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Final Status Survey Final Report Phase IV

Appendix A12 Survey Unit Release Record 9106-0012, Discharge Canal



November 2006

CYAPCO FINAL STATUS SURVEY RELEASE RECORD DISCHARGE CANAL (PERMANENT WETLAND AREA) SURVEY UNIT 9106-0012 Date: <u>11-9-06</u> Date: <u>11-9-06</u> Prepared By: FSS Engineer Reviewed By: S Engineer Date: 11/13/06 for P.M. buson Approved By: Technical Support Manager **Revision** 0

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1. SURVEY UNIT DESCRIPTION

Survey Unit 9106-0012 (Discharge Canal) is designated as Final Status Survey (FSS) Class 2 and consists of approximately 7,272 m² (1.80 acres) of water covered sediment in an area located approximately 0.73 miles from the reference coordinate system benchmark used at the Haddam Neck Plant (HNP) (see Attachment 1, Figure 1). The Discharge Canal is a man-made mile long waterway that runs parallel to, and ultimately communicates with the Connecticut River. The Discharge Canal is subdivided into fifteen (15) survey units including two (2) permanent wetland areas for FSS purposes. This survey unit comprises the northern portion of the permanent wetland area.

This survey unit is a wetland area that was initially a portion of the central peninsula survey area 9530. Prior planning efforts, which culminated in the 2005 surface soils sampling campaign, primarily focused on surface soil sampling to a depth of 6". This survey data indicated that the radionuclides of concern were primarily Co-60 and Cs-137. A few of the samples taken slightly exceed the DCGL for soil media using the resident farmer scenario. Due to land access limitations and its proximity to the discharge canal, it is believed that all of the plant derived contamination found to be present was deposited at this location by waterborne discharges that were transported into the wetland by seasonal flood events and other periods of high water level.

As part of the modifications requested in License Basis Document Change Request (LBDCR) #55, dated 2-12-06, central peninsula Survey Units 9530-0005 and 9530-0006 are to be reassigned as discharge canal units 9106-0012 and 9106-0013. LBDCR # 55, states "These permanent wetland areas are being added to the canal due to continuous water intrusion into the area from tidal influence. Land area survey and sampling protocols are impractical. Evaluation of sediment is more appropriate as the area will not support crops."

The survey unit is bounded as follows: Survey Area 9530 is to the north and west (called north as oriented with the north to south flow of the Connecticut River), Survey Area 9106 (Discharge Canal) is to the east, Survey Unit 9106-0013 is to the south. The survey unit comprises sediments to the depth of three (3) feet from the top of the sediment layer.

This survey unit is bounded by reference coordinates E013 through E028 and by S125 through S136 (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.

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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 9106-0012 as Class 2 in June 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 "walk-down."
- e) Formal or informal interviews with cognizant personnel.

A review of the 10CFR50.75(g)(1) database report identified a number of events that may have impacted this survey unit. This was expected since the discharge canal served as the licensed discharge pathway for liquid releases. 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 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 dredge 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 is likely to be present at concentrations greater than the respective DCGLs.

A review of the historical documents shows that low-levels of contamination being identified during a scoping survey of the Southern Peninsula area. The results were not expected for a Class 3 area (9531). The material discovery warranted additional survey and sampling prior to the FSS of Survey Area 9531. Additional areas of contamination were found near a small inlet that communicates with the discharge canal. The boundary and FSS Survey Area 9531 was revised, and the suspect area was included in Survey Area 9530. Subsequent survey and sampling since 2002 has identified four (4) areas of concern. The radionuclides of concern are Cs-137 and Co-60 with maximum reported concentrations of 3.88 ρ Ci/g and 2.62 ρ Ci/g respectively. The relevance of these results for FSS DCGL comparisons, however, is questionable since the sampling method called for 6" surface soil samples to a

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depth of 6". The current dose model for canal sediment sampling requires a core of at least three (3) feet in depth.

A characterization was performed by Site Closure personnel in May of 2006 and seven (7) sediment samples from seven (7) locations were taken. All of the samples were analyzed by gamma spectroscopy. Although no additional HTD testing was performed for characterization; four (4) of the fifteen (15) samples taken to demonstrate compliance with the release criteria during FSS were tested for the full suite of HTD nuclides to provide additional assurance that all of the radionuclides of concern were appropriately addressed. Although some Co-60 was positively detected in earlier sampling efforts, each of the Co-60 results for characterization was below its associated detection limits. Consequently, only Cs-137 was used to calculate the required number of samples for the Sign Test. Note that since both Cs-137 and Co-60 are gamma emitting easy-to-detect (ETD) nuclides, the FSS gamma spec results will provide concentration data for each of these isotopes. As a result of characterization, the radionuclide of concern identified for FSS planning purposes was Cs-137 (refer to Table 1).

Table 1 – Basic Statistic:from the Charact	-
Parameter	Cs-137 (pCi/g)
Minimum Value:	-2.56E-03
Maximum Value:	6.37E-02
Mean:	2.42E-02
Median:	1.11E-02
Standard Deviation:	2.79E-02

NOTE: The Operational DCGL from Table 2 is 6.01 pCi/g for Cs-137.

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

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

3. DATA QUALITY OBJECTIVES (DQO)

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

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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 9106-0012 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 below the top of the sediment layer and spread for the planting of crops per the Resident Farmer Scenario. Consequently, the soil DCGLs are directly applied to the canal sediment media

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

Equation 1:

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

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

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

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

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

Equation 2:

19 mrem/yr_{Total}=19 mrem/yr_{Soil}+0 mrem/yr_{Existing GW}+0 mrem/yr_{Future GW}

The allowable dose for soil in this survey unit is nineteen (19) mrem/yr TEDE as shown by Equation 2 above. The concentration of residual radioactivity resulting in nineteen (19) mrem/yr TEDE is designated as the Operational 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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		e Case Soil DCGL, Ope 1 Detectable Concentrat	
Radionuclide ⁽¹⁾	Base Case Soil DCGL (ρCi/g) ⁽²⁾	Operational DCGL (pCi/g) ⁽³⁾	Required MDC (pCi/g) ⁽⁴⁾
H-3	4.12E+02	3.13E+02	1.65E+01
C-14	5.66E+00	4.30E+00	2.26E-01
Mn-54	1.74E+01	1.32E+01	6.96E-01
Fe-55	2.74E+04	2.08E+04	1.10E+03
Co-60	3.81E+00	2.90E+00	1.52E-01
Ni-63	7.23E+02	5.49E+02	2.89E+01
Sr-90	1.55E+00	1.18E+00	6.20E-02
Nb-94	7.12E+00	5.41E+00	2.85E-01
Tc-99	1.26E+01	9.58E+00	5.04E-01
Ag-108m	7.14E+00	5.43E+00	2.86E-01
Cs-134	4.67E+00	3.55E+00	1.87E-01
Cs-137	7.91E+00	6.01E+00	3.16E-01
Eu-152	1.01E+01	7.68E+00	4.04E-01
Eu-154	9.29E+00	7.06E+00	3.72E-01
Eu-155	3.92E+02	2.98E+02	1.57E+01
Pu-238	2.96E+01	2.25E+01	1.18E+00
Pu-239/240	2.67E+01	2.03E+01	1.07E+00
Pu-241	8.70E+02	6.61E+02	3.48E+01
Am-241 ⁽⁵⁾	2.58E+01	1.96E+01	1.03E+00
Cm-243/244	2.90E+01	2.20E+01	1.16E+00

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

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

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

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

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

Another important facet of the DQO process is to identify the radionuclides of concern and determine the concentration variability. Characterization was performed in May of 2006 as discussed in Section 2. Cs-137 was found to be the predominate radionuclide of concern. The basic statistical quantities (i.e., mean, standard deviation, median) for Cs-137 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. Guidance for preparing FSS plans is provided in Procedure RPM 5.1-11, "*Preparation of Final Status Survey Plans*".

This survey was initially designed to ten (10) mrem/yr TEDE. At the time when the survey was designed, the dose contribution for existing and future groundwater had not yet been determined. Subsequently, a conservative value was chosen for the Operational DCGL. This approach is no longer required as the total dose from existing and future groundwater has been established. The dose for soil used for this survey unit to demonstrate compliance with the LTP criteria is nineteen (19) mrem/yr TEDE, as discussed in Section 3 of this Release Record.

The DQO process determined that Cs-137 was the radionuclide of concern (refer to Section 2).

Surrogate DCGLs were not required for this survey unit based on process knowledge from FSS of nearby adjacent areas and via screening process described in LTP Section 5.4.7.2, "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 that are less than 5% for individual radionuclides and that are less than 10% for the aggregate of all radionuclides that are de-selected. This process was applied to analysis data for this survey unit.

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

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

The number of sediment samples for FSS was determined in accordance with Procedure RPM 5.1-12, "Determination of the Number of Samples for Final Status Survey." The Lower Bound of the Gray Region (LBGR) was set in accordance with Procedure RPM 5.1-11 to 3.10 ρ Ci/g Cs-137 to maintain the relative shift (Δ/σ) in the range of 1 and 3. The resulting relative shift was 2.0.

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A Prospective Power Curve was generated using COMPASS, a software package developed under the sponsorship of the United States Nuclear Regulatory Commission (USNRC) for implementation of MARSSIM in support of the decommissioning license termination rule (10 CFR 20, Subpart E). The result of the COMPASS computer run showed adequate power for the survey design. This indicates that the survey unit has a high probability of rejecting the null hypothesis, assuming that the characterization data are representative of the FSS results. Survey design specified fifteen (15) sediment core samples for non-parametric statistical testing.

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

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 Measurer	nent Locations with Asso	ciated GPS Coordinates
Designation	Northing	Easting
9106-0012-001F	235242.09	671825.19
9106-0012-002F	235242.09	671902.50
9106-0012-003F	235242.09	671979.81
9106-0012-004F	235175.14	671786.54
9106-0012-005F	235175.14	671863.85
9106-0012-006F	235175.14	671941.16
9106-0012-007F	235175.14	672018.47
9106-0012-008F	235175.14	672095.78
9106-0012-009F	235108.19	671825.19
9106-0012-010F	235108.19	671902.50
9106-0012-011F	235108.19	671979.81
9106-0012-012F	235108.19	672057.12
9106-0012-013F	235041.24	671941.16
9106-0012-014F	235041.24	672018.47
9106-0012-015F	234974.28	671979.81

Four (4) sediment samples were analyzed for the full suite of radionuclides specified in Table 2, exceeding the requirement to analyze 5% of the sample population for HTD analyses specified in procedure RPM 5.1-11. Two (2) of the four (4) samples were randomly selected using the Microsoft Excel

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"RAND" function. The two (2) samples exhibiting the highest observed radionuclide concentrations by gamma analyses were also selected for HTD analyses.

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

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

	Table 4 – Synopsis	of the Survey Design ⁽¹⁾
Feature	Design Criteria	Basis
Survey Unit Land Area	7,272 m ²	Based on AutoCAD-LT and Visual Sample Plan calculations
Number of Measurements	15	Type 1 and Type 2 errors were 0.05, sigma was 2.79E-02 pCi/g the LBGR was set to 3.10 pCi/g to maintain Relative Shift in the range of 1 and 3, Relative Shift was 2.0
Grid Spacing	23.7 m	Based on triangular grid
Design DCGL	3.16 pCi/g Cs-137	To achieve ten (10) mrem/yr TEDE
Operational DCGL	6.01 pCi/g Cs-137	To achieve nineteen (19) mrem/yr TEDE ⁽²⁾ to demonstrate compliance with Equation 2 of this Release Record
Scan Coverage	N/A	The LTP exempts this area
Sediment Investigation Level	6.01 ρCi/g Cs-137	The Operational DCGL meets the LTP criteria for a Class 2 survey unit

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

(2) The allowable dose for soil in this survey unit is nineteen (19) mrem/yr TEDE as the bounding dose from existing and future groundwater has been established based on field data (reference CY memo ISC 06-024.)

5. SURVEY IMPLEMENTATION

Final Status Survey field activities were conducted under Work Plan and Inspection Record (WP&IR) 2006-0021. The WP&IR package included a detailed FSSP, job safety analysis, job planning checklist and related procedures for reference. Daily briefings were conducted to discuss the expectations for job performance and the safety aspects of the survey. The "Daily Survey

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Journal" was used to document field activities and other information pertaining to the FSS.

Measurement locations were identified in North American Datum (NAD) 1927 coordinates that were supplied to the sampling vendor, Ocean Survey, Inc. (OSI) of Old Saybrook, Connecticut. Discharge Canal sampling was accomplished using direct push technology to collect composite samples of bottom and mean high water mark sediments. Sediment cores from the Discharge Canal were obtained by OSI using a vibrating corer that is platform mounted on an amphibious platform. The core barrel was a three (3) inch diameter thin-walled aluminum tube which also served as a core liner (ten feet or less). A core catcher was available to prevent the sample from sliding out of the bottom of the tube. Positioning and the determination of sample locations were accomplished using a GPS interfaced with a navigation and data logging system.

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

The fifteen (15) sediment samples were collected and packaged in accordance with Haddam Neck Plant (HNP) Procedure RPM 5.1-3, "*Collection of Sample Media for Final Status Survey*" and FSS design. Samples were controlled, transported, stored, and transferred to the off-site laboratory using COC protocols.

Four (4) samples (9106-0012-004F, 9106-0012-005F, 9106-0012-010F and 9106-0012-014F) were selected for HTD radionuclide analysis by the off-site laboratory.

The implementation of quality control measures included the collection of two (2) split samples at locations 9106-0012-009F and 9106-0012-013F for comparative analysis by the off-site laboratory.

6. SURVEY RESULTS

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

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Cs-137 was positively identified (i.e., a result greater than two (2) standard deviations uncertainty) in six (6), Co-60 was positively identified in three (3) of the fifteen (15) samples.

Co-60 and other radionuclides which were positively identified (i.e., a result greater than two (2) standard deviations uncertainty) could be de-selected or excluded using the 5% and 10% rule described in Section 5.4.7.2 of the LTP.

The off-site laboratory also processed four (4) samples for full HTD analysis as required by the sample plan. The requested analyses included alpha spectroscopy and liquid scintillation depending upon the radionuclide and the measurement method. All analyses were performed to the required MDC. None of the HTD radionuclides met the accepted criteria for detection (i.e., a result greater than two (2) standard deviations uncertainty) in more than one (1) sample; however, each of the positive results for HTD radionuclides could be de-selected based on the 5% and 10% rules.

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

Table 5	- Summary of Soil Samp	le Results
Sample Number	Cs-137 рСі/g	Fraction of the Operational DCGL ⁽¹⁾
9106-0012-001F	2.25E-02	3.74E-03
9106-0012-002F	4.39E-02	7.30E-03
9106-0012-003F	1.72E-02	2.86E-03
9106-0012-004F	1.87E-02	3.11E-03
9106-0012-005F	1.19E-01	1.98E-02
9106-0012-006F	6.95E-02	1.16E-02
9106-0012-007F	6.47E-02	1.08E-02
9106-0012-008F	3.07E-02	5.11E-03
9106-0012-009F	5.93E-03	9.87E-04
9106-0012-010F	3.23E-02	5.37E-03
9106-0012-011F	1.49E-02	2.48E-03
9106-0012-012F	1.63E-02	2.71E-03
9106-0012-013F	7.93E-03	1.32E-03
9106-0012-014F	1.37E-01	2.28E-02
9106-0012-015F	9.50E-03	1.58E-03

(1) The Operational DCGL from Table 2 is 6.01 pCi/g for Cs-137.

Although biased sampling was considered for locations in near the area where surface samples containing some plant derived activity had been collected in the historical records, it was not deemed necessary as some random sample locations fell into the proximity of the sample points that would have been selected.

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7. QUALITY CONTROL

The two (2) split samples taken for QC were analyzed by the off-site laboratory. The data were evaluated using USNRC acceptance criteria specified in Inspection Procedure 84750 and as detailed in HNP Procedure RPM 5.1-24, *"Split Sample Assessment for Final Status Survey."* For both QC split samples, there was an acceptable level of agreement.

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

8. INVESTIGATIONS AND RESULTS

None of the sample results were found to exceed the Operational DCGL of nineteen (19) mrem/yr. Thus, no investigations were required.

9. **REMEDIATION AND RESULTS**

Historically, no radiological remedial action as described by MARSSIM Section 5.4 was performed in this survey unit prior to or as a result of the FSS. Health Physics TSD BCY-HP-0078, "ALARA Evaluation of Soil Remediation in Support of Final Status Survey," determined that remediation beyond that required to meet the release criteria to be unnecessary and that the remaining residual radioactivity in soil was ALARA.

10. CHANGES FROM THE FINAL STATUS SURVEY PLAN

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

11. DATA QUALITY ASSESSMENT (DQA)

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

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.

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

The range of the data, about 3.24 standard deviations, was not unusually large. The difference between the mean and median was 45.0% of the standard deviation which indicates some skewness in the data. The data was represented graphically through posting plots, a frequency plot, and a quantile plot. The frequency plot shows some positive skewness as confirmed by the calculated skew of 1.55.

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

12. ANOMALIES

No anomalies were noted in the performance of this FSS.

13. CONCLUSION

Survey Unit 9106-0012 has demonstrated compliance with the dose based, unrestricted release criterion. The sample data passed the Sign Test and the null hypothesis was rejected. The ALARA criteria for soils as specified in Chapter 4 of the LTP were achieved. Reclassification and remediation of this survey unit was not required.

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

The dose contribution from sediment in this survey unit is 0.13 mrem/yr TEDE based on the average concentration of the samples used for non-parametric statistical sampling.

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

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

The average total dose from residual radioactivity in this survey unit, including exposures from the three (3) components as described in Section 3, that is, residual radioactivity in soil, existing groundwater radioactivity, and future groundwater radioactivity from the burial of concrete foundations or footings from site buildings containing residual radioactivity, will not exceed 0.13 mrem/yr Total Effective Dose Equivalent (TEDE).

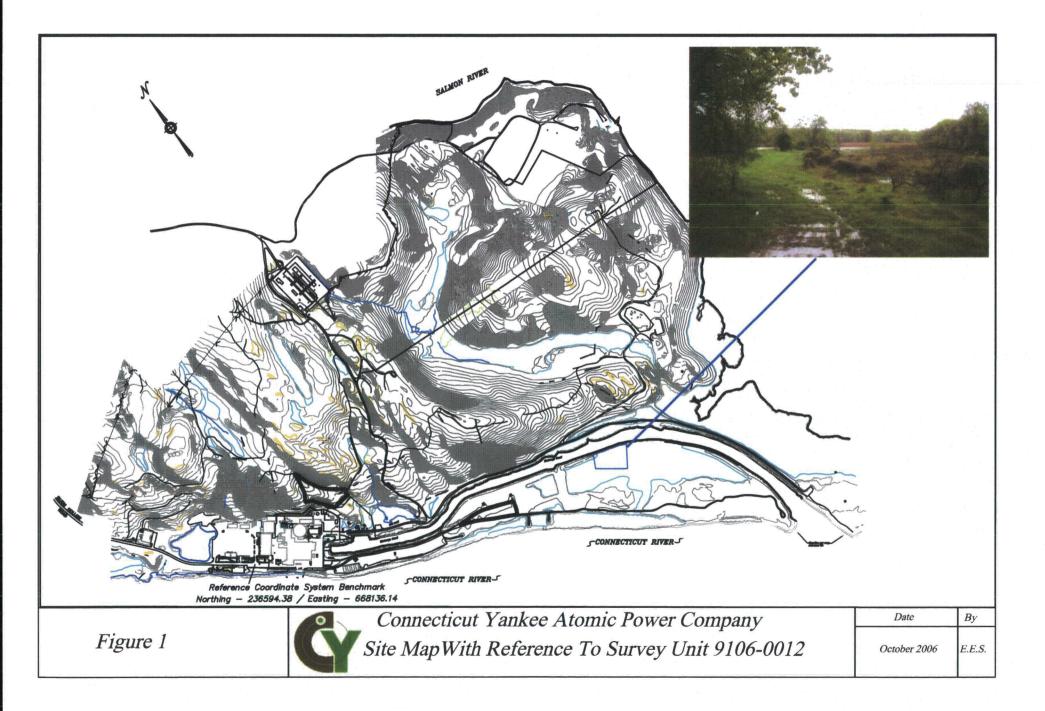
14. ATTACHMENTS

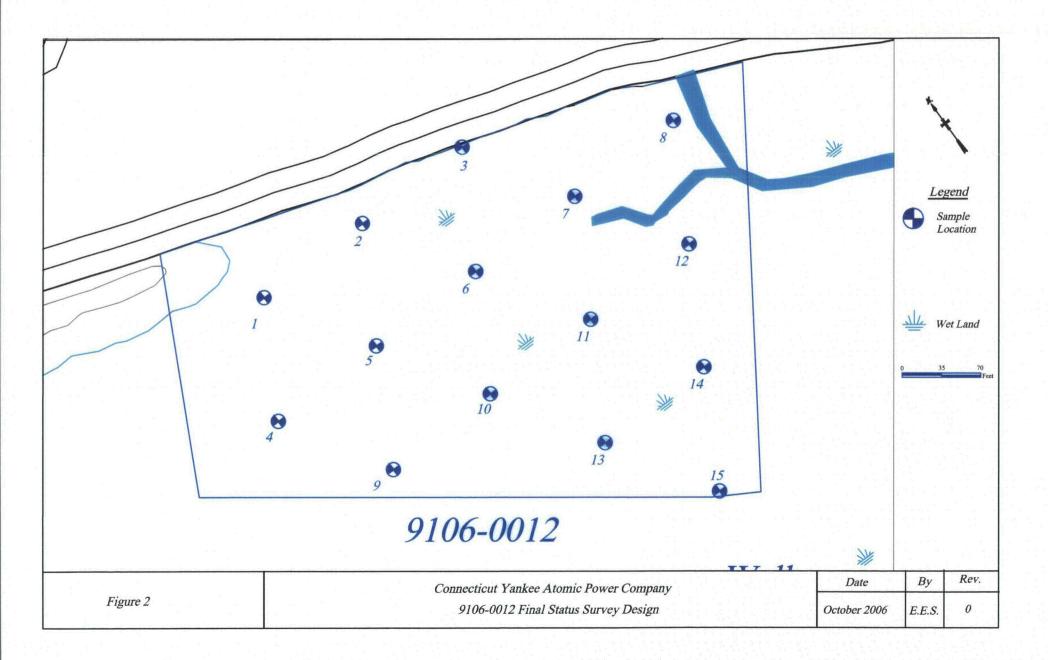
14.1 Attachment 1 – Figures

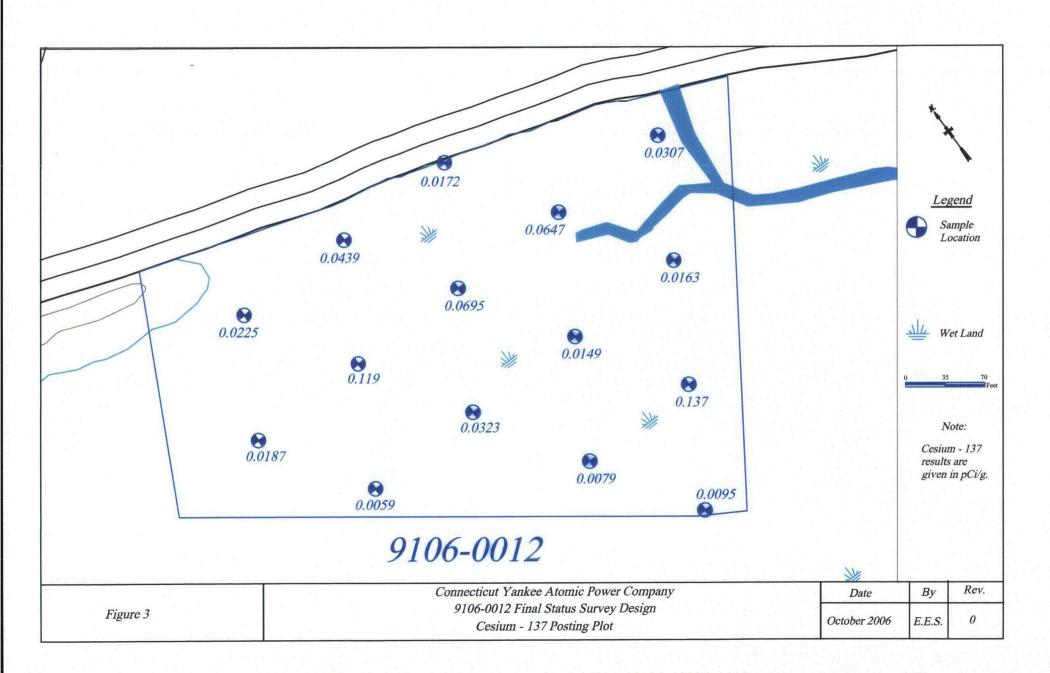
14.2 Attachment 2 – Sample and Statistical Data

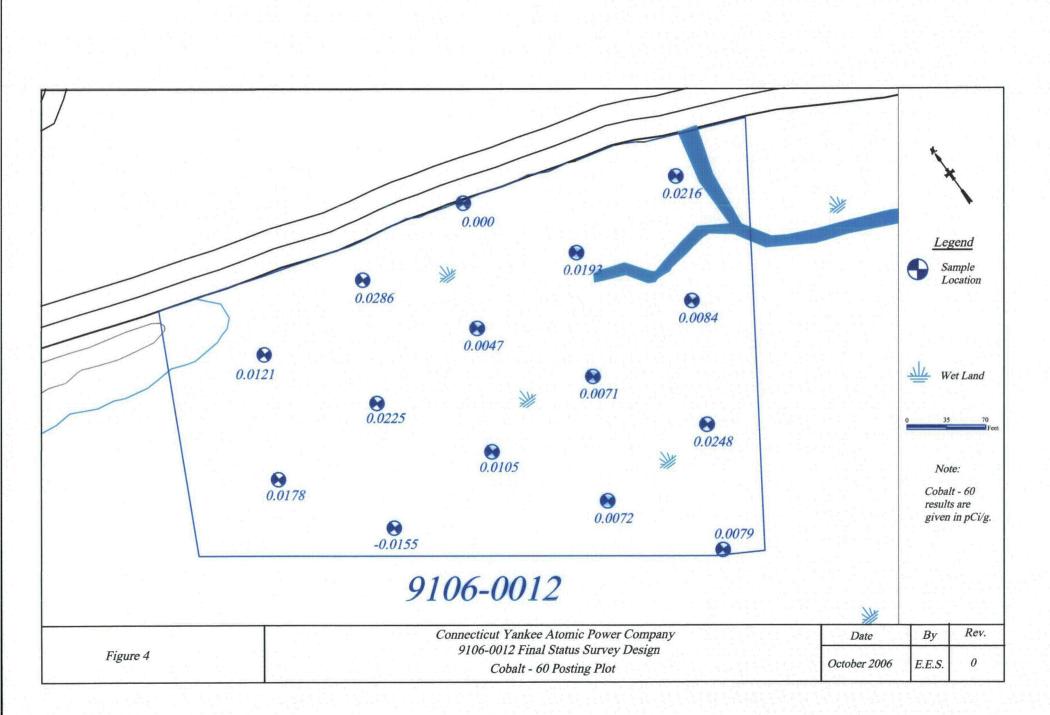
RELEASE RECORD

Attachment 1 Figures (4 pages)









RELEASE RECORD

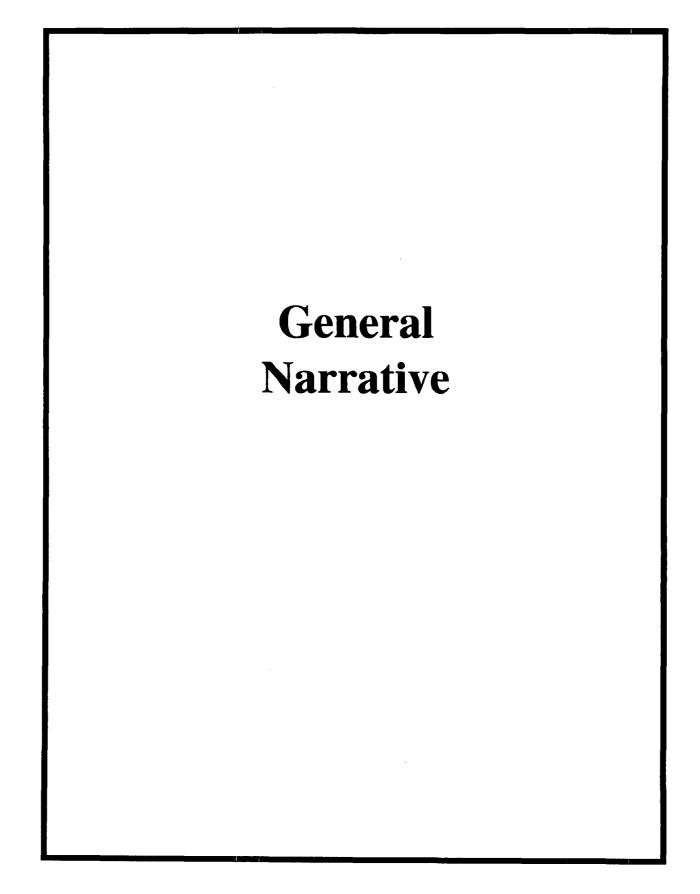
Attachment 2 Sample and Statistical Data

RELEASE RECORD

Attachment 2a Sample Data (178 Pages)

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Chain of Custody and Supporting Documentation	4
Radiological Analysis Sample Data Summary Quality Control Data	9 24 62



CASE NARRATIVE For CONNECTICUT YANKEE RE: Soil PO# 002332 Work Order: 166653 SDG: MSR #06-0967

July 21, 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 July 7, 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>
166653001	9106-0012-002F
166653002	9106-0012-003F
166653003	9106-0012-005F
166653004	9106-0012-006F
166653005	9106-0012-013F
166653006	9106-0012-013FS
166653007	9106-0012-007F
166653008	9106-0012-008F
166653009	9106-0012-012F
166653010	9106-0012-014F

166653011	9106-0012-011F
166653012	9106-0012-015F
166653013	9106-0012-009F
166653014	9106-0012-009FS
166653015	9106-0012-001F
166653016	9106-0012-004F
166653017	9106-0012-010F

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:

Fifteen soil samples were analyzed for FSSGAM and two soil 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.

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Cheryl Jones Project Manager

Chain of Custody And Supporting Documentation

Health Physics Procedure

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Connecticut Y 362 Injun I	ankee At Hollow Road, H 860-26'	East Hampton				lola	53.	1	ain o	f Custo	dy Form	No. 2006-00451
Project Name: Haddam N									Request	ed	Lab Use Only	······································
Contact Name & Phone: Jack McCarthy 860-267-	-2556 Ext.	3924									Comments:	
Analytical Lab (Name, Cit General Engineering Labo 2040 Savage Road. Charle 843 556 8171. Attn. Cher Priority: 30 D. 14 D	ratories eston SC. 294 yl Jones	407				FSSGAM	FSSALL					
	л. <u> </u> / <u>D</u> .			Sample	Container Size-							
Sample Designation	Date	Time	Media Code	Type Code	&Type Code						Comment, Preservation	Lab Sample ID
9106-0012-002F	6/23/06	08:56	SE	С	BP	X			1 1		Transferred from COC 2006-00436	001
9106-0012-003F	6/23/06	08:39	SE	C	BP	X			11		Transferred from COC 2006-00436	002
9106-0012-004F	6/23/06	09:32	SE	С	BP		x				Transferred from COC 2006-00436	016
9106-0012-005F	6/23/06	09:56	SE	С	BP	X					Transferred from COC 2006-00436	503
9106-0012-006F	6/23/06	13:07	SE	С	BP	X					Transferred from COC 2006-00436	014
9106-0012-010F	6/23/06	11:08	SE	С	BP		X		11		Transferred from COC 2006-00436	017
9106-0012-013F	6/23/06	10:56	SE	C	BP	X					Transferred from COC 2006-00436	005
9106-0012-013FS	6/23/06	10:56	SE	C	BP	X					Transferred from COC 2006-00436	0000
NOTES: PO #: 002332 N	MSR #: 06-4	1960 SSW	P# NA	🛛 LTP	QA 🗌	Radw	aste QA] Non Q)A	Samples Shipped Via: Fed Ex UPS Hand	Internal Container Temp.: Deg. C Custody Sealed? Y D N D
1) Relinguished By		Date/Tim	e	2) Refei	ved By				Date/1	Гіте		Custody Seal
JAME RICARTE	7		400		iont	\leq	Ant			06 900	Other	Intact?
3) Relinquished By		Date/Tim		4) Recei					Date/1		Bill of Lading #	ΥΟΝΟ
5) Relinquished By		Date/Tim	e	6) Recei	ved By				Date/1	Гі те	7 91 9 8876 4783	

Health Physics Procedure

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GPP-GGGR-R5104-003-Attachment B-CY-001 Major

Connecticut Y 362 Injun H	ankee At Hollow Road, H 860-26	East Hampton			y Ilol	oles	53/	Ch	ain of	f Cus	tody	y Form	ło. 2006-00452
Project Name: Haddam Ne								lyses R	equested	d	L	b Use Only	
Contact Name & Phone: Jack McCarthy 860-267-		×.				<u> </u>					C	omments:	
Analytical Lab (Name, Cit General Engineering Labor 2040 Savage Road. Charles 843 556 8171. Attn. Chery	ratories ston SC. 294	407				FSSGAM	FSSALL						
Priority: 🗌 30 D. 🔀 14 D	9. 🔲 7 D.			Sample	Container Size-								
Sample Designation	Date	Time	Media Code	Type Code	&Type Code							Comment, Preservation	Lab Sample ID
9106-0012-007F	6/21/06	09:32	SE	С	BP	X			,		Tr	ansferred from COC # 2006-00433	ODT
9106-0012-008F	6/21/06	09:00	SE	С	BP	X					Tr	ansferred from COC # 2006-00433	1018
9106-0012-012F	6/21/06	09:19	SE	С	BP	X					Tr	ansferred from COC # 2006-00433	019
9106-0012-014F	6/21/06	10:05	SE	C	BP	X					Tr	ansferred from COC # 2006-00433	010
9106-0012-011F	6/21/06	09:51	SE	C	BP	X						ansferred from COC # 2006-00433	01
9106-0012-015F	6/21/06	14:24	SE	C	BP	X						ansferred from COC # 2006-00433	012
9106-0012-009F	6/23/06	10:33	SE	C	BP	X					Tr	ansferred from COC # 2006-00436	013
9106-0012-009FS	6/23/06	10:33	SE	С	BP	X						ansferred from COC # 2006-00436	014
9106-0012-001F	6/23/06	09:18	SE	C	BP	[X					Tr	ansferred from COC # 2006-00436	015
NOTES: PO #: 002332 N	/ISR #: 06- <i>2</i>	0967 SSW]	P# NA	🛛 LTP	QA 🗌	Radw	aste QA		Non Q	A		Samples Shipped Via: Fed Ex UPS Hand	Internal Container Temp.: Deg. C Custody Sealed?
						/	\frown						
1) Relinquished By JAMME RICARTE	7.(Date/Tim 6-06/14	e 00	2) Recei	ted By	Ś	atta		Date/T	106	700	Other	Custody Seal Intact?
3) Relinquished By		Date/Tim	e	4) Recei	ved By	Ą		_	Date/T	ſime		Bill of Lading #	YD ND
5) Relinquished By		Date/Tim	e	6) Recei	ved By				Date/T	ſime		7927 8782 3129	

•	Connecticut Yankee
•	Statement of Work for Analytical Lab Services CY-ISC-SOW-00
•••••••••••••••••••••••••••••••••••••••	Figure 1. Sample Check-in List
	Date/Time Received:
• • • •	SDG#:
· · 、 ·	Work Order Number: 166653 166655 166656
• • •	79/9 8876 4782-23°L 9006-00449
•	2006 - 00452
	1. Custody Seals on shipping container intact? Yes [-] No [7]
	2. Custody Seals dated and signed? Yes [] No []
	3. Chain-of-Custody record present? Yes [] No []
	4. Cooler temperature $23^{\circ} - 22^{\circ} - 23^{\circ}$
•	
<u>.</u>	wet W Dry []
· · · · ·	6. Number of samples in shipping container: $(1)3 \cdot (2)12 \cdot (3)9$
	7. Sample holding times exceeded? Yes [] No []
· · · ·	8. Samples have:
• • •	
	hazard labels
.*	
	hazard labels custody sealsappropriate sample labels
	nazaru nadess custody sealsappropriate sample labels 9. Samples are:
	9. Samples are:
	nazaru nadess custody sealsappropriate sample labels 9. Samples are:
10	
10	
10	
11.	
11. San	
11. San	
11. San	

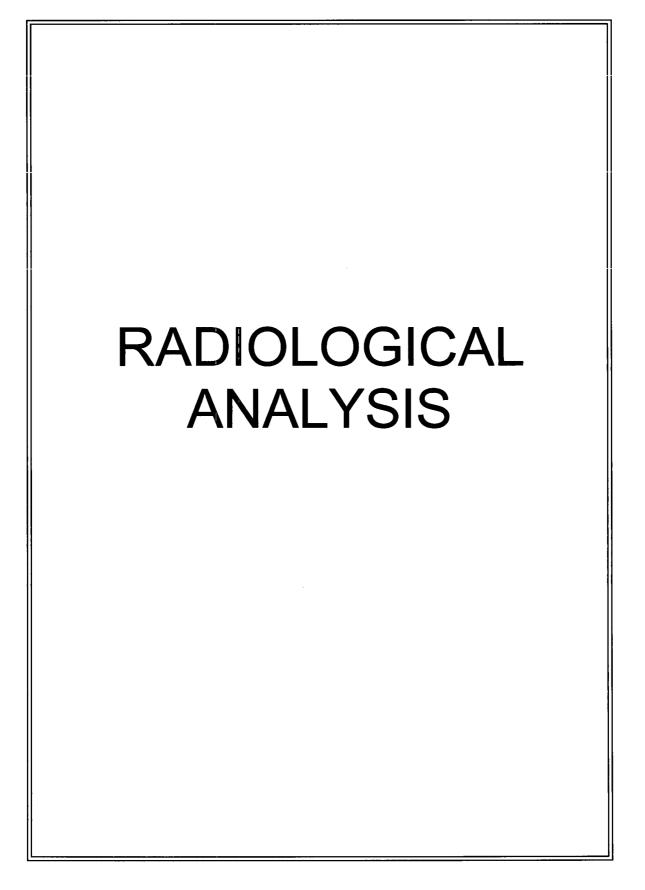
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SAMPLE RECEIPT & REVIEW FORM

PATORIES'					PM use only	
[Client: (marticut Vankee				SDG/ARCOC/Work Order: 160653, 166655, 166656	
Γ	Date Received: 7/7/06				PM(A) Review (ensure non-conforming items are resolved prior to signing):	
	Received By:				Clipton	
Ē						
	Sample Receipt Criteria	Vos		AN 2	2 Comments/Qualifiers (Required for Non-Conforming Items)	
	Shipping containers received intaction and sealed?	-1			Circle Applicable: seals broken damaged container leaking container other (describe)	
	Samples requiring cold 2 preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice pone other describe)	
	Chain of custody documents included with shipment?		ł			
	Sample containers intact and sealed?				Circle Applicable: seals broken damaged construer 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 offected:	
7	Are Encore containers present? (If yes, immediately deliver to VOA laboratory)					
8	Samples received within holding time?		i		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 COP?		1		Sample ID's affected:	
12	COC form is properly signed in relinquished/received sections?					
14	Air Bill, Tracking #'s, & Additional Comments					
Suspected Hazard Information		Non- Regulated	Regulated	High Level		
	Radiological Classification?		4	r	Maximum Counts Observed*: 19m 40	
	PCB Regulated? Shipped as DOT Hazardous	\square	[Comments:	
	Material? If yes, contact Waste				Hazard Class Shipped:	
	Manager or ESH Manager.				UN#:	
	PM (or PMA) review of Hazard class	ificati	07		Initials Date: 7/7/06	
_	in (in the providence of August Class					
	\mathbf{v}					



Radiochemistry Case Narrative Connecticut Yankee Atomic Power Co. (YANK) SDG MSR#06-0967

Method/Analysis Information

Product: Analytical Method: Prep Method: Dry Soil Prep GL-RAD-A-021 Method: Analytical Batch Number: Prep Batch Number: Dry Soil Prep GL-RAD-A-021 Batch Number:

Alphaspec Am241, Cm, Solid ALL FSS DOE EML HASL-300, Am-05-RC Modified Ash Soil Prep Dry Soil Prep 546536 546299 546298

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131828	Method Blank (MB)
1201131829	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131830	166653016(9106-0012-004F) Matrix Spike (MS)
1201131831	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: 166653016 (9106-0012-004F).

