U	0.00197	+/- 0.0175	0.0152	+/- 0.0175	0.0317	pCi/g						
Thallium 208		0.413	+/- 0.0528	0.0186	+/- 0.0528	0.0389	pCi/g						

MJH1 05/31/06 1726 528196 1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

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- < Result is less than value reported
- > Result is greater than value reported

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 017F
Sample ID: 162335016

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

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

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 018F
Sample ID: 162335017
Matrix: Soil
Collect Date: 26 APR 06
Receive Date: 05 MAY 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</i>													
Actinium 228		0.397	+/- 0.164	0.0734	+/- 0.164	0.154	pCi/g						
Americium 241	U	0.000262	+/- 0.0286	0.0275	+/- 0.0286	0.0564	pCi/g						
Bismuth 212	U	0.309	+/- 0.280	0.158	+/- 0.280	0.330	pCi/g						
Bismuth 214		0.360	+/- 0.081	0.0367	+/- 0.081	0.0766	pCi/g						
Cesium 134	U	0.0232	+/- 0.0253	0.0233	+/- 0.0253	0.0487	pCi/g						
Cesium 137		0.190	+/- 0.0405	0.0196	+/- 0.0405	0.0411	pCi/g						
Cobalt 60		0.185	+/- 0.0516	0.0201	+/- 0.0516	0.043	pCi/g						
Europium 152	U	0.00454	+/- 0.0526	0.047	+/- 0.0526	0.0976	pCi/g						
Europium 154	U	0.0156	+/- 0.0628	0.0554	+/- 0.0628	0.118	pCi/g						
Europium 155	U	0.0431	+/- 0.0437	0.0435	+/- 0.0437	0.0893	pCi/g						
Lead 212		0.516	+/- 0.0495	0.0279	+/- 0.0495	0.0574	pCi/g						
Lead 214		0.420	+/- 0.0794	0.035	+/- 0.0794	0.0725	pCi/g						
Manganese 54	U	6.390E 06	+/- 0.0235	0.0204	+/- 0.0235	0.0429	pCi/g						
Niobium 94	U	0.00578	+/- 0.0201	0.018	+/- 0.0201	0.0377	pCi/g						
Potassium 40		9.25	+/- 0.728	0.167	+/- 0.728	0.362	pCi/g						
Radium 226		0.360	+/- 0.081	0.0367	+/- 0.081	0.0766	pCi/g						
Silver 108m	U	0.0022	+/- 0.0189	0.0167	+/- 0.0189	0.0348	pCi/g						
Thallium 208		0.133	+/- 0.0506	0.0203	+/- 0.0506	0.0424	pCi/g						

MJH1 05/31/06 1727 528196 1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

The following Analytical Methods were performed

Method	Description
1	EML HASL 300, 4.5.2.3

Notes:

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- < Result is less than value reported
- > Result is greater than value reported

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 018F
Sample ID: 162335017

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

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

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.

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

Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 008F
Sample ID: 162335018
Matrix: Soil
Collect Date: 25 APR 06
Receive Date: 05 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 Alpha Spec Analysis													
<i>Alphaspec Am241, Cm, Solid ALL FSS</i>													
Americium 241	U	0.00731	+/- 0.0284	0.00	+/- 0.0284	0.0777	pCi/g		LCW1	05/18/06	1606	530940	1
Curium 242	U	0.0241	+/- 0.0639	0.0361	+/- 0.064	0.158	pCi/g						
Curium 243/244	U	0.00	+/- 0.0563	0.00	+/- 0.0563	0.0778	pCi/g						
<i>Alphaspec Pu, Solid ALL FSS</i>													
Plutonium 238	U	0.0741	+/- 0.155	0.193	+/- 0.155	0.467	pCi/g		LCW1	05/18/06	1605	530942	2
Plutonium 239/240	U	0.00243	+/- 0.133	0.143	+/- 0.133	0.367	pCi/g						
<i>Liquid Scint Pu241, Solid ALL FSS</i>													
Plutonium 241		54.2	+/- 15.0	11.0	+/- 15.9	22.6	pCi/g		LCW1	06/03/06	0928	530943	3
Rad Gamma Spec Analysis													
<i>Gamma, Solid FSS GAM & ALL FSS</i>													
Actinium 228		0.615	+/- 0.163	0.0558	+/- 0.163	0.120	pCi/g		MJH1	05/31/06	1727	528196	4
Americium 241	U	0.00706	+/- 0.0254	0.0245	+/- 0.0254	0.0503	pCi/g						
Bismuth 212		0.528	+/- 0.246	0.144	+/- 0.246	0.306	pCi/g						
Bismuth 214		0.501	+/- 0.095	0.0294	+/- 0.095	0.0624	pCi/g						
Cesium 134	U	0.0293	+/- 0.0241	0.0224	+/- 0.0241	0.0473	pCi/g						
Cesium 137		0.246	+/- 0.0396	0.0178	+/- 0.0396	0.0377	pCi/g						
Cobalt 60		0.109	+/- 0.0365	0.0172	+/- 0.0365	0.0377	pCi/g						
Europium 152	U	0.00648	+/- 0.0436	0.0405	+/- 0.0436	0.0847	pCi/g						
Europium 154	U	0.0147	+/- 0.0577	0.0508	+/- 0.0577	0.110	pCi/g						
Europium 155	UUI	0.00	+/- 0.0588	0.0358	+/- 0.0588	0.0739	pCi/g						
Lead 212		0.470	+/- 0.047	0.0218	+/- 0.047	0.0453	pCi/g						
Lead 214		0.460	+/- 0.0751	0.0294	+/- 0.0751	0.0615	pCi/g						
Manganese 54	U	0.00378	+/- 0.0226	0.0189	+/- 0.0226	0.0402	pCi/g						
Niobium 94	U	0.00262	+/- 0.0191	0.0163	+/- 0.0191	0.0345	pCi/g						
Potassium 40		9.51	+/- 0.714	0.143	+/- 0.714	0.319	pCi/g						
Radium 226		0.501	+/- 0.095	0.0294	+/- 0.095	0.0624	pCi/g						
Silver 108m	U	0.012	+/- 0.0156	0.0134	+/- 0.0156	0.0284	pCi/g						
Thallium 208		0.204	+/- 0.0408	0.0165	+/- 0.0408	0.0349	pCi/g						
Rad Gas Flow Proportional Counting													
<i>GFPC, Sr90, solid ALL FSS</i>													
Strontium 90	U	0.00669	+/- 0.00923	0.00862	+/- 0.00923	0.0179	pCi/g		BXF1	06/06/06	2314	535512	5
Rad Liquid Scintillation Analysis													
<i>LSC, Tritium Dist, Solid HTD2, ALL FSS</i>													
Tritium	U	5.45	+/- 6.31	5.08	+/- 6.31	10.6	pCi/g		NXP1	05/28/06	0219	531705	7
<i>Liquid Scint C14, Solid All, FSS</i>													

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 008F
Sample ID: 162335018

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	0.0788	+/- 0.115	0.0953	+/- 0.115	0.194	pCi/g		ATH2	06/05/06	1937	534837	8
<i>Liquid Scint Fe55, Solid ALL FSS</i>													
Iron 55	U	15.8	+/- 16.9	13.2	+/- 17.0	27.8	pCi/g		AF1	06/05/06	1553	535483	10
<i>Liquid Scint Ni63, Solid ALL FSS</i>													
Nickel 63	U	0.0786	+/- 2.26	1.89	+/- 2.26	3.93	pCi/g		SLN1	05/30/06	1451	527978	12
<i>Liquid Scint Tc99, Solid ALL FSS</i>													
Technetium 99	U	0.0613	+/- 0.256	0.217	+/- 0.256	0.445	pCi/g		SXE1	05/31/06	0914	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	MXP2	05/08/06	0826	527706
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

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	106	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	91	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	94	(25% 125%)

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 008F
Sample ID: 162335018

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			73		(25% 125%)						
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid	ALL FS			91		(15% 125%)						
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid	ALL FS			85		(25% 125%)						
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid	ALL FS			62		(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.