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.

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:	546537
Prep Batch Number:	546299
Dry Soil Prep GL-RAD-A-021 Batch Number:	546298

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131832	Method Blank (MB)
1201131833	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131834	166653016(9106-0012-004F) Matrix Spike (MS)
1201131835	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: 166653016 (9106-0012-004F).

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.

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 FSSAnalytical Method:DOE EML HASL-300, Pu-11-RC ModifiedPrep Method:Ash Soil PrepDry Soil Prep GL-RAD-A-021 Method:Dry Soil PrepAnalytical Batch Number:546538Prep Batch Number:546299Dry Soil Prep GL-RAD-A-021 Batch Number:546298

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131836	Method Blank (MB)
1201131837	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131838	166653016(9106-0012-004F) Matrix Spike (MS)
1201131839	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: 166653016 (9106-0012-004F).

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.

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

Analytical Batch Number: 546518 Prep Batch Number: 546298 Sample ID Client ID 166653001 9106-0012-002F 166653002 9106-0012-003F 166653003 9106-0012-005F 166653004 9106-0012-013F 166653005 9106-0012-013FS 166653006 9106-0012-007F 166653007 9106-0012-007F 166653008 9106-0012-008F 166653009 9106-0012-012F 166653010 9106-0012-014F 166653011 9106-0012-015F 166653012 9106-0012-009F 166653013 9106-0012-009F 166653014 9106-0012-009F 166653015 9106-0012-001F 166653016 9106-0012-001F 166653017 9106-0012-004F 166653016 9106-0012-004F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131794 Laboratory Control Sample Duplicate (DUP) 1201131794 Laboratory Control Sample (LCS)	Product: Analytical Method: Prep Method:	Gamma,Solid-FSS GAM & ALL FSS 226 Ingrowth Waived EML HASL 300, 4.5.2.3 Dry Soil Prep
Sample ID Client ID 166653001 9106-0012-002F 166653002 9106-0012-003F 166653003 9106-0012-005F 166653004 9106-0012-013F 166653005 9106-0012-013FS 166653006 9106-0012-013FS 166653007 9106-0012-007F 166653008 9106-0012-008F 166653009 9106-0012-012F 166653010 9106-0012-014F 166653011 9106-0012-011F 166653012 9106-0012-015F 166653013 9106-0012-009F 166653014 9106-0012-001F 166653015 9106-0012-001F 166653016 9106-0012-001F 166653017 9106-0012-001F 166653017 9106-0012-000F 166653017 9106-0012-000F 166653017 9106-0012-000F 166653017 9106-0012-000F 166653017 9106-0012-000F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)		
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166653003 9106-0012-005F 166653004 9106-0012-006F 166653005 9106-0012-013F 166653006 9106-0012-013FS 166653007 9106-0012-007F 166653008 9106-0012-008F 166653009 9106-0012-012F 166653010 9106-0012-014F 166653011 9106-0012-01F 166653012 9106-0012-01F 166653013 9106-0012-009F 166653014 9106-0012-009F 166653015 9106-0012-009FS 166653016 9106-0012-001F 166653017 9106-0012-010F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	-	9106-0012-002F
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166653005 9106-0012-013F 166653006 9106-0012-013FS 166653007 9106-0012-007F 166653008 9106-0012-008F 166653009 9106-0012-012F 166653010 9106-0012-014F 166653011 9106-0012-011F 166653012 9106-0012-015F 166653013 9106-0012-009FS 166653015 9106-0012-001F 166653016 9106-0012-001F 166653017 9106-0012-001F 166653017 9106-0012-010F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653003	9106-0012-005F
166653006 9106-0012-013FS 166653007 9106-0012-007F 166653008 9106-0012-008F 166653009 9106-0012-012F 166653010 9106-0012-014F 166653011 9106-0012-015F 166653012 9106-0012-009F 166653013 9106-0012-009FS 166653016 9106-0012-001F 166653016 9106-0012-001F 166653017 9106-0012-010F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653004	9106-0012-006F
166653007 9106-0012-007F 166653008 9106-0012-008F 166653009 9106-0012-012F 166653010 9106-0012-014F 166653011 9106-0012-011F 166653012 9106-0012-015F 166653013 9106-0012-009F 166653014 9106-0012-009FS 166653015 9106-0012-001F 166653016 9106-0012-004F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653005	9106-0012-013F
166653008 9106-0012-008F 166653009 9106-0012-012F 166653010 9106-0012-014F 166653011 9106-0012-011F 166653012 9106-0012-015F 166653013 9106-0012-009F 166653014 9106-0012-009FS 166653015 9106-0012-001F 166653016 9106-0012-004F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653006	9106-0012-013FS
166653009 9106-0012-012F 166653010 9106-0012-014F 166653011 9106-0012-011F 166653012 9106-0012-015F 166653013 9106-0012-009F 166653014 9106-0012-009FS 166653015 9106-0012-001F 166653016 9106-0012-004F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653007	9106-0012-007F
166653010 9106-0012-014F 166653011 9106-0012-011F 166653012 9106-0012-015F 166653013 9106-0012-009F 166653014 9106-0012-009FS 166653015 9106-0012-001F 166653016 9106-0012-004F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653008	9106-0012-008F
166653011 9106-0012-011F 166653012 9106-0012-015F 166653013 9106-0012-009F 166653014 9106-0012-009FS 166653015 9106-0012-001F 166653016 9106-0012-004F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653009	9106-0012-012F
166653012 9106-0012-015F 166653013 9106-0012-009F 166653014 9106-0012-009FS 166653015 9106-0012-001F 166653016 9106-0012-004F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653010	
166653013 9106-0012-009F 166653014 9106-0012-009FS 166653015 9106-0012-001F 166653016 9106-0012-004F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653011	
1666530149106-0012-009FS1666530159106-0012-001F1666530169106-0012-004F1666530179106-0012-010F1201131792Method Blank (MB)1201131793166653001(9106-0012-002F) Sample Duplicate (DUP)		
1666530159106-0012-001F1666530169106-0012-004F1666530179106-0012-010F1201131792Method Blank (MB)1201131793166653001(9106-0012-002F) Sample Duplicate (DUP)		
166653016 9106-0012-004F 166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653014	9106-0012-009FS
166653017 9106-0012-010F 1201131792 Method Blank (MB) 1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653015	
1201131792Method Blank (MB)1201131793166653001(9106-0012-002F) Sample Duplicate (DUP)		
1201131793 166653001(9106-0012-002F) Sample Duplicate (DUP)	166653017	
	1201131792	
1201131794Laboratory Control Sample (LCS)		
	1201131794	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: 166653001 (9106-0012-002F).

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 166653004 (9106-0012-006F) was recounted due to a detector error.

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
IU	Data rejected due to interference.	Europium-155	166653001
			166653002
			166653015
			166653017
		Manganese-54	166653017
Л	Data rejected due to low abundance.	Cesium-134	166653004
			166653005
			166653006
			166653008
			166653011
			166653012
			166653013
			166653017
		Cobalt-60	166653002
		Europium-155	1201131793

Method/Analysis Information

Product:

Analytical Method: Prep Method: Dry Soil Prep GL-RAD-A-021 Method: Analytical Batch Number: Prep Batch Number: Dry Soil Prep GL-RAD-A-021 Batch Number:

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201133604	Method Blank (MB)

GFPC, Sr90, solid-ALL FSS

EPA 905.0 Modified Ash Soil Prep Dry Soil Prep 547395 546299 546298

1201133605	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201133606	166653016(9106-0012-004F) Matrix Spike (MS)
1201133607	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: 166653016 (9106-0012-004F).

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

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:	546461

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131629	Method Blank (MB)
1201131630	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131631	166653016(9106-0012-004F) Matrix Spike (MS)
1201131632	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: 166653016 (9106-0012-004F).

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.

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:	546577
Prep Batch Number:	546299
Dry Soil Prep GL-RAD-A-021 Batch Number:	546298
• •	

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131922	Method Blank (MB)
1201131923	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131924	166653016(9106-0012-004F) Matrix Spike (MS)
1201131925	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: 166653016 (9106-0012-004F).

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.

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:	546578
Prep Batch Number:	546299
Dry Soil Prep GL-RAD-A-021 Batch Number:	546298
• •	

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131926	Method Blank (MB)
1201131927	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131928	166653016(9106-0012-004F) Matrix Spike (MS)
1201131929	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: 166653016 (9106-0012-004F).

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.

Method/Analysis Information

Product: Analytical Method: Analytical Batch Number:	LSC, Tritium Dist, Solid-HTD2,ALL FSS EPA 906.0 Modified 546579
Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F
1201131930	Method Blank (MB)
1201131931	166653016(9106-0012-004F) Sample Duplicate (DUP)
1201131932	166653016(9106-0012-004F) Matrix Spike (MS)

1201131933 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: 166653016 (9106-0012-004F).

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.

Method/Analysis Information

Product: Analytical Method: Analytical Batch Number: Liquid Scint C14, Solid All,FSS EPA EERF C-01 Modified 549860

Sample ID	Client ID
166653016	9106-0012-004F
166653017	9106-0012-010F

1201139569	Method Blank (MB)
1201139570	166653017(9106-0012-010F) Sample Duplicate (DUP)
1201139571	166653017(9106-0012-010F) Matrix Spike (MS)
1201139572	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: 166653017 (9106-0012-010F).

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 reprepped 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.

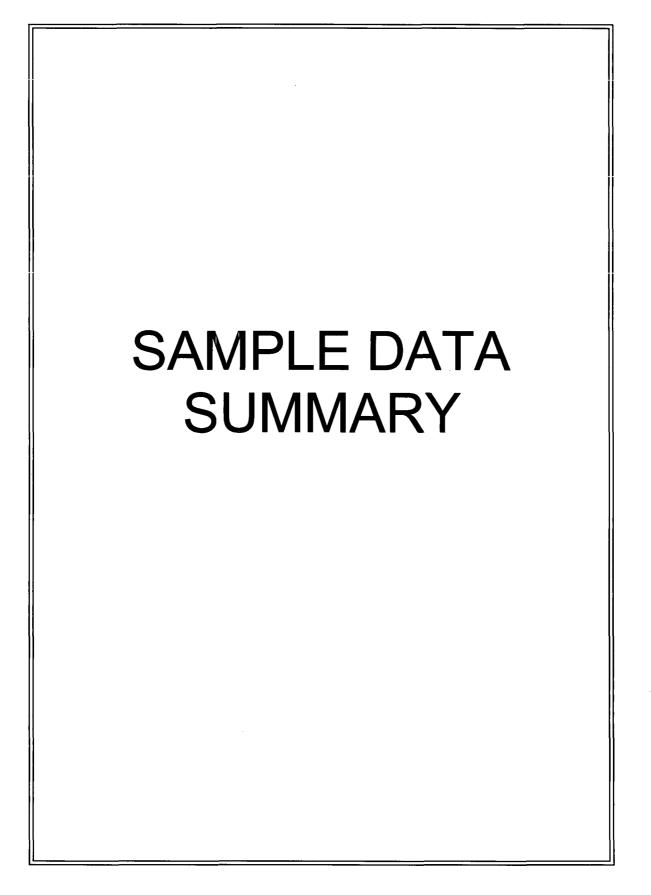
Certification Statement

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:

A Euler & Clicore riallou **Reviewer/Date:**



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#06-0967 GEL Work Order: 166653

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- ND The analyte concentration is not detected above the detection limit.

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

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

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

4 carros Cerron

Reviewed by

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Certificate of Analysis

Company Address :			tomic Power						
Contact: Project:	East Hampto Mr. Jack Mo Soils PO# 0	Carthy	ticut 06424				Repo	ort Date: July 21, 20	06
	Client San Sample ID Matrix: Collect Da Receive D Collector: Moisture:): ite:		9106 00 1666530 SE 23 JUN 07 JUL Client 29.4%	06	P C V		ANK01204 ANK001	
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mt
Rad Gamma Spec An	alysis								
Gamma,Solid FSS G Waived	GAM & ALL FSS	226 Ingro	wth						
Actinium 228		0.971	+/ 0.202	0.0844	+/ 0.202	0.181	pCi/g	MJH1 07/17/0	06 1336 546518
Americium 241	U	0.0707	+/ 0.117	0.0846	+/ 0.117	0.175	pCi/g		
Bismuth 212	U	0.307	+/ 0.392	0.183	+/ 0.392	0.389	pCi/g		
Bismuth 214		0.631	+/ 0.126	0.0433	+/ 0.126	0.0915	pCi/g		
Cesium 134	U	0.0426	+/ 0.0359	0.0288	+/ 0.0359	0.061	pCi/g		
Cesium 137	U	0.0439	+/ 0.0616		+/ 0.0616	0.0451	pCi/g		
Cobalt 60	U	0.0286	+/ 0.0261	0.0245	+/ 0.0261	0.0537	pCi/g		
Europium 152	U	0.0378	+/ 0.0689		+/ 0.0689	0.116	pCi/g		
Europium 154	U	0.022	+/ 0.0982	0.0799	+/ 0.0982	0.173	pCi/g		
Europium 155	UI	0.00	+/ 0.0859		+/ 0.0859	0.111	pCi/g		
Lead 212		1.02	+/ 0.0786		+/ 0.0786	0.0665	pCi/g		
Lead 214		0.815	+/ 0.125	0.041	+/ 0.125	0.0859	pCi/g		
Manganese 54	U	0.00801	+/ 0.0284	0.0239	+/ 0.0284	0.0509	pCi/g		
Niobium 94	U	0.0167	+/ 0.025	0.0198	+/ 0.025	0.0421	pCi/g		
Potassium 40		14.3	+/ 1.18	0.177	+/ 1.18	0.400	pCi/g		
Radium 226		0.631	+/ 0.126	0.0433	+/ 0.126	0.0915	pCi/g		
Silver 108m	U	0.011	+/ 0.0233	0.0184	+/ 0.0233	0.0388	pCi/g		
Thallium 208		0.279	+/ 0.0573	0.0224	+/ 0.0573	0.0474	pCi/g		
The following Prep N	Aethods were p	erformed							
Method De	scription				Analyst	Date	Time	Prep Batch	
Dry Soil Prep Dry	y Soil Prep GL	RAD A 0	21		LXM2	07/09/06	1538	546298	
The following Analyt Method Des	ical Methods w scription	ere perfor	med						
	•								
1 EM	IL HASL 300, 4	.5.2.3							
Notes: The Oualifiers in t	his report are d	lefined or	follows :						

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

Parameter	Qualifier	r Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
	Client Sample I	mple ID: D:		9106 001 16665300			Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Projec	t: Soils PO#	002332							
Conta			cticut 06424				J	Report Date: July 21, 20	06
Comp Addre	<u>,</u>	ut Yankee A Hollow Rd	tomic Power						

> 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

Comp Addre	•	Connecticut 362 Injun H		tomic Power						
Conta Projec		East Hampto Mr. Jack Mo Soils PO# 0	cCarthy	ticut 06424				R	eport Date: July 21	, 2006
		Client San Sample ID Matrix: Collect Da Receive D Collector: Moisture:): ite:		9106 00 1666530 SE 23 JUN 07 JUL Client 42.8%	06		Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter		Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Da	te Time Batch Mt
Rad Gamma Spec	Analy	sis								
Gamma,Solid FS Waived	SS GAN	1 & ALL FSS	226 Ingro	wth						
Actinium 228			0.962	+/ 0.182	0.0708	+/ 0.182	0.153	pCi/g	MJH1 07/	17/06 1337 546518 1
Americium 241		U	0.0529	+/ 0.114	0.0856	+/ 0.114	0.177	pCi/g		
Bismuth 212			0.598	+/ 0.319	0.146	+/ 0.319	0.314	pCi/g		
Bismuth 214			0.697	+/ 0.107	0.043	+/ 0.107	0.0909	pCi/g		
Cesium 134		U	0.0579	+/ 0.052	0.0292	+/ 0.052	0.0617	pCi/g		
Cesium 137		U	0.0172	+/ 0.0374	0.0216	+/ 0.0374	0.046	pCi/g		,
Cobalt 60		UI	0.00	+/ 0.0381	0.0247	+/ 0.0381	0.054	pCi/g		
Europium 152		U	0.0309	+/ 0.0619	0.0516	+/ 0.0619	0.109	pCi/g		
Europium 154		U	0.0622	+/ 0.0781	0.0591	+/ 0.0781	0.131	pCi/g		
Europium 155		UI	0.00	+/ 0.0962	0.0505	+/ 0.0962	0.105	pCi/g		
Lead 212			0.973	+/ 0.0802	0.0305	+/ 0.0802	0.0635	pCi/g		
Lead 214			0.751	+/ 0.107	0.0357	+/ 0.107	0.0752	pCi/g		
Manganese 54		U	0.0232	+/ 0.0271	0.0202	+/ 0.0271	0.0435	pCi/g		
Niobium 94		U	0.0203	+/ 0.0213		+/ 0.0213	0.0405	pCi/g		
Potassium 40			16.8	+/ 1.13	0.178	+/ 1.13	0.403	pCi/g		
Radium 226			0.697	+/ 0.107	0.043	+/ 0.107	0.0909	pCi/g		
Silver 108m		U	0.00652	+/ 0.0221		+/ 0.0221	0.0403	pCi/g		
Thallium 208			0.323	+/ 0.0495	0.0187	+/ 0.0495	0.040	pCi/g		
The following Pro-	m N#-4	hada	aufaur							
The following Pre Method	Descr		eriormed			Analyst	Date	Tim	e Prep Batch	
Dry Soil Prep	Derr	oil Prep GL		21		LXM2	07/09/0)6 153	8 546298	

The following Analytical Methods were performed

Method Description

EML HASL 300, 4.5.2.3

Notes:

1

The Qualifiers in this report are defined as follows :

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

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<u>Certificate of Analysis</u>

Parameter		Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
		Client Sam Sample ID			9106 001 16665300			Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Proje	ect:	Soils PO# 00	02332							
Cont	tact:	East Hampto Mr. Jack Mc		cticut 06424]	Report Date: July 21, 20	06
	npany : ress :	Connecticut 362 Injun Ho		tomic Power						

> 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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Compa Addres	-		t Yankee A Iollow Rd	tomic Power							
Contac Project	East H t: Mr. Ja	ck M	on, Connec cCarthy 002332	ticut 06424				R	eport Date: Jul	y 21, 2(006
Project	L: 50115 I	'U# U	102332								
	Clien Samp Matri Colle Recei Colle Mois	le II x: ct Da ve D ctor:	ate:		9106 00 1666530 SE 23 JUN 07 JUL Client 26.6%	06		Project: Client ID: Vol. Recv.:	YANK01204 YANK001		
Parameter	Qual	ifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst	t Date	Time Batch Mt
Rad Gamma Spec A	Analysis						••••				
Gamma,Solid FS	S GAM & AL	L FSS	S 226 Ingro	wth							
Waived											
Actinium 228			0.589	+/ 0.248	0.0873	+/ 0.248	0.187	pCi/g	MJH1	07/17/	06 1337 546518
Americium 241		U	0.0141	+/ 0.0376		+/ 0.0376	0.0679	pCi/g			
Bismuth 212		U	0.238	+/ 0.281	0.176	+/ 0.281	0.375	pCi/g			
Bismuth 214			0.579	+/ 0.115	0.0459	+/ 0.115	0.097	pCi/g			
Cesium 134		U	0.0344	+/ 0.0457		+/ 0.0457	0.0696	pCi/g			
Cesium 137			0.119	+/ 0.055	0.0296	+/ 0.055	0.0622	pCi/g			
Cobalt 60		U	0.0225	+/ 0.0326		+/ 0.0326	0.0637	pCi/g			
Europium 152		U	0.024	+/ 0.0708		+/ 0.0708	0.122	pCi/g			
Europium 154		U	0.0423	+/ 0.0997		+/ 0.0997	0.173	pCi/g			
Europium 155		U	0.0421	+/ 0.0609		+/ 0.0609	0.108	pCi/g			
Lead 212			0.569	+/ 0.0808		+/ 0.0808	0.0819	pCi/g			
Lead 214			0.542	+/ 0.109	0.0432	+/ 0.109	0.0904	pCi/g			
Manganese 54		U	0.00185	+/ 0.0329		+/ 0.0329	0.0575	pCi/g			
Niobium 94		U	0.0122	+/ 0.0273		+/ 0.0273	0.0501	pCi/g			
Potassium 40			12.8	+/ 1.01	0.240	+/ 1.01	0.526	pCi/g			
Radium 226		* *	0.579	+/ 0.115	0.0459	+/ 0.115	0.097	pCi/g			
Silver 108m Thallium 208		U	0.00535	+/ 0.0237		+/ 0.0237	0.0446	pCi/g			
mannum 208			0.241	+/ 0.0664	0.0250	+/ 0.0664	0.0501	pCi/g			
The following Prep Method	o Methods w Description	ere p	erformed			Analyst	Date	Time	e Prep Batcl		
	•	CT					07/09/				
Dry Soil Pren I	Dry Soil Pren	141		71			07/00/	116 (53)	V 5/16/20V		

Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298	

The following Analytical Methods were performedMethodDescription

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

.

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Certificate of Analysis

Parameter		Qualifier Result Uncertainty	LC TPU	MDA Units DF Analyst Date Time Batch Mtd
		Client Sample ID: Sample ID:	9106 0012 005F 166653003	Project: YANK01204 Client ID: YANK001 Vol. Recv.:
	Project:	Soils PO# 002332		
	Contact:	East Hampton, Connecticut 06424 Mr. Jack McCarthy		Report Date: July 21, 2006
	Company : Address :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd		

> 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
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- ^ 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 : Address :	Connecticut 362 Injun H		tomic Power						
Contact: Project:	East Hampt Mr. Jack M Soils PO# 0	cCarthy	ticut 06424				R	eport Date: July 21, 20	006
	Client San Sample IE Matrix: Collect Da Receive D Collector: Moisture:): ate:		9106 0012 166653004 SE 23 JUN 0 07 JUL 0 Client 24.9%	6		Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
Rad Gamma Spec Anal	ysis								
Gamma,Solid FSS GA Waived	M & ALL FSS	5 226 Ingro	wth						
Actinium 228		0.845	+/ 0.133	0.0455 +	/ 0.133	0.0973	pCi/g	MJH1 07/20/	06 1635 546518 1
Americium 241	U	0.0147	+/ 0.0684	0.0555 +/	0.0684	0.114	pCi/g		
Bismuth 212		0.496	+/ 0.216	0.101 +	/ 0.216	0.215	pCi/g		
Bismuth 214		0.481	+/ 0.0706	0.026 +/	0.0706	0.0548	pCi/g		
Cesium 134	UI	0.00	+/ 0.0273	0.017 +/	0.0273	0.0358	pCi/g		
Cesium 137		0.0695	+/ 0.026	0.0135 +	/ 0.026	0.0286	pCi/g		
Cobalt 60	U	0.00473	+/ 0.0171	0.0146 +/	0.0171	0.0314	pCi/g		
Europium 152	U	0.0231	+/ 0.0407	0.0347 +/	0.0407	0.0726	pCi/g		
Europium 154	U	0.032	+/ 0.0491	0.0381 +/	0.0491	0.0824	pCi/g		
Europium 155	U	0.0486	+/ 0.0554	0.0459 +/	0.0554	0.0945	pCi/g		
Lead 212		0.787	+/ 0.0548	0.0216 +/	0.0548	0.0447	pCi/g		
Lead 214		0.573	+/ 0.0742	0.0253 +/	0.0742	0.053	pCi/g		
Manganese 54	U	0.00317	+/ 0.017	0.0149 +	/ 0.017	0.0314	pCi/g		
Niobium 94	U	0.000344	+/ 0.0129	0.0112 +/	0.0129	0.0239	pCi/g		
Potassium 40		13.9	+/ 0.717	0.0969 +	/ 0.717	0.217	pCi/g		
Radium 226		0.481	+/ 0.0706	0.026 +/	0.0706	0.0548	pCi/g		
Silver 108m	U	0.00014	+/ 0.0139	0.012 +/	0.0139	0.0252	pCi/g		
Thallium 208		0.266	+/ 0.0353	0.013 +/	0.0353	0.0274	pCi/g		
The following Prep Me	thods were n	erformed							
	ription				Analyst	Date	Tim	e Prep Batch	

		-			=	
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298	

The following Analytical Methods were performed

Method Description EML HASL 300, 4.5.2.3

Notes:

1

The Qualifiers in this report are defined as follows :

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Certificate of Analysis

Parameter		Qualifier Result Uncertainty	LC TPU	MDA Units DF Analyst Date Time Batch Mtd
		Client Sample ID: Sample ID:	9106 0012 006F 166653004	Project: YANK01204 Client ID: YANK001 Vol. Recv.:
Pr	oject:	Soils PO# 002332		
Co	ontact:	East Hampton, Connecticut 06424 Mr. Jack McCarthy		Report Date: July 21, 2006
	ompany : ddress :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd		

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Address :	Connecticut 362 Injun H		tomic Power					
Contact:	East Hampto Mr. Jack Mo	cCarthy	ticut 06424			I	Report Date: July 21, 20	06
Project:	Soils PO# 0	02332						
	Client San Sample ID Matrix: Collect Da Receive D Collector: Moisture:): ite:		9106 0012 013F 166653005 SE 23 JUN 06 07 JUL 06 Client 17.9%		Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter	Qualifier	Result	Uncertainty	LC TPU	MDA	Units	DF Analyst Date	Time Batch Mto
Rad Gamma Spec Anal	ysis					··· ··· ·· ··		
Gamma,Solid FSS GA	- IM & ALL FSS	226 Ingro	wth					
Waived		0						
Actinium 228		0.731	+/ 0.126	0.0485 +/ 0.126	0.104	pCi/g	MTH1 07/17/0	06 1338 546518
Acumum 228		0.751		0.0105 17 0.120	0.104	pour g		JU 1550 5 7 0510
Americium 228	U	0.0321	+/ 0.0612	0.0541 +/ 0.0612	0.112			JO 1550 540518
	U					pCi/g	WIJIII 07/17/C	JU 1998 940918
Americium 241	U	0.0321	+/ 0.0612	0.0541 +/ 0.0612	0.112			, 1556 51 0516
Americium 241 Bismuth 212	U UI	0.0321 0.408	+/ 0.0612 +/ 0.240	0.0541 +/ 0.0612 0.102 +/ 0.240	0.112 0.218	pCi/g pCi/g		0 1550 5 - 0510
Americium 241 Bismuth 212 Bismuth 214	_	0.0321 0.408 0.502	+/ 0.0612 +/ 0.240 +/ 0.0725	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725	0.112 0.218 0.0573	pCi/g pCi/g pCi/g		, 1556 51 0516
Americium 241 Bismuth 212 Bismuth 214 Cesium 134	UI	0.0321 0.408 0.502 0.00	+/ 0.0612 +/ 0.240 +/ 0.0725 +/ 0.0358	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725 0.0188 +/ 0.0358	0.112 0.218 0.0573 0.0396	pCi/g pCi/g pCi/g pCi/g		JU 1558 540518
Americium 241 Bismuth 212 Bismuth 214 Cesium 134 Cesium 137	UI U	0.0321 0.408 0.502 0.00 0.00793	+/ 0.0612 +/ 0.240 +/ 0.0725 +/ 0.0358 +/ 0.0173	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725 0.0188 +/ 0.0358 0.0148 +/ 0.0173	0.112 0.218 0.0573 0.0396 0.0312	pCi/g pCi/g pCi/g pCi/g pCi/g		0 1556 5 4 0516
Americium 241 Bismuth 212 Bismuth 214 Cesium 134 Cesium 137 Cobalt 60	UI U U	0.0321 0.408 0.502 0.00 0.00793 0.00717	+/ 0.0612 +/ 0.240 +/ 0.0725 +/ 0.0358 +/ 0.0173 +/ 0.0157	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725 0.0188 +/ 0.0358 0.0148 +/ 0.0173 0.0136 +/ 0.0157	0.112 0.218 0.0573 0.0396 0.0312 0.0297	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		0 1556 5 4 0516
Americium 241 Bismuth 212 Bismuth 214 Cesium 134 Cesium 137 Cobalt 60 Europium 152	UI U U U	0.0321 0.408 0.502 0.00 0.00793 0.00717 0.0327	+/ 0.0612 +/ 0.240 +/ 0.0725 +/ 0.0358 +/ 0.0173 +/ 0.0157 +/ 0.0415	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725 0.0188 +/ 0.0358 0.0148 +/ 0.0173 0.0136 +/ 0.0157 0.0346 +/ 0.0415	0.112 0.218 0.0573 0.0396 0.0312 0.0297 0.0726	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		0 1558 5 4 0518
Americium 241 Bismuth 212 Bismuth 214 Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154	UI U U U U	0.0321 0.408 0.502 0.00 0.00793 0.00717 0.0327 0.0202	+/ 0.0612 +/ 0.240 +/ 0.0725 +/ 0.0358 +/ 0.0173 +/ 0.0157 +/ 0.0415 +/ 0.048	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725 0.0188 +/ 0.0358 0.0148 +/ 0.0173 0.0136 +/ 0.0157 0.0346 +/ 0.0415 0.0414 +/ 0.048	0.112 0.218 0.0573 0.0396 0.0312 0.0297 0.0726 0.0895	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		0 1556 5 4 0516
Americium 241 Bismuth 212 Bismuth 214 Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155	UI U U U U	0.0321 0.408 0.502 0.00 0.00793 0.00717 0.0327 0.0202 0.0652	+/ 0.0612 +/ 0.240 +/ 0.0725 +/ 0.0358 +/ 0.0173 +/ 0.0157 +/ 0.0415 +/ 0.048 +/ 0.0541	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725 0.0188 +/ 0.0358 0.0148 +/ 0.0173 0.0136 +/ 0.0157 0.0346 +/ 0.0415 0.0414 +/ 0.048 0.0494 +/ 0.0541	0.112 0.218 0.0573 0.0396 0.0312 0.0297 0.0726 0.0895 0.102	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		0 1556 5 4 0516
Americium 241 Bismuth 212 Bismuth 214 Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212 Lead 214 Manganese 54	UI U U U U	0.0321 0.408 0.502 0.00 0.00793 0.00717 0.0327 0.0202 0.0652 0.737	+/ 0.0612 +/ 0.240 +/ 0.0725 +/ 0.0358 +/ 0.0173 +/ 0.0157 +/ 0.0415 +/ 0.048 +/ 0.0541 +/ 0.056	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725 0.0188 +/ 0.0358 0.0148 +/ 0.0173 0.0136 +/ 0.0157 0.0346 +/ 0.0415 0.0414 +/ 0.048 0.0494 +/ 0.0541 0.0233 +/ 0.056	0.112 0.218 0.0573 0.0396 0.0312 0.0297 0.0726 0.0895 0.102 0.0483	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		
Americium 241 Bismuth 212 Bismuth 214 Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212 Lead 214 Manganese 54 Niobium 94	UI U U U U U U	0.0321 0.408 0.502 0.00 0.00793 0.00717 0.0327 0.0202 0.0652 0.737 0.617 0.00061 0.0072	+/ 0.0612 +/ 0.240 +/ 0.0725 +/ 0.0358 +/ 0.0173 +/ 0.0157 +/ 0.0415 +/ 0.048 +/ 0.0541 +/ 0.056 +/ 0.085 +/ 0.0169 +/ 0.0153	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725 0.0188 +/ 0.0358 0.0148 +/ 0.0173 0.0136 +/ 0.0157 0.0346 +/ 0.0415 0.0414 +/ 0.048 0.0494 +/ 0.0541 0.0233 +/ 0.056 0.0259 +/ 0.085 0.0145 +/ 0.0169 0.0138 +/ 0.0153	0.112 0.218 0.0573 0.0396 0.0312 0.0297 0.0726 0.0895 0.102 0.0483 0.0542 0.0308 0.029	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		, 1556 5 4 0516
Americium 241 Bismuth 212 Bismuth 214 Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212 Lead 214 Manganese 54 Niobium 94 Potassium 40	UI U U U U U	0.0321 0.408 0.502 0.00 0.00793 0.00717 0.0327 0.0202 0.0652 0.737 0.617 0.00061 0.0072 12.1	+/ 0.0612 +/ 0.240 +/ 0.0725 +/ 0.0358 +/ 0.0173 +/ 0.0157 +/ 0.0415 +/ 0.048 +/ 0.0541 +/ 0.056 +/ 0.085 +/ 0.0169 +/ 0.0153 +/ 0.748	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725 0.0188 +/ 0.0358 0.0148 +/ 0.0173 0.0136 +/ 0.0157 0.0346 +/ 0.0415 0.0414 +/ 0.048 0.0494 +/ 0.0541 0.0233 +/ 0.056 0.0259 +/ 0.085 0.0145 +/ 0.0153 0.112 +/ 0.748	0.112 0.218 0.0573 0.0396 0.0312 0.0297 0.0726 0.0895 0.102 0.0483 0.0542 0.0308 0.029 0.248	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		
Americium 241 Bismuth 212 Bismuth 214 Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212 Lead 214 Manganese 54 Niobium 94 Potassium 40 Radium 226	UI U U U U U U U	0.0321 0.408 0.502 0.00 0.00793 0.00717 0.0327 0.0202 0.0652 0.737 0.617 0.00061 0.0072 12.1 0.502	+/ 0.0612 +/ 0.240 +/ 0.0725 +/ 0.0358 +/ 0.0173 +/ 0.0157 +/ 0.0415 +/ 0.048 +/ 0.0541 +/ 0.056 +/ 0.085 +/ 0.0169 +/ 0.0153 +/ 0.748 +/ 0.748	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725 0.0188 +/ 0.0358 0.0148 +/ 0.0173 0.0136 +/ 0.0157 0.0346 +/ 0.0415 0.0414 +/ 0.048 0.0494 +/ 0.0541 0.0233 +/ 0.056 0.0259 +/ 0.085 0.0145 +/ 0.0169 0.0138 +/ 0.0153 0.112 +/ 0.748 0.0272 +/ 0.0725	0.112 0.218 0.0573 0.0396 0.0312 0.0297 0.0726 0.0895 0.102 0.0483 0.0542 0.0308 0.029 0.248 0.0573	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		
Americium 241 Bismuth 212 Bismuth 214 Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212 Lead 214 Manganese 54 Niobium 94 Potassium 40	UI U U U U U	0.0321 0.408 0.502 0.00 0.00793 0.00717 0.0327 0.0202 0.0652 0.737 0.617 0.00061 0.0072 12.1	+/ 0.0612 +/ 0.240 +/ 0.0725 +/ 0.0358 +/ 0.0173 +/ 0.0157 +/ 0.0415 +/ 0.048 +/ 0.0541 +/ 0.056 +/ 0.085 +/ 0.0169 +/ 0.0153 +/ 0.748	0.0541 +/ 0.0612 0.102 +/ 0.240 0.0272 +/ 0.0725 0.0188 +/ 0.0358 0.0148 +/ 0.0173 0.0136 +/ 0.0157 0.0346 +/ 0.0415 0.0414 +/ 0.048 0.0494 +/ 0.0541 0.0233 +/ 0.056 0.0259 +/ 0.085 0.0145 +/ 0.0153 0.112 +/ 0.748	0.112 0.218 0.0573 0.0396 0.0312 0.0297 0.0726 0.0895 0.102 0.0483 0.0542 0.0308 0.029 0.248	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		, 1556 5 4 0516