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 014F
Sample ID: 162335019
Matrix: Soil
Collect Date: 25 APR 06
Receive Date: 05 MAY 06
Collector: Client
Moisture: 16%

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																			
Alphaspec Am241, Cm, Solid ALL FSS																			
Americium 241	U	0.0626	+/- 0.101	0.00	+/- 0.102	0.115	pCi/g	LCW1	05/18/06	1606	530940	1							
Curium 242	U	0.047	+/- 0.0921	0.00	+/- 0.0924	0.127	pCi/g												
Curium 243/244	U	0.00	+/- 0.0834	0.00	+/- 0.0834	0.115	pCi/g												
Alphaspec Pu, Solid ALL FSS																			
Plutonium 238	U	0.0512	+/- 0.167	0.197	+/- 0.168	0.476	pCi/g	LCW1	05/18/06	1605	530942	2							
Plutonium 239/240	U	0.0658	+/- 0.043	0.104	+/- 0.0437	0.291	pCi/g												
Liquid Scint Pu241, Solid ALL FSS																			
Plutonium 241	U	19.0	+/- 13.1	10.4	+/- 13.2	21.5	pCi/g	LCW1	06/03/06	0959	530943	3							
Rad Gamma Spec Analysis																			
Gamma, Solid FSS GAM & ALL FSS																			
Actinium 228		0.885	+/- 0.165	0.0474	+/- 0.165	0.0994	pCi/g	MJH1	05/31/06	1728	528196	4							
Americium 241	U	0.00545	+/- 0.0921	0.0757	+/- 0.0921	0.156	pCi/g												
Bismuth 212		0.476	+/- 0.227	0.107	+/- 0.227	0.223	pCi/g												
Bismuth 214		0.559	+/- 0.0801	0.0249	+/- 0.0801	0.0518	pCi/g												
Cesium 134	UUI	0.00	+/- 0.0239	0.0171	+/- 0.0239	0.0356	pCi/g												
Cesium 137		0.291	+/- 0.0402	0.0132	+/- 0.0402	0.0275	pCi/g												
Cobalt 60		0.433	+/- 0.0574	0.0112	+/- 0.0574	0.0242	pCi/g												
Europium 152	U	0.0381	+/- 0.0372	0.0325	+/- 0.0372	0.0675	pCi/g												
Europium 154	U	0.0112	+/- 0.0452	0.037	+/- 0.0452	0.0787	pCi/g												
Europium 155	U	0.080	+/- 0.0686	0.0431	+/- 0.0686	0.0885	pCi/g												
Lead 212		0.927	+/- 0.0855	0.0203	+/- 0.0855	0.042	pCi/g												
Lead 214		0.733	+/- 0.0906	0.0247	+/- 0.0906	0.0512	pCi/g												
Manganese 54	UUI	0.00	+/- 0.0409	0.013	+/- 0.0409	0.0272	pCi/g												
Niobium 94	U	0.0126	+/- 0.0136	0.0118	+/- 0.0136	0.0246	pCi/g												
Potassium 40		15.3	+/- 1.40	0.101	+/- 1.40	0.218	pCi/g												
Radium 226		0.559	+/- 0.0801	0.0249	+/- 0.0801	0.0518	pCi/g												
Silver 108m	U	0.00262	+/- 0.013	0.0115	+/- 0.013	0.024	pCi/g												
Thallium 208		0.333	+/- 0.0443	0.0119	+/- 0.0443	0.025	pCi/g												
Rad Gas Flow Proportional Counting																			
GFPC, Sr90, solid ALL FSS																			
Strontium 90	U	0.000963	+/- 0.0092	0.00897	+/- 0.0092	0.0187	pCi/g	BXF1	06/06/06	2315	535512	5							
Rad Liquid Scintillation Analysis																			
LSC, Tritium Dist, Solid HTD2, ALL FSS																			
Tritium	U	9.53	+/- 7.00	5.52	+/- 7.00	11.5	pCi/g	NXP1	05/28/06	0251	531705	7							
Liquid Scint C14, Solid All, FSS																			

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Certificate of Analysis

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 014F
Sample ID: 162335019

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	0.0228	+/- 0.110	0.0919	+/- 0.110	0.187	pCi/g		ATH2	06/05/06	2038	534837	8
<i>Liquid Scint Fe55, Solid ALL FSS</i>													
Iron 55	U	1.69	+/- 16.2	12.1	+/- 16.2	25.3	pCi/g		AF1	06/05/06	1610	535483	10
<i>Liquid Scint Ni63, Solid ALL FSS</i>													
Nickel 63	U	0.34	+/- 2.43	2.05	+/- 2.43	4.25	pCi/g		SLN1	05/30/06	1507	527978	12
<i>Liquid Scint Tc99, Solid ALL FSS</i>													
Technetium 99	U	0.179	+/- 0.268	0.219	+/- 0.268	0.453	pCi/g		SXE1	05/30/06	2109	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	MXP2	05/08/06	0826	527706
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	05/07/06	1536	527705

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	66	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	95	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	101	(25% 125%)

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Certificate of Analysis

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

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

Report Date: June 7, 2006

Client Sample ID: 9106 0003 014F
Sample ID: 162335019

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			60		(25% 125%)						
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid	ALL FS			86		(15% 125%)						
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid	ALL FS			83		(25% 125%)						
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid	ALL FS			69		(15% 125%)						

Notes:

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 - N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
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 - 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 7, 2006

Page 1 of 9

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

Contact: East Hampton, Connecticut
Mr. Jack McCarthy

Workorder: 162335

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	530940										
QC1201095114	162335018	DUP									
Americium-241		U	0.00731	U	0.0412	pCi/g	140	(0% - 100%)	LCW1	05/18/06	16:06
		Uncert:	+/-0.0284		+/-0.144						
		TPU:	+/-0.0284		+/-0.144						
Curium-242		U	0.0241	U	0.00	pCi/g	0	(0% - 100%)			
		Uncert:	+/-0.0639		+/-0.179						
		TPU:	+/-0.064		+/-0.179						
Curium-243/244		U	0.00	U	-0.0198	pCi/g	200	(0% - 100%)			
		Uncert:	+/-0.0563		+/-0.0389						
		TPU:	+/-0.0563		+/-0.039						
QC1201095116	LCS										
Americium-241		12.7			11.5	pCi/g	91	(75%-125%)			
		Uncert:			+/-1.12						
		TPU:			+/-1.97						
Curium-242				U	0.00	pCi/g					
		Uncert:			+/-0.0559						
		TPU:			+/-0.0559						
Curium-243/244		15.5			13.4	pCi/g	85	(75%-125%)			
		Uncert:			+/-1.21						
		TPU:			+/-2.24						
QC1201095113	MB										
Americium-241				U	-0.0214	pCi/g					
		Uncert:			+/-0.0615						
		TPU:			+/-0.0617						
Curium-242				U	-0.00758	pCi/g					
		Uncert:			+/-0.0149						
		TPU:			+/-0.0149						
Curium-243/244				U	-0.00753	pCi/g					
		Uncert:			+/-0.0148						
		TPU:			+/-0.0148						
QC1201095115	162335018	MS									
Americium-241		13.3	U	0.00731	11.9	pCi/g	90	(75%-125%)			
		Uncert:			+/-1.21						
		TPU:			+/-2.09						
Curium-242			U	0.0241	0.00	pCi/g					
		Uncert:			+/-0.0689						
		TPU:			+/-0.0689						
Curium-243/244		16.3	U	0.00	15.5	pCi/g	95	(75%-125%)			
		Uncert:			+/-1.38						
		TPU:			+/-2.61						
Batch	530942										
QC1201095122	162335018	DUP									
Plutonium-238		U	-0.0741	U	-0.0202	pCi/g	114	(0% - 100%)	LCW1	05/18/06	16:14

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QC Summary

Workorder: 162335

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	530942										
		Uncert:		+/-0.155							
		TPU:		+/-0.155							
Plutonium-239/240		U	-0.00243	U	0.0157	pCi/g	273	(0% - 100%)			
		Uncert:		+/-0.133							
		TPU:		+/-0.133							
QC1201095124	LCS										
Plutonium-238				0.128	pCi/g			(75%-125%)			
		Uncert:		+/-0.125							
		TPU:		+/-0.126							
Plutonium-239/240	11.7			11.8	pCi/g		101	(75%-125%)			
		Uncert:		+/-1.21							
		TPU:		+/-1.72							
QC1201095121	MB										
Plutonium-238			U	-0.0523	pCi/g					05/18/06	16:05
		Uncert:		+/-0.0953							
		TPU:		+/-0.0955							
Plutonium-239/240			U	-0.0933	pCi/g						
		Uncert:		+/-0.101							
		TPU:		+/-0.101							
QC1201095123	162335018	MS									
Plutonium-238		U	-0.0741	U	0.070	pCi/g		(75%-125%)		05/18/06	16:14
		Uncert:		+/-0.155							
		TPU:		+/-0.155							
Plutonium-239/240	12.3	U	-0.00243		10.5	pCi/g	85	(75%-125%)			
		Uncert:		+/-0.133							
		TPU:		+/-0.133							
Batch	530943										
QC1201095126	162335018	DUP									
Plutonium-241			54.2		36.3	pCi/g	40	(0% - 100%)	LCW1	06/03/06	11:01
		Uncert:		+/-15.0							
		TPU:		+/-15.9							
QC1201095128	LCS										
Plutonium-241		330		303	pCi/g		92	(75%-125%)		06/03/06	12:04
		Uncert:		+/-22.1							
		TPU:		+/-37.4							
QC1201095125	MB										
Plutonium-241			U	14.0	pCi/g					06/03/06	10:30
		Uncert:		+/-13.6							
		TPU:		+/-13.6							
QC1201095127	162335018	MS									
Plutonium-241		331	54.2	320	pCi/g		80	(75%-125%)		06/03/06	11:32
		Uncert:		+/-15.0							
		TPU:		+/-15.9							
Rad Gamma Spec											
Batch	528196										
QC1201088600	162335001	DUP									
Actinium-228			0.640		0.681	pCi/g	6	(0% - 100%)	MJH1	05/31/06	17:31
		Uncert:		+/-0.149							
					+/-0.118						
					+/-0.118						