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performedMethodDescription

1 EML HASL 300, 4.5.2.3

Notes:

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Certificate of Analysis

Parameter		Qualifier Result Uncertainty	LC	ГРИ М	DA Units	DF Analyst Date	Time Batch Mtd
		Client Sample ID: Sample ID:	9106 0012 166653005	013F	Project: Client ID: Vol. Recv.		
	Project:	Soils PO# 002332					
	Contact:	East Hampton, Connecticut 06424 Mr. Jack McCarthy				Report Date: July 21, 20	06
	Company : Address :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd					

> Result is greater than value reported

- A The TIC is a suspected aldol condensation product
- B Target analyte was detected in the associated blank
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- ^ RPD of sample and duplicate evaluated using +/ RL. Concentrations are <5X the RL

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Certificate of Analysis

Compar Address	2		tomic Power						
Contact	East Hampton: Mr. Jack Mo		ticut 06424				Rep	port Date: July 21, 20	006
Project:		•							
	Client San Sample ID Matrix: Collect Da Receive D Collector: Moisture:): ite:		9106 00 1666530 SE 23 JUN 07 JUL Client 23.2%	06	1		(ANK01204 (ANK001	
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mte
Rad Gamma Spec A	nalysis								
Gamma,Solid FSS Waived	GAM & ALL FSS	226 Ingro	wth						
Actinium 228		0.914	+/ 0.154	0.0583	+/ 0.154	0.127	pCi/g	MJH1 07/17/	06 1406 546518 1
Americium 241	U	0.00369	+/ 0.111	0.0896	+/ 0.111	0.186	pCi/g		
Bismuth 212		0.904	+/ 0.303	0.131	+/ 0.303	0.281	pCi/g		
Bismuth 214		0.514	+/ 0.0911		+/ 0.0911	0.0689	pCi/g		
Cesium 134	UI	0.00	+/ 0.0359	0.0231	+/ 0.0359	0.0493	pCi/g		
Cesium 137	U	0.0143	+/ 0.020	0.0183	+/ 0.020	0.039	pCi/g		
Cobalt 60	U	0.000551	+/ 0.0209	0.0177	+/ 0.0209	0.0395	pCi/g		
Europium 152	U	0.0339	+/ 0.0521	0.0464	+/ 0.0521	0.0977	pCi/g		
Europium 154	U	0.016	+/ 0.0649	0.0567	+/ 0.0649	0.124	pCi/g		
Europium 155	U	0.0437	+/ 0.0542		+/ 0.0542	0.108	pCi/g		
Lead 212		0.845	+/ 0.0636		+/ 0.0636	0.0512	pCi/g		
Lead 214		0.641	+/ 0.0961	0.0344	+/ 0.0961	0.0723	pCi/g		
Manganese 54	U	0.00342	+/ 0.0212	0.0175	+/ 0.0212	0.0378	pCi/g		
Niobium 94	U	0.00408	+/ 0.0196	0.0164	+/ 0.0196	0.0351	pCi/g		
Potassium 40		13.6	+/ 0.934	0.168	+/ 0.934	0.376	pCi/g		
Radium 226		0.514	+/ 0.0911	0.0323	+/ 0.0911	0.0689	pCi/g		
Silver 108m	U	0.0144	+/ 0.0164		+/ 0.0164	0.0294	pCi/g		
Thallium 208		0.288	+/ 0.0475	0.0183	+/ 0.0475	0.039	pCi/g		
The following Prep	Methods were pe	erformed						·	
	escription	er tor meu		<u>-</u>	Analyst	Date	Time	Prep Batch	
Dry Soil Prep D	ory Soil Prep GL	RAD A 0	21		LXM2	07/09/0	06 1538	546298	
The following Analy	· · · · · · · · · · · · · · · · · · ·	ere perfor	med						
Method D	escription								
F	MI HASI 300 A	523							

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

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Certificate of Analysis

Parameter		Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
		Client Sam Sample ID:			9106 0012 166653006			Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Projec	ct:	Soils PO# 00	2332							
Conta		East Hampto Mr. Jack Mc		ticut 06424				I	Report Date: July 21, 20	06
Comp Addre	~	Connecticut 362 Injun Ho		tomic Power						

- > 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

Compar Address	2		tomic Power						
Contact Project:	: Mr. Jack M	-	ticut 06424				R	eport Date: July 21, 20	006
	Client Sa Sample II Matrix: Collect D Receive I Collector Moisture	D: Date: Date: :		9106 00 1666530 SE 21 JUN 07 JUL Client 29.4%	06		Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mt
Rad Gamma Spec A	nalysis								
Gamma,Solid FSS Waived	GAM & ALL FS	S 226 Ingro	wth						
Actinium 228		0.678	+/ 0.202	0.068	+/ 0.202	0.149	pCi/g	MJH1 07/17/	06 1406 546518
Americium 241	U	0.0238	+/ 0.100	0.0848	+/ 0.100	0.176	pCi/g		
Bismuth 212		0.364	+/ 0.310	0.165	+/ 0.310	0.354	pCi/g		
Bismuth 214		0.551	+/ 0.117	0.0332	+/ 0.117	0.0716	pCi/g		
Cesium 134	U	0.046	+/ 0.0418	0.0255	+/ 0.0418	0.0547	pCi/g		
Cesium 137		0.0647	+/ 0.0289	0.0192	+/ 0.0289	0.0414	pCi/g		
Cobalt 60	U	0.0193	+/ 0.0246		+/ 0.0246	0.0511	pCi/g		
Europium 152	U		+/ 0.0652		+/ 0.0652	0.111	pCi/g		
Europium 154	U		+/ 0.0756		+/ 0.0756	0.145	pCi/g		
Europium 155	U		+/ 0.0615		+/ 0.0615	0.121	pCi/g		
Lead 212		0.755	+/ 0.0733		+/ 0.0733	0.0753	pCi/g		
Lead 214		0.607	+/ 0.104	0.039	+/ 0.104	0.0823	pCi/g		
Manganese 54	U		+/ 0.0268		+/ 0.0268	0.045	pCi/g		
Niobium 94	U	0.000504	+/ 0.0221		+/ 0.0221	0.0407	pCi/g		
Potassium 40		12.8	+/ 1.10	0.157	+/ 1.10	0.364	pCi/g		
Radium 226		0.551	+/ 0.117	0.0332	+/ 0.117	0.0716	pCi/g		
Silver 108m	U		+/ 0.0216		+/ 0.0216	0.036	pCi/g		
Thallium 208		0.201	+/ 0.0526	0.0205	+/ 0.0526	0.0438	pCi/g		
The following Prep		performed						Des D 4 l	
	Description				Analyst	Date	Tim	e Prep Batch	
Dry Soil Prep D	Dry Soil Prep GL	RADA	21		LXM2	07/09/	06 1538	3 546298	

The following Analytical Methods were performed

Method Description EML HASL 300, 4.5.2.3

Notes:

1

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

Parameter		Qualifier Result Uncertainty	LC TP	U MDA	Units DF Analyst Date	Time Batch Mtd
		Client Sample ID: Sample ID:	9106 0012 00 166653007	Clier	ect: YANK01204 nt ID: YANK001 Recv.:	
]	Project:	Soils PO# 002332				
(Contact:	East Hampton, Connecticut 06424 Mr. Jack McCarthy			Report Date: July 21, 20	006
	Company : Address :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd				

- > 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

Compar Address	2		tomic Power					
Contact	East Hampt : Mr. Jack M		ticut 06424			ł	Report Date: July 21, 20	006
Project:	Soils PO# 0	002332						
	Client Sar Sample II Matrix: Collect Da Receive D Collector: Moisture:	D: ate: Date:		9106 0012 00 166653008 SE 21 JUN 06 07 JUL 06 Client 23.2%	18F	Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter	Qualifier	Result	Uncertainty	LC TP	'U MDA	Units	DF Analyst Date	Time Batch Mt
Rad Gamma Spec A	nalysis						······	
Gamma,Solid FSS Waived	GAM & ALL FSS	S 226 Ingro	wth					
Actinium 228		0.883	+/ 0.226	0.0724 +/ 0.		pCi/g	MJH1 07/17/	06 1412 546518
Americium 241	U	0.0669	+/ 0.0933	0.0703 +/ 0.0		pCi/g		
Bismuth 212		0.502	+/ 0.348	0.165 +/ 0.		pCi/g		
		0647	+/ 0.115		115 0.0771			
Bismuth 214		0.647		0.0386 +/ 0.		pCi/g		
Cesium 134	UI	0.00	+/ 0.0456	0.028 +/ 0.0	456 0.0559	pCi/g		
Cesium 134 Cesium 137	U	0.00 0.0307	+/ 0.0456 +/ 0.0326	0.028 +/ 0.0 0.0253 +/ 0.0	4560.05593260.0506	pCi/g pCi/g		
Cesium 134 Cesium 137 Cobalt 60	U U	0.00 0.0307 0.0216	+/ 0.0456 +/ 0.0326 +/ 0.032	0.028 +/ 0.0 0.0253 +/ 0.0 0.0283 +/ 0.	4560.05593260.05060320.0566	pCi/g pCi/g pCi/g		
Cesium 134 Cesium 137 Cobalt 60 Europium 152	U U U	0.00 0.0307 0.0216 0.012	+/ 0.0456 +/ 0.0326 +/ 0.032 +/ 0.0917	0.028 +/ 0.0 0.0253 +/ 0.0 0.0283 +/ 0. 0.0576 +/ 0.0	4560.05593260.05060320.05669170.115	pCi/g pCi/g pCi/g pCi/g		
Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154	U U U U	0.00 0.0307 0.0216 0.012 0.000507	+/ 0.0456 +/ 0.0326 +/ 0.032 +/ 0.0917 +/ 0.084	0.028 +/ 0.0 0.0253 +/ 0.0 0.0283 +/ 0. 0.0576 +/ 0.0 0.0691 +/ 0.	456 0.0559 326 0.0506 032 0.0566 917 0.115 084 0.138	pCi/g pCi/g pCi/g pCi/g pCi/g		
Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155	U U U	0.00 0.0307 0.0216 0.012 0.000507 0.0647	+/ 0.0456 +/ 0.0326 +/ 0.032 +/ 0.0917 +/ 0.084 +/ 0.0786	0.028 +/ 0.0 0.0253 +/ 0.0 0.0283 +/ 0. 0.0576 +/ 0.0 0.0691 +/ 0. 0.0596 +/ 0.0	456 0.0559 326 0.0506 032 0.0566 917 0.115 084 0.138 786 0.119	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		
Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212	U U U U	0.00 0.0307 0.0216 0.012 0.000507 0.0647 0.812	+/ 0.0456 +/ 0.0326 +/ 0.032 +/ 0.0917 +/ 0.084 +/ 0.0786 +/ 0.0986	0.028 +/ 0.0 0.0253 +/ 0.0 0.0283 +/ 0. 0.0576 +/ 0.0 0.0691 +/ 0. 0.0596 +/ 0.0 0.0329 +/ 0.0	456 0.0559 326 0.0506 032 0.0566 917 0.115 084 0.138 786 0.119 986 0.0657	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		
Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212 Lead 214	บ บ บ บ	0.00 0.0307 0.0216 0.012 0.000507 0.0647 0.812 0.568	+/ 0.0456 +/ 0.0326 +/ 0.0317 +/ 0.0917 +/ 0.084 +/ 0.0786 +/ 0.0986 +/ 0.122	0.028 +/ 0.0 0.0253 +/ 0.0 0.0283 +/ 0.0 0.0576 +/ 0.0 0.0691 +/ 0.0 0.0396 +/ 0.0 0.0329 +/ 0.0	456 0.0559 326 0.0506 032 0.0566 917 0.115 084 0.138 786 0.119 986 0.0657 122 0.0785	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		
Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212 Lead 214 Manganese 54	บ บ บ บ บ	0.00 0.0307 0.0216 0.012 0.000507 0.0647 0.812 0.568 0.0134	+/ 0.0456 +/ 0.0326 +/ 0.0317 +/ 0.0917 +/ 0.084 +/ 0.0786 +/ 0.0986 +/ 0.122 +/ 0.0286	0.028 +/ 0.0 0.0253 +/ 0.0 0.0283 +/ 0.0 0.0576 +/ 0.0 0.0596 +/ 0.0 0.0329 +/ 0.0 0.0393 +/ 0.0 0.0221 +/ 0.0	456 0.0559 326 0.0506 032 0.0566 917 0.115 084 0.138 786 0.119 986 0.0657 122 0.0785 286 0.0441	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		
Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212 Lead 214 Manganese 54 Niobium 94	บ บ บ บ	0.00 0.0307 0.0216 0.012 0.000507 0.0647 0.812 0.568 0.0134 0.0255	+/ 0.0456 +/ 0.0326 +/ 0.0317 +/ 0.0917 +/ 0.084 +/ 0.0786 +/ 0.0986 +/ 0.122 +/ 0.0286 +/ 0.0243	0.028 +/ 0.0 0.0253 +/ 0.0 0.0253 +/ 0.0 0.0576 +/ 0.0 0.0596 +/ 0.0 0.0329 +/ 0.0 0.0323 +/ 0.0 0.0221 +/ 0.0 0.0222 +/ 0.0	456 0.0559 326 0.0506 032 0.0566 917 0.115 084 0.138 786 0.119 986 0.0657 122 0.0785 286 0.0441 243 0.0444	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		
Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212 Lead 214 Manganese 54 Niobium 94 Potassium 40	บ บ บ บ บ	0.00 0.0307 0.0216 0.012 0.000507 0.0647 0.812 0.568 0.0134 0.0255 14.4	+/ 0.0456 +/ 0.0326 +/ 0.0917 +/ 0.0917 +/ 0.084 +/ 0.0786 +/ 0.0986 +/ 0.122 +/ 0.0286 +/ 0.0243 +/ 1.34	0.028 +/ 0.0 0.0253 +/ 0.0 0.0253 +/ 0.0 0.0576 +/ 0.0 0.0596 +/ 0.0 0.0329 +/ 0.0 0.0323 +/ 0.0 0.0221 +/ 0.0 0.0222 +/ 0.0 0.167 +/ 1	456 0.0559 326 0.0506 032 0.0566 917 0.115 084 0.138 786 0.119 986 0.0657 122 0.0785 286 0.0441 243 0.0344	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		
Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212 Lead 214 Manganese 54 Niobium 94 Potassium 40 Radium 226	บ บ บ บ บ บ	0.00 0.0307 0.0216 0.012 0.000507 0.0647 0.812 0.568 0.0134 0.0255 14.4 0.647	+/ 0.0456 +/ 0.0326 +/ 0.0917 +/ 0.0917 +/ 0.084 +/ 0.0786 +/ 0.0986 +/ 0.122 +/ 0.0286 +/ 0.0243 +/ 1.34 +/ 0.115	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	456 0.0559 326 0.0506 032 0.0566 917 0.115 084 0.138 786 0.119 986 0.0657 122 0.0785 286 0.0441 243 0.334 115 0.0771	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g		
Cesium 134 Cesium 137 Cobalt 60 Europium 152 Europium 154 Europium 155 Lead 212 Lead 214 Manganese 54 Niobium 94 Potassium 40	บ บ บ บ บ	0.00 0.0307 0.0216 0.012 0.000507 0.0647 0.812 0.568 0.0134 0.0255 14.4	+/ 0.0456 +/ 0.0326 +/ 0.0917 +/ 0.0917 +/ 0.084 +/ 0.0786 +/ 0.0986 +/ 0.122 +/ 0.0286 +/ 0.0243 +/ 1.34	0.028 +/ 0.0 0.0253 +/ 0.0 0.0253 +/ 0.0 0.0576 +/ 0.0 0.0596 +/ 0.0 0.0329 +/ 0.0 0.0323 +/ 0.0 0.0221 +/ 0.0 0.0222 +/ 0.0 0.167 +/ 1	456 0.0559 326 0.0506 032 0.0566 917 0.115 084 0.138 786 0.119 986 0.0657 122 0.0785 286 0.0441 243 0.0444 1.34 0.334 115 0.0771 229 0.0384	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g 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	07/09/06	1538	546298

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

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<u>Certificate of Analysis</u>

Parameter		Qualifier Result Uncertainty	LC TI	PU MDA	Units	DF Analyst Date	Time Batch Mtd
		Client Sample ID: Sample ID:	9106 0012 00 166653008	08F	Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Pro	oject:	Soils PO# 002332					
Co	ontact:	East Hampton, Connecticut 06424 Mr. Jack McCarthy			R	Report Date: July 21, 20	06
	ompany : ddress :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd					

> 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.
- Ul 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 : Address :	Connecticut 362 Injun He		tomic Power						
	Contact: Project:	East Hampto Mr. Jack Mc Soils PO# 00	Carthy	ticut 06424				R	eport Date: July 21, 20	06
		Client Sam Sample ID Matrix: Collect Da Receive Da Collector: Moisture:	te:		9106 00 16665300 SE 21 JUN 07 JUL Client 18.1%	06		Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter		Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mto
Rad Gamma	a Spec Analy	rsis						,		
Gamma,So Waived	olid FSS GAN	M & ALL FSS	226 Ingro	wth						
Actinium	228		0.703	+/ 0.166	0.0552	+/ 0.166	0.110	pCi/g	MIH1 07/17/0	06 1413 546518 1
Americiu		U	0.0189	+/ 0.0803		+/ 0.0803	0.129	pCi/g		
Bismuth	212	-	0.398	+/ 0.276	0.132	+/ 0.276	0.263	pCi/g		
Bismuth	214		0.476	+/ 0.0877		+/ 0.0877	0.0632	pCi/g		
Cesium 1	134	U	0.0295	+/ 0.0174	0.0187 -	+/ 0.0174	0.0374	pCi/g		
Cesium 1	137	U	0.0163	+/ 0.0208		+/ 0.0208	0.0376	pCi/g		
Cobalt 60	0	U	0.00835	+/ 0.0223	0.0196 -	+/ 0.0223	0.0392	pCi/g		
Europium	152	U	0.0141	+/ 0.0587	0.0464 ·	+/ 0.0587	0.0928	pCi/g		
Europium	154	U	0.0624	+/ 0.070	0.0541	+/ 0.070	0.108	pCi/g		
Europium	155	U	0.0596	+/ 0.0607	0.0505 -	+/ 0.0607	0.101	pCi/g		
Lead 212	2		0.625	+/ 0.0751	0.0272 -	+/ 0.0751	0.0545	pCi/g		
Lead 214			0.560	+/ 0.0965	0.0279 -	+/ 0.0965	0.0557	pCi/g		
Manganes		U	0.00791	+/ 0.0192	0.0174 -	+/ 0.0192	0.0347	pCi/g		
Niobium	94	U	0.00382	+/ 0.0178		+/ 0.0178	0.0308	pCi/g		
Potassium			12.2	+/ 1.09	0.137	+/ 1.09	0.274	pCi/g		
Radium 2			0.476	+/ 0.0877		+/ 0.0877	0.0632	pCi/g		
Silver 10		U	0.0142	+/ 0.0204		+/ 0.0204	0.033	pCi/g		
Thallium	208		0.213	+/ 0.0461	0.0169 -	+/ 0.0461	0.0337	pCi/g		
The follow	ing Dron Mot	hode wore re	ufound							
Method	Descr	hods were pe	riormed			Analyst	Date	Tim	e Prep Batch	

The following Analytical Methods were performedMethodDescription

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

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Certificate of Analysis

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
	Client Sam Sample ID:			9106 0012 166653009			Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Contact Project:									
-	East Hampto	,	ticut 06424				I	Report Date: July 21, 20	006
Compar Address	•		tomic Power						

> 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

	ontact: roject: pec Analys	East Hampto Mr. Jack Mc Soils PO# 00 Client Sam Sample ID Matrix: Collect Dat Receive Da Collector: Moisture: Qualifier	Carthy 02332 nple ID: : te:	ticut 06424	9106 0012 014F 166653010 SE 21 JUN 06 07 JUL 06 Client		Project: Y	oort Date: July 21, 20 YANK01204 YANK001	106
Parameter Rad Gamma Sp Gamma, Solid		Client Sam Sample ID Matrix: Collect Dat Receive Da Collector: Moisture:	nple ID: : te:		166653010 SE 21 JUN 06 07 JUL 06		Client ID: Y		
Rad Gamma Sp <i>Gamma,Solid</i>	pec Analys	Sample ID Matrix: Collect Dat Receive Da Collector: Moisture:	: te:		166653010 SE 21 JUN 06 07 JUL 06		Client ID: Y		
Rad Gamma Sp <i>Gamma,Solid</i>	pec Analys	Qualifier			17%				
Gamma, Solid	pec Analys		Result	Uncertainty	LC TPU	MDA	Units	DF Analyst Date	Time Batch Mto
	r j a	sis		,					
	FSS GAM	1 & ALL FSS	226 Ingro	wth					
Actinium 228	28		0.627	+/ 0.194	0.0634 +/ 0.194	0.138	pCi/g	MJH1 07/17/0	06 1540 546518 1
Americium 2	241	U	0.0194	+/ 0.0802	0.0749 +/ 0.0802	0.155	pCi/g		
Bismuth 212	2		0.538	+/ 0.320	0.137 +/ 0.320	0.296	pCi/g		
Bismuth 214	4		0.449	+/ 0.104	0.0315 +/ 0.104	0.0677	pCi/g		
Cesium 134		U	0.0185	+/ 0.0364	0.0237 +/ 0.0364	0.0506	pCi/g		
Cesium 137			0.137	+/ 0.038	0.0199 +/ 0.038	0.0426	pCi/g		
Cobalt 60		U	0.0248	+/ 0.0236	0.0228 +/ 0.0236	0.050	pCi/g		
Europium 15		U	0.0491	+/ 0.0561	0.0439 +/ 0.0561	0.0931	pCi/g		
Europium 15		U	0.08	+/ 0.0671	0.0489 +/ 0.0671	0.110	pCi/g		
Europium 15	55	U	0.0244	+/ 0.0534	0.049 +/ 0.0534	0.102	pCi/g		
Lead 212			0.759	+/ 0.0661	0.0274 +/ 0.0661	0.0571	pCi/g		
Lead 214			0.579	+/ 0.0904	0.0317 +/ 0.0904	0.0671	pCi/g		
Manganese 5		U	0.0217	+/ 0.0217	0.0163 +/ 0.0217	0.0357	pCi/g		
Niobium 94		U	0.000218	+/ 0.0195	0.0167 +/ 0.0195	0.0358	pCi/g		
Potassium 40	-		13.1	+/ 0.977	0.147 +/ 0.977	0.339	pCi/g		
Radium 226			0.449	+/ 0.104	0.0315 +/ 0.104	0.0677	pCi/g		
Silver 108m Thallium 208	-	U	0.00214 0.278	+/ 0.0166 +/ 0.0464	0.0149 +/ 0.0166 0.0158 +/ 0.0464	0.0317 0.0341	pCi/g		
	10		0.278	+7 0.0464	0.0138 +/ 0.0464	0.0341	pCi/g		
The following Method	Prep Met Descri		erformed		Analyst	Date	Time	Prep Batch	
Dry Soil Prep					. maiyst	Date			

The following Analytical Methods were performedMethodDescription

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

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Parameter		Qualifier Result Uncert	ainty LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
		Client Sample ID: Sample ID:	9106 001 16665301		(Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
	Contact: Project:	East Hampton, Connecticut 064 Mr. Jack McCarthy Soils PO# 002332	24			F	Report Date: July 21, 20	06
	Company : Address :	Connecticut Yankee Atomic Pov 362 Injun Hollow Rd	wer					

> 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

	pany : ress :	Connecticut 362 Injun H		omic Power						
Cont		East Hampto Mr. Jack Mc Soils PO# 0	Carthy	ticut 06424				Rep	ort Date: July 21, 20	06
Proje	ect:	50115 PO# 0	02332							
		Client Sam Sample ID Matrix: Collect Da Receive Da Collector: Moisture:	e:		9106 00 1666530 SE 21 JUN 07 JUL Client 23.9%	06	(ANK01204 ANK001	
Parameter		Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mt
Rad Gamma Spe	c Analy	sis								
Gamma,Solid F Waived	FSS GAI	M & ALL FSS	226 Ingro	wth						
Actinium 228			0.640	+/ 0.166	0.056	+/ 0.166	0.121	pCi/g	MJH1 07/17/0	6 1543 546518
Americium 24	1	U	0.0042	+/ 0.0884	0.0739	+/ 0.0884	0.153	pCi/g		
Bismuth 212			0.594	+/ 0.239	0.134	+/ 0.239	0.287	pCi/g		
Bismuth 214			0.494	+/ 0.0801	0.0331	+/ 0.0801	0.0701	pCi/g		
Cesium 134		UI	0.00	+/ 0.0363	0.0239	+/ 0.0363	0.0505	pCi/g		
Cesium 137		U	0.0149	+/ 0.0105	0.0147	+/ 0.0105	0.0317	pCi/g		
Cobalt 60		U	0.00711	+/ 0.025	0.0191	+/ 0.025	0.0418	pCi/g		
Europium 152		U	0.052	+/ 0.0533	0.0442	+/ 0.0533	0.0928	pCi/g		
Europium 154		U	0.0353	+/ 0.0669	0.0601	+/ 0.0669	0.130	pCi/g		
Europium 155		U	0.0405	+/ 0.0552	0.0511	+/ 0.0552	0.106	pCi/g		
Lead 212			0.801	+/ 0.0613	0.0251	+/ 0.0613	0.0523	pCi/g		
Lead 214			0.515	+/ 0.088	0.0311	+/ 0.088	0.0654	pCi/g		
Manganese 54		U	0.0179	+/ 0.0227	0.0205	+/ 0.0227	0.0435	pCi/g		
Niobium 94		U	0.00672	+/ 0.0184	0.0155	+/ 0.0184	0.033	pCi/g		
Potassium 40			12.1	+/ 0.889	0.151	+/ 0.889	0.337	pCi/g		
Radium 226			0.494	+/ 0.0801	0.0331	+/ 0.0801	0.0701	pCi/g		
Silver 108m		U	0.0107	+/ 0.0177	0.0146	+/ 0.0177	0.0309	pCi/g		
Thallium 208			0.191	+/ 0.0419	0.0172	+/ 0.0419	0.0365	pCi/g		
The following Pr	rep Met	thods were po	erformed							
Method		iption				Analyst	Date	Time	Prep Batch	·······
Dry Soil Prep	Dry S	oil Prep GL	RAD A 0	21		LXM2	07/09/0	6 1538	546298	
The following Ar	nalytica	l Methods we	ere perfori	ned						
Method	Descr		• • • • • • • • • • • • • • • • • • •							
1	EML	HASL 300, 4.	.5.2.3							
NT /										
Notes:										

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

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Certificate of Analysis

Parameter		Qualifier Result Uncertainty	LC TPU	MDA Units DF Analyst Date Time Batch Mtd
		Client Sample ID: Sample ID:	9106 0012 011F 166653011	Project: YANK01204 Client ID: YANK001 Vol. Recv.:
	Project:	Soils PO# 002332		
	Contact:	East Hampton, Connecticut 06424 Mr. Jack McCarthy		Report Date: July 21, 2006
	Company : Address :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd		

> 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
- Value is estimated J
- 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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<u>Certificate of Analysis</u>

Com Addr	pany : ress :	Connecticut 362 Injun H		tomic Power			·				
Cont Proje		East Hampto Mr. Jack Mo Soils PO# 0	Carthy	ticut 06424				R	eport Dat	e: July 21, 20	006
		Client San Sample ID Matrix: Collect Da Receive D Collector: Moisture:): ite:		9106 00 1666530 SE 21 JUN 07 JUL Client 24.6%	06		Project: Client ID: Vol. Recv.:	YANK(YANK(
Parameter		Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF A	Analyst Date	Time Batch Mt
Rad Gamma Spec	c Analy	sis		4							
Gamma,Solid F Waived	SS GAI	M & ALL FSS	226 Ingro	wth							
Actinium 228			0.922	+/ 0.164	0.0549	+/ 0.164	0.117	pCi/g	I	MJH1 07/17/	06 1545 546518
Americium 24	1	U	0.00436	+/ 0.128	0.0938	+/ 0.128	0.193	pCi/g			
Bismuth 212			0.718	+/ 0.289	0.113	+/ 0.289	0.241	pCi/g			
Bismuth 214			0.621	+/ 0.103	0.0294	+/ 0.103	0.0617	pCi/g			
Cesium 134		UI	0.00	+/ 0.0291		+/ 0.0291	0.0443	pCi/g			
Cesium 137		U	0.0095	+/ 0.0206		+/ 0.0206	0.0369	pCi/g			
Cobalt 60		U	0.00791	+/ 0.0209		+/ 0.0209	0.0388	pCi/g			
Europium 152		U	0.030	+/ 0.052	0.0432	+/ 0.052	0.0898	pCi/g			
Europium 154		U	0.0475	+/ 0.082	0.0557	+/ 0.082	0.119	pCi/g			
Europium 155		U	0.0328	+/ 0.053	0.0467	+/ 0.053	0.096	pCi/g			
Lead 212			0.924	+/ 0.0606		+/ 0.0606	0.0538	pCi/g			
Lead 214			0.725	+/ 0.0798		+/ 0.0798	0.0609	pCi/g			
Manganese 54		U	0.0177	+/ 0.0202		+/ 0.0202	0.0399	pCi/g			
Niobium 94		U	0.0017	+/ 0.0193		+/ 0.0193	0.0336	pCi/g			
Potassium 40			15.8	+/ 0.891	0.147	+/ 0.891	0.323	pCi/g			
Radium 226			0.621	+/ 0.103	0.0294	+/ 0.103	0.0617	pCi/g			
Silver 108m		U	0.00911	+/ 0.0164		+/ 0.0164	0.030	pCi/g			
Thallium 208			0.306	+/ 0.0487	0.015	+/ 0.0487	0.0317	pCi/g			
The following Pr	ep Met	thods were d	erformed								
Method		iption		· · ·		Analyst	Date	Time	e Pre	p Batch	
Dry Soil Prep	Dry S	oil Prep GL	RAD A 0	21		LXM2	07/09/0	06 1538	3 546	298	
The following An	alytica	l Methods w	ere perfor	med							
Method	Descr										

1 EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

< Result is less than value reported

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Certificate of Analysis

Parameter		Qualifier Result Uncertainty	LC TPU	MDA Units DF Analyst Date Time Batch Mtd
		Client Sample ID: Sample ID:	9106 0012 015F 166653012	Project: YANK01204 Client ID: YANK001 Vol. Recv.:
	Contact: Project:	Mr. Jack McCarthy Soils PO# 002332		
		East Hampton, Connecticut 06424		Report Date: July 21, 2006
	Company : Address :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd		

> Result is greater than value reported

- Α The TIC is a suspected aldol condensation product
- B Target analyte was detected in the associated blankBD 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
- Value is estimated J
- 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 : Address :	Connecticut 362 Injun He		tomic Power						
Contact:	East Hampto Mr. Jack Mc	Carthy	ticut 06424				Re	port Date: July 21, 20	06
Project:	Soils PO# 0	02332							
	Client Sam Sample ID Matrix: Collect Da Receive Da Collector: Moisture:	te:		9106 001 16665301 SE 23 JUN 07 JUL Client 22.4%	3 06			YANK01204 YANK001	
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mto
Rad Gamma Spec Analys	sis								
Gamma,Solid FSS GAM Waived	A & ALL FSS	226 Ingro	wth						
Actinium 228		0.542	+/ 0.178	0.0721	+/ 0.178	0.156	pCi/g	MJH1 07/17/0	6 1546 546518 1
Americium 241	U	0.0169	+/ 0.0283	0.0267 +	-/ 0.0283	0.055	pCi/g		
Bismuth 212		0.310	+/ 0.312	0.133	+/ 0.312	0.288	pCi/g		
Bismuth 214		0.427	+/ 0.098	0.0377	+/ 0.098	0.080	pCi/g		
Cesium 134	UI	0.00	+/ 0.0384	0.0237 +	/ 0.0384	0.0507	pCi/g		
Cesium 137	U	0.00593	+/ 0.0223	0.0192 +	-/ 0.0223	0.0412	pCi/g		
Cobalt 60	U	0.0155	+/ 0.0199	0.0143 +	-/ 0.0199	0.033	pCi/g		
Europium 152	U	0.00692	+/ 0.0522	0.046 +	-/ 0.0522	0.0971	pCi/g		
Europium 154	U	0.0211	+/ 0.0774	0.0669 +	-/ 0.0774	0.146	pCi/g		
Europium 155	U	0.0665	+/ 0.0521	0.0487 +	-/ 0.0521	0.101	pCi/g		
Lead 212		0.724	+/ 0.101	0.0275	+/ 0.101	0.0572	pCi/g		
Lead 214		0.474	+/ 0.0949	0.0353 +	-/ 0.0949	0.0743	pCi/g		
Manganese 54	U	0.00389	+/ 0.0229	0.0203 +	-/ 0.0229	0.0436	pCi/g		
Niobium 94	U	0.0152	+/ 0.0233	0.0184 +	-/ 0.0233	0.0393	pCi/g		
Potassium 40		11.7	+/ 1.17	0.146	+/ 1.17	0.337	pCi/g		
Radium 226		0.427	+/ 0.098	0.0377	+/ 0.098	0.080	pCi/g		
Silver 108m	U	0.00395	+/ 0.0184	0.0158 +	-/ 0.0184	0.0336	pCi/g		
Thallium 208		0.231	+/ 0.0498	0.0181 +	-/ 0.0498	0.0389	pCi/g		
		_							
The following Prep Met	hods were pe	erformed							

Dry Soil Prep Dry Soil Prep GL RAD A 021 LXM2 07/09/06 1538 546298

The following Analytical Methods were performed

Method Description

1 EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

< Result is less than value reported

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Certificate of Analysis

	Company : Address :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd		
	Contact: Project:	East Hampton, Connecticut 06424 Mr. Jack McCarthy Soils PO# 002332		Report Date: July 21, 2006
		Client Sample ID: Sample ID:	9106 0012 009F 166653013	Project: YANK01204 Client ID: YANK001 Vol. Recv.:
Parameter		Qualifier Result Uncertainty	LC TPU	MDA Units DF Analyst Date Time Batch Mtd

> Result is greater than value reported

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

h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company Address	•		tomic Power						
Contact:	East Hampt Mr. Jack M		ticut 06424				Re	port Date: July 21, 20	06
Project:	Soils PO# 0	002332							
	Client Sar Sample II Matrix: Collect Da Receive D Collector: Moisture:	D: ate:		9106 00 1666530 SE 23 JUN 07 JUL Client 15.1%	06			YANK01204 YANK001	
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mt
Rad Gamma Spec An	alysis								
Gamma,Solid FSS (Waived	GAM & ALL FSS	S 226 Ingro	wth						
Actinium 228		0.601	+/ 0.153	0.0578	+/ 0.153	0.125	pCi/g	MJH1 07/17/	06 1547 546518 1
Americium 241	U	0.0658	+/ 0.077	0.0688	+/ 0.077	0.143	pCi/g		
Bismuth 212		0.328	+/ 0.258	0.114	+/ 0.258	0.247	pCi/g		
Bismuth 214		0.389	+/ 0.0852		+/ 0.0852	0.0662	pCi/g		
Cesium 134	U	0.0352	+/ 0.0355		+/ 0.0355	0.0478	pCi/g		
Cesium 137	U	0.024	+/ 0.0275		+/ 0.0275	0.0362	pCi/g		
Cobalt 60	U	0.0184	+/ 0.0223		+/ 0.0223	0.0447	pCi/g		
Europium 152	U	0.0168	+/ 0.0474		+/ 0.0474	0.0872	pCi/g		
Europium 154	U	0.0752	+/ 0.0634		+/ 0.0634	0.101	pCi/g		
Europium 155	U	0.00909	+/ 0.0541		+/ 0.0541	0.102	pCi/g		
Lead 212		0.510	+/ 0.0726		+/ 0.0726	0.066	pCi/g		
Lead 214		0.469	+/ 0.078	0.0285	+/ 0.078	0.0603	pCi/g		
Manganese 54	-	0.000472	+/ 0.019	0.0166	+/ 0.019	0.0358	pCi/g		
Niobium 94	U	0.00816	+/ 0.0181		+/ 0.0181	0.0337	pCi/g		
Potassium 40		11.4	+/ 0.813	0.149	+/ 0.813	0.335	pCi/g		
Radium 226		0.389	+/ 0.0852		+/ 0.0852	0.0662	pCi/g		
Silver 108m	U	0.00722	+/ 0.0162		+/ 0.0162	0.0279	pCi/g		
Thallium 208		0.229	+/ 0.0504	0.0149	+/ 0.0504	0.0319	pCi/g		
The following Days									
The following Prep Method De	vlethods were p escription	erformed			Analyst	Date	Time	Prep Batch	

Mictiou .	Description	Anaryst	Date	Time	r rep baten
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed

Method Description

1 EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

< Result is less than value reported

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Certificate of Analysis

Parameter		Qualifier Result Uncerta	inty LC TPL	J MDA	Units DF Ana	alyst Date Time Batch Mtd
		Client Sample ID: Sample ID:	9106 0012 009 166653014	C	Project: YANK012 Client ID: YANK001 Vol. Recv.:	
	Contact: Project:	East Hampton, Connecticut 0642 Mr. Jack McCarthy Soils PO# 002332	4		Report Date:	July 21, 2006
	Company : Address :	Connecticut Yankee Atomic Pow 362 Injun Hollow Rd	er			

> 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 : Address :	Connecticut 362 Injun H		tomic Power						
(Contact:	East Hampto Mr. Jack Mo		ticut 06424			Report Date: July 21, 2006			
I	Project:	Soils PO# 0	02332							
Parameter	Client Sam Sample ID Matrix: Collect Da Receive Da Collector: Moisture:); ite:		9106 0012 001F 166653015 SE 23 JUN 06 07 JUL 06 Client 28.2%		Project: Client ID: Vol. Recv.:	YANK01204 YANK001			
Parameter	·	Qualifier	Result	Uncertainty	LC TPU	MDA	Units	DF Analyst Date	Time Batch Mtd	
Rad Gamma	Spec Analy	sis								
Gamma,Soli	d FSS GAN	M & ALL FSS	226 Ingro	wth						
Waived										
muncu										
Actinium 2	228		0.783	+/ 0.185	0.0642 +/ 0.185	5 0.137	pCi/g	MJH1 07/17/	06 1548 546518 1	
		U	0.783 0.0635	+/ 0.185 +/ 0.122	0.0642 +/ 0.183		pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2	241	U				0.190	pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium	241 12	U	0.0635	+/ 0.122	0.0922 +/ 0.122	2 0.190 0 0.307		MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 21	241 12 14	U U	0.0635 0.567	+/ 0.122 +/ 0.320	0.0922 +/ 0.122 0.145 +/ 0.320 0.0323 +/ 0.119 0.0222 +/ 0.030	2 0.190 0 0.307 0 0.0681 0 0.0469	pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 2 Bismuth 2	241 12 14 4	-	0.0635 0.567 0.672	+/ 0.122 +/ 0.320 +/ 0.119	0.0922 +/ 0.122 0.145 +/ 0.320 0.0323 +/ 0.119 0.0222 +/ 0.030 0.0177 +/ 0.029	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375	pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 2 Bismuth 2 Cesium 13	241 12 14 4	U	0.0635 0.567 0.672 0.029	+/ 0.122 +/ 0.320 +/ 0.119 +/ 0.030	0.0922 +/ 0.122 0.145 +/ 0.320 0.0323 +/ 0.119 0.0222 +/ 0.030	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375	pCi/g pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 2 Bismuth 2 Cesium 13 Cesium 13	241 12 14 4 7	U U U U	0.0635 0.567 0.672 0.029 0.0225	+/ 0.122 +/ 0.320 +/ 0.119 +/ 0.030 +/ 0.0291	0.0922 +/ 0.122 0.145 +/ 0.320 0.0323 +/ 0.119 0.0222 +/ 0.030 0.0177 +/ 0.029	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375 5 0.0407	pCi/g pCi/g pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 2 Bismuth 2 Cesium 13 Cesium 13 Cobalt 60	241 12 14 4 7 152	U U U	0.0635 0.567 0.672 0.029 0.0225 0.0121 0.0233 0.0335	+/ 0.122 +/ 0.320 +/ 0.119 +/ 0.030 +/ 0.0291 +/ 0.0245	0.0922 +/ 0.12 0.145 +/ 0.32(0.0323 +/ 0.119 0.0222 +/ 0.03(0.0177 +/ 0.029 0.0187 +/ 0.024	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375 5 0.0407 2 0.0948	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 21 Bismuth 21 Cesium 13 Cesium 13 Cobalt 60 Europium Europium Europium	241 12 14 4 7 152 154	U U U U	0.0635 0.567 0.672 0.029 0.0225 0.0121 0.0233 0.0335 0.00	+/ 0.122 +/ 0.320 +/ 0.119 +/ 0.030 +/ 0.0291 +/ 0.0245 +/ 0.0522 +/ 0.0741 +/ 0.084	0.0922 +/ 0.12 0.145 +/ 0.32(0.0323 +/ 0.119 0.0222 +/ 0.03(0.0177 +/ 0.029 0.0187 +/ 0.024 0.0455 +/ 0.0522 0.0582 +/ 0.074 0.0464 +/ 0.084	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375 5 0.0407 2 0.0948 1 0.125 4 0.0958	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 21 Bismuth 21 Cesium 13 Cesium 13 Cobalt 60 Europium Europium Europium Lead 212	241 12 14 4 7 152 154	U U U U U	0.0635 0.567 0.672 0.029 0.0225 0.0121 0.0233 0.0335	+/ 0.122 +/ 0.320 +/ 0.119 +/ 0.030 +/ 0.0291 +/ 0.0245 +/ 0.0522 +/ 0.0741	0.0922 +/ 0.12 0.145 +/ 0.32(0.0323 +/ 0.119 0.0222 +/ 0.03(0.0177 +/ 0.029 0.0187 +/ 0.024 0.0455 +/ 0.0522 0.0582 +/ 0.074	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375 5 0.0407 2 0.0948 1 0.125 4 0.0958	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 21 Cesium 13 Cesium 13 Cobalt 60 Europium Europium Europium Lead 212 Lead 214	241 12 14 4 7 152 154 155	U U U U U	0.0635 0.567 0.672 0.029 0.0225 0.0121 0.0233 0.0335 0.00 0.826 0.684	+/ 0.122 +/ 0.320 +/ 0.119 +/ 0.030 +/ 0.0291 +/ 0.0245 +/ 0.0522 +/ 0.0741 +/ 0.084	0.0922 +/ 0.12 0.145 +/ 0.32(0.0323 +/ 0.119 0.0222 +/ 0.03(0.0177 +/ 0.029 0.0187 +/ 0.024 0.0455 +/ 0.0522 0.0582 +/ 0.074 0.0464 +/ 0.084	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375 5 0.0407 2 0.0948 1 0.125 4 0.0958 4 0.053	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 21 Desium 13 Cesium 13 Cobalt 60 Europium Europium Europium Lead 212 Lead 214 Manganese	241 12 14 4 7 152 154 155 54	U U U U U	0.0635 0.567 0.672 0.029 0.0225 0.0121 0.0233 0.0335 0.00 0.826 0.684 0.0109	+/ 0.122 +/ 0.320 +/ 0.119 +/ 0.030 +/ 0.0291 +/ 0.0245 +/ 0.0522 +/ 0.0741 +/ 0.084 +/ 0.0914 +/ 0.106 +/ 0.0214	0.0922 +/ 0.12 0.145 +/ 0.32(0.0323 +/ 0.119 0.0222 +/ 0.03(0.0177 +/ 0.029 0.0187 +/ 0.024 0.0455 +/ 0.052 0.0582 +/ 0.074 0.0464 +/ 0.084 0.0256 +/ 0.0914	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375 5 0.0407 2 0.0948 1 0.125 4 0.0958 4 0.053 5 0.0658 4 0.0398	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 21 Desium 13 Cesium 13 Cobalt 60 Europium Europium Europium Lead 212 Lead 214 Manganese Niobium 9	241 12 14 4 7 152 154 155 54 4	U U U U U U	0.0635 0.567 0.672 0.029 0.0225 0.0121 0.0233 0.0335 0.00 0.826 0.684 0.0109 0.00252	+/ 0.122 +/ 0.320 +/ 0.119 +/ 0.030 +/ 0.0291 +/ 0.0245 +/ 0.0522 +/ 0.0741 +/ 0.084 +/ 0.0914 +/ 0.106 +/ 0.0214 +/ 0.0194	0.0922 +/ 0.12 0.145 +/ 0.32(0.0323 +/ 0.119 0.0222 +/ 0.03(0.0177 +/ 0.029 0.0187 +/ 0.024 0.0455 +/ 0.052 0.0582 +/ 0.074 0.0464 +/ 0.084 0.0256 +/ 0.0914 0.0315 +/ 0.106 0.0188 +/ 0.0214 0.0156 +/ 0.0194	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375 5 0.0407 2 0.0948 1 0.125 4 0.0958 4 0.053 5 0.0658 4 0.0398 4 0.0331	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 21 Dismuth 21 Cesium 13 Cobalt 60 Europium Europium Europium Lead 212 Lead 214 Manganese Niobium 9 Potassium	241 12 14 4 7 152 154 155 54 4 40	U U U U U U	0.0635 0.567 0.672 0.029 0.0225 0.0121 0.0233 0.0335 0.00 0.826 0.684 0.0109 0.00252 13.7	+/ 0.122 +/ 0.320 +/ 0.119 +/ 0.030 +/ 0.0291 +/ 0.0245 +/ 0.0522 +/ 0.0741 +/ 0.084 +/ 0.0914 +/ 0.106 +/ 0.0214 +/ 0.1094 +/ 1.29	0.0922 +/ 0.12 0.145 +/ 0.32(0.0323 +/ 0.119 0.0222 +/ 0.03(0.0177 +/ 0.029 0.0187 +/ 0.024 0.0455 +/ 0.052 0.0582 +/ 0.074 0.0464 +/ 0.084 0.0256 +/ 0.0914 0.0315 +/ 0.106 0.0188 +/ 0.0214 0.0156 +/ 0.0194 0.180 +/ 1.29	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375 5 0.0407 2 0.0948 1 0.125 4 0.0958 4 0.053 5 0.0658 4 0.0398 4 0.0331 0 0.394	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 21 Cesium 13 Cesium 13 Cobalt 60 Europium Europium Europium Lead 212 Lead 214 Manganese Niobium 9 Potassium Radium 22	241 12 14 4 7 152 154 155 54 4 40 26	U U U U U U	0.0635 0.567 0.672 0.029 0.0225 0.0121 0.0233 0.0335 0.00 0.826 0.684 0.0109 0.00252 13.7 0.672	+/ 0.122 +/ 0.320 +/ 0.119 +/ 0.030 +/ 0.0291 +/ 0.0245 +/ 0.0522 +/ 0.0741 +/ 0.084 +/ 0.0914 +/ 0.0014 +/ 0.0194 +/ 1.29 +/ 0.119	0.0922 +/ 0.12 0.145 +/ 0.32(0.0323 +/ 0.119 0.0222 +/ 0.03(0.0177 +/ 0.029 0.0187 +/ 0.024 0.0455 +/ 0.052 0.0582 +/ 0.074 0.0464 +/ 0.084 0.0256 +/ 0.0914 0.0315 +/ 0.106 0.0188 +/ 0.0214 0.0156 +/ 0.0194 0.180 +/ 1.29 0.0323 +/ 0.119	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375 5 0.0407 2 0.0948 1 0.125 4 0.0958 4 0.053 5 0.0658 4 0.0398 4 0.0331 0 0.394 0 0.0681	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	
Actinium 2 Americium Bismuth 21 Desium 13 Cesium 13 Cobalt 60 Europium Europium Europium Lead 212 Lead 214 Manganese Niobium 9 Potassium	241 12 14 4 7 152 154 155 54 4 40 26 m	U U U U U U	0.0635 0.567 0.672 0.029 0.0225 0.0121 0.0233 0.0335 0.00 0.826 0.684 0.0109 0.00252 13.7	+/ 0.122 +/ 0.320 +/ 0.119 +/ 0.030 +/ 0.0291 +/ 0.0245 +/ 0.0522 +/ 0.0741 +/ 0.084 +/ 0.0914 +/ 0.106 +/ 0.0214 +/ 0.1094 +/ 1.29	0.0922 +/ 0.12 0.145 +/ 0.32(0.0323 +/ 0.119 0.0222 +/ 0.03(0.0177 +/ 0.029 0.0187 +/ 0.024 0.0455 +/ 0.052 0.0582 +/ 0.074 0.0464 +/ 0.084 0.0256 +/ 0.0914 0.0315 +/ 0.106 0.0188 +/ 0.0214 0.0156 +/ 0.0194 0.180 +/ 1.29	2 0.190 0 0.307 0 0.0681 0 0.0469 1 0.0375 5 0.0407 2 0.0948 1 0.125 4 0.0958 4 0.053 5 0.0658 4 0.0398 4 0.394 9 0.394 9 0.0681 7 0.0304	pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g pCi/g	MJH1 07/17/	06 1548 546518 1	

The

Method	Description	Analyst	Date	Time	Prep Batch	
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298	
The following A	Analytical Methods were performed					

Method Description

1 EML HASL 300, 4.5.2.3

Notes:

The Qualifiers in this report are defined as follows :

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

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Certificate of Analysis

	Company : Address :	Connecticut Yanke 362 Injun Hollow F							
	Contact: Project:	East Hampton, Con Mr. Jack McCarthy Soils PO# 002332]	Report Date: July 21, 20	06
		Client Sample II Sample ID:) :	9106 001 16665301			Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter		Qualifier Resu	ilt Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd

> Result is greater than value reported

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

h Preparation or preservation holding time was exceeded

The above sample is reported on a dry weight basis.

Certificate of Analysis

Company : Address :	Connecticut 362 Injun H		tomic Power									
	East Hampto	on. Connec	ticut 06424				R	Report Date: Jul	v 21, 200	6		
Contact:	Mr. Jack Mo						_		<i>,</i> , _ ,	-		
Project:	Soils PO# 0	•										
	Client San Sample ID Matrix: Collect Da Receive D Collector: Moisture:): ite:		9106 00 1666530 SE 23 JUN 07 JUL Client 20.7%	1 06		Project: Client ID: Vol. Recv.:	YANK01204 YANK001				
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analys	t Date	Time B	atch N	1td
Rad Alpha Spec Analys	is											
Alphaspec Am241, Cm,	Solid ALL FS	S										
Americium 241	U	0.0153	+/ 0.0503	0.00	+/ 0.0503	0.117	pCi/g	LCW1	07/13/06	5 1320 5	46536	1
Curium 242	U	0.0113	+/ 0.0221	0.0537	+/ 0.0222	0.235	pCi/g					
Curium 243/244	U	0.162	+/ 0.171	0.0493	+/ 0.172	0.216	pCi/g					
Alphaspec Pu, Solid A	LL FSS											
Plutonium 238	U	0.00709	+/ 0.0595		+/ 0.0596	0.147	pCi/g	LCW1	07/12/06	5 1816 5	46537	2
Plutonium 239/240	U	0.00827	+/ 0.0627	0.0583	+/ 0.0627	0.196	pCi/g					
Liquid Scint Pu241, So	lid ALL FSS											
Plutonium 241	U	6.9	+/ 7.37	6.49	+/ 7.40	13.5	pCi/g	LCW1	07/17/06	5 0848 5	46538	3
Rad Gamma Spec Anal	ysis											
Gamma,Solid FSS GA Waived	M & ALL FSS	226 Ingro	wth									
Actinium 228		0.627	+/ 0.147	0.0658		0.142	pCi/g	MJH1	07/17/06	5 1549 5	46518	4
Americium 241	U	0.0653	+/ 0.134	0.0759		0.157	pCi/g					
Bismuth 212		0.457	+/ 0.237	0.138	+/ 0.237	0.296	pCi/g					
Bismuth 214		0.428	+/ 0.0788		+/ 0.0788	0.0766	pCi/g					
Cesium 134	U	0.0103 0.0187	+/ 0.0225		+/ 0.0225	0.0431	pCi/g					
Cesium 137 Cobalt 60	U U	0.0187	+/ 0.0228 +/ 0.025	0.0209	+/ 0.0228 +/ 0.025	0.0443 0.0487	pCi/g					
Europium 152	U	0.00683	+/ 0.023	0.0224	+/ 0.023	0.0487	pCi/g pCi/g					
Europium 152 Europium 154	U	0.00083	+/ 0.0666		+/ 0.0666	0.121	pCi/g pCi/g					
Europium 155	Ŭ	0.0255	+/ 0.0581		+/ 0.0581	0.107	pCi/g					
Lead 212	Ũ	0.644	+/ 0.0581		+/ 0.0581	0.0589	pCi/g					
Lead 214		0.508	+/ 0.0795	0.0364	+/ 0.0795	0.0764	pCi/g					
Manganese 54	U	0.0172	+/ 0.0221	0.0201	+/ 0.0221	0.0429	pCi/g					
Niobium 94	U	0.0144	+/ 0.0185	0.017	+/ 0.0185	0.0362	pCi/g					
Potassium 40		11.3	+/ 0.920		+/ 0.920	0.355	pCi/g					
Radium 226		0.428	+/ 0.0788		+/ 0.0788	0.0766	pCi/g					
Silver 108m	U	0.00786	+/ 0.0194		+/ 0.0194	0.0354	pCi/g					
Thallium 208 Rad Gas Flow Proportion	onal Counting	0.199	+/ 0.0472	0.0177	+/ 0.0472	0.0378	pCi/g					
-	-	5										
GFPC, Sr90, solid AL		0.00200		0.00000		0.0107	~		07/14/2		48305	-
Strontium 90 Red Liquid Scintillation	U	0.00399	+/ 0.0104	0.00893	+/ 0.0104	0.0186	pCi/g	BXFI	07/14/00	0 2255 5	4/393	5
Rad Liquid Scintillation	•											
LSC, Tritium Dist, Solid	-						~		0.5/2.5/2	< 00.55 -		,
Tritium	U	2.95	+/ 6.82	5.55	+/ 6.82	11.8	pCi/g	NXPI	07/15/00	b 0852-5	46579	6

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Certificate of Analysis

Company : Address :	Connecticut 362 Injun He		tomic Power							
Contact: Project:	East Hampto Mr. Jack Mc Soils PO# 00	Carthy	ticut 06424				Report Date: July 21, 2006			
	Client Sam Sample ID			9106 00 1666530	012 004F 016		Project: Client ID: Vol. Recv.:	YANK01204 YANK001		
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Dat	te Time Batch	Mtd
Rad Liquid Scintillation	n Analysis									
Liquid Scint C14, Solia	All,FSS									
Carbon 14	U	0.0349	+/ 0.108	0.0914	+/ 0.108	0.186	pCi/g	ATH2 07/2	21/06 1155 549860	07
Liquid Scint Fe55, Soli	d ALL FSS									
Iron 55	U	0.861	+/ 13.0	10.1	+/ 13.0	21.0	pCi/g	SLN1 07/1	5/06 1152 54657	79
Liquid Scint Ni63, Soli	d ALL FSS									
Nickel 63	U	0.304	+/ 4.43	3.71	+/ 4.43	7.60	pCi/g	SLN1 07/1	9/06 1707 546578	8 10
Liquid Scint Tc99, Soli	d ALL FSS									
Technetium 99	U	0.224	+/ 0.274	0.224	+/ 0.274	0.460	pCi/g	EGD1 07/1	9/06 0522 54646	1 11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL RAD A 021B	JMB1	07/10/06	0724	546299
Dry Soil Prep	Dry Soil Prep GL RAD A 021	LXM2	07/09/06	1538	546298

The following Analytical Methods were performed Method Description

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits	
Americium 243	Alphaspec Am241, Cm, Solid ALL	74	(15% 125%)	
Plutonium 242	Alphaspec Pu, Solid ALL FSS	78	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	97	(25% 125%)	
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	62	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	90	(15% 125%)	

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Certificate of Analysis

Company Address :	: Connecticut Yankee A 362 Injun Hollow Rd	tomic Power								
Contact: Project:	East Hampton, Connec Mr. Jack McCarthy Soils PO# 002332	cticut 06424	Report Date: July 21, 2006							
	Client Sample ID: Sample ID:		9106 0012 166653016			Project: Client ID: Vol. Recv.:	YANK	X01204 X001		
Parameter	Qualifier Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst Date	Time Batch Mtd	
Carrier/Tracer Recover	Liquid Scint N	i63, Solid ALL	FS	90		(25% 125%)				

77

(15% 125%)

Notes:

Carrier/Tracer Recovery

The Qualifiers in this report are defined as follows :

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

Liquid Scint Tc99, Solid ALL FS

- < 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.

Certificate of Analysis

Company : Address :	Connecticut 362 Injun H		tomic Power								
Contact:	East Hampto Mr. Jack Mo	Carthy	ticut 06424				R	Report Date: July	y 21, 20	06	
Project:	Soils PO# 0 Client San Sample ID Matrix: Collect Da Receive Da Collector: Moisture:	nple ID:): ite:		9106 00 1666530 SE 23 JUN 07 JUL Client 23.9%	06		Project: Client ID: Vol. Recv.:	YANK01204 YANK001			
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst	t Date	Time Batch	Mtd
Rad Alpha Spec Analysi	s										
Alphaspec Am241, Cm,	Solid ALL FS	S									
Americium 241	U	0.00354	+/ 0.0209	0.00	+/ 0.0209	0.087	pCi/g	LCWI	07/13/0	6 1320 546536	i 1
Curium 242	U	0.035	+/ 0.0687		+/ 0.0688	0.095	pCi/g				
Curium 243/244	U	0.00772	+/ 0.0151	0.0367	+/ 0.0152	0.160	pCi/g				
Alphaspec Pu, Solid A.	LL FSS										
Plutonium 238	U	0.110	+/ 0.115	0.0332	+/ 0.116	0.145	pCi/g	LCW1	07/12/0)6 1816 546537	2
Plutonium 239/240	U	0.021	+/ 0.0619	0.0576	+/ 0.0619	0.194	pCi/g				
Liquid Scint Pu241, Sol	id ALL FSS										
Plutonium 241	U	3.34	+/ 8.93	7.63	+/ 8.93	15.9	pCi/g	LCW1	07/17/0	06 0904 546538	3
Rad Gamma Spec Analy	ysis										
Gamma,Solid FSS GA. Waived	M & ALL FSS	226 Ingro	wth								
Actinium 228		0.652	+/ 0.111	0.0244	+/ 0.111	0.0506	pCi/g	MJH1	07/17/0	06 1550 546518	\$ 4
Americium 241	U	0.0137	+/ 0.0539	0.0504	+/ 0.0539	0.103	pCi/g				
Bismuth 212		0.533	+/ 0.139	0.0559	+/ 0.139	0.115	pCi/g				
Bismuth 214		0.481	+/ 0.0598		+/ 0.0598	0.0271	pCi/g				
Cesium 134	UI	0.00	+/ 0.0145		+/ 0.0145	0.0202	pCi/g				
Cesium 137		0.0323	+/ 0.0184		+/ 0.0184	0.0158	pCi/g				
Cobalt 60	U	0.0105	+/ 0.00943		+/ 0.00943	0.0175	pCi/g				
Europium 152	U	0.0297 0.00579	+/ 0.0242		+/ 0.0242	0.0397	pCi/g				
Europium 154 Europium 155	U UI	0.00379	+/ 0.0281 +/ 0.0355		+/ 0.0281 +/ 0.0355	0.0489 0.0448	pCi/g pCi/g				
Lead 212	01	0.706	+/ 0.0728		+/ 0.0728	0.0448	pCi/g pCi/g				
Lead 214		0.543	+/ 0.0667		+/ 0.0667	0.0288	pCi/g				
Manganese 54	UI	0.00	+/ 0.010	0.00707	+/ 0.010	0.0146	pCi/g				
Niobium 94		0.000256	+/ 0.00824		+/ 0.00824	0.0144	pCi/g				
Potassium 40		11.7	+/ 0.872	0.070	+/ 0.872	0.147	pCi/g				
Radium 226		0.481	+/ 0.0598		+/ 0.0598	0.0271	pCi/g				
Silver 108m	U	0.0059	+/ 0.00775		+/ 0.00775	0.0143	pCi/g				
Thallium 208		0.192	+/ 0.0258	0.00752	+/ 0.0258	0.0155	pCi/g				
Rad Gas Flow Proportio	onal Counting	3									
GFPC, Sr90, solid AL											
Strontium 90	U	0.0077	+/ 0.0104	0.00836	+/ 0.0104	0.0175	pCi/g	BXF1	07/14/0	06 2255 547395	; 5
Rad Liquid Scintillation	Analysis										
LSC, Tritium Dist, Solid	-										
Tritium	U	7.54	+/ 8.66	6.83	+/ 8.66	14.5	pCi/g	NXP1	07/15/0	06 0908 546579) 6

Certificate of Analysis

	Company : Address :	Connecticut 362 Injun Ho		tomic Power									
	Contact:	East Hampto Mr. Jack Mc	,	ticut 06424				Re	eport Date: Ju	y 21, 200	6		
	Project:	Soils PO# 00	02332										
		Client Sam Sample ID	ple ID: :		9106 00 1666530	012 010F 017	(Project: Client ID: Vol. Recv.:	YANK01204 YANK001				
Parameter		Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analys	t Date	Time	Batch	Mtd
Rad Liquid S	Scintillation	Analysis											
Liquid Scin	t C14, Solid /	411,FSS											
Carbon 14	Ļ	U	0.108	+/ 0.112	0.0952	+/ 0.112	0.193	pCi/g	ATH2	07/21/06	5 1313	549860) 7
Liquid Scin	t Fe55, Solid	ALL FSS											
Iron 55		U	7.72	+/ 13.5	10.3	+/ 13.6	21.4	pCi/g	SLN1	07/15/06	5 1224	546577	' 9
-	t Ni63, Solid	ALL FSS											
Nickel 63		U	3.42	+/ 4.72	3.88	+/ 4.72	7.95	pCi/g	SLN1	07/19/06	5 1810	546578	; 10
-	t Tc99, Solid												
Technetiur	n 99	U	0.318	+/ 0.285	0.231	+/ 0.285	0.474	pCi/g	EGD1	07/19/06	5 0538	546461	11
The followin	ıg Prep Met	hods were pe	erformed										
Method	Descr					Analyst	Date	Time	e Prep Bato	h		<u> </u>	
Ash Soil Prep	Ash Se	oil Prep, GL	RAD A	021B		JMB1	07/10/0	06 0724	546299				
Dry Soil Prep	Drv So	oil Prep GL F	RAD A 0	21		LXM2	07/09/0	6 1538	3 546298				

The following Analytical Methods were performed Method Description

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits	
Americium 243	Alphaspec Am241, Cm, Solid ALL	86	(15% 125%)	
Plutonium 242	Alphaspec Pu, Solid ALL FSS	80	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	79	(25% 125%)	
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	60	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	88	(15% 125%)	

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Certificate of Analysis

Company : Address :	Connecticut Yankee Atomic Power 362 İnjun Hollow Rd		
Contact:	East Hampton, Connecticut 06424 Mr. Jack McCarthy		Report Date: July 21, 2006
Project:	Soils PO# 002332		
	Client Sample ID: Sample ID:	9106 0012 010F 166653017	Project: YANK01204 Client ID: YANK001 Vol. Recv.:
rameter	Qualifier Result Uncertainty	LC TPU	MDA Units DF Analyst Date Time Batch Mtd
rrier/Tracer Recovery	Liquid Scint Ni63 Solid ALI	FS 86	(25% 125%)

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
Carrier/Tracer Recovery	Liqu	id Scint Ni	63, Solid ALL FS		86	(25% 125%)		
Carrier/Tracer Recovery	Liqu	id Scint Tc	99, 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
- Х Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Λ 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.



Client :	Connecticut Yankee / 362 Injun Hollow Rd		QC Summary					Report Date: July 21, 2006 Page 1 of 9					
Contact:	East Hampton, Conn Mr. Jack McCarthy	ecticut											
Workorder:	166653												
Parmname		NOM	Sample (Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time			
Rad Alpha Spec Batch	546536		•	-									
	29 166653016 DUP					~							
Americium-241		U	0.0153	U	0.0362	pCi/į	g 81		(0% - 100%) LCW1	07/13/06 13:20			
		Uncert:	+/-0.0503		+/-0.0809								
C		TPU:	+/-0.0503	11	+/-0.0811	0:1	2(0		(00/ 1000/)				
Curium-242		U Uncert:	-0.0113 +/-0.0221	U	0.0395 +/-0.0775	pCi/į	g 360		(0% - 100%)				
		TPU:	+/-0.0221		+/-0.0773								
Curium-243/24	4	U		Ú	0.0639	pCi/g	g 87		(0% - 100%)				
Currum-2+5/2+	T	Uncert:	+/-0.171	U	+/-0.102	pens	5 07		(070 - 10078)				
		TPU:	+/-0.172		+/-0.102								
QC12011318	31 LCS												
Americium-241		12.5			14.1	pCi/g	g	113	(75%-125%)				
		Uncert:			+/-1.45								
		TPU:			+/-2.48								
Curium-242				U	0.0391	pCi/į	3						
		Uncert:			+/-0.0766								
		TPU:			+/-0.0768								
Curium-243/24	4	15.2			17.1	pCi/į	3	113	(75%-125%)				
		Uncert:			+/-1.59								
0.010011010		TPU:			+/-2.92								
QC12011318 Americium-241				U	-0.0357	pCi/s							
Americium-241		Uncert:		U	+/-0.0696	pent	3						
		TPU:			+/-0.0690								
Curium-242		110.		U	0.00	pCi/g	7						
		Uncert:		U	+/-0.0684	PCP 8	5						
		TPU:			+/-0.0684								
Curium-243/24	4	110.		U	0.0179	pCi/g	z						
		Uncert:			+/-0.0714	r .	, ,						
		TPU:			+/-0.0715								
	30 166653016 MS												
Americium-241		12.5 U	0.0153		13.8	pCi/g	3	110	(75%-125%)				
		Uncert:	+/-0.0503		+/-1.27								
<u> </u>		TPU:	+/-0.0503		+/-2.26								
Curium-242		U	-0.0113	U	0.0665	pCi/g	3						
		Uncert:	+/-0.0221		+/-0.0922								
Curium-243/244	4	TPU:	+/-0.0222		+/-0.0926	-0:1		00	(750/ 1750/)				
Junum-245/24	Ŧ	15.3 U Uncert:	0.162 +/-0.171		15.1 +/-1.33	pCi/į	5	99	(75%-125%)				
		TPU:	+/-0.171		+/-1.33								
Batch	546537	IPU:	⊤7-0.172		⊤/ -∠.4 J								
QC12011318 Plutonium-238	33 166653016 DUP	U	-0.00709	U	0.0264	pCi/g	g 347		(0% - 100%) LCW1	07/12/06 18:16			

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		QC	Su	mmary					
Workorder: 166653								Page 2 of 9	
Parmname	NOM	Sample (Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Alpha Spec Batch 546537									
Bach 546557									
	Uncert:	+/-0.0595		+/-0.0518					
	TPU:	+/-0.0596		+/-0.0519					
Plutonium-239/240	U	0.00827	U	-0.0127	pCi/g	g 947		(0% - 100%)	
	Uncert:	+/-0.0627		+/-0.0547					
QC1201131835 LCS	TPU:	+/-0.0627		+/-0.0547					
QC1201131835 LCS Plutonium-238			U	0.0732	pCi/g	,		(75%-125%)	07/12/06 18:10
	Uncert:		U	+/-0.0971	P0#8	5		(1570-12570)	07/12/00 10.10
	TPU:			+/-0.0974					
Plutonium-239/240	11.6			10.1	pCi/g	2	87	(75%-125%)	
	Uncert:			+/-0.969	F 6			(
	TPU:			+/-1.48					
QC1201131832 MB									
Plutonium-238			U	0.0104	pCi/g	g			07/12/06 18:20
	Uncert:			+/-0.0984					
	TPU:			+/-0.0984					
Plutonium-239/240			U	-0.132	pCi/g	3			
	Uncert:			+/-0.0893					
	TPU:			+/-0.0899					
QC1201131834 166653016 MS									
Plutonium-238	U	-0.00709	U	0.0605	pCi/g	3		(75%-125%)	07/12/06 18:10
	Uncert:	+/-0.0595		+/-0.137					
	TPU:	+/-0.0596		+/-0.137					
Plutonium-239/240	11.6 U	0.00827		12.7	pCi/g	3	109	(75%-125%)	
	Uncert:	+/-0.0627		+/-1.52					
D . 1	TPU:	+/-0.0627		+/-2.26					
Batch 546538									
QC1201131837 166653016 DUP									
Plutonium-241	U	-6.9	U	-6.19	pCi/g	g 0		(0% - 100%) LCW1	07/17/06 09:31
	Uncert:	+/-7.37		+/-9.13					
	TPU:	+/-7.40		+/-9.15					
QC1201131839 LCS									
Plutonium-241	135			116	pCi/g	3	87	(75%-125%)	07/17/06 10:09
	Uncert:			+/-15.0					
	TPU:			+/-19.3					
QC1201131836 MB Plutonium-241			TT	0 (70	-0:4				07/17/06 00.00
Plutomum-241	I In cont.		U	-0.679	pCi/g	3			07/17/06 09:20
	Uncert:			+/-8.57					
OC1201121929 166652016 MS	TPU:			+/-8.57					
QC1201131838 166653016 MS Plutonium-241	139 U	-6.9		109	pCi/g	•	70	(75%-125%)	07/17/06 09:53
Tutomum-241	139 U Uncert:	+/-7.37		+/-13.5	pen s	3	13	(7570-12570)	0//1//00 09.5.
	TPU:	+/-7.40		+/-17.3					
Rad Gamma Spec Batch 546518		.,		., .,					
QC1201131793 166653001 DUP								(00) 10000 20	
Actinium-228		0.971		0.913	pCi/g	g 6		(0% - 100%) MJH1	07/17/06 16:46
	Uncert:	+/-0.202		+/-0.315					
				+/-0.315					

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			, ou	<u>iiiiiai y</u>								
Workorder: 166653					Page 3 of 9							
Parmname	NOM	NOM Sample Qual		QC	Units F	RPD%	REC%	REC% Range Anlst Date				
Rad Gamma Spec												
Batch 546518												
	TPU:	+/-0.202										
Americium-241	U	0.0707	U	0.0337	pCi/g	71	((0% - 100%)			
	Uncert:	+/-0.117		+/-0.0494								
	TPU:	+/-0.117		+/-0.0494								
Bismuth-212	U	0.307	U	0.531	pCi/g	53	((0% - 100%)			
	Uncert:	+/-0.392		+/-0.484								
	TPU:	+/-0.392		+/-0.484								
Bismuth-214		0.631		0.735	pCi/g	15	((0% - 100%)			
	Uncert:	+/-0.126		+/-0.157								
	TPU:	+/-0.126		+/-0.157	~							
Cesium-134	U	0.0426	U	0.0732	pCi/g	53	((0% - 100%)			
	Uncert:	+/-0.0359		+/-0.0578								
0 100	TPU:	+/-0.0359		+/-0.0578	0.1							
Cesium-137	U	0.0439	U	0.0221	pCi/g	66	((0% - 100%)			
	Uncert:	+/-0.0616		+/-0.0418								
	TPU:	+/-0.0616	• •	+/-0.0418	<u> </u>			(00/ 1000/	、			
Cobalt-60	U	0.0286	U	0.0283	pCi/g	1	((0% - 100%)			
	Uncert:	+/-0.0261		+/-0.0482								
Europium 152	TPU:	+/-0.0261	TI	+/-0.0482	0.1	2(0		(00/ 1000/	、			
Europium-152	U	-0.0378	U	0.0108	pCi/g	360	((0% - 100%)			
	Uncert:	+/-0.0689		+/-0.0967								
Francisco 164	TPU:	+/-0.0689		+/-0.0967	0.1	252		(00/ 1000/	、			
Europium-154	U	-0.022	U	0.193	pCi/g	252		(0% - 100%)			
	Uncert:	+/-0.0982		+/-0.185								
Duran in 155	TPU:	+/-0.0982		+/-0.185	0.1	24		(00/ 1000/	`			
Europium-155	UI	0.00	UI	0.00	pCi/g	26		(0% - 100%)			
	Uncert:	+/-0.0859		+/-0.122								
L and 212	TPU:	+/-0.0859		+/-0.122		16		(00/ 200/	、			
Lead-212	T Ten o surfa	1.02		0.874	pCi/g	16		(0% - 20%)			
	Uncert:	+/-0.0786		+/-0.119								
Lead-214	TPU:	+/-0.0786 0.815		+/-0.119 0.826	-Cila	1		(00/ 200/	`			
Lead-214	Uncert:	+/-0.125		+/-0.149	pCi/g	1		(0% - 20%	9			
	TPU:	+/-0.125		+/-0.149								
Manganese-54		0.00801	U	-0.0115	pCi/g	1120		(0% - 100%	.			
Manganese-54	U Uncert:	+/-0.0284	0	+/-0.0388	perg	1120		(070 - 10070	.,			
	TPU:	+/-0.0284		+/-0.0388								
Niobium-94		-0.0284	U	-0.00246	pCi/g	149		(0% - 100%	.			
	U Uncert:	+/-0.025	Ŭ	+/-0.037	PCLE	142		(070 - 10070	, , , , , , , , , , , , , , , , , , ,			
	TPU:	+/-0.025		+/-0.037								
Potassium-40	IFU.	14.3		15.5	pCi/g	8		(0% - 20%	3			
	Uncert:	+/-1.18		+/-1.49	pers	0		(070 - 2070	<i>'</i>			
	TPU:	+/-1.18		+/-1.49								
Radium-226	IFU:	0.631		0.735	pCi/g	15		(0% - 100%	3			
	Uncert:	+/-0.126		+/-0.157	peng	15			<i>''</i>			
	TPU:	+/-0.126		+/-0.157								
Silver-108m	U	-0.011	U	-0.00824	pCi/g	28		(0% - 100%				
	Uncert:	+/-0.0233	0	+/-0.0305	PONE	20		(070 10070	<i>''</i>			
	Oncort.											