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QC Summary

Workorder: 162335

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 528196											
Americium-241		TPU:		+/-0.149							
	U			0.00555	U	-0.00939	pCi/g	779	(0% - 100%)		
		Uncert:		+/-0.0707		+/-0.0817					
Bismuth-212		TPU:		+/-0.0707		+/-0.0817					
				0.351		0.356	pCi/g	1	(0% - 100%)		
		Uncert:		+/-0.281		+/-0.181					
Bismuth-214		TPU:		+/-0.281		+/-0.181					
				0.462		0.418	pCi/g	10	(0% - 100%)		
		Uncert:		+/-0.0847		+/-0.066					
Cesium-134		TPU:		+/-0.0847		+/-0.066					
	U			0.00674	U	0.00496	pCi/g	30	(0% - 100%)		
		Uncert:		+/-0.0184		+/-0.0191					
Cesium-137		TPU:		+/-0.0184		+/-0.0191					
				0.128		0.131	pCi/g	3	(0% - 100%)		
		Uncert:		+/-0.0361		+/-0.0298					
Cobalt-60		TPU:		+/-0.0361		+/-0.0298					
				0.107		0.108	pCi/g	1	(0% - 100%)		
		Uncert:		+/-0.0311		+/-0.0327					
Europium-152		TPU:		+/-0.0311		+/-0.0327					
	U			0.00641	U	-0.00259	pCi/g	471	(0% - 100%)		
		Uncert:		+/-0.043		+/-0.0383					
Europium-154		TPU:		+/-0.043		+/-0.0383					
	U			-0.015	U	0.00694	pCi/g	544	(0% - 100%)		
		Uncert:		+/-0.0505		+/-0.0476					
Europium-155		TPU:		+/-0.0505		+/-0.0476					
	U			0.0713	U	0.033	pCi/g	74	(0% - 100%)		
		Uncert:		+/-0.0618		+/-0.0524					
Lead-212		TPU:		+/-0.0618		+/-0.0524					
				0.670		0.640	pCi/g	5	(0% - 20%)		
		Uncert:		+/-0.0714		+/-0.048					
Lead-214		TPU:		+/-0.0714		+/-0.048					
				0.562		0.561	pCi/g	0	(0% - 20%)		
		Uncert:		+/-0.0771		+/-0.0698					
Manganese-54		TPU:		+/-0.0771		+/-0.0698					
	U			-0.0119	U	0.00582	pCi/g	584	(0% - 100%)		
		Uncert:		+/-0.0207		+/-0.0176					
Niobium-94		TPU:		+/-0.0207		+/-0.0176					
	U			0.0123	U	0.00253	pCi/g	132	(0% - 100%)		
		Uncert:		+/-0.0151		+/-0.0135					
Potassium-40		TPU:		+/-0.0151		+/-0.0135					
				10.9		10.5	pCi/g	4	(0% - 20%)		
		Uncert:		+/-0.996		+/-0.705					
Radium-226		TPU:		+/-0.996		+/-0.705					
				0.462		0.418	pCi/g	10	(0% - 100%)		
		Uncert:		+/-0.0847		+/-0.066					
Silver-108m		TPU:		+/-0.0847		+/-0.066					
	U			0.0049	U	-0.001	pCi/g	303	(0% - 100%)		
		Uncert:		+/-0.0138		+/-0.0125					

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QC Summary

Workorder: 162335

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Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec										
Batch	528196									
Thallium-208	TPU: +/-0.0138 0.229 Uncert: +/-0.0399 TPU: +/-0.0399		+/-0.0125 0.214 +/-0.0444 +/-0.0444	pCi/g	7		(0% - 100%)			
QC1201088601 LCS Actinium-228		U	0.109	pCi/g					05/31/06	17:32
Americium-241	23.4 Uncert: +/-0.571 TPU: +/-0.571		21.1 +/-2.42 +/-2.42	pCi/g		90	(75%-125%)			
Bismuth-212		U	-0.0642	pCi/g						
Bismuth-214	Uncert: +/-1.13 TPU: +/-1.13		+/-1.13 0.196	pCi/g						
Cesium-134	Uncert: +/-0.247 TPU: +/-0.247		+/-0.247 -0.013	pCi/g						
Cesium-137	9.65 Uncert: +/-0.147 TPU: +/-0.147		10.2 +/-0.895 +/-0.895	pCi/g		105	(75%-125%)			
Cobalt-60	15.1 Uncert: +/-0.895 TPU: +/-0.895		15.8 +/-1.18 +/-1.18	pCi/g		104	(75%-125%)			
Europium-152		U	-0.084	pCi/g						
Europium-154	Uncert: +/-0.302 TPU: +/-0.302		+/-0.302 0.416	pCi/g						
Europium-155	Uncert: +/-0.330 TPU: +/-0.330		+/-0.330 -0.213	pCi/g						
Lead-212	Uncert: +/-0.356 TPU: +/-0.356		+/-0.356 0.105	pCi/g						
Lead-214	Uncert: +/-0.180 TPU: +/-0.180		+/-0.180 0.00264	pCi/g						
Manganese-54	Uncert: +/-0.222 TPU: +/-0.222		+/-0.222 -0.0501	pCi/g						
Niobium-94	Uncert: +/-0.138 TPU: +/-0.138		+/-0.138 0.0389	pCi/g						
Potassium-40	Uncert: +/-0.131 TPU: +/-0.131		+/-0.131 1.82	pCi/g						

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QC Summary

Workorder: 162335

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Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec										
Batch	528196									
			Uncert:							
			TPU:							
Radium-226		U	0.196	pCi/g			(75%-125%)			
			Uncert:							
			TPU:							
Silver-108m		U	-0.0876	pCi/g						
			Uncert:							
			TPU:							
Thallium-208		U	0.0613	pCi/g						
			Uncert:							
			TPU:							
QC1201088599 MB										
Actinium-228		U	0.0748	pCi/g					06/02/06	09:20
			Uncert:							
			TPU:							
Americium-241		U	-0.0415	pCi/g						
			Uncert:							
			TPU:							
Bismuth-212		U	0.0557	pCi/g						
			Uncert:							
			TPU:							
Bismuth-214		UUI	0.00	pCi/g						
			Uncert:							
			TPU:							
Cesium-134		U	0.00114	pCi/g						
			Uncert:							
			TPU:							
Cesium-137		U	0.00771	pCi/g						
			Uncert:							
			TPU:							
Cobalt-60		U	0.0159	pCi/g						
			Uncert:							
			TPU:							
Europium-152		U	0.00686	pCi/g						
			Uncert:							
			TPU:							
Europium-154		U	-0.0183	pCi/g						
			Uncert:							
			TPU:							
Europium-155		U	-0.00693	pCi/g						
			Uncert:							
			TPU:							
Lead-212		U	0.00357	pCi/g						
			Uncert:							
			TPU:							
Lead-214		U	0.00987	pCi/g						
			Uncert:							
			TPU:							