Workorder: 166653						Page 4 of 9						
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time		
Rad Gamma Spec												
Batch 546518												
	TPU:	+/-0.0233	+/-0.0305									
Thallium-208		0.279	0.273	pCi/g	2		(0% - 100%)					
	Uncert:	+/-0.0573	+/-0.0779									
	TPU:	+/-0.0573	+/-0.0779									
QC1201131794 LCS												
Actinium-228		U	0.00498	pCi/g					07/17/0	6 16:54		
	Uncert:		+/-0.551									
	TPU:		+/-0.551									
Americium-241	23.4		24.3	pCi/g		104	(75%-125%)					
	Uncert:		+/-0.595									
D: 1 010	TPU:		+/-0.595	<i></i>								
Bismuth-212		U	0.267	pCi/g								
	Uncert:		+/-1.01									
D' 1 014	TPU:		+/-1.01	0.1								
Bismuth-214	T	U	0.206	pCi/g								
	Uncert:		+/-0.228									
Gasi wa 124	TPU:	T 7	+/-0.228	0.1								
Cesium-134	T Tu a suit	U	0.0595	pCi/g								
	Uncert:		+/-0.144									
Cesium-137	TPU: 9.61		+/-0.144	-Ci/a		100	(750/ 1250/)					
Cestum-137	Uncert:		10.5 +/-0.534	pCi/g		109	(75%-125%)					
Cobalt-60	TPU: 14.8		+/-0.534 15.4	nCi/a		104	(75%-125%)					
Coball-00	Uncert:		+/-0.657	pCi/g		104	(7370-12370)					
	TPU:		+/-0.657									
Europium-152	IPU:	U	-0.0334	pCi/g								
Europium-152	Uncert:	U	+/-0.268	perg								
	TPU:		+/-0.268									
Europium-154	IPO:	U	0.228	pCi/g								
Europium-194	Uncert:	0	+/-0.268	peng								
	TPU:		+/-0.268									
Europium-155	110.	U	0.310	pCi/g								
	Uncert:	0	+/-0.274	PCIE								
	TPU:		+/-0.274									
Lead-212	110.	U	0.137	pCi/g								
	Uncert:	U	+/-0.143	Pere								
	TPU:		+/-0.143									
Lead-214		U	-0.045	pCi/g								
	Uncert:	-	+/-0.218	P018								
	TPU:		+/-0.218									
Manganese-54		U	-0.024	pCi/g								
5	Uncert:	U U	+/-0.145	r 6								
	TPU:		+/-0.145									
Niobium-94		U	-0.0716	pCi/g								
	Uncert:	0	+/-0.128	P~"5								
	TPU:		+/-0.128									

		<u>VC Su</u>	<u>mmar y</u>							
Workorder: 166653			Page 5 of 9							
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma SpecBatch546518										
	Uncert:		+/-1.28							
	TPU:		+/-1.28							
Radium-226		U	0.206	pCi/g		(75%-125%)		
	Uncert:		+/-0.228							
	TPU:		+/-0.228							
Silver-108m		U	-0.043	pCi/g						
	Uncert:		+/-0.102							
	TPU:		+/-0.102							
Thallium-208		U	0.075	pCi/g						
	Uncert:		+/-0.118							
	TPU:		+/-0.118							
QC1201131792 MB						•				
Actinium-228		U	0.0476	pCi/g					07/17/0	6 15:52
	Uncert:		+/-0.0627							
	TPU:		+/-0.0627							
Americium-241		U	0.0132	pCi/g						
	Uncert:		+/-0.0215							
	TPU:		+/-0.0215							
Bismuth-212		U	0.0517	pCi/g						
	Uncert:		+/-0.137							
	TPU:		+/-0.137							
Bismuth-214		U	0.00363	pCi/g						
	Uncert:		+/-0.0521							
	TPU:		+/-0.0521							
Cesium-134		U	0.0106	pCi/g						
	Uncert:		+/-0.0183							
	TPU:		+/-0.0183	~						
Cesium-137		U	0.00159	pCi/g						
	Uncert:		+/-0.0213							
	TPU:		+/-0.0213							
Cobalt-60		U	0.008	pCi/g						
	Uncert:		+/-0.0184							
E	TPU:		+/-0.0184	0.1						
Europium-152	TT .	U	0.0146	pCi/g						
	Uncert:		+/-0.0402							
Europeium 154	TPU:	TT	+/-0.0402	0.1						
Europium-154	T T (U	0.052	pCi/g						
	Uncert:		+/-0.078							
Errorium 165	TPU:	11	+/-0.078	0.1						
Europium-155	T In a conte	U	-0.00573	pCi/g						
	Uncert:		+/-0.0357							
Lond 212	TPU:		+/-0.0357	-0:/-						
Lead-212	TT	U	0.0155	pCi/g						
	Uncert:		+/-0.0243							
Lend 214	TPU:	TT	+/-0.0243	-0:/-						
Lead-214	T T	U	0.0239	pCi/g						
	Uncert:		+/-0.0306							
	TPU:		+/-0.0306							

QC Summary

		<u>vcs</u>	ummary							
Workorder: 166653		Page 6 o								
Parmname	NOM	Sample Qua	QC	Units RI	PD%	REC%	Range Anlst	Date Time		
Rad Gamma SpecBatch546518										
Manganese-54		U	0.00838	pCi/g						
-	Uncert:		+/-0.0213							
	TPU:		+/-0.0213							
Niobium-94		U		pCi/g						
	Uncert:		+/-0.0175							
	TPU:		+/-0.0175							
Potassium-40		U		pCi/g						
	Uncert:		+/-0.182							
	TPU:		+/-0.182							
Radium-226		U		pCi/g						
	Uncert:		+/-0.0521							
	TPU:		+/-0.0521							
Silver-108m		U		pCi/g						
	Uncert:		+/-0.0141							
	TPU:		+/-0.0141							
Thallium-208		U		pCi/g						
	Uncert:		+/-0.0189							
	TPU:		+/-0.0189							
Rad Gas Flow Batch 547395										
QC1201133605 166653016 DUP										
Strontium-90	U	-0.00399 U	-0.00417	pCi/g	0		(0% - 100%) BXF1	07/14/06 22:56		
	Uncert:	+/-0.0104	+/-0.00812							
	TPU:	+/-0.0104	+/-0.00812							
QC1201133607 LCS										
Strontium-90	1.50		1.45	pCi/g		97	(75%-125%)	07/14/06 22:56		
	Uncert:		+/-0.104							
	TPU:		+/-0.110							
QC1201133604 MB			0.00/07	0.1				07/14/06 00 56		
Strontium-90		U		pCi/g				07/14/06 22:56		
	Uncert:		+/-0.0062							
0C1201122/06 1///5201/ MD	TPU:		+/-0.0062							
QC1201133606 166653016 MS Strontium-90	1.52 U	-0.00399	1.24	pCi/g		9 1	(75%-125%)	07/14/06 22:55		
Stontum-90	Uncert:	+/-0.0104	+/-0.0934	perg		01	(7570-12570)	07714/00 22.33		
	TPU:	+/-0.0104	+/-0.0986							
Rad Liquid Scintillation	IFU.	17-0.0104	17-0.0980							
Batch 546461										
QC1201131630 166653016 DUP										
Technetium-99	U	0.224 U	0.213	pCi/g	5		(0% - 100%) EGD1	07/19/06 06:10		
	Uncert:	+/-0.274	+/-0.296	perg	5		(070 10070) LODI	0//19/00 00.10		
	TPU:	+/-0.274	+/-0.296							
QC1201131632 LCS	110.	17-0.274	17-0.290							
Technetium-99	12.9		12.3	pCi/g		95	(75%-125%)	07/19/06 06:43		
	Uncert:		+/-0.492	P.C. B			(07719700 00.45		
	TPU:		+/-0.567							
QC1201131629 MB	110.		.,-0.307							
Technetium-99		U	0.248	pCi/g				07/19/06 05:54		
		-		1 0						

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QC Summary

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Workorder: 166653		QC	. Su	mmary					
				Page 7 of 9					
Parmname	NOM	Sample (Qual	QC	Units	RPD%	REC%	Range Anlst	Date Tim
Rad Liquid ScintillationBatch546461									
	Uncert: TPU:			+/-0.244 +/-0.244					
QC1201131631 166653016 MS									
Technetium-99	12.9 U	0.224		15.5	pCi/j	g	120	(75%-125%)	07/19/06 06:2
	Uncert: TPU:	+/-0.274 +/-0.274		+/-0.591 +/-0.690					
Batch 546577	TPU:	T/-0.2/4		-7-0.090					
QC1201131923 166653016 DUP									
Iron-55	U	-0.861	U	2.22	pCi/	g O		(0% - 100%) SLN1	07/15/06 13:2
	Uncert:	+/-13.0	-	+/-13.6	F 4	5		(0.00 100.00) 02000	
	TPU:	+/-13.0		+/-13.6					
QC1201131925 LCS									
Iron-55	635			590	pCi/	g	93	(75%-125%)	07/15/06 14:30
	Uncert:			+/-39.1					
001201121022	TPU:			+/-79.2					
QC1201131922 MB Iron-55			U	12.1	pCi/į	r			07/15/06 12:5:
	Uncert:		Ũ	+/-22.1	poli	5			07/15/00 12.5.
	TPU:			+/-22.1					
QC1201131924 166653016 MS									
Iron-55	661 U	-0.861		661	pCi/g	3	100	(75%-125%)	07/15/06 13:59
	Uncert:	+/-13.0		+/-30.4					
D	TPU:	+/-13.0		+/-78.2					
Batch 546578									
QC1201131927 166653016 DUP									
Nickel-63	U	0.304	U	2.04	pCi/į	g 0		(0% - 100%) SLN1	07/19/06 20:14
	Uncert:	+/-4.43		+/-4.71					
QC1201131929 LCS	TPU:	+/-4.43		+/-4.71					
Nickel-63	594			494	pCi/į	7	83	(75%-125%)	07/19/06 22:19
	Uncert:			+/-11.6	P = - 2	-	02	()	01111100 ==111
	TPU:			+/-20.3					
QC1201131926 MB									
Nickel-63			U	5.05	pCi/į	g.			07/19/06 19:12
	Uncert:			+/-5.47					
	TPU:			+/-5.48					
QC1201131928 166653016 MS Nickel-63	592 11	0.304		503	pCi/j	•	85	(75%-125%)	07/19/06 21:16
Nickei-05	592 U Uncert:	+/-4.43		+/-12.4	pent	3	65	(7376-12376)	0//19/00 21.10
	TPU:	+/-4.43		+/-21.0					
Batch 546579				1 2110					
QC1201131931 166653016 DUP									
Tritium	U	2.95	U	2.25	pCi/į	g 0		(0% - 100%) NXP1	07/15/06 09:41
	Uncert:	+/-6.82	-	+/-6.89	r - * t	-			
	TPU:	+/-6.82		+/-6.89					
QC1201131933 LCS									
Tritium	48.8			41.3	pCi/į	g	85	(75%-125%)	07/15/06 10:13
	Uncert:			+/-9.00					
	TPU:			+/-9.03					

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QC Summary

Workorder: 166653								Page 8 of 9	
Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anls	st Date Time
Rad Liquid ScintillationBatch546579									
QC1201131930 MB									
Tritium			U	1.69	pCi/	g			07/15/06 09:24
	Uncert:			+/-6.70					
	TPU:			+/-6.70					
QC1201131932 166653016 MS									
Tritium	58.8 U	2.95		52.4	pCi/j	g	89	(75%-125%)	07/15/06 09:57
	Uncert:	+/-6.82		+/-10.9					
	TPU:	+/-6.82		+/-11.0					
Batch 549860									
QC1201139570 166653017 DUP									
Carbon-14	U	-0.108	U	-0.122	pCi/g	g 0		(0% - 100%) ATH	2 07/21/06 17:05
	Uncert:	+/-0.112		+/-0.114	-	-			
	TPU:	+/-0.112		+/-0.114					
QC1201139572 LCS									
Carbon-14	7.27			6.12	pCi/g	g	84	(75%-125%)	07/21/06 15:40
	Uncert:			+/-0.400					
	TPU:			+/-0.411					
QC1201139569 MB									
Carbon-14			U	-0.163	pCi/j	g			07/21/06 15:57
	Uncert:			+/-0.113					
	TPU:			+/-0.113					
QC1201139571 166653017 MS									
Carbon-14	15.1 U	-0.108		13.1	pCi/	g	87	(75%-125%)	07/21/06 15:23
	Uncert:	+/-0.112		+/-0.834					
	TPU:	+/-0.112		+/-0.859					

Notes:

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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

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		QC Sun	nmary							
Workorder: 166653							Page 9	of 9		
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Tin	ne
^										

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more. ****** Indicates analyte is a surrogate compound.

[^] The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result. For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

CASE NARRATIVE For CONNECTICUT YANKEE RE: Soil PO# 002332 Work Order: 170683 SDG: 170683

September 6, 2006

Laboratory Identification: General Engineering Laboratories, LLC

Mailing Address: P.O. Box 30712

Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address: 2040 Savage Road

Charleston, South Carolina 29407

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The sample(s) for this Project arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina on August 17, 2006, July 07, 2006, July 13, 2006, July 21, 2006 and June 21, 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>
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683004	9106-0013-006F
170683005	9106-0013-005F
170683006	9106-0014-012F
170683007	9106-0014-033F
170683008	9106-0015-018F

GENERAL ENGINEERING LABORATORIES, LLC

170683009	9106-0015-002F
170683010	9106-0001-132F

Items of Note:

At the request of Dale Randall on August 31, 2006, the samples listed above were relogged for various analyses. A list of Sample ID's and requested tests follows.

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:

Ten soil samples were analyzed for various analyses included in the FSSALL suite.

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.

Chy Afra

Cheryl Jones Project Manager

Analysis req	uest - 8/31/06		Done			To be done							
Previous GEL ID	CY sample location IDs	FSS Gam	Sr-90	Ni-63	Am	Pu	Sr90	Pu241	Fe55	Ni63	Tc99	H3	C14
165614006	9106-0011-018F	x		X	X	X	X	X	X		X	X	X
166653003	9106-0012-005F	x			Х	X	X	X	X	X	X	X	X
166653010	9106-0012-014F	x			Х	X	X	X	X	X	X	X	X
167555007	9106-0013-005F	X			X	X	X	X	X	X	X	X	X
167555001	9106-0013-006F	x			X	X	X	X	X	X	X	X	X
167014026	9106-0014-012F	x			X	X	X	X	X	X	X	Χ	X
167014042	9106-0014-033F	X			X	X	X	X	X	X	X	X	X
167556010	9106-0015-002F	x	X		X	X		X	X	X	X	X	X
167556007	9106-0015-018F	x	x		X	X		X	X	X	X	X	X
169489001	9106-0001-132F	x			X	X	X	X	X	X	X	X	X

.

RELOGGED AS 170683

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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	<u>\$-52597</u>
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	N/A
Virginia	00151
Washington	C223

List of current GEL Certifications as of 06 September 2006

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Chain of Custody And Supporting Documentation

170683

GPP-GGGR-R5104-003-Attachment B-CY-001 Major

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Health Physics Procedure

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Connecticut 362 Injur	Yankee At n Hollow Road, E 860-262	East Hampton			y			Ch	ain of	f Custo	ly Form	No. 2006-00413
Project Name: Haddam				T		<u> </u>	A	nalyses	Request	ted	Lapuse Only	
Contact Name & Phone: Jack McCarthy 860-26	7-2556 Ext.	3024									Comments: ***	
Analytical Lab (Name, C General Engineering Lab 2040 Savage Road. Char 843 556 8171. Attn. Che	ooratories leston SC. 294	407				FSSGAM	FSSALL	Ni-63				
Priority: 🔲 30 D. 🔀 14	D. 🗌 7 D.		Media	Sample Type	Container Size- &Type					Ì		
Sample Designation	Date	Time	Code	Code	Code						Comment, Preservation	ating sample the
9106-0011-011F	5/17/06	08:15	SE	С	BP	X		X			Transferred from COC 2006-00	A REAL PROPERTY AND A REAL
9106-0011-012F	5/17/06	08:41	SE	С	BP	X		X			Transferred from COC 2006-00	356
9106-0011-012FS	5/17/06	08:41	SE	С	BP	X		X			Transferred from COC 2006-00	
9106-0011-014F	5/17/06	09:34	SE	С	BP	X		X			Transferred from COC 2006-00	·····································
9106-0011-015F	5/17/06	09:12	SE	С	BP	X		X			Transferred from COC 2006-00	
9106-0011-018F	5/17/06	10:01	SE	С	BP	X		X			Transferred from COC 2006-00	
9106-0011-002F	5/15/06	14:33	SE	C	BP	X	ļ	X			Transferred from COC 2006-00	A STATE AND A S
9106-0011-003F	5/15/06	14:58	SE	C	BP	l	X	<u> </u>	+		Transferred from COC 2006-00	Constant of the State of the second of the
		<u> </u>	L			ļ						
NOTES: PO #: 002332 MSR #: 06- SSWP# NA 🛛 LTP QA 🗌 Radwaste QA 🗌 Non QA Samples Shipped V 🖾 Fed Ex 🗍 UPS 🗌 UPS 🗌 Hand											UPS	Thernal Container Taing Dag C Cuinay Scepedi
1) Relinquished By JAIME RICARTE	6-20	Date/Tim 0-06/110	e U	2) Recei	ved By	h			Date/T	Time 0930	Other	
3) Relinquished By		Date/Tim	e	4) Recei	ved By)			Date/T	lime	Bill of Lading #	NU.
5) Relinquished By		Date/Tim	e	6) Recei	ved By				Date/T	Time	7910 2328 7540	



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SAMPLE RECEIPT & REVIEW FORM

'AVORIE'				PM use only						
Client: CONN ATOMIC	XANK	EE		SDG/ARCOC/Work Order: 165614						
Date Received: ()b				PM(A) Review (ensure non-conforming items are resolved prior to signing):						
Received By: ALM				1 Olyant						
		-	1							
Sample Receipt Criteria	Yes	NA	°Z	Comments/Qualifiers (Required for Non-Conforming Items)						
1 Shipping containers received intag and sealed?	-			Circle Applicable: scals broken damaged container leaking container other (describe)						
Samples requiring cold 2 preservation within (4 +/- 2 C)? Record preservation method.		/		Circle Coolans // ice bags blue ice dry ice other describe)						
3 Chain of custody documents included with shipment?	1									
4 Sample containers intact and sealed?	1			Circle Applicable: seats broken damaged container leaking container other (describe)						
5 Samples requiring chemical preservation at proper pH?		2		Sample ID's, containers affected and observed pH:						
6 VOA vials free of headspace (defined as < 6mm bubble)?		/		Sample ID's and containers affected:						
Are Encore containers present? 7 (If yes, immediately deliver to VOA laboratory)			1							
8 Samples received within holding time?	/			Id's and tests affected:						
9 Sample ID's on COC match ID's on bottles?	1			Sample ID's and containers affected:						
10 Date & time on COC match date & time on bottles?			/	Sample ID's affected: TIME DATES WERE WIPED IFF						
Number of containers received match number indicated on COC?	1		-	Sample ID's affected:						
12 COC form is properly signed in relinquished/received sections?	/			· · · · ·						
Air Bill , Tracking #'s, & Additional Comments		791	Ò	2328 7542						
Suspected Hazard Information		Regulated	い い い	USO RAD Receipt # If > x2 area background is observed on samples identified as "non- egulated/non-radioactive", contact the Radiation Safety group for further nvestigation.						
A Radiological Classification?		2		Aaximum Counts Observed*: CAM 60						
B PCB Regulated?	X		C	comments:						
Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	×			lazard Class Shipped: IN#:						
PM (or PMA) review of Hazard class	sificatio	n:		Initials Date: 6 2106						
				0 1 1						

Connectiout Venkee		
Connecticut Yankee Statement of Work for Analytical La	b Services	CY-ISC-SOW-0
	Figure 1. Sample Check-in	n List
	21-06 0930	
	MSR#06.	- 0877
SDG#:	1656141.	
Work Order Number:		· · · · · · · · · · · · · · · · · · ·
1. Custody Seals on shipping co	• •	Yes [4] No []
2. Custody Seals dated and sign	• •	Yes [] No [2]
3. Chain-of-Custody record pre	· -	Yes [7] No []
	24°C	
5. Vermiculite/packing material	-	Wet [*] Dry [\]
6. Number of samples in shippi		•
7. Sample holding times exceed	lcd?	Yes [] No []
8. Samples have:		
	hazard labels	
custody seals		
	appropriate sampl	
9. Samples are:		
in good condition	leaking	
broken	have air bubble	95
10		
10. Were any anomalies identified		Yes [] No K]
11. Description of anomalies (incl	lude sample numbers):	
/		
	Maly	Date: 6/21/06 0930
Sample Custodian/Laboratory:	Maly	Date: 6/21/06 0930 By

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Connecticut 362 Injun	Yankee At Hollow Road, H 860-26	East Hampton				06	53·/	,	ain of (Custod	y Form	No. 2006-00451
Project Name: Haddam I	Neck Decomr	nissioning					_ A'n	alyses	Requested	_	Lab Use Only	
Contact Name & Phone: Jack McCarthy 860-267	7-2556 Ext.	3924									Comments:	
Analytical Lab (Name, C General Engineering Lab 2040 Savage Road. Charl 843 556 8171. Attn. Che	oratories leston SC. 294	407				FSSGAM	FSSALL					
Priority: 🗌 30 D. 🕅 14	D. 🗌 7 D.		Media	Sample	Container Size-	H						
Sample Designation	Date	Time	Code	Type Code	&Type Code						Comment, Preservation	Lab Sample ID
9106-0012-002F	6/23/06	08:56	SE	C	BP	X					Transferred from COC 2006-00436	001
9106-0012-003F	6/23/06	08:39	SE	C	BP	X					Transferred from COC 2006-00436	002
9106-0012-004F	6/23/06	09:32	SE	C	BP		X				Transferred from COC 2006-00436	016
9106-0012-005F	6/23/06	09:56	SE	С	BP	X					Transferred from COC 2006-00436	003
9106-0012-006F	6/23/06	13:07	SE	С	BP	X					Transferred from COC 2006-00436	014
9106-0012-010F	6/23/06	11:08	SE	C	BP		X				Transferred from COC 2006-00436	017
9106-0012-013F	6/23/06	10:56	SE	C	BP	X					Transferred from COC 2006-00436	005
9106-0012-013FS	6/23/06	10:56	SE	C	BP	X					Transferred from COC 2006-00436	0000
NOTES: PO #: 002332	MSR #: 06-4	9460 SSWI	P# NA	🛛 LTP	QA 🗌	Radw	aste QA		Non QA		Samples Shipped Via: Fed Ex UPS Hand	Internal Container Temp.: Deg. Custody Sealed? Y D N D
1) Relinquished By	Date/Time 2) Refeived By Date/Time							ne	7	Custody Seal		
JAME RICARTE	7	-6-06 / 1	400	MA.	inst	\rightarrow	40.00	7/1/06 900			Other	Intact?
3) Relinquished By	<u> </u>	Date/Tim	e	4) Received By Date/Time								YONO
					· -•			Bill of Lading #				
5) Relinquished By		Date/Tim	e	6) Recei	ved By				Date/Tin	ne	7919 8876 4783	

Health Physics Procedure

GPP-GGGR-R5104-003-Attachment B-CY-001 Major

Project Name: Haddam Neck Decommissioning Contact Name & Phone: Jack McCarby & 800-267-2556 Ext. 3924 Analyses Requested Lab Use Only Analytical Lab (Name, Cirky, State) General Engineering Laboratories Constainer Constainer Constainer 2040 Savege Rad, Charleston SC. 29407 Sample Size- S	Connecticut Y 362 Injun	Yankee A1 Hollow Road, E 860-267	East Hampton,			y 160	oles	53/	Cha:	in of Cu		dy Form	No. 2006-00452
Consider Yander Vance, City, State) Consider General Engineering Laboratories Sample Sample Designation Date Priority: 30 D. 2 14 D. 7 D. Super-State Sample Designation Date 9106-0012-007F 6/21/06 9:106-0012-007F 6/21/06 9:106-0012-007F 6/21/06 9:106-0012-007F 6/21/06 9:106-0012-012F 6/21/06 9:106-0012-012F 6/21/06 9:106-0012-012F 6/21/06 9:106-0012-014F 6/21/06 9:106-0012-015F 6/21/06 9:106-0012-005F 6/21/06 9:106-0012-005F 6/21/06 9:106-0012-005F 6/23/06 9:106-0012-005F 6/23/06 9:106-0012-005F 6/23/06 9:106-0012-0	Project Name: Haddam N	Neck Decom	nissioning							juested	Τ	Lab Use Only	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Contact Name & Phone:											Comments:	
Priority: $]$ 30 D. $[]$ 14 D. $[]$ 7 D.SampleContainer Size Code $[]$ Type CodeContainer Size Code $[]$ Comment, PreservationLab Sample ID9106-0012-007F6/21/0609:32SECBPXTransferred from COC# 2006-00433 $[]$ DT9106-0012-012F6/21/0609:32SECBPXTransferred from COC# 2006-00433 $[]$ DT9106-0012-012F6/21/0609:19SECBPXTransferred from COC# 2006-00433 $[]$ DT9106-0012-012F6/21/0610:05SECBPXTransferred from COC# 2006-00433 $[]$ DT9106-0012-011F6/21/0610:05SECBPXTransferred from COC# 2006-00433 $[]$ DT9106-0012-003F6/23/0610:33SECBPXTransferred from COC# 2006-00433 $[]$ DT9106-0012-003F6/23/0610:33SECBPXTransferred from COC# 2006-00436 $[]$ DT9106-0012-003F <t< td=""><td colspan="2">General Engineering Laboratories 2040 Savage Road. Charleston SC. 29407</td><td></td><td></td><td></td><td>SSGAM</td><td>FSSALL</td><td></td><td></td><td></td><td></td><td></td></t<>	General Engineering Laboratories 2040 Savage Road. Charleston SC. 29407					SSGAM	FSSALL						
Sample DesignationDateTimeCodeCodeCodeCodeCodeCodeLab Sample ID9106-0012-007F $6/21/06$ 09:32SECBPXTransferred from COC # 2006-00433 $\delta D F$ 9106-0012-012F $6/21/06$ 09:00SECBPXTransferred from COC # 2006-00433 $\delta D F$ 9106-0012-012F $6/21/06$ 10:05SECBPXTransferred from COC # 2006-00433 $\delta D F$ 9106-0012-014F $6/21/06$ 10:05SECBPXTransferred from COC # 2006-00433 $\delta D F$ 9106-0012-014F $6/21/06$ 10:05SECBPXTransferred from COC # 2006-00433 $\delta D F$ 9106-0012-01F $6/21/06$ 10:33SECBPXTransferred from COC # 2006-00433 $\delta D F$ 9106-0012-01F $6/21/06$ 10:33SECBPXTransferred from COC # 2006-00436 $\delta D F$ 9106-0012-009F $6/23/06$ 10:33SECBPXTransferred from COC # 2006-00436 $O I S$ 9106-0012-009F $6/23/06$ 10:33SECBPXTransferred from COC # 2006-00436 $O I S$ 9106-0012-001F $6/23/06$ 10:33SECBPXTransferred from COC # 2006-00436 $O I S$ NOTES: PO #: 002332MSR #: 06-0747 SSWP# NA X LTP QARadwaste QANon QASamples Shipped Via: Date/TimeCustody Seal Internal Custody SealCustody Seal Inte	Priority: 🗌 30 D. 🛛 14 1	D . 🗍 7 D.				Size-	щ						
9106-0012-007F $6/21/06$ $09:32$ SECBPXTransferred from COC # 2006-00433 $\delta D F$ 9106-0012-012F $6/21/06$ $09:00$ SECBPXTransferred from COC # 2006-00433 $D B$ 9106-0012-012F $6/21/06$ $09:19$ SECBPXTransferred from COC # 2006-00433 $D B$ 9106-0012-014F $6/21/06$ $10:05$ SECBPXTransferred from COC # 2006-00433 $O I C$ 9106-0012-011F $6/21/06$ $10:05$ SECBPXTransferred from COC # 2006-00433 $O I C$ 9106-0012-015F $6/21/06$ $14:24$ SECBPXTransferred from COC # 2006-00433 $O I C$ 9106-0012-009F $6/23/06$ $10:33$ SECBPXTransferred from COC # 2006-00436 $O I S$ 9106-0012-009FS $6/23/06$ $10:33$ SECBPXTransferred from COC # 2006-00436 $O I S$ 9106-0012-001F $6/23/06$ $10:33$ SECBPXTransferred from COC # 2006-00436 $O I S$ 9106-0012-001F $6/23/06$ $10:33$ SECBPXTransferred from COC # 2006-00436 $O I S$ 9106-0012-001F $6/23/06$ $10:33$ SECBPXTransferred from COC # 2006-00436 $O I S$ 9106-0012-001F $6/23/06$ $10:33$ SECBPXTransferred from COC # 2006-00436 $O I S$ 9106-0012-001F $6/23/06$ <td< td=""><td>Sample Designation</td><td>Date</td><td>Time</td><td></td><td></td><td></td><td></td><td> </td><td></td><td></td><td></td><td>Comment, Preservation</td><td>Lab Sample ID</td></td<>	Sample Designation	Date	Time									Comment, Preservation	Lab Sample ID
9106-0012-012F 05/21/06 09:19 SE C BP X Transferred from COC # 2006-00433 01/2 9106-0012-012F 6/21/06 09:19 SE C BP X Transferred from COC # 2006-00433 01/2 9106-0012-011F 6/21/06 10:05 SE C BP X Transferred from COC # 2006-00433 01/2 9106-0012-011F 6/21/06 14:24 SE C BP X Transferred from COC # 2006-00433 01/2 9106-0012-015F 6/21/06 14:24 SE C BP X Transferred from COC # 2006-00433 01/2 9106-0012-009F 6/23/06 10:33 SE C BP X Transferred from COC # 2006-00436 01/3 9106-0012-009FS 6/23/06 10:33 SE C BP X Transferred from COC # 2006-00436 01/2 9106-0012-001F 6/23/06 09:18 SE C BP X Transferred from COC # 2006-00436 01/2 NOTES: PO #: 002332 MSR #: 06-0947 SSWP# NA LTP QA Radwaste QA Non QA Samples Shi		6/21/06	09:32	SE	С	BP	X					Transferred from COC # 2006-00433	607
9106-0012-012F $6/21/06$ $09:19$ SECBPXTransferred from COC # 2006-00433 OLP 9106-0012-014F $6/21/06$ $10:05$ SECBPXTransferred from COC # 2006-00433 OLP 9106-0012-011F $6/21/06$ $09:51$ SECBPXTransferred from COC # 2006-00433 OLP 9106-0012-015F $6/21/06$ $14:24$ SECBPXTransferred from COC # 2006-00433 OLP 9106-0012-009F $6/23/06$ $10:33$ SECBPXTransferred from COC # 2006-00436 OLP 9106-0012-009F $6/23/06$ $10:33$ SECBPXTransferred from COC # 2006-00436 OLP 9106-0012-009F $6/23/06$ $10:33$ SECBPXTransferred from COC # 2006-00436 OLP 9106-0012-001F $6/23/06$ $10:33$ SECBPXTransferred from COC # 2006-00436 OLP 9106-0012-001F $6/23/06$ $09:18$ SECBPXTransferred from COC # 2006-00436 OLP NOTES: PO #: 002332MSR #: 06-0967 SSWP# NAXLTP QARadwaste QANon QASamples Shipped Via: UPS UPS UPSCustody Seal Internal Custody Seal Intact?Custody Seal Intact?1) Relinquished ByDate/Time2) Received ByDate/TimeDate/Time Bill of Lading #Y \Box N \Box	9106-0012-008F		09:00	SE	C	BP	X					Transferred from COC # 2006-00433	108
9106-0012-0147021/0610:033ECBFXTransferred from COC # 2006-004330119106-0012-011F $6/21/06$ 14:24SECBPXTransferred from COC # 2006-004330129106-0012-009F $6/23/06$ 10:33SECBPXTransferred from COC # 2006-004360139106-0012-009F $6/23/06$ 10:33SECBPXTransferred from COC # 2006-004360139106-0012-009F $6/23/06$ 10:33SECBPXTransferred from COC # 2006-004360159106-0012-001F $6/23/06$ 09:18SECBPXTransferred from COC # 2006-00436015NOTES: PO #: 002332MSR #: 06-0947SSWP# NAXLTP QARadwaste QANon QASamples Shipped Via: WPSInternal Container Temp: UPS1) Relinquished By Jrin ME RwA#TEDate/Time T-6-062) Received ByDate/Time UPSDate/Time Date/Time0OtherIntact? Y \square N \square 3) Relinquished ByDate/Time4) Received ByDate/Time HandDate/Time Bill of Lading #Y \square N \square	9106-0012-012F	6/21/06	09:19	SE	С	BP	X				\uparrow	Transferred from COC # 2006-00433	
9106-0012-011F0/21/060/313ECBFXTransferred from COC # 2006-00433012	9106-0012-014F	6/21/06	10:05	SE	C	BP	X					Transferred from COC # 2006-00433	010
9106-0012-009F $6/23/06$ 10:33SECBPXTransferred from COC # 2006-00436 013 9106-0012-009FS $6/23/06$ 10:33SECBPXTransferred from COC # 2006-00436 012^{-1} 9106-0012-001F $6/23/06$ 09:18SECBPXTransferred from COC # 2006-00436 015^{-1} NOTES: PO #: 002332MSR #: 06-0967SSWP# NAXLTP QARadwaste QANon QASamples Shipped Via: UPSContainer Temp:: Deg. C1) Relinquished ByDate/Time2) Received ByDate/TimeDate/TimeCustody Sealed? Y \odot N \Box 3) Relinquished ByDate/Time4) Received ByDate/TimeDate/TimeDate/TimeY \Box N \Box 3) Relinquished ByDate/Time4) Received ByDate/TimeDate/TimeBill of Lading #Y \Box N \Box	9106-0012-011F	6/21/06	09:51	SE	С	BP	X				\square	Transferred from COC # 2006-00433	011
1060012-003FS $6/23/06$ $10:33$ SE C BP X $Transferred from COC # 2006-00436$ $GLGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG$	9106-0012-015F	6/21/06	14:24	SE	С	BP	X					Transferred from COC # 2006-00433	012
9106-0012-001F $6/23/06$ $09:18$ SECBPXTransferred from COC # 2006-00436 015 NOTES: PO #: 002332MSR #: 06-0967SSWP# NAILTP QARadwaste QANon QASamples Shipped Via: ILTP QAInternal Container Deg. C1) Relinquished ByDate/Time $T-6-ob//400$ 2) Received ByDate/Time $T/7/016$ Date/Time $T/7/016$ OtherInternal Custody Seal Intact?3) Relinquished ByDate/Time $T/T4) Received ByDate/Time4Date/TimeDate/TimeT/T/$	9106-0012-009F	6/23/06	10:33	SE	C	BP	X				TT	Transferred from COC # 2006-00436	
9100-0012-0017 02.510 09.18 5L C BF A NOTES: PO #: 002332 MSR #: 06-0967 SSWP# NA Internal Internal Container NOTES: PO #: 002332 MSR #: 06-0967 SSWP# NA Internal Container Internal UPS Internal Custody Sealed? Y Internal NI Internal Custody Seale Intact? Intact? Intact? Y Intact? Y Intact Intact? Y Intact? Y Intact? 3) Relinquished By Date/Time Intact? Y Intact? Y Intact? Intact? Y Intact? Y Intact? Y Intact? Intact?	9106-0012-009FS	6/23/06	10:33	SE	С	BP	X						014
1) Relinquished By Date/Time 2) Received By Date/Time I was defined by Date/Time I was defined by Container 1) Relinquished By Date/Time 2) Received By Date/Time I was defined by	9106-0012-001F	6/23/06	09:18	SE	С	BP	X					Transferred from COC # 2006-00436	<i>1</i> 15
$\frac{17 \text{ Keiniquished By}}{\frac{17 \text{ ME}}{3} \text{ Relinquished By}} Date/Time = 27 \text{ Received By} Date/Time = 27 \text{ Received By} Date/Time = 10 \text{ Other} Intact? \\ \hline 31 \text{ Relinquished By} Date/Time = 47 \text{ Received By} Date/Time = 10 \text{ Other} Intact? \\ \hline 31 \text{ Relinquished By} Date/Time = 10 \text{ Received By} Date/Time = 10 \text{ Other} Intact? \\ \hline 31 \text{ Relinquished By} Date/Time = 10 \text{ Received By} Date/$	NOTES: PO #: 002332	MSR #: 06-2	9467 SSWI	P# NA	🛛 LTP	QA 🗌	Radw	raste QA		Non QA		Fed Ex	Container Temp.: Deg. C Custody Sealed? Y 🗆 N 🗆
Bill of Lading #		7-1			2) Recei	ed By	B	othe		7/7/06	90	Other	Intact?
5) Relinquished By Date/Time 6) Received By Date/Time 7927 8782 3129	3) Relinquished By		Date/Tim	e	4) Recti	yed By	~	r _		Date/Time			YUNU
	5) Relinquished By		Date/Time	e	6) Recei	ved By				Date/Time		7927 8782 3129	

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SAMPLE RECEIPT & REVIEW FORM

PM use only nsko SDG/ARCOC/Work Order: 16653, 16655 166656 Client: PM(A) Review (ensure non-conforming items are resolved prior to signing): Date Received: **Received By:** Yes NA z Comments/Qualifiers (Required for Non-Conforming Items) Sample Receipt Criteria Circle Applicable: seals broken damaged container leaking container othe (describe) Shipping containers received intact and sealed? Circle Coolant # ice bags blue ice dry ice other describe) Samples requiring cold 2 preservation within (4 + / - 2 C)? Record preservation method. Chain of custody documents 3 included with shipment? Circle Applicable: seats broken damaged constiner leaking container other (describe) Sample containers intact and 4 sealed? Sample ID's, containers affected and observed pH: Samples requiring chemical 5 preservation at proper pH? Sample 1D's and containers affected: VOA vials free of headspace 6 (defined as < 6mm bubble)?Are Encore containers present? 7 (If yes, immediately deliver to VOA laboratory) Id's and tests affected: Samples received within holding 8 time? Sample ID's and containers affected: Sample ID's on COC match ID's 9 on bottles? Sample ID's affected: Date & time on COC match date 10 & time on bottles? Sample ID's affected: Number of containers received 11 match number indicated on COP? COC form is properly signed in 12 relinquished/received sections? Air Bill, Tracking #'s, & 14 Additional Comments RSO RAD Receipt # Level Regulated Regulated *If > x2 area background is observed on samples identified as "non-Ż **Suspected Hazard Information** High regulated/non-radioactive", contact the Radiation Safety group for further investigation. A Radiological Classification? Maximum Counts Observed*: 1 Pm **B PCB** Regulated? Comments: Shipped as DOT Hazardous Hazard Class Shipped: C Material? If yes, contact Waste UN#: Manager or ESH Manager. PM (or PMA) review of Hazard classification: Initials Date: 717106

	Connecticut Yankee Statement of Work for Analytical Lab Service	ses	CY-ISC-5	SOW-001
	7/7/11	. Sample Check-in List		
	Date/Time Received:SDG#:			
	79/9 8876 478	6655/16665	2001a-DOWI	9
	Shipping Container ID: 75917 8782 3139 1. Custody Seals on shipping container	thain of Custod	y# <u>3006-00452</u> 2006-00452 Yes [-] No [1]	 -
	2. Custody Seals dated and signed?		Yes [] No []	••
	3. Chain-of-Custody record present?		Yes [] No []	
	4. Cooler temperature23"	<u>- 22°</u>	- 23.2	• •
<u>;</u> .	5. Vermiculite/packing materials is:		Wet [4] Dry [1]	
_	5. Number of samples in shipping contain	ner; (1)3 ; (2	2)12 (2)9	· · · ·
7	Sample holding times exceeded?		Yes [] No []	· · ·
	8. Samples have:			
	tapeh	azard labels		
	annata di sa di	ppropriate sample labels		
	9. Samples are:			
	in good condition	_leaking		
L	broken	have air bubbles		
10. 11.	and any anomalies identified in sample		Yes [] No []	!
	Description of anomalies (include sample	numbers):		
		A		
	ple Custodian/Laboratory: Mainant	Dathate De	te: 7/1/06 09	ao
	OI	ЪВу	<i>v</i> . <i>i</i>	
				· · · · · · · · · · · · · · · · · · ·
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Health Physics Procedure GPP-GGGR-R5104-003-Attachment B-CY-001 Major 11,7555 Page **Chain of Custody Form** No. 2006-00434 **Connecticut Yankee Atomic Power Company** 14 of 362 Injun Hollow Road, East Hampton, CT 06424 860-267-2556 801. Lab Use Only Project Name: Haddam Neck Decommissioning Analyses Requested Comments: Contact Name & Phone: Jack McCarthy 860-267-2556 Ext. 3924 Analytical Lab (Name, City, State) FSSALL FSSGAM General Engineering Laboratories 2040 Savage Road. Charleston SC, 29407 843 556 8171. Attn. Cheryl Jones Priority: 30 D. 🛛 14 D. 🗍 7 D. Container Sample Size-Media &Type Type Lab Sample ID Sample Designation Date Time Comment, Preservation Code Code Code 56 9106-0013-006F 6/21/06 10:33 SE C BP x 152 9106-0013-003F 6/21/06 10:51 SE C BP X 703 9106-0013-002F 6/21/06 10:19 SE Ĉ BP X p4 9106-0013-002FS 6/21/06 10:19 SE C BP X 15 9106-0013-010F 6/21/06 C BP X 13:56 SE No 9106-0013-010FS 6/21/06 13:56 SE Ĉ BP X 106-0013-005F BP 6/21/06 14:40 SE C X 208 9106-0013-011F 6/21/06 13:35 SE C BP x Samples Shipped Via: Internal Container NOTES: PO #: 002332 MSR #: 06-1034 SSWP# NA 🛛 LTP OA 📋 Radwaste QA 🗌 Non QA Fed Ex UPS Hand Temp.: Q | Deg. C Custody Sealed? YOND Custody Seal Intact? 1) Relinguished By Date/Time 2) Received By Date/Time Other 7-20-01 /1445 JAME RIANTE 7/21 10,0930 YD ND 3) Relinquished By Date/Time 4) Received By Date/Time Bill of Lading # 7910-5711-1264 5) Relinquished By Date/Time 6) Received By Date/Time

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GPP-GGGR-R5104-003-Attachment B-CY-001 Major

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Page 15 of	Connecticut 362 Injur	Yankee At n Hollow Road, 1 860-26	East Hampton			y			Ch	ain o	of C	ust	ody Form	Na. 2006-00444
of 108	Project Name: Haddam	Neck Decom	nissioning	Γ	<u> </u>			Anal	yses Re	queste	1		Lab Use Only	
8	Contact Name & Phone: Jack McCarthy 860-26	7-3924											Comments:	
	Analytical Lab (Name, C General Engineering Lab 2040 Savage Road. Char 843 556 8171. Attn. Che	ooratories leston SC. 29 eryl Jones	407				FSSGAM	FSSALL						
	Priority: 🗌 30 D. 🔀 14	D. [] 7 D.	r	Media	Sample Type	Container Size- &Type								.
	Sample Designation	Date	Time	Code	Code	Code							Comment, Preservation	Lab Sample ID
	9106-0013-007F	6-27-06	10:58	SE	C	BP	X							
· ·	9106-0013-014F	6-27-06	09:22	SE	C	BP	x							
' I	9106-0013-015F	6-26-06	15:06	SE	C	BP	X	ļ			ļ	$ \downarrow \downarrow$	Transferred from COC 2006-00438	
	9106-0013-001F	6-23-06	13:32	SE	C	BP	X	ļ		L			Transferred from COC 2006-00437	
	9106-0013-004F	6-23-06	13:51	SE	C	BP		X			 		Transferred from COC 2006-00437	
17	9106-0013-009F	6-23-06	14:08	SE	C	BP	L	X			 	┝─┼	Transferred from COC 2006-00437	·
B	9106-0013-013F	6-23-06	14:38	SE	C	BP	X	ļ		L			Transferred from COC 2006-00437	
	9106-0013-008F	6-26-06 ·	11:11	SE	C	BP	X	ļ			 	┝──╇	Transferred from COC 2006-00438	
5	9106-0013-012F	6-26-06	12:35	SE	C	BP	X					┟┈┥	Transferred from COC 2006-00438	
	NOTES: PO #: 002332	MSR #: 06-~	1036 SSV	V P # NA		LTP QA		Radwa	ste QA		Non	QA	Samples Shipped Via: Fed Ex UPS Hand	Internal Container Temp.: <u>21</u> Deg. C Custody Sealed? Y I N
	1) Relinquished By JATME RIGHTS	7	Date/Tim 20-06		2) Receiv	ved By	£J	7/2	• 02	Date/		>	Other	Custody Seal Intact?
	3) Relinquished By		Date/Tim	e	4) Receiv	ved By				Date/	Гíme		Bill of Lading #	YD ND
L				<u> </u>	·								7910 5711 1209	



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SAMPLE RECEIPT & REVIEW FORM

BORARCOC/Work Order: 1675.54.1	
$\int \frac{\partial P}{\partial r} = \frac{\partial P}{\partial r} $	167555,16755
Client: (ON). Vank. SDG/ARCOC/Work Order: [0] 5 9 1 Date Received: 7 3100 PM(A) Review (ensure non-conforming terms are reso	wed prior to signing):
Date Milling 1000	
Received By:	
Sample Receipt Criteria 🖇 😤 😤 Comments/Qualiflers (Required for Non-G	
Shipping containers received intact Circle Applicable: seals broken damaged continer leaking container leaking conta	
Samples requiring coldCircle Coolant # ice bagsblue icedry ice2 preservation within (4 +/- 2 C)?/Sel Ont. Sheet.Record preservation method.Sel Ont. Sheet.	none other describe)
3 Chain of custody documents / included with shipment?	
4 Sample containers intact and Sealed?	ntainer 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)?	
Are Encore containers present? 7 (If yes, immediately deliver to VOA laboratory)	
8 Samples received within holding / Id's and less affected: time?	
9 Sample ID's on COC match ID's on bottles?	
10 Date & time on COC match date / Sample ID's affected: & time on bottles?	
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 Sle Sheef	
Suspected Hazard Information	cotified as "non- icty group for further
A Radiological Classification? / Maximum Counts Observed*: COV2 40	
B PCB Regulated? / Comments:	
Shipped as DOT Hazardous C Material? If yes, contact Waste / Hazard Class Shipped:	
Manager or ESH Manager.	
PM (or PMA) review of Hazard classification: Initials Date: 7	alle



SAMPLE RECEIPT & REVIEW FORM CONTINUATION FORM

"ATORIE"		·
Fed ex #'s	# ch Container	s Coc #
7910 5711 1209 - 21.4	<u> </u>	2004-004
1301 - 22°C	8	2006-0044
1194 - 21.6	10	2000-0044
1286 - 21'C	8	2006-00431
1220 - 23.6	9	2006-0044
(12104) 1 Coder Wout Feder #-	- 21°C B	2004-00-4900
		A
Chain # 2006-00444:		
Sample # 9106-0013-001	IF Actually read	5
9106-0013-00	J4FS	
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	· · · · · · · · · · · · · · · · · · ·	

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(	Connecticut Yankee CY-ISC-SOW-001	•
( 	Connecticut Yankee	
<u>_</u>		·
	Statement of Work for Analytical Lab Services CY-ISC-SOW-001	-
	Figure 1. Sample Check-in List	•••
	Date/Time Received: 71210e 0930.	•••
· . ·	SDG#: MSR#06-1035 MSR#06-1036 MSR#06-1037	
	Work Order Number:16 7555 /	÷
	Shipping Container ID: Sec Cont. Sheet Chain of Custody # See Cont. Sheet	
. 1		
•	1. Custody Seals on shipping container intact? Yes [] No [/]	•
	2. Custody Seals dated and signed? Yes [] No [] N/7	• •
	3. Chain-of-Custody record present? Yes [/ No [ ]	•
	4. Cooler temperature See Cont Sheet	• :-
		•
	6. Number of samples in shipping container: <u>See Cont Sheet</u> .	•
,	7. Sample holding times exceeded? Yes [] No []	
	8. Samples have: 	
• •	custody sealsappropriate sample labels	
	9. Samples are:	· ·
• • *	in good conditionleaking	
•	brokenhave air bubbles	,
		. •
	10. Were any anomalies identified in sample receipt? Yes [] No []	
• •	11. Description of anomalies (include sample numbers):	• •
÷.		
		•
-	Sample Custodian/Laboratory: K. Ulught Date: 2171106	
	Telephoned to:	· · ·
	Delephoned to:OnBy	•

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GPP-GGGR-R5104-003-Attachment B-CY-001 Major

Health Physics Procedure 167014-/.

Page 19 of	Connecticut Yankee Atomic Power Company								Ch	ain of Cu	istody	7 Form	No. 2006-00456
of 108	Project Name: Haddam I							Ana	lyses F	Requested	1	fuse Only	
œ	Contact Name & Phone: Jack McCarthy 860-267		<u>×</u> _								C	imments:	
	Analytical Lab (Name, C General Engineering Lab 2040 Savage Road. Charl 843 556 8171. Attn. Che	oratories leston SC. 294	107				FSSGAM	FSSALL					
	Priority: 🗌 30 D. 🔀 14	D. [] 7 D.		Media	Sample Type	Container Size- &Type					<b>第</b> 書		
	Sample Designation	Date	Time	Code	Code	Code					· I I I	Comment, Preservation	Lab Sample ID
NI	9106-0014-021F	6/15/06	10:50	SE	C	BP	X		<u> </u>			insferred from COC 2006-00407	
si	9106-0014-030F	6/15/06	11:20	SE_	C	BP	X	ļ				ansferred from COC 2006-00407	
003	9106-0014-032F	6/15/06	09:31	SE	C	BP	X					ansferred from COC 2006-00407	
	9106-0014-043F	6/16/06	08:45	SE	C	BP	X					ansferred from COC 2006-00409	
05	9106-0014-010F	6/12/06	14:23	SE	C	BP	X				1 1	ansferred from COC 2006-00391	
056	9106-0014-016F	6/12/06	14:51	SE	C	BP	X					ansferred from COC 2006-00391	
001	9106-0014-022F	6/12/06	15:12	SE	C	BP	X					ansferred from COC 2006-00391	
IN	9106-0014-013F	6/13/06	15:06	SE	C	BP	X					ansferred from COC 2006-00394	
NO	9106-0014-024F	6/07/06	09:58	SE	C	BP	X				Tr	ansferred from COC 2006-00385	
001	NOTES: PO #: 002332	MSR #: 06- <i>0488</i>		AX	LTP QA	🗍 Rad	lwaste	QA	[] N	on QA		Samples Shipped Via: Fed Ex UPS Hand	Internal Container Tetrip:Deg C Custody Sealed? X.D N C
	1) Relinquished By JAIME RIGRTE 3) Relinquished By	7-1;	Date/Tim 2-06 /12 0 Date/Tim	00	2) Recent 4) Recei	u'an	50	the		Date/Time	945	🗋 Other	Custody Seal Intact?
	5) Keiniquisited by	3) Reinquisned By Date/Time				ved By	y Date I line					Bill of Lading #	
	5) Relinquished By		Date/Tim	e	6) Recei	ved By				Date/Time		7921 4950 3967	

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Page 20 of 108	Connecticut Y 362 Injun F	ankee At Iollow Road, E 860-267	ast Hampton			y Form	No. 2006-00457							
10	Project Name: Haddam Ne	eck Decomn	nissioning					Ana	lyses R	equeste	d	TL	ab Use Only	
8	Contact Name & Phone: Jack McCarthy 860-267-	2556 Ext. :	3924									C	Comments:	
	Analytical Lab (Name, City General Engineering Labor 2040 Savage Road. Charles 843 556 81-71. Attn. Chery	ratories ston SC. 294 /1 Jones	407				FSSGAM	FSSALL						N
	Priority: 🗌 30 D. 🔀 14 D	0. 🗌 7 D.			Sample	Container Size-		.2						
	Sample Designation	Date	Time	Media Code	Type Code	&Type Code	[	[					Comment, Preservation	Lab Sample ID
110	9106-0014-025F	6/7/06	10:18	SE	С	BP	X						Fransferred from COC 2006-00387	
õ!		6/7/06	10:44	SE	С	BP	X						Fransferred from COC 2006-00387	
012	9106-0014-017F	6/9/06	07:39	SE	C	BP	X						Fransferred from COC 2006-00387	
0(3	9106-0014-023F	6/9/06	08:23	SE	С	BP	X						Transferred from COC 2006-00387	
Ki4	9106-0014-035F	6/9/06	09:03	SE	С	BP	X						Fransferred from COC 2006-00387	
143	9106-0014-038F	6/9/06	10:59	SE	C	BP		X					Fransferred from COC 2006-00387	
AN	9106-0014-039F	6/9/06	09:28	SE	С	BP	X						Transferred from COC 2006-00387	
NL	9106-0014-042F	6/9/06	09:53	SĒ	С	BP	X					· · ·	Transferred from COC 2006-00387	
014	9106-0014-034F	6/9/06	10:11	SE	С	BP	X						Transferred from COC 2006-00387	
	NOTES: PO #: 002332 N	/ISR #: 06- ତ ዒ ኅ	-	P#NA		QA 🗌	Radw	aste QA		Non (	QA		Samples Shipped Via: Fed Ex UPS Hand	Internal Container Temp.: Deg. C Custody Sealed? Y □ N □
	1) Relinquished By		Date/Tim	9	2) Recei	ed By	Í			Date/	Time		1	Custody Seal Intact?
	JAIME RILARTE	7.	12.06/120		Ĩ ĨĨ	A	$\overline{\mathbf{C}}$	NIT.		<u>y</u>	3/06	سرہ	🗋 Other	
	3) Relinquished By		Date/Tim		4) Repei	ved By		al an		Date/	l'ime	7.75	Bill of Lading #	YO NO
	5) Relinquished By		Date/Time	6	Date/Time				Гime		7921 4950 3984			

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Page 21 of 108	Connecticut Y 362 Injun H	ankee At Ioliow Road, E 860-267	ast Hampton,			y			Ch	ain o	f Cus	stod	y Form	No. 2006-00458
10	Project Name: Haddam No	eck Decomn	nissioning					Ana	lyses R	equeste	d		ab Use Only	
8	Contact Name & Phone: Jack McCarthy 860-267-	2556 Ext. 3	3924									C	omments:	
	Analytical Lab (Name, Cit General Engineering Labor 2040 Savage Road. Charles 843 556 8171. Attn. Chery	ratories ston SC. 294	107				FSSGAM	FSSALL						
	Priority: 🗌 30 D. 🛛 14 D	. [] 7 D.		Media	Sample Type	Container Size- &Type	,1	ุา						
	Sample Designation	Date	Time	Code	Code	Code							Comment, Preservation	Lab Sample ID
χ\$	9106-0014-029F	6/09/06	08:42	SE	С	BP	X					T	ransferred from COC 2006-00387	
319	9106-0014-009F	6/13/06	08:44	SE	C	BP	X					T	ransferred from COC 2006-00392	
10	9106-0014-028F 9106-0014-028F 9106-0014-028FS	6/13/06	08:08	SE	C	BP	X					Т	ransferred from COC 2006-00392	
24	9106-0014-028FS	6/13/06	08:08	SE	C	BP	X					T	ransferred from COC 2006-00392	
22	9106-0014-036F	6/13/06	09:38	SE	C	BP	X					Т	ransferred from COC 2006-00392	
уH	9106-0014-036F 9106-0014-037F	6/13/06	09:12	SE	C	BP		X					ransferred from COC 2006-00392	
923	9106-0014-040F	6/13/06	10:42	SE	C	BP	X						ransferred from COC 2006-00392	
H	9106-0014-041F	6/13/06	10:13	SE	С	BP	X	[					ransferred from COC 2006-00392	
5	9106-0014-041FS	6/13/06	10:13	SE	С	BP	X			L			ransferred from COC 2006-00392	
	NOTES: PO #: 002332 N	1SR #: 06- <i>σ</i> ૧	SSWP 44	#NA		QA 🗌	Radw	aste QA		Non (	<b>λ</b>		Samples Shipped Via: Fed Ex UPS Hand	Internal Container Temp.: Deg. C Custody Sealed? Y □ N □
	1) Relinquished By		Date/Time		2) Recei	ved By	L.	1		Date/				Custody Seal Intact?
	JAIME RICARTE	チール	2-06/12	00	MA	unis		hor	R	1/1	3/04 9	24	1 Other	
	3) Relinquished By		Date/Time	•	4) Rocei	ved By	-7-			Date/			Bill of Lading #	YONO
	5) Relinquished By Date/Time				6) Received By Date/Time					7921 4950 4014				

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Page 22 of 108	Connecticut Ya 362 Injun H	ankee At Iollow Road, E 860-267	ast Hampton,			у			Ch	ain of C	Custod	y Form	No. 2	006-00459
10	Project Name: Haddam Ne	ck Decomm	issioning					Anal	yses R	equested	1 2	ab Use Ruity		
æ	Contact Name & Phone: Jack McCarthy 860-267-2	2556 Ext. 3	1924											
	Analytical Lab (Name, City General Engineering Labor 2040 Savage Road. Charles 843 556 8171. Attn. Chery	ratories ston SC. 294	07				FSSGAM	FSSALL						
	Priority: 🗌 30 D. 🔀 14 D	. 🗍 7 D.		Media	Sample Type	Container Size- &Type	H	-						
	Sample Designation	Date	Time	Code	Code	Code					╾┥╌┥╴	Comment, Preservation		p ange p
× .	9106-0014-012F	6/06/06	12:47	SE	С	BP	<u>X</u>			<u> </u>		ransferred from COC 2006-00384		
	9106-0014-018F	6/06/06	14:45	SE	С	BP	L	X			╺╼╼┼╼╼┽╼╸	ransferred from COC 2006-00384		
727	9106-0014-019F	6/06/06	14:25	SE	C	BP	X					ransferred from COC 2006-00384	<b>X</b> A (	
38	9106-0014-001F	6/09/06	13:37	SE	C	BP	X			┝╍╍┝╍╍		ransferred from COC 2006-00392		
09	9106-0014-002F	6/09/06	14:40	SE	С	BP	X	[		<b></b>		ransferred from COC 2006-00392		
30	9106-0014-002FS	6/09/06	14:40	SE	C	BP	X					ransferred from COC 2006-00392		
081	9106-0014-005F	6/09/06	14:12	SE	С	BP	X					ransferred from COC 2006-00392	1	
032	9106-0014-006F	6/09/06	13:07	SE	C	BP	X			┟╼┈┈┥╌╴		ransferred from COC 2006-00392		
Ab	9106-0014-011F	6/09/06	12:44	SE	C	BP	<u> </u>	X				ransferred from COC 2006-00392		
	NOTES: PO #: 002332 N		SSWI FF	P# NA	🛛 LTP	QA 🗌	Radw	aste QA		Non QA		Samples Shipped Via: S Fed Ex UPS Hand		inar Company R. 2000 c. C. Million C. C. Million C. C. C.
	1) Relinquished By		Date/Tim	e	2) Recei	ed By	7	1) n		Date/Tim	e	1	<b>L</b> CUS	ody sear (mact?
	JAIME RICARTE	7.1	2-06/12		N	Aun.	5	0E	5	Tlish	1. 190	Other		
`	3) Relinquished By		Date/Tim		4) Rocki	yed By	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Date/Tim	e	Bill of Lading #		re Nga
	5) Relinquished By		Date/Tim	e	6) Recei	ved By				Date/Tim	e	7921 1950 3990		

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Page 23 (	Connecticut Y 362 Injun	ankee At Hollow Road, E 860-267	ast Hampton,	wer C CT 06424	ompan 4	у			Cha	in of Cus	stody	Form	No. 2006-00460
of 108	Project Name: Haddam N							Ana	yses Re	quested	14	birse only	
80	Contact Name & Phone: Jack McCarthy 860-267					ĺ					Contineents.		
	Analytical Lab (Name, Ci General Engineering Labo 2040 Savage Road. Charl 843 556 8171. Attn. Cher	oratories eston SC. 294	107				FSSGAM	FSSALL					
	Priority: 🗍 30 D. 🕅 14 1	D. [] 7 D.		Media	Sample Type	Container Size- &Type	,,	12					
1.1	Sample Designation	Date	Time	Code	Code	Code						Comment, Preservation	
	9106-0014-003F	6/14/06	08:46	SE	C	BP		X				ansferred from COC 2006-00396	
033	9106-0014-007F	6/14/06	09:13	SE	C	BP	X	l				ansferred from COC 2006-00396	
034	9106-0014-008F	6/14/06	07:34	SE	C	BP	X	<b></b>				ansferred from COC 2006-00396	
035	9106-0014-008FS	6/14/06	07:34	SE	C	BP	X	l				ansferred from COC 2006-00396	
036	9106-0014-014F	6/14/06	10:23	SE	C	BP	X	<b>}</b>				ansferred from COC 2006-00396	
•••				<u> </u>	<b>_</b>	<u> </u>	<b></b>				┨╌┽──		
					<u> </u>	<u> </u>		+			┝╌┝──		
			ļ	<b> </b>	<b>∤</b>	<u> </u>	╄───				┟╌╂╼╸		
	NOTES: PO #: 002332		SSWI 388	L P# NA	LTP	QA 🗌	L Radw	vaste QA		Non QA	II	Samples Shipped Via: Fed Ex UPS Hand	Anternal Container Teany 10-g ac Activities Section
	1) Relinquished By JAIME RICART C	7-1;	Date/Tim 2-06 / 12 0		2) Recei	ived By	6		>	Date/Time	084	Dther	Cuffeessell index
	3) Relinquished By		Date/Tim	le	4) Rocs	ived By	7			Date/Time		Bill of Lading #	
	5) Relinquished By		Date/Tin	le	6) Rece	ived By				Date/Time		7921 4950 3978	

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Page 24 (	Connecticut 362 Inju	Yankee At in Hollow Road, E 860-267	ast Hampton			y			Ch	ain of	Cust	ody	Form	No. 2	2006-00461
of 108	Project Name: Haddam			T	1			Ana	yses R	lequested		Ľ	TUROILY PLATER		
80	Contact Name & Phone: Jack McCarthy 860-26			1								10.3	minenta		
	Analytical Lab (Name, C General Engineering Lal 2040 Savage Road. Chan 843 556 8171. Attn. Ch	boratories rleston SC. 294	407				FSSGAM	FSSALL							
	Priority: 🗌 30 D. 🕅 14	D. 🗌 7 D.		Media	Sample Type	Container Size- &Type									
	Sample Designation	Date	Time	Code	Code	Code							Comment, Preservation	144	d Seifigie D.
031	9106-0014-015F	6/14/06	11:39	SE	C	BP	X					Тт	ansferred from COC 2006-00396	17.20	
08	9106-0014-020F	6/14/06	13:10	SE	<u> </u>	BP	X					Tr	ansferred from COC 2006-00396		
6391	9106-0014-026F	6/14/06	13:53	SE	C	BP	X						ansferred from COC 2006-00396		
	9106-0014-027F	6/14/06	14:26	SE	C	BP	X					T	ansferred from COC 2006-00396		
64	9106-0014-027FS	6/14/06	14:26	SE	C	BP	X					T	ransferred from COC 2006-00396		
00	9106-0014-033F	6/14/06	15:04	SE	С	BP	X								
V.														841	
										<u>1</u>	<u>l</u>				
	NOTES: PO #: 002332	MSR #: 06- 092		P# NA	🛛 LTP	QA 🗌	Radw	vaste QA		] Non QA	X		Samples Shipped Via: Fed Ex UPS Hand		nie Comaner Stras I Deg. (
							$\sim$								
	1) Relinquished By JAIME RIVARTE	7-12	Date/Tim -06/120		2) Rec	ved By	-	The	1	Date/Tin		94	Other		ody Son'i Ditact
	3) Relinquished By		Date/Tim	ne	4). Pecei	ved By	7			Bate/Ti	<u>06 0</u> me		Bill of Lading #		YD NG
	5) Relinquished By		Date/Tim	ne	6) Recei	ved By				Date/Ti	me		7921 4950 3978		



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## SAMPLE RECEIPT & REVIEW FORM

PATORIES'				PM use only
Client: YANK				SDG/ARCOC/Work Order: 167014
Date Received: 7/13/01				PM(A) Review (ensure non-conforming iteges are resolved prior to signing):
Received By:	2		-	1 Aurth
		_	_	
Sample Receipt Criteria	Yes	NA	2 2	Comments/Qualifiers (Required for Non-Conforming Items)
A Shipping containers received inta and sealed?	ict	Ι	T	Circle Applicable: seals broken damaged container leaking container other (describe)
Samples requiring cold 2 preservation within (4 +/- 2 C)? Record preservation method.		ŀ		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 teaking 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:
Are Encore containers present? 7 (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:
Date & time on COC match date & time on bottles?				Sample ID's affected:
Number of containers received match number indicated on COC?			s	ample ID's affected:
2 COC form is properly signed in relinquished/received sections?			$\uparrow$	
Air Bill , Pracking #'s, & Additional Comments			•• <b>••</b>	
Suspected Hazard Information Radiological Classification?	Regulated Regulated	High Level	s (*) , rej	SO RAD Receipt #
PCB Regulated?		1		aximum Counts Observed*: CPM 40
Shipped as DOT Hazardous	4			munents:
Material? If yes, contact Waste	X		Ha	zard Class Shipped:
Manager or ESH Manager.			UN	#:
PM (or PMA) review of Hazard classif	Ication.			Andrew
Page 25 of 108				Initials Date: 7 13/06

۰.	<b>Connecticut</b> Yankee		• •	
•	Statement of Work for A	Analytical L	.ab Se	rvices

CY-ISC-SOW-001 Figure 1. Sample Check-in List 13/06 0945. Date/Time Received MSR#06 -0988 SDG#: 167014 Work Order Number Shipping Container ID: 7921 4950 3789 2006-00450 Chain of Custody # Custody Seals on shipping container intact? Yes [] No [] 2. Custody Seals dated and signed? Yes [ No [ ] 3. Yes No 1 Chain-of-Custody record present? 4. Cooler temperature 5. Vermiculite/packing materials is: Wet [ Dry [] 6. Number of samples in shipping container: 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 Were any anomalies identified in sample receipt? 10. Yes [ ] No [-] Description of anomalies (include sample numbers): 11. Sample Custodian/Laboratory 3/06 Telephoned to

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	inecticut Yankee ement of Work for A	nalytical Lab Service	s	CY-I	SC-SOW-001
			. Sample Check-in L	,IST	·· ,
Date	/Time Received:	7/13/06			
SDG	i#:	MSK	2#06-098	<u>8</u>	
Worl	k Order Number:	7921 4950	7014		·····
Ship	ping Container ID;	2006-004	3978 57 Chain of Cus	tody # 2006-1	50457
1		shipping container in			<b>a sa ang kadangka</b>
	•			Yes [-] No [ ]	
2.	Custody Seals dat			Yes [] No []	· · ·
• <b>3.</b>	Chain-of-Custody	record present?		Yes [ ] No [ ]	· .
4.	Cooler temperatur	- 24%		· · · · · · · · · · · · · · · · · · ·	
5.	Vermiculite/packi	og materials is:		Wet HDry []	· · · · ·
6.	ⁱ Number of sample	s in shipping contain	ier:	-	
7.	Sample holding tin	and a start of the st		Yes [] No []	· · ·
8. 5	Samples have:	•		· · · ·	
	tape	h	azard labels		· ·
	Custody seals	âr	propriate sample lat	¥.	
9. S	amples are:	· · · ·			
	in good cond	ition	leaking		
	broken		have air bubbles		
10.	Were any anomalies	identified in sample	receipt?	Yes [] No FT	
	Description of anoma			*~~ [ ] 140 FJ	• • •
	·····				······································
					· · · · ·
amul-		st.	<u>A</u>		•
,	Custodian/Laboratory:	Maria	Satters	Date: 7/15/06	094
cicption	icu 10:	01	аВ;	· · · · · · · · · · · · · · · · · · ·	0
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	Connecticut Yankee		· · ·
	Statement of Work for Analytical Lab Services	CY-JSC-S	<u>:0W-00</u>
	Figure 1. Sample Check-in List		
I	Date/Time Received: 7/13/06 0945 .		
S	DG#:MSR#06-0988		
v	Vork Order Number:		•
S	hipping Container ID: 772/ 4950 3967 Chain of Custody	# 2006-00458	
1	Custody Seals on shipping container intact?	Yes [] No []	· · ·
2.	Custody Seals dated and signed?	Yes [TNo []	
3.	Chain-of-Custody record present?	Yes [ No [ ]	
4.	Cooler temperature 24°C	* C3 [/] INU [ ]	
5.			
6.	Vermiculite/packing materials is: Number of samples in shipping container:9	Wet H Dry []	
7.	Sample holding times exceeded?	Yes [ ] No [ ]	
	B. Samples have: 		
	Samples are:		
			<i>"</i> .
	in good conditionleaking		
	brokenbave air bubbles		
10.	Were any anomalies identified in sample receipt?	(es [] No []	
- 11.	Description of anomalies (include sample numbers):		: .
· <u></u>			`` `
÷	1	•	··
Samp	e Custodian/Laboratory:		• • • • •
	ioned to: Date of the company of the company Date of the company of the comp	- Tflafala A	245
-	OnBy		
•••			

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**Connecticut** Yankee Statement of Work for Analytical Lab Services CY-ISC-SOW-001 Figure 1. Sample Check-in List Date/Time Received 15R#06-0988 SDG#: 167014 Work Order Number: 950 3990 Shipping Container ID: Chain of Custody # 2001 Custody Seals on shipping container intact? Yes [ No [ ] 2. Custody Seals dated and signed? Yes [ No [ ] 3 Chain-of-Custody record present? Yes [] No [ ] Cooler temperature 5. Vermiculite/packing materials is: Wet [] Dry [] Number of samples in shipping container: 6. 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 Were any anomalies identified in sample receipt? 10, Yes [ ] No [2] Description of anomalies (include sample numbers) 11. Sample Custodian/Laboratory: 7/13/06 Date: Telephoned to:

**Connecticut Yankee** Statement of Work for Analytical Lab Services CY-ISC-SOW-00 Figure 1. Sample Check-in List っりへんち Date/Time Received MSR#06-0988 SDG#: 167014 Work Order Number 7921 4950 Chain of Custody # 2006-00460 Shipping Container ID: -0046 Custody Seals on shipping container intact? 1. Yes [ No [ ] 2. Custody Seals dated and signed? Yes [] No [] 3. Chain-of-Custody record present? Yes LINO [ 8 Cooler temperature 4. 5. Vermiculite/packing materials is: Wet H Dry [] **6**. Number of samples in shipping container: 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 Were any anomalies identified in sample receipt? 10. Yes [ ] No [-] Description of anomalies (include sample numbers): 11. Sample Custodian/Laboratory: 00 Telephoned to: Page 30 of 108