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QC Summary

Workorder: 162335

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	528196										
Manganese-54			U	0.00383	pCi/g						
	Uncert:			+/-0.00944							
	TPU:			+/-0.00944							
Niobium-94			U	-0.00371	pCi/g						
	Uncert:			+/-0.00901							
	TPU:			+/-0.00901							
Potassium-40			U	0.0777	pCi/g						
	Uncert:			+/-0.178							
	TPU:			+/-0.178							
Radium-226			UUI	0.00	pCi/g						
	Uncert:			+/-0.0342							
	TPU:			+/-0.0342							
Silver-108m			U	0.000939	pCi/g						
	Uncert:			+/-0.00928							
	TPU:			+/-0.00928							
Thallium-208			U	0.0147	pCi/g						
	Uncert:			+/-0.0161							
	TPU:			+/-0.0161							
Rad Gas Flow											
Batch	535512										
QC1201105910	162335018	DUP									
Strontium-90		U	0.00669	U	0.012	pCi/g	0	(0% - 100%)	BOXF1	06/06/06	23:16
	Uncert:		+/-0.00923		+/-0.00902						
	TPU:		+/-0.00923		+/-0.00902						
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	527978										
QC1201088148	162335018	DUP									
Nickel-63		U	0.0786	U	-2.09	pCi/g	0	(0% - 100%)	SLN1	05/30/06	15:39
	Uncert:		+/-2.26		+/-2.31						
	TPU:		+/-2.26		+/-2.31						
QC1201088150	LCS										
Nickel-63		129		119	pCi/g		92	(75%-125%)		05/30/06	16:12
	Uncert:			+/-5.38							
	TPU:			+/-6.06							
QC1201088147	MB										
Nickel-63				U	-1.23	pCi/g				05/30/06	15:23

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QC Summary

Workorder: 162335

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Parmname				NOM	Sample Qual		QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation														
Batch		527978												
				Uncert:		+/-2.03								
				TPU:		+/-2.03								
QC1201088149	162335018	MS												
Nickel-63			134	U	0.0786		122	pCi/g		91	(75%-125%)		05/30/06	15:55
				Uncert:		+/-2.26		+/-5.70						
				TPU:		+/-2.26		+/-6.37						
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								
QC1201096877	MB													
Tritium						U	0.0641	pCi/g					06/03/06	05:11
				Uncert:		+/-0.533								
				TPU:		+/-0.533								
QC1201096879	162583001	MS												
Tritium			45.7	U	1.17		52.3	pCi/g		114	(75%-125%)		05/28/06	09:42
				Uncert:		+/-4.09		+/-6.44						
				TPU:		+/-4.09		+/-6.50						
Batch		534837												
QC1201104385	162335019	DUP												
Carbon-14				U	0.0228	U	0.0418	pCi/g	0		(0% - 100%)	ATH2	06/05/06	22:40
				Uncert:		+/-0.110		+/-0.121						
				TPU:		+/-0.110		+/-0.121						
QC1201104387	LCS													
Carbon-14			6.66				6.52	pCi/g		98	(75%-125%)		06/04/06	08:22
				Uncert:		+/-0.238								
				TPU:		+/-0.259								

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QC Summary

Workorder: 162335

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch	534837										
QC1201104384	MB										
Carbon-14			U	0.0371	pCi/g					06/04/06	06:04
		Uncert:		+/-0.125							
		TPU:		+/-0.125							
QC1201104386	162335019	MS									
Carbon-14		7.13	U	0.0228	7.04	pCi/g	99	(75%-125%)		06/04/06	07:36
		Uncert:		+/-0.110	+/-0.249						
		TPU:		+/-0.110	+/-0.272						
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	+/-20.4						
		TPU:		+/-17.0	+/-20.4						
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	+/-39.8						
		TPU:		+/-17.0	+/-71.2						

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
- Preparation or preservation holding time was exceeded

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QC Summary

Workorder: 162335

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

**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

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

Additional HTD analyses

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>

1684041

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

Done

To be done

Previous		Done			To be done								
GEL ID	CY sample location IDs	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

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

No. 2006-00372

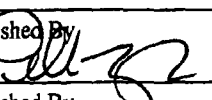
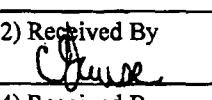
Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size- & Type Code	Analyses Requested					Lab Use Only			
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90					Comments:	
Analytical Lab (Name, City, State) General Engineering Laboratories 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		
9106-0002-009F	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		2) Received By 			Date/Time		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						

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 41455710 Chain of Custody #: 2006-00371

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 23.0

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: [Signature] Date: 6-2-06

Telephoned to: _____ On _____ By _____

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: 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 ☐ hopacking 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: Candice Thur 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>CJ</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?				COC # <u>2006-00372</u> <u>00372</u> <u>06/2/06</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>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>CJ</u> Date: <u>6/2/06</u>

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00312

162334 162335 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. Demicetto			Date/Time 5/5/06 / 1015			Bill of Lading # 7920-8920-0210		
3) Relinquished By			Date/Time			4) Received By			Date/Time					
5) Relinquished By			Date/Time			6) Received By			Date/Time					

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00313

~~162334~~ 162335

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
CodeSample
Type
CodeContainer
Size-
& Type
Code

FSSGAM

FSSALL

Sr-90

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 ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:

☒ Fed Ex☐ UPS☐ Hand☐ Other

Internal Container

Temp. _____ Deg. C

Custody Sealed?

Y ☐ N ☐

Custody Seal Intact?

Y ☐ N ☐

1) Relinquished By

Date/Time

JAMES PICARTE

5-1-06 / 1330

2) Received By

Date/Time

C. Derricco

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>COA 5/5/06</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 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	FedEx # <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>ASJ</u> Date: <u>5/5/06</u>

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00336

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	St-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
9106-0004-001F	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 #: 06-068P 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		Samples Shipped Via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Hand <input type="checkbox"/> Other		
3) Relinquished By			Date/Time		4) Received By			Date/Time		Bill of Lading # 7919-3895-8881		

 Internal Container
 Temp: 35 Deg C
 Grassy Sealant
 N/A
 Custody Seal Intact
 YY N

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00337

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: ☒ 30 D. ☐ 14 D. ☐ 7 D.

Sample Designation

Date

Time

Media
CodeSample
Type
CodeContainer
Size-
& Type
Code

FSSGAM

FSSALL

Sr-90

Analyses Requested

Lab Use Only

Comments

Comment, Preservation

Lab Sample ID

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

☒ LTP QA☐ Radwaste QA☐ Non QA

Samples Shipped Via:

☒ Fed Ex☐ UPS☐ Hand☐ Other

Bill of Lading #

7919 3875 8892

1) Relinquished By

Date/Time

2) Received By

Date/Time

3) Relinquished By

Date/Time

4) Received By

Date/Time

Internal Container

Temp: 67 Deg C

Custody Sealed?

Custody Seal Intact?

Custody Seal Intact?

Custody Seal Intact?

Custody Seal Intact?

Custody Seal Intact?

Custody Seal Intact?

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 _____

Connecticut Yankee
Statement of Work for Analytical Lab Services

CY-ISC-SOW-001

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
1420 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:	
<input checked="" type="checkbox"/> tape	<input type="checkbox"/> hazard labels
<input checked="" type="checkbox"/> custody seals	<input type="checkbox"/> appropriate sample labels
9. Samples are:	
<input type="checkbox"/> in good condition	<input checked="" 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): 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: 9106-0004-014F</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 # *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?		X		Maximum Counts Observed*: <u>< Bkgd.</u>
B PCB Regulated?	X			Comments: <u>Bkgd = 40 cpm</u>
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	X			Hazard Class Shipped: <u>N/A</u> UN#:
PM (or PMA) review of Hazard classification:				Initials <u>[Signature]</u> Date: <u>5/12/06</u>



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Yankel</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/ RSDs</u> <u>cooler 7970 9480 6058</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 #
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>407 (CO) 40 CPMA</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>[Signature]</u> Date: <u>5/12/06</u>

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

FSSGAM

FSSALL

Sr-90



Comment, Preservation

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size & Type Code	FSSGAM	FSSALL	Sr-90										
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

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

Bill of Lading #

7920 9195 4352

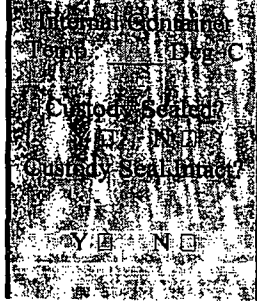


Figure 1. Sample Check-in List

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: Burke Date: 5/9/06 0930
Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: ATMC	SDG/ARCOC/Work Order: 162485
Date Received: 5/9/06	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: BHC	<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?				
14 Air Bill ,Tracking #'s, & Additional Comments	Fed 7920 9195 4352 → 17°C Ex 4363 → 18°C			

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*: 80 cpm
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 CJ Date: 5/9/06

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Chain of Custody Form

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

No. 2006-00332

Project Name: Haddam Neck Decommissioning			Media Code	Sample Type Code	Container Size & Type Code	Analyses Requested					Private Only Comments	
Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3024						FSSGAM	FSSALL	Sr-90				
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 ☒ LTP QA ☐ Radwaste QA ☐ Non QA

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

Samples Shipped Via:

☒ Fed Ex

☐ UPS

☐ Hand

☐ Other

Bill of Lading #

7920-9980-6688

Internal Container Temp: 100 Deg. C

Container Sealed: *Yes*

Custody Seal Intact: *Yes*

Signature: *AYD*

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:

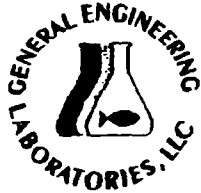
☒ in good condition ☐ leaking
☐ broken ☐ have air bubbles

10. Were any anomalies identified in sample receipt? Yes ☐ No ☒

11. Description of anomalies (include sample numbers): N/A

Sample Custodian/Laboratory: CDR/MSR Date: 5/12/06

Telephoned to: _____ On _____ By _____



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Yankel</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): <u>C. Derricote</u>
Received By: <u>C. Derricote</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 7920 9480 6038 6039</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>CD</u> Date: <u>5/12/06</u>

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 _____											

Connecticut Yankee Atomic Power Company362 Injun Hollow Road, East Hampton, CT 06424
860-267-2536**Chain of Custody Form**

No. 2006-00366

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	
009 9106-0008-008F	5/08/06	08:01	SE	C	BP	X		X	X		Transferred from COC # 2006-00327		
010 9106-0008-009F	5/08/06	08:32	SE	C	BP	X		X	X		Transferred from COC # 2006-00327		
011 9106-0008-010F	5/08/06	09:09	SE	C	BP	X		X	X		Transferred from COC # 2006-00327		
012 9106-0008-010FS	5/08/06	09:09	SE	C	BP	X		X	X		Transferred from COC # 2006-00327		
013 9106-0008-011F	5/08/06	09:30	SE	C	BP	X		X	X		Transferred from COC # 2006-00327		
014 9106-0008-012F	5/08/06	09:53	SE	C	BP		X				Transferred from COC # 2006-00327		
015 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				

1637417

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 [Signature]
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):
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>yes</u>	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?	/			Maximum Counts Observed*: <u>cpm 20</u> <u>Per 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: <u>(Signature)</u>					Initials <u>5/26/06</u> Date:



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: <u>Yankee</u>	SDG/ARCO/Work Order: <u>1637417</u>
Date Received: <u>5/26/06</u>	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: <u>C. Duricich</u>	<u>OK</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 # 2604-00564</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>40 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: <u>OK</u> Initials <u>5/26/06</u> Date:				

163741%

Connecticut Yankee
Statement of Work for Analytical Lab Services

CY-ISC-SOW-001

Figure 1. Sample Check-in List

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

SDG#: _____

Work Order Number: _____

Shipping Container ID: 79275541173 Chain of Custody # 2006-00366

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: (9) eight
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. Duich Date: 5/26/06

Telephoned to: _____ On _____ By _____

164542-1.

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Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2006-00380

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		
9106-0009-016F	5/15/06	13:28	SE	C	BP	X		X			Transferred from COC 2006-00352			
9106-0009-016FS	5/15/06	13:28	SE	C	BP	X		X			Transferred from COC 2006-00352			
9106-0009-017F	5/15/06	14:03	SE	C	BP	X		X			Transferred from COC 2006-00352			
9106-0009-011F	5/15/06	08:05	SE	C	BP		X				Transferred from COC 2006-00351			
9106-0009-013F	5/15/06	08:35	SE	C	BP	X		X			Transferred from COC 2006-00351			
9106-0009-013FS	5/15/06	08:35	SE	C	BP	X		X			Transferred from COC 2006-00351			
9106-0009-014F	5/15/06	08:59	SE	C	BP		X				Transferred from COC 2006-00351			
9106-0009-015F	5/15/06	09:36	SE	C	BP	X		X			Transferred from COC 2006-00351			

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

Samples Shipped Via:

☒ Fed Ex
☐ UPS
☐ Hand☐ OtherInternal Container
Temp.: ____ Deg. CCustody Sealed?
Y ☐ N ☐
Custody Seal Intact?Y ☐ N ☐1) Relinquished By
JANE RICARTE
Date/Time
6-7-06/11:002) Received By
A. M. M. M.
Date/Time
6-8-06 9:003) Relinquished By
Date/Time4) Received By
Date/Time

Bill of Lading #

7921-1915 2869

164542-1.

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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

Contact Name & Phone:
Jack McCarthy 860-267-2556 Ext. 3024Analytical 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	Ni-63				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 ☒ LTP QA ☐ Radwaste QA ☐ Non QA

Samples Shipped Via:

☒ Fed Ex
☐ UPS
☐ Hand☐ Other

Bill of Lading #

7921 1915 2858

Internal Container
Temp.: ____ Deg. CCustody Sealed?
Y ☐ N ☐
Custody Seal Intact?Y ☐ N ☐1) Relinquished By
JAMIE RIVARTE
Date/Time
6-7-06/11:002) Received By
A. Maly
Date/Time
6/8/06 9003) Relinquished By
Date/Time4) 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: 7921-1915-2058

Shipping Container ID: 11-11-8186 Chain of Custody # 2008-00382
2006-00380
2008-00381

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:	
<input checked="" type="checkbox"/> tape	<input type="checkbox"/> hazard labels
<input checked="" type="checkbox"/> custody seals	<input 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: 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 Jones

Priority: ☒ 30 D. ☐ 14 D. ☐ 7 D.

Sample Designation

Date

Time

Media
CodeSample
Type
CodeContainer
Size-
& Type
Code

Analyses Requested

FSSGAM

FSSALL

Ni-63

Lab Use Only

Comments:

163105%

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☐ OtherInternal Container
Temp.: 17 Deg. C

Custody Sealed?

Y ☒ N ☐

Custody Seal Intact?

Y ☒ N ☐

1) Relinquished By

Date/Time

JAYME RUCARTE

5-16-06 / 1150

2) Received By

Date/Time

A. M. M. M.

5/17/06 945

1) Relinquished By

Date/Time

4) Received By

Date/Time

Bill of Lading #

7904-3 113-8541

Figure 1. Sample Check-in List

Date/Time Received: 945 5/17/06

SDG#: MAP# 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:	
<input type="checkbox"/> tape	<input type="checkbox"/> hazard labels
<input checked="" type="checkbox"/> custody seals	<input type="checkbox"/> appropriate sample labels
9. Samples are:	
<input checked="" type="checkbox"/> in good condition	<input checked="" type="checkbox"/> ^{AM} 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: 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>
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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 Bell 8/22/6

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		MXP1	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		MXP1	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

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

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

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Certificate of Analysis

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

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

Report Date: 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
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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

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Certificate of Analysis

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

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

Report Date: 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

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Certificate of Analysis

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

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

Report Date: 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
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The above sample is reported on a dry weight basis.

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Certificate of Analysis

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

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

Report Date: 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

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Certificate of Analysis

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

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

Report Date: 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 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	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:

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424
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

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Certificate of Analysis

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

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

Report Date: 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.

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Certificate of Analysis

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

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

Report Date: 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

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Certificate of Analysis

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

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

Report Date: 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 :

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

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Certificate of Analysis

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

East Hampton, Connecticut 06424
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.

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Certificate of Analysis

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

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

Report Date: 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

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Certificate of Analysis

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

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

Report Date: 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.

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Certificate of Analysis

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

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

Report Date: 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		MXP1	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

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Certificate of Analysis

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

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

Report Date: 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.

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

Certificate of Analysis

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

East Hampton, Connecticut 06424
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		MXP1	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

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Certificate of Analysis

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

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

Report Date: 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.

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Certificate of Analysis

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

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

Report Date: 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

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Certificate of Analysis

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

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

Report Date: 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

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Certificate of Analysis

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

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

Report Date: 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.

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Certificate of Analysis

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

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

Report Date: 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

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Certificate of Analysis

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

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

Report Date: 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.