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Connecticut 362 Inju Project Name: Haddam	Yankee A n Hollow Road, 1 860-26	East Hampton			y			Ch	ain o	f Cu	istoc	ly Form	No. 2006-00443
Project Name: Haddam			Γ			T	Anal	vses Re	questec	1	La	b Use Only	
Contact Name & Phone: Jack McCarthy 860-26								Í			Co	omments:	
Analytical Lab (Name, C General Engineering Lal 2040 Savage Road. Chan 843 556 8171. Attn. Ch	boratories rleston SC. 29	407				FSSGAM	FSSALL	Sr-90	Ni-63				
Priority: 🗌 30 D. 🛛 14	D. [] 7 D.	<b>.</b>	Media	Sample Type	Container Size- &Type			!					
Sample Designation	Date	Time	Code	Code	Code	I	·					Comment, Preservation	Lab Sample ID
9106-0015-022F	6-27-06	16:24	SE	C	BP	X		<b>X</b> ·					
9106-0015-023F	6-27-06	16:03	SE	C	BP	X		X					
9106-0015-024F	6-27-06	15:42	SE	C	BP	X		X					
9106-0015-026F	6-27-06	14:58	SE	C	BP	X		X					
9106-0015-027F	6-27-06	15:17	SE	C	BP	X		X					
9106-0015-028F	6-27-06	14:31	SE	Ċ	BP	X		X	<u> </u>				
9106-0015-018F	6-27-06	17:18	SE	C	BP	X		X					
9106-0015-025F	6-27-06	16:43	SE	C	BP	X		X					
9106-0015-021F	6-27-06	17:01	SE	C	BP		X						
NOTES: PO #: 002332	MSR #: 06-7	1037 ssv	L VP# NA		LTP QA		Radwa	ste QA		Non (	QA	Samples Shipped Via: Fed Ex UPS Hand	Internal Container Temp.: <u>)</u> Deg. C Custody Sealed? Y I N Z
1) Relinquished By JAIME RACANT	7.7	Date/Tim 2-06/14	e 145	2) Recei	ved By	int	•	712.1	Date/		<u>ک</u>	Other	Custody Seal Intact?
3) Relinquished By		Date/Tim	<u> </u>	4) Recei		J			Date/			Bill of Lading #	YONO
L	···			<b>!</b>								7910 5711 130	/'

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Connecticut 362 Inju	Yankee At In Hollow Road, 1 860-26	East Hampton			ÿ			Ch	ain o	f Cu	stod	ly Form	No. 2006-00448
Project Name: Haddam			<u> </u>	Ţ			Anal	yses Re	questeo	1		HUSEONIV	
Contact Name & Phone:											C	nvenis.	
Analytical Lab (Name, C General Engineering La 2040 Savage Road Cha 843 556 8171. Attn. Ch Priority: 30 D. 214	boratories rleston SC. 29 eryl Jones	407			Container	FSSGAM	FSSALL	Sr-90					
		T	Media	Sample Type	Size- &Type			•				and a start of the	
Sample Designation	Date	Time	Code	Code	Code	L'	2 V					Comment, Preservation	Lab Sample ID
9106-0015-011F	6-28-06	14:39	SE	С	BP	X	ļ	X	ļ		-		
9106-0015-012F	6-28-06	10:58	SE	C	BP	X	<b></b>	X	<b> </b>	┝──┝-			
9106-0015-013F	6-28-06	10:04	SE	C	BP	X	ļ	X	<u>                                     </u>	┠			
9106-0015-014F	6-28-06	09:05	SE	C	BP	X		X	<u> </u>	┝──┼			
9106-0015-015F	6-28-06	08:25	SE	C	BP		X		<u> </u>				
9106-0015-016F 9106-0015-017F	6-28-06	08:46 09:47	SE SE	C C	BP BP	X X		X	<u> </u>	┢─┟╸			
9106-0015-017F	6-28-06	09:47	SE		BP	$\frac{x}{x}$	┟	X	┼	+ - +	~		
	6-28-06	09:23	SE		BP	$\frac{1}{x}$		$\frac{\hat{x}}{x}$				······································	
6 9106-0015-020F		07.39	- <u>3</u> E	<u> </u>	Dr			<u>├</u> ^-	<u> </u>	┼──┼╸			
NOTES: PO #: 002332	MSR #: 06-,	1037 ssv	WP# NA		LTP QA		Radwa	ste QA		Non (	 QA	Samples Shipped Via: Fed Ex UPS Hand	internal Container Femp 21 Dog C Custody Sealer? Y □ NZ
1) Relinquished By		Date/Ţim	e	2) Recei	vedBy	、			Date/	Time			Custody Seal Intact
JAIME RICARTE	7-	10-06/10	+ 45	KI	elie	t de	•	Ularl	NO C	)Q 31	2	Other	
3) Relinquished By		Date/Tim	e	4) Recei	ved By	5			Date/			Bill of Lading # 7910 57 (1 1286	Ύ́ם Ν ο

GPP-GGGR-R5104-003-Attachment B-CY-001 Major

Connecticut	<b>Yankee At</b> un Hollow Road, I 860-26'	East Hampton			y			Ch	ain o	f Cı	istod	y Form	No. 2006-00447
Project Name: Haddam N			T	T			Ana	lyses Re	questec	1	La	o Use Only	
Contact Name & Phone: Jack McCarthy 860-267-			1								Č	mments	
Analytical Lab (Name, Cit General Engineering Labo 2040 Savage Road. Charle 843 556 8171. Attn. Cher Priority: 30 D. X 14	oratories eston SC. 29407 ryl Jones			Sample	Container Size-	FSSGAM	FSSALL	Sr-90					
Sample Designation	Date	Time	- Media Code	Type Code	&Type Code							Comment, Preservation	Lab Sample ID
9 9106-0015-001F	6-28-06	13:36	SE	C	BP	x		X					Made - Andrew
9106-0015-002F	6-28-06	14:15	SE	C	BP	X		X	<u> </u>				
9106-0015-003F	6-28-06	13:15	SE	C	BP	X		X					Contraction of the second s
o 9106-0015-004F	6-28-06	12:54	SE	С	BP		X	1					
2 9106-0015-005F	6-28-06	15:47	SE	С	BP	X	1	X					
3 9106-0015-006F	6-28-06	16:10	SE	C	BP	X		X					
4 9106-0015-007F	6-28-06	11:33	SE	С	BP	X		X					
5 9106-0015-008F	6-28-06	11:10	SE	С	BP	X	T	X				· · · · · · · · · · · · · · · · · · ·	
9106-0015-009F	6-28-06	10:25	SE	С	BP	X		X					
9106-0015-010F	6-28-06	15:17	SE	С	BP	X		X					
NOTES: PO #: 002332	2 MSR #: 06-4	1037 SST	WP# NA		LTP QA		Radw	aste QA		Non	QA	Samples Shipped Via: Fed Ex UPS Hand	Pinfethal Container Cemp 23 Deg. C Custody Sealed?
1) Relinquished By SAME RICARTE.	7.20	Date/Tim -06 / 14	15	2) Recei	illed	nt			Rifor		30_	D Other	Custody Seal Intact?
3) Relinquished By	<u></u>	Date/Tim	ie	4) Recei	ved By	)		•		Time		Bill of Lading # 7910 5711 (220	YO NO

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Health Physics Procedure

Health Physics Procedure

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GPP-GGGR-R5104-003-Attachment B-CY-001 Major

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Page 34 c	Connecticut 362 Inju	n Hollow Road, I	tomic Po East Hampton 7-2556	<b>wer C</b> , CT 0642	Compar 4	ıy			Ch	ain o	of C	usto	ly Form	No. 2006-00468
of 1	Project Name: Haddam				T	1	1	Ana	vses R	equeste	<del>1</del>		16:Usel@fDY	4
108	Contact Name & Phone: Jack McCarthy 860-26			1								C	Saments.	
	Analytical Lab (Name, C General Engineering Lal 2040 Savage Road. Char 843 556 8171. Attn. Cha Priority: 30 D. 214	boratories rleston SC. 29 eryl Jones	407		Sample	Container Size-	FSSGAM	FSSALL	Sr-90					
	Sample Designation	Date	Time	Media Code	Type Code	&Type Code						16~	Comment, Preservation	
U	9106-0015-005FS	6-28-06	15:47	SE	C	BP	x	[	X	<u> </u>				
	9106-0015-012FS	6-28-06	10:58	SE	Ċ	BP	x		X	<u>+</u>			<u> </u>	
LS	9106-0015-018FS	- 6-27-06	17:18	SE	С	BP	X		X					
									<u> </u>					
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	NOTES: PO #: 002332	MSR #: 06- <i> </i>	037 ssw	VP# NA	⊠	LTP QA		Radwa	ste QA		Non	QA	Samples Shipped Via: Fed Ex UPS Hand	Laterial Container Temps 24 Deg C Custody Sealed?
f	1) Relinquished By		Date/Time		2) Receiv	ved By				Date/			-1	YENT
	JAIME RUARTE	7.	20-06/12			ala ah	L	-1.	s.lo.				Other	Custody Seal Intact?
ſ	3) Relinquished By	<u>_</u>	Date/Time		4) Receiv		<u></u>	++	# HOC	Date/1	130	)		
			1 ANV		1) 10000	V values				Date/	ıme		Bill of Lading #	YO NO
						<u> </u>							1910 5711 1286	



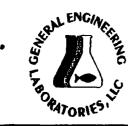
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# SAMPLE RECEIPT & REVIEW FORM

PATORIES,				PM upe only
lient: Conn. Vank.				SDG/ARCOC/Work Order: 167554, 167555,1679
ate Received: 712,100				PM(A) Review (ensure non-conforming terms are resolved prior to signing):
eceived By:				Curton
			1	
Sample Receipt Criteria	Yes	NA	ź	Comments/Qualifiers (Required for Non-Conforming Items)
Shipping containers received inta and sealed?	ct /		· ·	Circle Applicable: seals broken damaged container leaking costainer other (describe)
Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	1			Circle Coolans # ice bags blue ice dry ice (nome) odder describs SUL CONT. SN LEF.
Chain of custody documents included with shipment?	/			
Sample containers intact and sealed?	/			Circle Applicable: seals broken damaged container leaking container other (describe)
Samples requiring chemical preservation at proper pH?		/		Sample ID's, containers affected and observed pH:
VOA vials free of headspace (defined as < 6mm bubble)?		$\square$		Sample ID's and containers affected:
Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			/	
Samples received within holding time?	1			Id's and resis affected:
Sample ID's on COC match ID's on bottles?			/	Sample ID's and containers affected: See Cont. Sheet
Date & time on COC match date & time on bottles?	1			Sample ID's affected:
Number of containers received match number indicated on COC?	/			Sample ID's affected:
COC form is properly signed in relinquished/received sections?	/			
Air Bill , Tracking #'s, & Additional Comments	Be	ee	the	et
Suspected Hazard Information	Non- Regulated	Regulated	ې ۳	LSO RAD Receipt # If > x2 area background is observed on samples identified as "non- egulated/non-radioactive", contact the Radiation Safety group for further ivestigation.
Radiological Classification?	2		N	laximum Counts Observed*: COVA 40
CB Regulated?	1		C	omments:
shipped as DOT Hazardous	1		2 7	ezerd Close Shimad
Material? If yes, contact Waste Manager or ESH Manager.	1			azard Class Shipped: N#:
PM (or PMA) review of Hazard class	siticatio	n:		Initials Date: 7/21/06

**Connecticut Yankee** CY-ISC-SOW-001 Statement of Work for Analytical Lab Services Figure 1. Sample Check-in List 0930 D Date/Time Received MSR#06-1037 MSR#06-1036 1035 M5R#06 SDG#: 67550 Work Order Number Chain of Custody # See Cort. Shipping Container ID: See COOH Sheet Shee Yes [ ] No [/] Custody Seals on shipping container intact? 1. Yes [] No [] NA Custody Seals dated and signed? 2. Yes [/ No [ ] Chain-of-Custody record present? 3. Cooler temperature Soc Cont 4. Wet [] Dry [] MA Vermiculite/packing materials is: 5. Number of samples in shipping container: See Sheot Cont 6. Yes [ ] No [ / Sample holding times exceeded? 7. 8. Samples have: hazard labels lane _appropriate sample labels custody seals 9. Samples are: in good condition leaking broken have air bubbles Yes [ ] No [ ] 10. Were any anomalies identified in sample receipt? Description of anomalies (include sample numbers): 11. പര Sample Custodian/Laboratory Telephoned to:

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# SAMPLE RECEIPT & REVIEW FORM CONTINUATION FORM

Fed ex #'s	# cf containers	Cor.#
1910 5711 1209 - 21 ·C	9	2006-00-44
1301 - 22 °C	<u> </u>	2006-00448
1194 - 21.0	10	2006-00417
1286 - 21.6	8	2006-00434
1220 - 23'C	9	20010-00443
(12104) 1 Coder Wout Feder # -	21.0 8	2004-00-448/00441
Chain # 2006-00444:		
Sample # 9106-0013-001	•	
9106-0013-00	)4FS	·
	·····	
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Connecticut Y 362 Injun H	ankee At Iollow Road, I 860-26'	East Hampton,			У			Ch	ain o	f Cust	ody F		No. 2006-0049	96
Project Name: Haddam Ne	eck Decomr	nissioning					An	alyses I	Request	ed	1.91	Use Offi		
Contact Name & Phone: Jack McCarthy 860-267-												ments.		
Analytical Lab (Name, Cit General Engineering Labor 2040 Savage Road. Charles 843 556 8171. Attn. Chery	ratories ston SC. 29	407				FSSGAM	FSSALL							
Priority: 30 D. 14 D	0. 🗌 7 D. 🛛	3 D.		Sample	Container Size-	Ë	ц Ц						1694897.	
Sample Designation	Date	Time	Media Code	Type Code	&Type Code						(	Comment, Preservation	Lab Sample	\$ID
9106-0001-132F		1	SE	С	BP	X		1						
9106-0001-112F	1	1	SE	С	BP	X		<u> </u>				······		
9106-0001-132A	1	1	SE	С	BP	X		1			_			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
9106-0001-132B			SE	С	BP	X								
9106-0001-132C			SE	С	BP	X		1						1 
9106-0001-132D			SE	С	BP	X		1						
9106-0001-112A			SE	С	BP	X								
9106-0001-112B			SE	С	BP	X								<b>,</b>
9106-0001-112C			SE	С	BP	X								
NOTES: PO#: 002332	MSR #:	06- <i>1130</i>	SSWP#	na 🛛	LTP QA		Radwa	ste QA	L []	Non QA	Sau M D	mples Shipped Via: Fed Ex UPS Hand	, Internal Con Temp.: Custody Sp Yo N	Deg. aled?
1) Relinquished By		Date/Ţim		2) Recei					Date/	Time			Custody S	
JAIME RICARTE	8-1	16-06 / 115			ui.a	よ		s/n/c	6/91	ISA		Other	intact?	)
3) Relinquished By		Date/Tim	e	4) Recei					Date/			l of Lading #	. <b>*</b> ¥⊡ N	РĞ , , , , , , , , , , , , , , , , , , ,
5) Relinquished By		Date/Tim	e	6) Recei	ved By				Date/	Гime	7'	92/ 8130 342	82.	

Page 39 of 108

Connecticut Y 362 Injun F	ankee At Hollow Road, I 860-26	East Hampton,			у			Ch	ain o	f Cust	tody	y Form	No. 2006-00497
Project Name: Haddam N	eck Decom	nissioning					An	alyses l	Request	ted		LabuseOfly	
Contact Name & Phone: Jack McCarthy 860-267-	-2556 Ext.	3924										Comments:	
Analytical Lab (Name, Cit General Engineering Labo 2040 Savage Road. Charle 843 556 8171. Attn. Cher	ratories ston SC. 29	407				FSSGAM	FSSALL						
Priority: 🗍 30 D. 🗌 14 D	). 🗌 7 D. 🛛	3 D.			Container	H							
Sample Designation	Date	Time	Media Code	Sample Type Code	Size- &Type Code							Comment, Preservation	Lev Sample ID
9106-0001-112D			SE	C	BP	X							
	<b>_</b>		ļ	ļ				<u> </u>	ļ	<b>↓</b>			
		·····	<b> </b>		<b> </b>			┨────		┟──┟			
		<u> </u>	<u> </u>					+	-	<u>}</u> ──		· · · · · · · · · · · · · · · · · · ·	
		<u>+</u>		<u> </u>	<u> </u>			<u> </u>	t	1			
								<u> </u>					
		L		I		L	L	<u> </u>	I			<del> </del>	
NOTES: PO#: 002332	MSR #:	06- <i>113</i> 0	SSWP#	na 🛛	LTP QA		Radwa	ste QA		Non QA		Samples Shipped Via: Fed Ex UPS Hand	Internal Container Form: Deg Custory States? YON N D
1) Relinquished By		Date/Tim		2) Recei	ived By				Date/	Time		1_	Custody Seal
JAIME RICARTE.	8-1	6-06/115	5	C.A	ini cot	•		8	12/04	0.9	154	Other	Intact?
3) Relinquished By		Date/Tim	IE	4) Recei	ived By					Time		Bill of Lading #	YOND
5) Relinquished By		Date/Tim	ie	6) Recei	ived By				Date	Time/		79,21 8130 3482	

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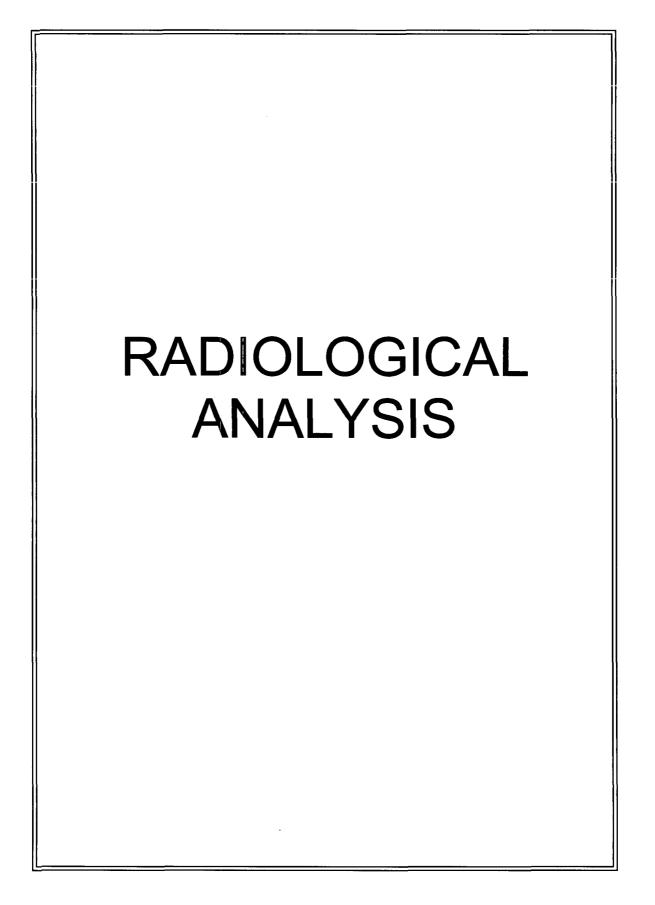
			•
Connecticut Yankee Statement of Work for Analytical Lab Service	es	CY-IS	<u>. C-SOW-001</u>
	. Sample Check-in L	ist	· · · · · · · · · · · · · · · · · · ·
Date/Time Received: 8/17/06	2 915A.		· · ·
	+06-1130		يو 1997 ^ي به 1997 <del>محمد الم</del>
Work Order Number: 1694	89 %	· · · · · · · · · · · · · · · · · · ·	
Shipping Container ID: 792/ 8/30 348	Chain of Cus	tody # <b>FØ</b> 4	96
1. Custody Seals on shipping container i	ntact?	Yes [ ] No [4	
2. Custody Seals dated and signed?		Yes [ ] No [4	
3. Chain-of-Custody record present?		Yes [] No []	
4. Cooler temperature 24	<u></u>	· · · · · · · · · · · · · · · · · · ·	•* . •
5. Vermiculite/packing materials is:		Wet [4] Dry [1]	
5. Number of samples in shipping contair	ner: 10 - 3a		· · ·
7. Sample holding times exceeded?		Yes [ ] No [ ]	
8. Samples have:			
tape	azard labels		
	ppropriate sample la	v. Dels	
9. Samples are:			
in good condition	_leaking		
broken	_have air bubbles		
Were any anomalies identified in sample		Yes [ ] No [4	
. Description of anomalies (include sample	e numbers):	one	
mple Custodian/Laboratory. C. Suin	A	Date: 8/17/00	
enhaned to:	Da		
		J <u></u>	

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### SAMPLE RECEIPT & REVIEW FORM CONTINUATION FORM

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-	Connect	i cut Ya	Inkee Atom	ic.	Power	Compan	<u>4</u>
<u></u>			Date]	Ł	[.Tin	NEJ	
	9106 19	32.F	8-7-06	έ	14:09		
	9106 13	32 C	8-11-06	Ė	12:58		
	9106-1	32 B	8-11-06	έ	10:56	· · · · · · · · · · · · · · · · · · ·	
	91001	32 A	8-11-06	ŧ	10:05		
	9106-1	32 D	8-11-06	É	1340		. <u></u>
-	9106	112 F	8-2-06	έ	13:54		
	9106	1120	8-15-06	Ł	07:43		
	9106	112 B	8-14-06	لح	14:55		
	9106	112 A	8-14-06	é	14:23		
	9106	IRD	8-15-06	έ	08:47		
* COC#	2006-0	20498 1	K				
		DOISUR		έ	10:14		
	9100=-	002 SUR	8-10-06	Ł	09:35		
	9106	003 SUR.	8-10-06	Ł	10:53		
<u> </u>	9106	DOYSUR	8-10-06	ę	12:53		
	9106	005SUR	8-10-06	Ł	14:09		
	9106	- 006 SUR	8-10-06	Ł	14:35		
		·					
					····		



#### Radiochemistry Case Narrative Connecticut Yankee Atomic Power Co. (YANK) Work Order 170683

#### **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:	565213
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
170683010	9106-0001-132F
1201175602	Method Blank (MB)
1201175603	170683004(9106-0013-006F) Sample Duplicate (DUP)
1201175604	170683004(9106-0013-006F) Matrix Spike (MS)
1201175605	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: 170683004 (9106-0013-006F).

#### **QC** Information

All of the QC samples met the required acceptance limits.

#### **Technical Information:**

#### **Holding Time**

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

#### **Preparation Information**

All preparation criteria have been met for these analyses.

#### Sample Re-prep/Re-analysis

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

#### **Miscellaneous Information:**

#### **NCR Documentation**

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

#### **Manual Integration**

No manual integrations were performed on data in this batch.

#### **Additional Comments**

The sample and the duplicate, 1201175603 (9106-0013-006F) and 170683004 (9106-0013-006F), did not meet the relative percent difference requirement, however they do meet the relative error ratio requirement with value of 2.11.

#### **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:	567705
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number	: 564525

# Sample ID Client ID

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201181287	Method Blank (MB)
1201181288	170683003(9106-0012-014F) Sample Duplicate (DUP)
1201181289	170683003(9106-0012-014F) Matrix Spike (MS)
1201181290	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: 170683003 (9106-0012-014F).

#### **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

Batch reprepped due to Thorium interference.

#### **Miscellaneous Information:**

#### **NCR Documentation**

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

#### **Manual Integration**

No manual integrations were performed on data in this batch.

#### **Additional Comments**

The sample and the duplicate,1201181288 (9106-0012-014F) and 170683003 (9106-0012-014F), did not meet the Am-241 relative percent difference requirement, however they do meet the relative error ratio requirement with a value of 0.512.

#### **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 ModifiedPrep Method:Ash Soil PrepDry Soil Prep GL-RAD-A-021 Method:Dry Soil PrepAnalytical Batch Number:565210Prep Batch Number:564526Dry Soil Prep GL-RAD-A-021 Batch Number:564525

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201175591	Method Blank (MB)
1201175592	170683001(9106-0011-018F) Sample Duplicate (DUP)
1201175593	170683001(9106-0011-018F) Matrix Spike (MS)
1201175594	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: 170683001 (9106-0011-018F).

#### **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.

#### **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:	565214
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

#### Sample ID Client ID

9106-0013-006F
9106-0013-005F
9106-0015-018F
9106-0015-002F
9106-0001-132F
Method Blank (MB)
170683004(9106-0013-006F) Sample Duplicate (DUP)
170683004(9106-0013-006F) Matrix Spike (MS)
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: 170683004 (9106-0013-006F).

#### **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.

#### **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:	565216
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number	er: 564525

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
170683010	9106-0001-132F
1201175614	Method Blank (MB)
1201175615	170683004(9106-0013-006F) Sample Duplicate (DUP)

1201175616	170683004(9106-0013-006F) Matrix Spike (MS)
1201175617	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: 170683004 (9106-0013-006F).

#### **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 1201175614 (MB), 1201175615 (9106-0013-006F), 170683004 (9106-0013-006F), 170683005 (9106-0013-005F), 170683008 (9106-0015-018F), 170683009 (9106-0015-002F) and 170683010 (9106-0001-132F) were recounted due to high MDAs.

#### **Miscellaneous Information:**

#### **NCR** Documentation

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

#### **Manual Integration**

No manual integrations were performed on data in this batch.

#### **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:	567883
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number	: 564525

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201181751	Method Blank (MB)
1201181752	170683001(9106-0011-018F) Sample Duplicate (DUP)
1201181753	170683001(9106-0011-018F) Matrix Spike (MS)
1201181754	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: 170683001 (9106-0011-018F).

#### **QC** Information

All of the QC samples met the required acceptance limits.

#### **Technical Information:**

#### Holding Time

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

#### **Preparation Information**

All preparation criteria have been met for these analyses.

#### Sample Re-prep/Re-analysis

The batch was reprepped due to high MDAs.

#### **Miscellaneous Information:**

#### **NCR Documentation**

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

#### **Manual Integration**

No manual integrations were performed on data in this batch.

#### **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:	565250
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201175679	Method Blank (MB)
1201175680	170683002(9106-0012-005F) Sample Duplicate (DUP)
1201175681	170683002(9106-0012-005F) Matrix Spike (MS)
1201175682	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.

#### **<u>Calibration Information:</u>**

#### **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: 170683002 (9106-0012-005F).

#### **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

Samples 170683001 (9106-0011-018F) and 170683006 (9106-0014-012F) were recounted due to high MDAs.

#### **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 were dried and reweighed due to low matrix spike recovery.

#### **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:	565253
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683010	9106-0001-132F

1201175686	Method Blank (MB)
1201175687	170683005(9106-0013-005F) Sample Duplicate (DUP)
1201175688	170683005(9106-0013-005F) Matrix Spike (MS)
1201175689	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: 170683005 (9106-0013-005F).

#### **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.

#### **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.

#### **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: 564445

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
1201173840	Method Blank (MB)
1201173841	170544018(9304-0002-005F) Sample Duplicate (DUP)
1201173842	170544018(9304-0002-005F) Matrix Spike (MS)
1201173843	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: 170544018 (9304-0002-005F).

#### **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.

#### **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:	564623

#### Sample ID Client ID

170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201174253	Method Blank (MB)
1201174254	170683001(9106-0011-018F) Sample Duplicate (DUP)
1201174255	170683001(9106-0011-018F) Matrix Spike (MS)
1201174256	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: 170683001 (9106-0011-018F).

#### **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 1201174254 (9106-0011-018F) 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.

#### **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:	565648

#### Sample ID Client ID

-	
170683010	9106-0001-132F
1201176786	Method Blank (MB)
1201176787	170683010(9106-0001-132F) Sample Duplicate (DUP)
1201176788	170683010(9106-0001-132F) Matrix Spike (MS)
1201176789	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: 170683010 (9106-0001-132F).

#### **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.

#### **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:	565287
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201175808	Method Blank (MB)
1201175809	170683006(9106-0014-012F) Sample Duplicate (DUP)
1201175810	170683006(9106-0014-012F) Matrix Spike (MS)
1201175811	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: 170683006 (9106-0014-012F).

#### **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 1201175810 (9106-0014-012F), 170683001 (9106-0011-018F), 170683002 (9106-0012-005F) and 170683006 (9106-0014-012F) were recounted due to the quench number being outside the calibration range.

#### **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 356906 was generated due to Container scanning event for custody missed. 1. The analyst did not scan the sample 170683001 into the batch prior to analysis, however the samples did remain in their custody at all times. 1. The error has been corrected and the analyst has been instructed on the proper scanning procedures. Reporting results.

#### **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:	565291
Prep Batch Number:	564526

Dry Soil Prep GL-RAD-A-021 Batch Number: 564525

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
170683010	9106-0001-132F
1201175818	Method Blank (MB)
1201175819	170683004(9106-0013-006F) Sample Duplicate (DUP)
1201175820	170683004(9106-0013-006F) Matrix Spike (MS)
1201175821	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: 170683004 (9106-0013-006F).

#### **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 170683004 (9106-0013-006F) and 170683009 (9106-0015-002F) were recounted due to the quench number being outside the calibration range.

#### **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.

#### **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:	565289
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201175814	Method Blank (MB)
1201175815	170683006(9106-0014-012F) Sample Duplicate (DUP)
1201175816	170683006(9106-0014-012F) Matrix Spike (MS)
1201175817	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.

#### **<u>Calibration Information:</u>**

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.

#### **<u>Quality Control (QC) Information:</u>**

#### **Blank Information**

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

#### **Designated QC**

The following sample was used for QC: 170683006 (9106-0014-012F).

#### **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.

#### **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:	565293
Prep Batch Number:	564526
Dry Soil Prep GL-RAD-A-021 Batch Number:	564525

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
170683010	9106-0001-132F
1201175822	Method Blank (MB)
1201175823	170683004(9106-0013-006F) Sample Duplicate (DUP)
1201175824	170683004(9106-0013-006F) Matrix Spike (MS)
1201175825	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: 170683004 (9106-0013-006F).

#### **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.

#### **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:	564447

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
1201173844	Method Blank (MB)
1201173845	170544018(9304-0002-005F) Sample Duplicate (DUP)
1201173846	170544018(9304-0002-005F) Matrix Spike (MS)
1201173847	Laboratory Control Sample (LCS)

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#### **SOP Reference**

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

#### **Calibration Information:**

#### **Calibration Information**

All initial and continuing calibration requirements have been met.

#### **Standards Information**

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

#### **Sample Geometry**

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

#### **Quality Control (QC) Information:**

#### **Blank Information**

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

#### **Designated QC**

The following sample was used for QC: 170544018 (9304-0002-005F).

#### **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

Samples 1201173846 (9304-0002-005F) and 1201173847 (LCS) were recounted due to low/high recovery.

#### Miscellaneous Information:

#### **NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:

NCR 356177 was generated due to Container scanning event for custody missed. 1. Container scanning event for custody missed: The analyst did not scan the samples into the batch prior to analysis, however the samples did remain in their custody at all times. 1. The error has been corrected and the analyst has been instructed on proper scanning procedures. Reporting results

#### **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: 564514

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201174038	Method Blank (MB)
1201174039	170683006(9106-0014-012F) Sample Duplicate (DUP)
1201174040	170683006(9106-0014-012F) Matrix Spike (MS)
1201174041	Laboratory Control Sample (LCS)

#### SOP Reference

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

#### **Calibration Information:**

#### Calibration Information

All initial and continuing calibration requirements have been met.

#### **Standards Information**

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

#### Sample Geometry

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

#### **Quality Control (QC) Information:**

#### **Blank Information**

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

#### **Designated QC**

The following sample was used for QC: 170683006 (9106-0014-012F).

#### **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.

#### **Qualifier information**

Manual qualifiers were not required.

#### **Method/Analysis Information**

Product:LSC, Tritium Dist, Solid-HTD2,ALL FSSAnalytical Method:EPA 906.0 ModifiedAnalytical Batch Number:565650

#### Sample ID Client ID

170683010	9106-0001-132F
1201176794	Method Blank (MB)
1201176795	170683010(9106-0001-132F) Sample Duplicate (DUP)
1201176796	170683010(9106-0001-132F) Matrix Spike (MS)
1201176797	Laboratory Control Sample (LCS)

#### **SOP Reference**

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

#### **Calibration Information:**

#### **Calibration Information**

All initial and continuing calibration requirements have been met.

#### **Standards Information**

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

#### Sample Geometry

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

#### **Quality Control (QC) Information:**

#### **Blank Information**

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

#### **Designated QC**

The following sample was used for QC: 170683010 (9106-0001-132F).

#### 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.

#### **Qualifier information**

Manual qualifiers were not required.

#### **Method/Analysis Information**

Product:Liquid Scint C14, Solid All,FSSAnalytical Method:EPA EERF C-01 ModifiedAnalytical Batch Number:564449

Sample ID	Client ID
170683004	9106-0013-006F
170683005	9106-0013-005F
170683008	9106-0015-018F
170683009	9106-0015-002F
1201173848	Method Blank (MB)
1201173849	170544019(9304-0002-008F) Sample Duplicate (DUP)
1201173850	170544019(9304-0002-008F) Matrix Spike (MS)
1201173851	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: 170544019 (9304-0002-008F).

#### **QC** Information

All of the QC samples met the required acceptance limits.

#### **Technical Information:**

#### **Holding** Time

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

#### **Preparation Information**

All preparation criteria have been met for these analyses.

#### Sample Re-prep/Re-analysis

Sample 1201173849 (9304-0002-008F) was recounted due to a negative result greater than three times the error. Samples 170683008 (9106-0015-018F) and 170683009 (9106-0015-002F) were recounted to verify results. Second counts being reported.

#### **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.

#### **Qualifier information**

Manual qualifiers were not required.

#### **Method/Analysis Information**

Product:Liquid Scint C14, Solid All,FSSAnalytical Method:EPA EERF C-01 ModifiedAnalytical Batch Number:564520

Sample ID	Client ID
170683001	9106-0011-018F
170683002	9106-0012-005F
170683003	9106-0012-014F
170683006	9106-0014-012F
170683007	9106-0014-033F
1201174056	Method Blank (MB)
1201174057	170683007(9106-0014-033F) Sample Duplicate (DUP)
1201174058	170683007(9106-0014-033F) Matrix Spike (MS)
1201174059	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: 170683007 (9106-0014-033F).

#### 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.

#### **Qualifier information**

Manual qualifiers were not required.

#### **Method/Analysis Information**

Product:Liquid Scint C14, Solid All,FSSAnalytical Method:EPA EERF C-01 ModifiedAnalytical Batch Number:565649

#### Sample ID Client ID

170683010	9106-0001-132F
1201176790	Method Blank (MB)
1201176791	170683010(9106-0001-132F) Sample Duplicate (DUP)
1201176792	170683010(9106-0001-132F) Matrix Spike (MS)
1201176793	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: 170683010 (9106-0001-132F).