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Certificate of Analysis

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

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

Report Date: 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	MXP1	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

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Certificate of Analysis

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

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

Report Date: 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 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	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:

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- * 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: August 21, 2006

Page 1 of 6

Client : Connecticut Yankee Atomic Power
362 Injun Hollow Rd

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

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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							
		U	0.0414	10.3							
		Uncert:	+/-0.0934	+/-0.796							
Batch	555698		TPU:	+/-0.0935	+/-1.19						
QC1201153138	168340011	DUP									
Plutonium-241		U	7.28	U	10.1	pCi/g	0	(0% - 100%)	BXL1	08/16/06	16:41
Plutonium-241	137	Uncert:	+/-6.30	+/-6.39	pCi/g		106	(75%-125%)		08/16/06	17:14
		TPU:	+/-6.35	+/-6.46							
		Uncert:		+/-12.5							
		TPU:		+/-19.9							
QC1201153140	LCS										
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							
		U	7.28								
		Uncert:	+/-6.30	+/-19.7							
Batch	557837		TPU:	+/-6.35							
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							
		U	-0.0253	0.241							
		Uncert:									

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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										
Curium-243/244	U	Uncert:	+/-0.0495	+/-0.334	pCi/g	879	(0% - 100%)				
		TPU:	+/-0.0496	+/-0.335							
		-0.0479	U	0.0761							
		Uncert:	+/-0.0542	+/-0.149							
QC1201158319	LCS	TPU:	+/-0.0545	+/-0.149							
Americium-241		24.5		25.4	pCi/g		104	(75%-125%)			
Curium-242	U	Uncert:		+/-2.47	pCi/g						
		TPU:		+/-4.16							
		0.0477									
		Uncert:		+/-0.127							
Curium-243/244		TPU:		+/-0.127	pCi/g		91	(75%-125%)			
		29.7		27.0							
		Uncert:		+/-2.54							
		TPU:		+/-4.38							
QC1201158316	MB										
Americium-241			U	0.234	pCi/g						
Curium-242	U	Uncert:		+/-0.275	pCi/g						
		TPU:		+/-0.277							
		0.00									
		Uncert:		+/-0.152							
Curium-243/244	U	TPU:		+/-0.152	pCi/g						
		Uncert:		-0.0551							
		TPU:		+/-0.0624							
		TPU:		+/-0.0628							
QC1201158318	168404009	MS									
Americium-241		26.4	U	-0.0851	pCi/g		110	(75%-125%)			
Curium-242	U	Uncert:		+/-2.97	pCi/g						
		TPU:		+/-5.01							
		-0.0253	U	0.126							
		Uncert:		+/-0.247							
Curium-243/244	U	TPU:		+/-0.248	pCi/g		98	(75%-125%)			
		32.4		31.7							
		Uncert:		+/-3.12							
		TPU:		+/-5.39							
Rad Gas Flow											
Batch	556350										
QC1201154645	168404003	DUP									
Strontium-90		U	-0.00343	U	-0.00637	pCi/g	0	(0% - 100%)	BXFI	08/14/06	08:33
Strontium-90	LCS	Uncert:		+/-0.0152	pCi/g		83	(75%-125%)			
		TPU:		+/-0.0152							
		1.56		1.30							
		Uncert:		+/-0.0563							
QC1201154647		TPU:		+/-0.0881							
Strontium-90	MB			U	0.0176	pCi/g					
Strontium-90		Uncert:		+/-0.018							
		TPU:		+/-0.018							

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QC Summary

Workorder: 168404

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time			
Rad Gas Flow														
Batch	556350													
QC1201154646	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													

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QC Summary

Workorder: 168404

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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%) MXP1	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%) MXP1	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

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QC Summary

Workorder: 168404

Page 6 of 6

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

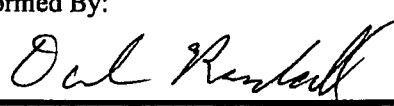
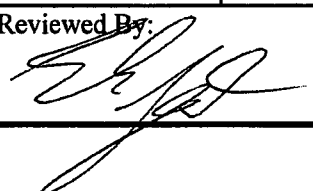
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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.

DISCHARGE CANAL
SURVEY UNIT 9106-0003
RELEASE RECORD

Attachment 2b
Split Sample Assessment Forms
(2 Pages)



Split Sample Assessment Form

Survey Area #:	9106	Survey Unit #:	0003	Survey Unit Name:	Discharge Canal			
Sample Plan or WPIR#: 2006-021					SML #: 9106-0003-004			
Sample Description: Comparison of split samples collected from sample measurement location #04 and analyzed using gamma spectroscopy by an off-site vendor laboratory. The standard sample was <u>9106-0003-004F</u> the comparison sample was <u>9106-0003-004FS</u> .								
STANDARD					COMPARISON			
Radionuclide	Activity Value	Standard Error	Resolution	Agreement Range	Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N)
Cs-137	2.92E-01	2.50E-02	12	0.6 - 1.66	3.14E-01	2.30E-02	1.08	Y
Co-60	7.43E-01	3.61E-02	21	0.75 - 1.33	9.84E-01	5.15E-02	1.32	Y
Comments/Corrective Actions: N/A					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:	
			7-13-06				7/13/06	

WPIR – Work Plan and Inspection Record

SML – Sample Measurement Location designation

Split Sample Assessment Form

Survey Area#:	9106	Survey Unit #:	0003	Survey Unit Name:	Discharge Canal																											
Sample Plan or WPIR#: 2006-0021					SML #: 9106-0003-010																											
<p>Sample Description: Comparison of split samples collected from sample measurement location #10 and analyzed using gamma spectroscopy by an off-site vendor laboratory. The standard sample was <u>9106-0003-010E</u>, the comparison sample was <u>9106-0003-010FS</u>.</p>																																
STANDARD					COMPARISON																											
Radionuclide	Activity Value	Standard Error	Resolution	Agreement Range	Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N)																								
Cs-137	2.04E-01	2.08E-02	10	0.6 - 1.66	1.69E-01	1.79E-02	0.83	Y																								
Co-60	2.28E-01	2.54E-02	9	0.6 - 1.66	0.00E+00	2.02E-01	0.00	N																								
K-40	1.24E+01	5.05E-01	25	0.75 - 1.33	1.13E+01	4.91E-01	0.91	Y																								
<p>Comments/Corrective Actions: 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. Since both Cs-137 and K-40 were also found to be present at an acceptable level of agreement, 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 colspan="2">> 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:																									
			7-13-06				7/13/06																									

WPIR – Work Plan and Inspection Record

SML – Sample Measurement Location designation

DISCHARGE CANAL
SURVEY UNIT 9106-0003
RELEASE RECORD

Attachment 2c
Preliminary Data Forms
(1 Page)

Preliminary Data Review Form - Samples for the Sign Test

Survey Unit: 9106- 0003
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
Minimum Value:	3.52E-04	1.45E-02
Maximum Value:	3.18E-01	8.05E-01
Mean:	1.48E-01	2.10E-01
Median:	1.28E-01	1.07E-01
Standard Deviation:	1.16E-01	2.70E-01

RADIONUCLIDE CONCENTRATION (pCi/g)

NUMBER	Cs-137	Co-60	Identified?	Identified?
9106-0003-001F	1.28E-01	1.07E-01	Y	Y
9106-0003-002F	4.37E-02	1.89E-02	Y	N
9106-0003-003F	3.93E-02	2.45E-02	Y	Y
9106-0003-004F	2.92E-01	7.43E-01	Y	Y
9106-0003-005F	2.10E-01	1.36E-01	Y	Y
9106-0003-006F	1.05E-01	1.86E-02	Y	N
9106-0003-007F	2.64E-02	2.90E-02	Y	N
9106-0003-008F	2.46E-01	1.09E-01	Y	Y
9106-0003-009F	3.18E-01	4.45E-01	Y	Y
9106-0003-010F	2.04E-01	2.28E-01	Y	Y
9106-0003-012F	4.27E-02	1.45E-02	Y	N
9106-0003-013F	1.96E-02	2.41E-02	N	N
9106-0003-014F	2.91E-01	4.33E-01	Y	Y
9106-0003-015F	2.57E-01	8.05E-01	Y	Y
9106-0003-016F	3.52E-04	2.02E-02	N	Y

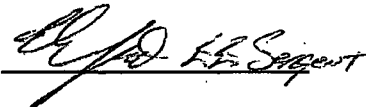
Performed By:



Date:

7-13-06

Independent Review:



Date:

7/13/06

DISCHARGE CANAL
SURVEY UNIT 9106-0003
RELEASE RECORD

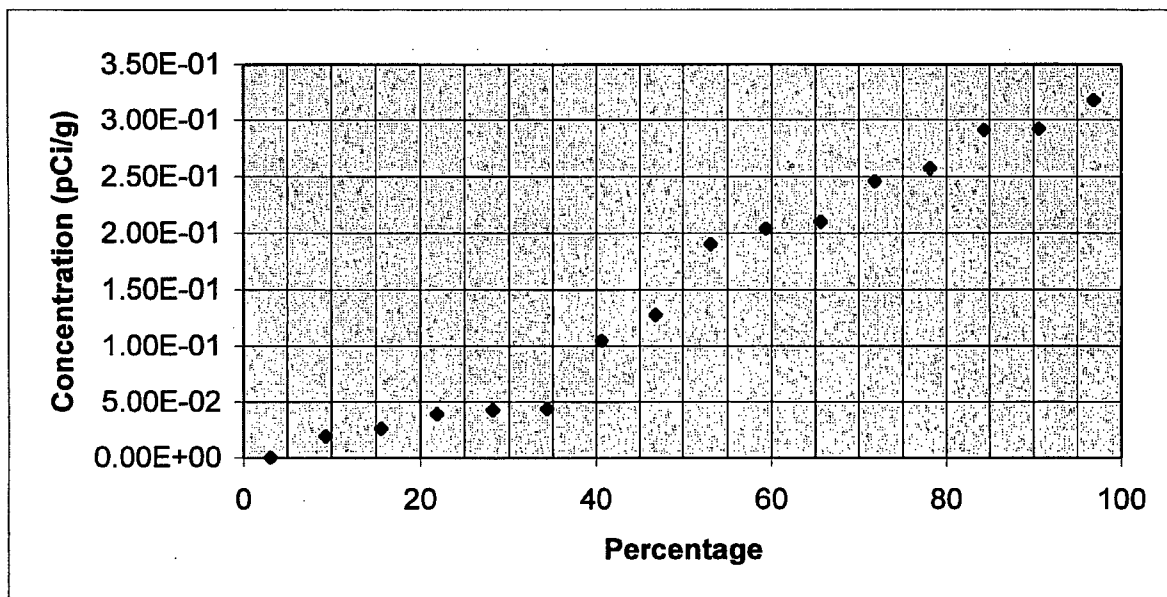
Attachment 2d
Graphical Representation of Data
(4 Pages)

Quantile Plot For Cesium - 137

Survey Unit: 9106-0003

Survey Unit Name: Discharge Canal

Mean: 1.48E-01 pCi/g



Cs-137	Rank	Percentage
3.52E-04	1	3 %
1.96E-02	2	9 %
2.64E-02	3	16 %
3.93E-02	4	22 %
4.27E-02	5	28 %
4.37E-02	6	34 %
1.05E-01	7	41 %
1.28E-01	8	47 %
1.90E-01	9	53 %
2.04E-01	10	59 %
2.10E-01	11	66 %
2.46E-01	12	72 %
2.57E-01	13	78 %
2.91E-01	14	84 %
2.92E-01	15	91 %
3.18E-01	16	97 %

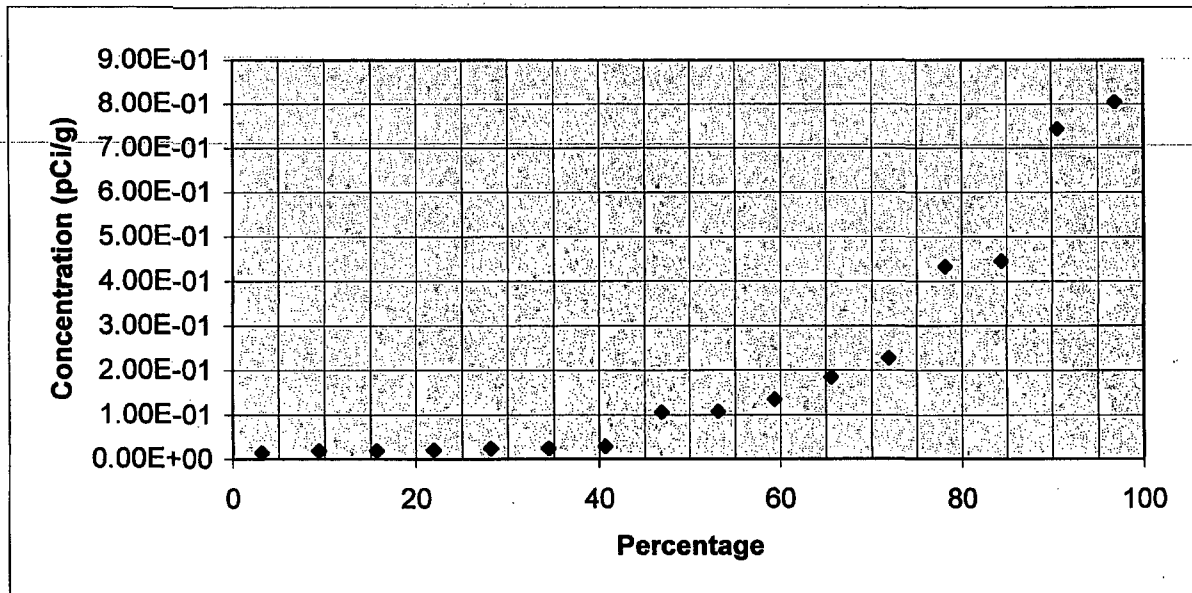
Prepared By: Doc RandallDate: 7-13-06Reviewed By: [Signature]Date: 7/13/06

Quantile Plot For Cobalt - 60

Survey Unit: 9106-0003

Survey Unit Name: Discharge Canal

Mean: 2.10E-01 pCi/g



Co-60	Rank	Percentage
1.45E-02	1	3 %
1.86E-02	2	9 %
1.89E-02	3	16 %
2.02E-02	4	22 %
2.41E-02	5	28 %
2.45E-02	6	34 %
2.90E-02	7	41 %
1.07E-01	8	47 %
1.09E-01	9	53 %
1.36E-01	10	59 %
1.85E-01	11	66 %
2.28E-01	12	72 %
4.33E-01	13	78 %
4.45E-01	14	84 %
7.43E-01	15	91 %
8.05E-01	16	97 %

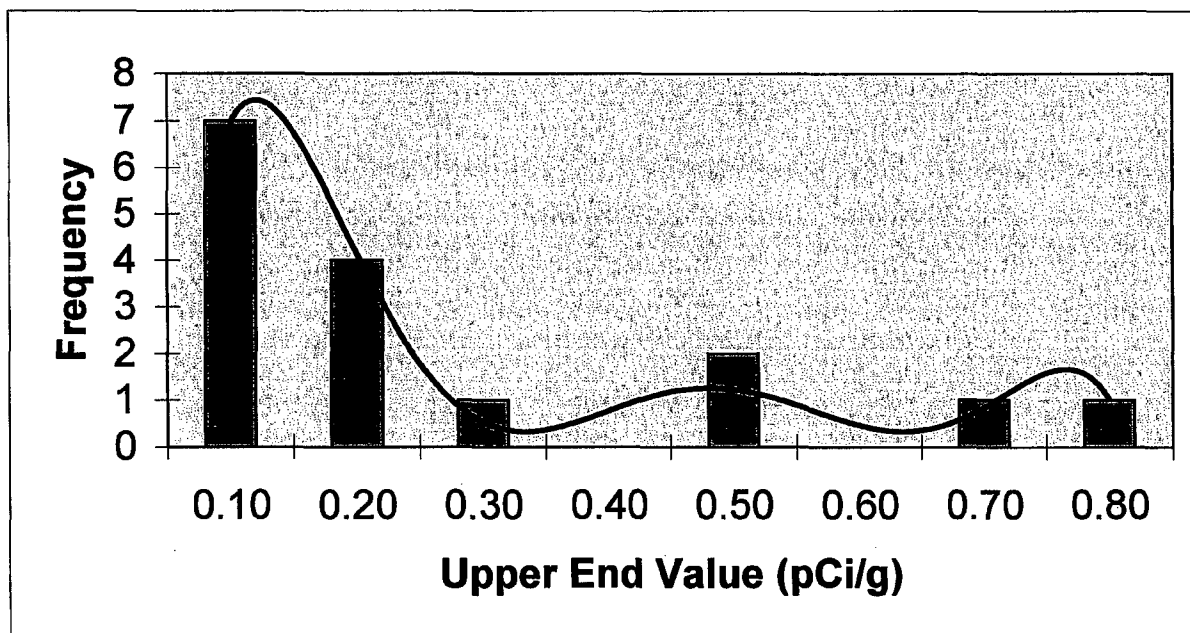
Prepared By: Paul R. SmithDate: 2-21-07Reviewed By: [Signature]Date: 2/21/07

Frequency Plot For Co - 60

Survey Unit: 9106-0003

Survey Unit Name: Discharge Canal

Mean: 0.210 pCi/g



Upper End Value	Observation Frequency	Observation Frequency
0.10	7	44%
0.20	4	25%
0.30	1	6%
0.40	0	0%
0.50	2	13%
0.60	0	0%
0.70	1	6%
0.80	1	6%
Total	16	100%

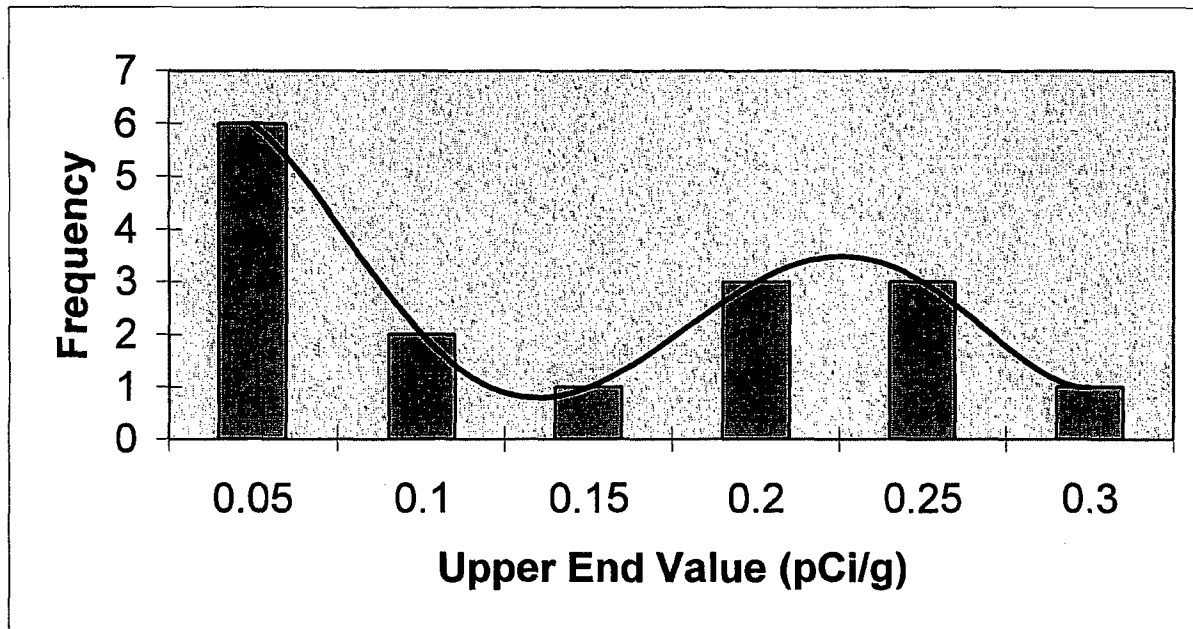
Prepared By: Paul RandallDate: 7-13-06Reviewed By: E. E. SargentDate: 7/13/06

Frequency Plot For Cesium - 137

Survey Unit: 9106-0003

Survey Unit Name: Discharge Canal

Mean: 0.148 pCi/g



Upper End Value	Observation Frequency	Observation Frequency
0.05	6	38%
0.1	2	13%
0.15	1	6%
0.2	3	19%
0.25	3	19%
0.3	1	6%
Total	16	100%

Prepared By: Oral KudvaDate: 7-25-06Reviewed By: [Signature]Date: 7/25/06

DISCHARGE CANAL
SURVEY UNIT 9106-0003
RELEASE RECORD

Attachment 2e
Sign Test Calculation
(1 Page)

Sign Test Calculation Sheet For Multiple Radionuclides

Survey Unit Number: 9106-0003				
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): 3.16 1.52				
Results Cs-137	Results Co-60	Weighted Sum (W_s)	DCGL-Result	Sign
1.28E-01	1.07E-01	1.11E-01	8.89E-01	1
4.37E-02	1.89E-02	2.63E-02	9.74E-01	1
3.93E-02	2.45E-02	2.86E-02	9.71E-01	1
2.92E-01	7.43E-01	5.81E-01	4.19E-01	1
2.10E-01	1.36E-01	1.56E-01	8.44E-01	1
1.05E-01	1.86E-02	4.55E-02	9.55E-01	1
2.64E-02	2.90E-02	2.74E-02	9.73E-01	1
2.46E-01	1.09E-01	1.50E-01	8.50E-01	1
3.18E-01	4.45E-01	3.93E-01	6.07E-01	1
2.04E-01	2.28E-01	2.15E-01	7.85E-01	1
4.27E-02	1.45E-02	2.31E-02	9.77E-01	1
1.96E-02	2.41E-02	2.21E-02	9.78E-01	1
2.91E-01	4.33E-01	3.77E-01	6.23E-01	1
2.57E-01	8.05E-01	6.11E-01	3.89E-01	1
3.52E-04	2.02E-02	1.34E-02	9.87E-01	1
1.90E-01	1.85E-01	1.82E-01	8.18E-01	1
Number of Positive Differences (S+):			16	

Critical Value: 11

Survey Unit: Meets Acceptance Criterion

Performed By: *Don Randall*Date: 7-13-06Independent Review: *[Signature]*Date: 7/13/06

DISCHARGE CANAL
SURVEY UNIT 9106-0003
RELEASE RECORD

Attachment 2f
COMPASS DQA Surface Soil Report with
Retrospective Power Curve
(4 Pages)

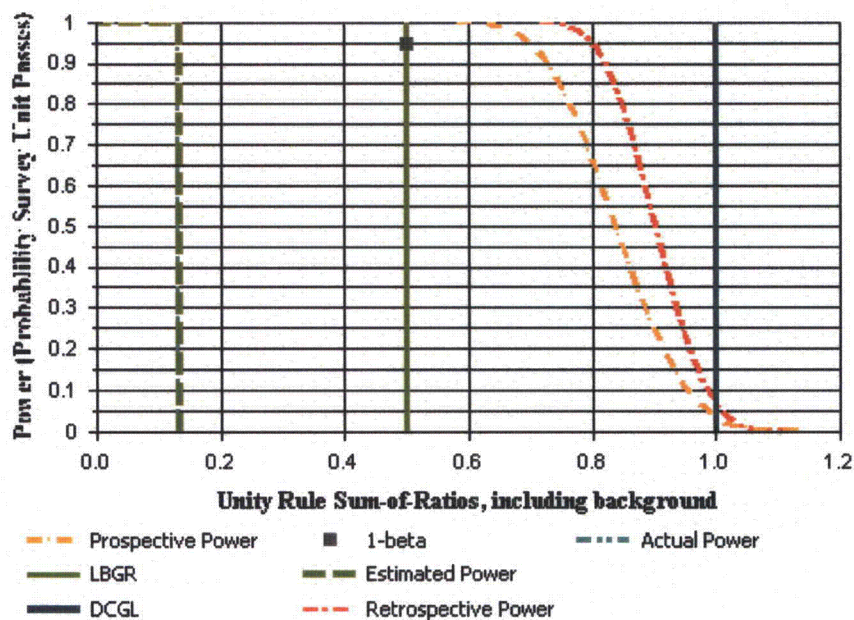


DQA Surface Soil Report

Assessment Summary

Site:	9106-0003		
Planner(s):	Dale Randall		
Survey Unit Name:	Discharge Canal 9106-0003		
Report Number:	1		
Survey Unit Samples:	16		
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)
9106-0003-001F	S	0.11	0.13
9106-0003-002F	S	0.02	0.04
9106-0003-003F	S	0.02	0.04
9106-0003-004F	S	0.74	0.29
9106-0003-005F	S	0.14	0.21
9106-0003-006F	S	0.02	0.1
9106-0003-007F	S	0.03	0.03
9106-0003-008F	S	0.11	0.25
9106-0003-009F	S	0.44	0.32
9106-0003-010F	S	0.23	0.2
9106-0003-012F	S	0.01	0.04
9106-0003-013F	S	0.02	0.02
9106-0003-015F	S	0.8	0.26
9106-0003-016F	S	0.02	0
9106-0003-018F	S	0.18	0.19
9106-0003-014F	S	0.43	0.29

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)
9106-0003-001F	S	0.11
9106-0003-002F	S	0.03
9106-0003-003F	S	0.03
9106-0003-004F	S	0.58
9106-0003-005F	S	0.16
9106-0003-006F	S	0.05
9106-0003-007F	S	0.03
9106-0003-008F	S	0.15
9106-0003-009F	S	0.39
9106-0003-010F	S	0.21
9106-0003-012F	S	0.02
9106-0003-013F	S	0.02
9106-0003-015F	S	0.61
9106-0003-016F	S	0.01
9106-0003-018F	S	0.18
9106-0003-014F	S	0.38



DQA Surface Soil Report

Basic Statistical Quantities Summary

Statistic	Survey Unit	Background	DQO Results
Sample Number	16	N/A	N=15
Mean (SOR)	0.19	N/A	0.13
Median (SOR)	0.13	N/A	N/A
Std Dev (SOR)	0.20	N/A	0.26
High Value (SOR)	0.61	N/A	N/A
Low Value (SOR)	0.01	N/A	N/A