#### **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.

#### **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:**

**Reviewer/Date:** 

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:

lunch glizble

	COMPANY - WIDE NONC	ONFORMANCE REPOR	т
Mo.Day Yr. 11-SEP-06	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: LSC	Test / Method: DOE RESL Fe-1, Modified	<b>Matrix Type:</b> Solid	Client Code: YANK
Batch ID: 565287	Sample Numbers: See Below		
Potentially affected work order(s	)(SDG): 170683		
Application Issues:			
Container scanning event for custo	dy missed		
Specification and Requirements Nonconformance Description:		NRG Disposition:	
1. The analyst did not scan the sa analysis, however the samples did	ample 170683001 into the batch prior to I remain in their custody at all times.	1. The error has been correct proper scanning procedures.	ted and the analyst has been instructed on the Reporting results.
Originator's Name:		Data Validator/Group Leade	er:
Melanie Aycock 11-SEP-06	i	Heather Anderson 11-	SEP-06

Melanie Aycock

Quality Review:

Director:

	COMPANY - WIDE NONC	ONFORMANCE REPOR	г
Mo.Day Yr. 08-SEP-06	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: LSC	Test / Method: EPA 906.0 Modified	Matrix Type: Solid	Client Code: YANK
Batch ID: 564447	Sample Numbers: See Below		
	(SDG): 170543(MSR#06-1172),170544(	MSR#06-1174),170683	
Application Issues:			
Container scanning event for custor	dy missed		
Specification and Requirements Nonconformance Description:		NRG Disposition:	
	istody missed: The analyst did not scan analysis, however the samples did	1. The error has been correct proper scanning procedures.	ed and the analyst has been instructed on Reporting results
Originator's Name:		Data Validator/Group Leade	er:
Kenshalla Oston 08-SEP-06			SEP-06

Kenshalla Oston

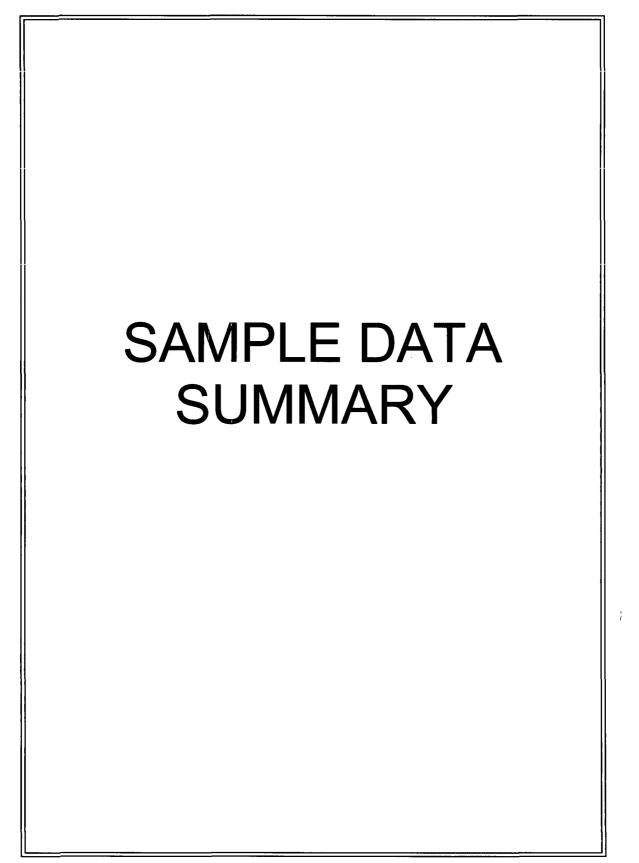
08-SEP-06

Melanie Aycock

**Quality Review:** 

Director:

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### Certificate of Analysis Report for

#### YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: 170683 GEL Work Order: 170683

#### 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

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### **Certificate of Analysis**

Company : Address :	Connecticut 362 Injun H		tomic Power									
Contact: Project:	East Hampto Mr. Jack Mo Soils PO# 0	cCarthy	cticut 06424				F	Report Date: Se	ptember 1	8, 2006		
	Client San Sample ID Matrix: Collect Da Receive D Collector: Moisture:	): ite:		9106 00 1706830 SE 17 MA 21 JUN Client 36.3%	Y 06		Proiect: Client ID: Vol. Recv.:	YANK01204 YANK001				_
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analys	t Date	Time B	Batch N	/Itd
Rad Alpha Spec Analysi	S	·										
Alphaspec Am241, Cm,	Solid ALL FS	S										
Americium 241	U	0.0277	+/ 0.0418	0.0128	+/ 0.042	0.0643	pCi/g	TC1	09/14/06	6 0931 5	67705	1
Curium 242	U	0.00666	+/ 0.0505		+/ 0.0505	0.138	pCi/g					
Curium 243/244	U	0.0167	+/ 0.0348	0.0388	+/ 0.0349	0.117	pCi/g					
Alphaspec Pu, Solid Al	LL FSS											
Plutonium 238	U	0.148	+/ 0.269	0.289	+/ 0.270	0.795	pCi/g	MXA 1	09/11/06	5 0919 5	65210	3
Plutonium 239/240	U	0.00321	+/ 0.174	0.144	+/ 0.174	0.505	pCi/g					
Liquid Scint Pu241, Sol	id ALL FSS											
Plutonium 241	U	9.87	+/ 11.1	8.90	+/ 11.1	18.6	pCi/g	TC1	09/17/06	6 0214 5	67883	4
<b>Rad Gas Flow Proportio</b>	nal Counting	g										
GFPC, Sr90, solid ALI	L FSS											
Strontium 90	U	0.00422	+/ 0.0151	0.0123	+/ 0.0151	0.0271	pCi/g	KSD1	09/11/06	5 1917 5	65250	6
Rad Liquid Scintillation	Analysis											
LSC, Tritium Dist, Solia	I HTD2,ALL											
Tritium	U	3.33	+/ 6.35	5.16	+/ 6.35	10.9	pCi/g	DFA1	09/05/06	5 1 1 2 3 5	64514	7
Liquid Scint C14, Solid	All,FSS											
Carbon 14	U	0.00	+/ 0.0818	0.0686	+/ 0.0818	0.140	pCi/g	AXD2	09/06/06	5 0035 5	64520	8
Liquid Scint Fe55, Solia	I ALL FSS											
Iron 55	U	0.852	+/ 61.3	41.7	+/ 61.3	86.4	pCi/g	MXP1	09/10/06	5 1419 5	65287	9
Liquid Scint Tc99, Solid	ALL FSS											
Technetium 99	U	0.341	+/ 0.291	0.235	+/ 0.291	0.485	pCi/g	KXR1	09/06/06	5 1232 5	64623	10

#### The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	AXP2	09/01/06	1328	564525

# 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

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### **Certificate of Analysis**

	Company : Address :	Connecticu 362 Injun H		omic Power						
	Contact: Project:	East Hampt Mr. Jack M Soils PO# (	•	icut 06424				F	Report Date: September	18, 2006
		Client Sar Sample II			9106 0011 170683001	018F		Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter		Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
3	DOE	EML HASL	300, Pu 11	RC Modified		•••	-			
4	DOE	EML HASL	300, Pu 11	RC Modified						
5	DOE	EML HASL	300, Pu 11	RC Modified						
6	EPA	905.0 Modifie	ed							
7	EPA	906.0 Modifi	ed							
8	EPA	EERF C 01 !	Modified							
9	DOE	RESL Fe 1,	Modified							
10	DOE	EML HASL	300, Tc 02	RC Modified						

Surrogate/Tracer recovery	Test	<b>Recovery%</b>	Acceptable Limits
Americium 243	Alphaspec Am241, Cm, Solid ALL	89	(15% 125%)
Plutonium 242	Alphaspec Pu, Solid ALL FSS	38	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	89	(25% 125%)
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	51	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	75	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	78	(15% 125%)

#### Notes:

The Qualifiers in this report are defined as follows :

- * A quality control analyte recovery is outside of specified acceptance criteria
- Result is less than value reported <
- > Result is greater than value reported
- The TIC is a suspected aldol condensation product Α
- Target analyte was detected in the associated blank В
- BD Results are either below the MDC or tracer recovery is low
- Analyte has been confirmed by GC/MS analysis C
- Results are reported from a diluted aliquot of the sample D
- Analytical holding time was exceeded Η
- T 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
- Analyte was analyzed for, but not detected above the MDL, MDA, or LOD. U
- UI Gamma Spectroscopy Uncertain identification
- Х 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 : Address :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd						
	Contact: Project:	East Hampton, Connecticut 06424 Mr. Jack McCarthy Soils PO# 002332				F	Report Date: September	18, 2006
		Client Sample ID: Sample ID:	9106 0011 170683001	018F		Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter		Qualifier Result Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd

The above sample is reported on a dry weight basis.

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### **Certificate of Analysis**

Company : Address :	Connecticut 362 Injun H		tomic Power									
Contact: Project:	East Hampto Mr. Jack Mo Soils PO# 0	cCarthy	eticut 06424				Report Date: September 18, 2006					
	Client San Sample ID Matrix: Collect Da Receive D Collector: Moisture:	); ite:		9106 0 1706830 SE 23 JUN 07 JUL Client 23.4%	1 06	·	Project: Client ID: Vol. Recv.:	YANK01204 YANK001				
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analys	t Date	Time Bate	h Mtd	
Rad Alpha Spec Analys								·				
Alphaspec Am241, Cm Americium 241 Curium 242 Curium 243/244	, Solid ALL FS U U U U	S 0.00725 0.00 0.00297	+/ 0.0262 +/ 0.0343 +/ 0.0249	0.00	+/ 0.0262 +/ 0.0343	0.0644 0.0474	pCi/g pCi/g	TCI	09/14/0	6 0931 5677	'05 1	
Alphaspec Pu, Solid A	_	0.00297	+/ 0.0249	0.0111	+/ 0.025	0.0557	pCi/g					
Plutonium 238	U	0.0214	+/ 0.203	0.159	+/ 0.203	0.498	pCi/g	MXA 1	09/11/0	6 0919 5652	10 3	
Plutonium 239/240 Liquid Scint Pu241, So	U Jid ALLESS	0.120	+/ 0.237	0.134	+/ 0.238	0.449	pCi/g	L.				
Plutonium 241 Rad Gas Flow Proporti	U	10	+/ 8.47	7.55	+/ 8.47	15.8	pCi/g	TC1	09/17/0	6 0230 5678	83 4	
GFPC, Sr90, solid AL Strontium 90 Rad Liquid Scintillation	L FSS U	0.00415	+/ 0.016	0.0141	+/ 0.016	0.0332	pCi/g	KSD1	09/08/0	06 1803 5652	:50 6	
<i>LSC, Tritium Dist, Soli</i> Tritium	U	FSS 4.39	+/ 5.57	4.46	+/ 5.57	9.42	pCi/g	DFA1	09/05/0	06 1155 5645	514 7	
Liquid Scint C14, Solid Carbon 14	U	0.0271	+/ 0.0822	0.0694	+/ 0.0822	0.141	pCi/g	AXD2	09/06/0	06 0253 5645	520 8	
Liquid Scint Fe55, Soli Iron 55	U	3.71	+/ 50.4	34.5	+/ 50.4	71.6	pCi/g	MXP1	09/10/0	6 1435 5652	.87 9	
<i>Liquid Scint Ni63, Soli</i> Nickel 63	U	5.04	+/ 7.63	6.28	+/ 7.63	12.9	pCi/g	MXP1	09/08/0	06 0035 5652	89 10	
<i>Liquid Scint Tc99, Soli</i> Technetium 99	d ALL FSS U	0.057	+/ 0.270	0.225	+/ 0.270	0.464	pCi/g	KXR1	09/06/(	06 1249 5646	523 11	

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	AXP2	09/01/06	1328	564525
The following	Analytical Methods were performed				
The following Method	Analytical Methods were performed Description	<u>.</u>	, <u>, , , , , , , , , , , , , , , , </u>		

**D CC1**00

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### **Certificate of Analysis**

Company : Connecticut Yankee Atomic Power Address : 362 Injun Hollow Rd East Hampton, Connecticut 06424 Report Date: September 18, 2006 Contact: Mr. Jack McCarthy Soils PO# 002332 Project: Client Sample ID: 9106 0012 005F Project: Client ID: Vol. Recv.: **YANK01204** Sample ID: 170683002 YANK001 Parameter Result **Oualifier** Uncertainty LC TPU **MDA** Units **DF** Analyst Date **Time Batch Mtd** DOE EML HASL 300, Am 05 RC Modified DOE EML HASL 300, Pu 11 RC Modified DOE EML HASL 300, Pu 11 RC Modified DOE EML HASL 300, Pu 11 RC Modified EPA 905.0 Modified EPA 906.0 Modified EPA EERF C 01 Modified DOE RESL Fe 1, Modified DOE RESL Ni 1, Modified DOE EML HASL 300, Tc 02 RC Modified

Surrogate/Tracer recovery	Test	<b>Recovery%</b>	Acceptable Limits	
Americium 243	Alphaspec Am241, Cm, Solid ALL	90	(15% 125%)	
Plutonium 242	Alphaspec Pu, Solid ALL FSS	47	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	78	(25% 125%)	
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	99	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	67	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	85	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	82	(15% 125%)	

Notes:

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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
- Α The TIC is a suspected aldol condensation product
- В Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- С Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- Η Analytical holding time was exceeded
- Value is estimated J
- 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
- Х Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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### **Certificate of Analysis**

	Company : Address :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd		
-	Contact:	East Hampton, Connecticut 06424 Mr. Jack McCarthy		Report Date: September 18, 2006
P	roject:	Soils PO# 002332		
		Client Sample ID: Sample ID:	9106 0012 005F 170683002	Project: YANK01204 Client ID: YANK001 Vol. Recv.:
Parameter		Qualifier Result Uncertainty	LC TPU	MDA Units DF Analyst Date Time Batch Mtd

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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### **<u>Certificate of Analysis</u>**

Company : Address :	Connecticut 362 Injun H		tomic Power								
Contact: Project:	East Hampto Mr. Jack Mo Soils PO# 0	Carthy	ticut 06424	Report Date: September 18, 2				18, 2006			
	Client Sam Sample ID Matrix: Collect Da Receive D Collector: Moisture:	te:	·	9106 00 1706830 SE 21 JUN 07 JUL Client 24.1%	1 06		Project: Client ID: Vol. Recv.:	YANK01204 YANK001			
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analys	t Date	Time Batch	Mtd
Rad Alpha Spec Analysis		-									
Alphaspec Am241, Cm, S Americium 241 Curium 242 Curium 243/244	U U U	S 0.012 0.00814 0.00571	+/ 0.0233 +/ 0.0351 +/ 0.0246	0.0215	+/ 0.0234 +/ 0.0351 +/ 0.0246	0.032 0.089 0.0624	pCi/g pCi/g pCi/g	TC1	09/14/0	06 0931 567705	1
Alphaspec Pu, Solid AL Plutonium 238	L FSS U	0.00589	+/ 0.322	0.272	+/ 0.322	0.744	pCi/g	МХА	09/11/0	6 0919 565210	3
Plutonium 239/240	U	0.0588	+/ 0.218	0.147	+/ 0.218	0.494	pCi/g	I			
Liquid Scint Pu241, Solia Plutonium 241 Rad Gas Flow Proportion	U	4.22	+/ 11.5	9.47	+/ 11.5	19.8	pCi/g	TC1	09/17/0	06 0246 567883	4
GFPC, Sr90, solid ALL Strontium 90 Rad Liquid Scintillation	U	0.0176	+/ 0.0191	0.0133	+/ 0.0191	0.0316	pCi/g	KSD1	09/08/0	06 1803 565250	6
LSC, Tritium Dist, Solid Tritium	U	FSS 1.38	+/ 6.13	5.08	+/ 6.13	10.7	pCi/g	DFA1	09/05/0	)6 1226 564514	7
Liquid Scint C14, Solid A Carbon 14	4 <i>0,FSS</i> U	0.00209	+/ 0.0745	0.0625	+/ 0.0745	0.127	pCi/g	AXD2	09/06/0	6 0501 564520	8
Liquid Scint Fe55, Solid Iron 55	U	13.9	+/ 36.7	24.3	+/ 36.7	50.7	pCi/g	MXP1	09/07/0	06 2253 565287	9
Liquid Scint Ni63, Solid Nickel 63	U	4.26	+/ 8.20	6.78	+/ 8.20	13.9	pCi/g	MXP1	09/08/0	06 0106 565289	10
<i>Liquid Scint Tc99, Solid</i> Technetium 99	ALL FSS U	0.269	+/ 0.281	0.228	+/ 0.281	0.470	pCi/g	KXR1	09/06/0	6 1305 564623	11

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL RAD A 021	AXP2	09/01/06	1328	564525
The following A	Analytical Methods were performed				
Method	Description				

1

DOE EML HASL 300, Am 05 RC Modified

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### **Certificate of Analysis**

Company : Connecticut Yankee Atomic Power Address : 362 Injun Hollow Rd East Hampton, Connecticut 06424 Report Date: September 18, 2006 Mr. Jack McCarthy Contact: Project: Soils PO# 002332 Client Sample ID: Project: Client ID: 9106 0012 014F YANK01204 Sample ID: 170683003 YANK001 Vol. Recv.: Parameter Qualifier Result Uncertainty LC TPU **MDA** Units **DF** Analyst Date **Time Batch Mtd** DOE EML HASL 300, Am 05 RC Modified DOE EML HASL 300, Pu 11 RC Modified DOE EML HASL 300, Pu 11 RC Modified DOE EML HASL 300, Pu 11 RC Modified EPA 905.0 Modified EPA 906.0 Modified EPA EERF C 01 Modified DOE RESL Fe 1, Modified DOE RESL Ni 1, Modified DOE EML HASL 300, Tc 02 RC Modified

Surrogate/Tracer recovery	Test	<b>Recovery%</b>	Acceptable Limits	
Americium 243	Alphaspec Am241, Cm, Solid ALL	95	(15% 125%)	
Plutonium 242	Alphaspec Pu, Solid ALL FSS	44	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	84	(25% 125%)	
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	100	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	70	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	79	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	81	(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
- в Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- С Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- Н Analytical holding time was exceeded
- T 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
- Х Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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### **Certificate of Analysis**

	Company : Address :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd		
	Contact: Project:	East Hampton, Connecticut 06424 Mr. Jack McCarthy Soils PO# 002332		Report Date: September 18, 2006
		Client Sample ID: Sample ID:	9106 0012 014F 170683003	Project: YANK01204 Client ID: YANK001 Vol. Recv.:
Parameter		Qualifier Result Uncertainty	LC TPU	MDA Units DF Analyst Date Time Batch Mtd

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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### **<u>Certificate of Analysis</u>**

Compar Address			tomic Power						
			cticut 06424				R	eport Date: September	18, 2006
Contact		•							
Project:	Soils PO# 0	02332							
	Client San Sample II Matrix: Collect Da Receive D Collector:	): ate:		9106 00 1706830 SE 21 JUN 21 JUL Client	1 06		Proiect: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
Rad Alpha Spec Ana	lysis								
Alphaspec Am241, (	Cm, Solid ALL FS	S							
Americium 241		0.187	+/ 0.170	0.0339	+/ 0.172	0.170	pCi/g	MXA 09/12/0 1	06 0844 565213 1
Curium 242	U	0.0387	+/ 0.0438	0.0836	+/ 0.0442	0.313	pCi/g	I	
Curium 243/244	Ū	0.00608	+/ 0.118	0.102		0.308	pCi/g		
Alphaspec Pu, Solia	ALL FSS								
Plutonium 238	U	0.012	+/ 0.0236	0.045	+/ 0.0236	0.226	pCi/g	MXA 09/11/0 1	06 0919 565214 2
Plutonium 239/24	0 U	0.0601	+/ 0.0526	0.100	+/ 0.0531	0.337	pCi/g		
Liquid Scint Pu241,	Solid ALL FSS								
Plutonium 241	U	16.2	+/ 13.4	10.8	+/ 13.5	22.3	pCi/g	MXA 09/12/0 1	06 2245 565216 3
Rad Gas Flow Propo	rtional Counting	g							
GFPC, Sr90, solid	ALL FSS								
Strontium 90	-	0.000813	+/ 0.0187	0.0156	+/ 0.0187	0.036	pCi/g	KSD1 09/08/0	06 1932 565253 4
Rad Liquid Scintilla	•								
LSC, Tritium Dist, S				• • •			~		
Tritium	U	0.997	+/ 4.80	3.98	+/ 4.80	8.39	pCi/g	DFA1 09/05/0	06 1847 564447 5
Liquid Scint C14, Se Carbon 14		0.0100	1/ 0.100	0.0001	0 100	0.100	- C'1-		
	U	0.0199	+/ 0.109	0.0921	+/ 0.109	0.192	pCi/g	AXD2 09/06/0	6 0955 564449 6
Liquid Scint Fe55, S Iron 55	ond ALL FSS	33.7	+/ 51.9	34.2	+/ 52.0	71.2	nCi/a	MVD1 00/11/0	06 1150 565291 7
Liquid Scint Ni63, S	•	55.1	17 51.9	54.2	+7 52.0	/1.2	pCi/g	WLAFT 09/11/0	0 1150 505291 7
Nickel 63	ua Alless U	0.395	+/ 9.40	7.88	+/ 9.40	16.2	pCi/g	MXP1_09/08/0	06 2220 565293 8
Liquid Scint Tc99, S	e	0.575	.,	7.00	1 2.10	10.2	PC"B	MAX 1 07/00/0	<i>10 2220 303275</i> 0
Technetium 99	U	0.0409	+/ 0.273	0.231	+/ 0.273	0.475	pCi/g	KXR1 09/06/0	06 1637 564445 9

### The following Analytical Methods were performed Method Description

wiethod	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 362 Injun Hollow Rd Address : East Hampton, Connecticut 06424 Report Date: September 18, 2006 Mr. Jack McCarthy Contact: Soils PO# 002332 Project: Client Sample ID: 9106 0013 006F Project: Client ID: **YANK01204** Sample ID: 170683004 YANK001 Vol. Recv.: Parameter Qualifier Result Uncertainty MDA Units **DF** Analyst Date LC TPH Time Batch Mtd

		LC	110	emes	DI Analyst Date	Time Daten Mitu
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	<b>Recovery%</b>	Acceptable Limits	
Americium 243	Alphaspec Am241, Cm, Solid ALL	86	(15% 125%)	
Plutonium 242	Alphaspec Pu, Solid ALL FSS	60	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	72	(25% 125%)	
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	100	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	70	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	43	(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 an "as received" basis.

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### **Certificate of Analysis**

Company : Address :	Connecticut 362 Injun Ho		tomic Power						
Contact: Project:	East Hampto Mr. Jack Mc Soils PO# 00	Carthy	eticut 06424				F	Report Date: September	18, 2006
	Client Sam Sample ID Matrix: Collect Da Receive Da Collector:	te:		9106 00 1706830 SE 21 JUN 21 JUL Client	1 06		Proiect: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
Rad Alpha Spec Analysi	s								
Alphaspec Am241, Cm, Americium 241	Solid ALL FS	S 0.505	+/ 0.295	0.0542	+/ 0.304	0.224	pCi/g	MXA 09/12/	06 0844 565213 1
Curium 242 Curium 243/244	U U	0.00 0.0327	+/ 0.119 +/ 0.0868	0.00 0.0387	+/ 0.119 +/ 0.0869	0.165 0.194	pCi/g pCi/g	I	
Alphaspec Pu, Solid Al Plutonium 238	<i>LL FSS</i> U	0.008	+/ 0.0157	0.0299	+/ 0.0157	0.150	pCi/g	MXA 09/11/ 1	06 0919 565214 2
Plutonium 239/240	U	0.0399	+/ 0.035	0.0668	+/ 0.0352	0.224	pCi/g	•	
<i>Liquid Scint Pu241, Sol</i> Plutonium 241	<i>id ALL FSS</i> U	7.84	+/ 13.5	11.1	+/ 13.5	22.8	pCi/g	MXA 09/12/	06 2332 565216 3
<b>Rad Gas Flow Proportio</b>	onal Counting	ţ						-	
GFPC, Sr90, solid ALL Strontium 90 Rad Liquid Scintillation	U	0.000759	+/ 0.0157	0.0133	+/ 0.0157	0.0313	pCi/g	KSD1 09/08/	06 1932 565253 4
LSC, Tritium Dist, Solia	HTD2,ALL	FSS							
Tritium	U	0.175	+/ 4.77	4.01	+/ 4.77	8.45	pCi/g	DFA1 09/05/	06 1919 564447 5
Liquid Scint C14, Solid Carbon 14	U	0.0246	+/ 0.107	0.0905	+/ 0.107	0.188	pCi/g	AXD2 09/06/	06 1027 564449 6
Liquid Scint Fe55, Solia Iron 55	U	8.33	+/ 39.2	26.6	+/ 39.2	55.3	pCi/g	MXP1 09/08/	06 0121 565291 7
Liquid Scint Ni63, Solid Nickel 63	U	1.92	+/ 5.36	4.55	+/ 5.36	9.32	pCi/g	MXP1 09/08/	06 2323 565293 8
<i>Liquid Scint Tc99, Solia</i> Technetium 99	U ALL FSS	0.0807	+/ 0.273	0.227	+/ 0.273	0.468	pCi/g	KXR1 09/06/	06 1654 564445 9

### The following Analytical Methods were performed Method Description

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**

Parameter		Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
		Client Samp Sample ID:			9106 0013 170683003			Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Р	Project:	Soils PO# 002	2332							
С	Contact:	East Hampton Mr. Jack McC		ticut 06424				]	Report Date: September	18, 2006
	Company : Address :	Connecticut Y 362 Injun Hol		tomic Power						

		ě	
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	68	(15% 125%)	
Plutonium 242	Alphaspec Pu, Solid ALL FSS	86	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	71	(25% 125%)	
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	101	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	71	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	72	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	80	(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 an "as received" basis.

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## **Certificate of Analysis**

Company Address :			tomic Power								
Contact:	East Hampte Mr. Jack Mc		ticut 06424				F	Report Date: Sep	otember 18,	2006	
Project:	Soils PO# 0	•									
Hojeet.	30115 F O# 0	02332									
	Client San Sample ID Matrix: Collect Da Receive D Collector:	): ite:		9106 00 1706830 SE 06 JUN 13 JUL Client	1 06		Project: Client ID: Vol. Recv.:	YANK01204 YANK001			
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analys	t Date Ti	me Batch N	Mtd
Rad Alpha Spec Analy	/sis										
Alphaspec Am241, Cr	n, Solid ALL FS										
Americium 241		0.0945	+/ 0.0698		+/ 0.0709	0.0654	pCi/g	TCI	09/14/06 09	931 567705	1
Curium 242 Curium 243/244	U U	0.0191 0.0473	+/ 0.0374		+/ 0.0375	0.0517	pCi/g				
	-	0.0475	+/ 0.0497	0.0113	+/ 0.050	0.0567	pCi/g				
Alphaspec Pu, Solid Plutonium 238	ALL FSS U	0.113	+/ 0.329	0.328	+/ 0.330	0.930	pCi/g	MXA	09/11/06 09	919 565210	3
Plutonium 239/240	U	0.097	+/ 0.0951	0.181	+/ 0.0963	0.637	pCi/g	I			
Liquid Scint Pu241, S	olid ALL FSS										
Plutonium 241	U	4.84	+/ 11.6	9.54	+/ 11.6	20.0	pCi/g	TC1	09/17/06 03	302 567883	4
Rad Gas Flow Proport	tional Counting	g									
GFPC, Sr90, solid A											
Strontium 90	U	0.00246	+/ 0.00901	0.00776	+/ 0.00901	0.0169	pCi/g	KSD1	09/11/06 19	917 565250	6
Rad Liquid Scintillatio	•	566									
LSC, Tritium Dist, So. Tritium			1 6 35	5.07	11 6 25	10.7	-0:1	DEAL	00/05/07 1/	160 6CAE14	7
	U	3.44	+/ 6.25	5.07	+/ 6.25	10.7	pCi/g	DrAI	09/05/06 1	258 564514	/
Liquid Scint C14, Soli Carbon 14	ia All,FSS U	0.0486	+/ 0.0773	0.064	+/ 0.0773	0.130	pCi/g		00/06/06 04	635 564520	o
Liquid Scint Fe55, So	-	0.0460	+/ 0.0773	0.004	-7 0.0773	0.130	pC//g	AAD2	09/00/00 00	)55 504520	0
Iron 55	ua ALL FSS U	12.6	+/ 44.5	30.6	+/ 44.5	63.6	pCi/g	MYDI	09/10/06 1/	451 565287	Q
Liquid Scint Ni63, Sol	-	14.0	17 -1-1.5	50.0	U. TT.J	05.0	peng		07/10/00 I	131 303207	,
Nickel 63	U U	4.82	+/ 7.80	6.44	+/ 7.80	13.2	pCi/g	MXP1	09/08/06 0	138 565289	10
Liquid Scint Tc99, So	lid ALL FSS						rB				
Technetium 99	U	0.0865	+/ 0.281	0.234	+/ 0.281	0.481	pCi/g	KXR1	09/06/06 13	321 564623	11

The following	g Analytical	Methods	were	performed
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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	DOE EML HASL 300, Pu 11 RC Modified
6	EPA 905.0 Modified

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### **Certificate of Analysis**

Parameter		Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
		Client Sam Sample ID			9106 0014 170683006			Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
-	roject:	Soils PO# 00	2							
C	ontact:	East Hampto Mr. Jack Mc	,	ticut 06424				]	Report Date: September	18, 2006
	ompany : .ddress :	Connecticut 362 Injun Ho		tomic Power						

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

Surrogate/Tracer recovery	Test	<b>Recovery%</b>	Acceptable Limits	
Americium 243	Alphaspec Am241, Cm, Solid ALL	93	(15% 125%)	
Plutonium 242	Alphaspec Pu, Solid ALL FSS	33	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	84	(25% 125%)	
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	91	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	74	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	80	(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 an "as received" basis.

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## **Certificate of Analysis**

Company : Address :	Connecticut 362 Injun H		tomic Power									
Contact: Project:	East Hampto Mr. Jack Mo Soils PO# 0	cCarthy	ticut 06424				Report Date: September 18, 2006					
	Client San Sample ID Matrix: Collect Da Receive D Collector:	): ite:		9106 00 1706830 SE 14 JUN 13 JUL Client	1 06		Project: Client ID: Vol. Recv.:	YANK01204 YANK001				
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analys	t Date	Time	Batch M	Mtd
Rad Alpha Spec Analys	is				- · · · · · · · · · · · · · · · · · · ·				_			
Alphaspec Am241, Cm,	Solid ALL FS											
Americium 241		0.0906	+/ 0.0692		+/ 0.0703	0.0594	pCi/g	TC1	09/14/0	6 0931	567705	1
Curium 242 Curium 243/244	U	0.0195 0.0799	+/ 0.0383		+/ 0.0384	0.053 0.0361	pCi/g					
		0.0799	+/ 0.0639	0.00	+/ 0.0648	0.0301	pCi/g					
Alphaspec Pu, Solid A Plutonium 238	U U	0.0396	+/ 0.254	0.229	+/ 0.254	0.638	pCi/g	MXA 1	09/11/0	6 0919	565210	3
Plutonium 239/240	U	0.203	+/ 0.182	0.244	+/ 0.184	0.666	pCi/g	1				
Liquid Scint Pu241, So	lid ALL FSS											
Plutonium 241	U	4.34	+/ 11.1	9.14	+/ 11.1	19.2	pCi/g	TC1	09/17/0	6 0319	567883	4
<b>Rad Gas Flow Proporti</b>	onal Counting	Ş										
GFPC, Sr90, solid AL	L FSS											
Strontium 90	U	0.00411	+/ 0.0167	0.0133	+/ 0.0167	0.0316	pCi/g	KSD1	09/08/0	6 1803	565250	6
Rad Liquid Scintillation	ı Analysis											
LSC, Tritium Dist, Soli												
Tritium	U	3.13	+/ 5.10	4.12	+/ 5.10	8.71	pCi/g	DFA1	09/05/0	6 1330	564514	7
Liquid Scint C14, Solia												
Carbon 14	U	0.0995	+/ 0.0918	0.075	+/ 0.0918	0.153	pCi/g	AXD2	09/06/0	6 0807	564520	8
Liquid Scint Fe55, Soli												
Iron 55	U	19.3	+/ 37.9	24.9	+/ 37.9	51.8	pCi/g	MXP1	09/07/0	6 2326	565287	9
Liquid Scint Ni63, Solid							~		00/00/7	< 0000		
Nickel 63	U	4.62	+/ 7.14	5.88	+/ 7.14	12.1	pCi/g	MXP1	09/08/0	6 0209	565289	10
<i>Liquid Scint Tc99, Solie</i> Technetium 99	d ALL FSS U	0.00	+/ 0.282	0.236	+/ 0.282	0.487	pCi/g	KXR1	09/06/0	6 1338	564623	11

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	DOE EML HASL 300, Pu 11 RC Modified
6	EPA 905.0 Modified

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### **Certificate of Analysis**

Company Address :	: Connecticut Yankee Atomic Power 362 Injun Hollow Rd		
Contact:	East Hampton, Connecticut 06424 Mr. Jack McCarthy		Report Date: September 18, 2006
Project:	Soils PO# 002332		
	Client Sample ID: Sample ID:	9106 0014 033F 170683007	Project: YANK01204 Client ID: YANK001 Vol. Recv.:
	Oursliffern Descritt Victor		

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

Surrogate/Tracer recovery	Test	<b>Recovery%</b>	Acceptable Limits	
Americium 243	Alphaspec Am241, Cm, Solid ALL	87	(15% 125%)	
Plutonium 242	Alphaspec Pu, Solid ALL FSS	41	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	89	(25% 125%)	
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	99	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	76	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	84	(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 an "as received" basis.

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### **Certificate of Analysis**

Company : Address :	Connecticut 362 Injun Ho		tomic Power					
Contact: Project:	East Hampto Mr. Jack Mc Soils PO# 00	Carthy	ticut 06424				R	Report Date: September 18, 2006
	Client Sam Sample ID Matrix: Collect Da Receive Da Collector:	: te:		9106 00 1706830 SE 27 JUN 21 JUL Client	1 06		Project: Client ID: Vol. Recv.:	YANK01204 YANK001
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date Time Batch Mto
Rad Alpha Spec Analysi	is					·	• • •	
Alphaspec Am241, Cm,	Solid ALL FS.							
Americium 241		0.193	+/ 0.166	0.00	+/ 0.168	0.101	pCi/g	MXA 09/12/06 0844 565213 1 1
Curium 242	U	0.0784	+/ 0.147	0.0655	+/ 0.147	0.271	pCi/g	
Curium 243/244	U	0.0942	+/ 0.129	0.0474	+/ 0.130	0.196	pCi/g	
Alphaspec Pu, Solid A	LL FSS							
Plutonium 238	U	0.0325	+/ 0.0637	0.00	+/ 0.0638	0.0881	pCi/g	MXA 09/11/06 0919 565214 2
Plutonium 239/240	U	0.0013	+/ 0.0705	0.0582	+/ 0.0705	0.204	pCi/g	1
Liquid Scint Pu241, Sol	lid ALL FSS							
Plutonium 241	U	7.19	+/ 12.0	9.91	+/ 12.1	20.4	pCi/g	MXA 09/13/06 0019 565216 3 1
<b>Rad Liquid Scintillation</b>	Analysis							
LSC, Tritium Dist, Solid	d HTD2,ALL	FSS						
Tritium	U	0.686	+/ 5.32	4.50	+/ 5.32	9.48	pCi/g	DFA1 09/05/06 1950 564447 4
Liquid Scint C14, Solid								
Carbon 14	U	0.0572	+/ 0.114	0.0942	+/ 0.114	0.193	pCi/g	AXD2 09/09/06 0331 564449 5
Liquid Scint Fe55, Solid						<b>5</b> 2 0	<b>C</b> (1	
Iron 55	U	7.27	+/ 37.9	25.6	+/ 37.9	53.2	pCi/g	MXP1 09/08/06 0137 565291 6
Liquid Scint Ni63, Solid Nickel 63	t ALL FSS U	2.39	+/ 7.60	6.43	+/ 7.60	13.2	pCi/g	MXP1 09/09/06 0025 565293 7
Liquid Scint Tc99, Solid	•	2.39	17 7.00	0.45	· · · · · · · · · · · · · · · · · · ·	13.2	hcn.8	WLAF 1 07/07/00 0025 505295 /
Technetium 99	U ALL FSS	0.132	+/ 0.270	0.223	+/ 0.270	0.460	pCi/g	KXR1 09/06/06 1710 564445 8

#### 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
7	DOE RESL Ni 1, Modified

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### **Certificate of Analysis**

Company : Address :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd		
Contact: Project:	East Hampton, Connecticut 06424 Mr. Jack McCarthy Soils PO# 002332		Report Date: September 18, 2006
j	Client Sample ID: Sample ID:	9106 0015 018F 170683008	Project: YANK01204 Client ID: YANK001 Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
8		300 Te 0	2 RC Modified						

#### DOE EML HASL 300, To 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	86	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	79	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	79	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	47	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	82	(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 >
- The TIC is a suspected aldol condensation product Α
- В Target analyte was detected in the associated blank
- BD Results are either below the MDC or tracer recovery is low
- С Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- Η 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
- Analyte was analyzed for, but not detected above the MDL, MDA, or LOD. U
- 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
- Λ 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 an "as received" basis.

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### **Certificate of Analysis**

Company : Address :	Connecticut 362 Injun Ho		tomic Power						
Contact: Project:	East Hampto Mr. Jack Mc Soils PO# 00	Carthy	ticut 06424				R	Report Date: September 18, 2006	
	Client Sam Sample ID Matrix: Collect Da Receive Da Collector:	: te:		9106 00 1706830 SE 28 JUN 21 JUL Client	1 06		Project: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date Time Batch M	td
Rad Alpha Spec Analys									
Alphaspec Am241, Cm,	Solid ALL FS								
Americium 241		0.292	+/ 0.213	0.0479	+/ 0.217	0.198	pCi/g	MXA 09/12/06 0844 565213	1
Curium 242	U	0.0522	+/ 0.102	0.00	+/ 0.103	0.141	pCi/g	1	
Curium 243/244	U	0.0289	+/ 0.0766	0.0341	+/ 0.0767	0.171	pCi/g		
Alphaspec Pu, Solid A	LL FSS								
Plutonium 238	U	0.0352	+/ 0.0798	0.0658	+/ 0.0798	0.231	pCi/g	MXA 09/11/06 0919 565214	2
Plutonium 239/240	U	0.019	+/ 0.0758	0.0465	+/ 0.0758	0.192	pCi/g	I	
Liquid Scint Pu241, So	lid ALL FSS								
Plutonium 241	U	24.6	+/ 16.2	13.0	+/ 16.5	26.7	pCi/g	MXA 09/13/06 0106 565216	3
Rad Liquid Scintillation	a Analysis							-	
LSC, Tritium Dist, Soli	d HTD2,ALL	FSS							
Tritium	U	1.6	+/ 7.22	6.13	+/ 7.22	12.9	pCi/g	DFA1 09/05/06 2022 564447	4
Liquid Scint C14, Solid	All,FSS								
Carbon 14		0.207	+/ 0.113	0.0898	+/ 0.113	0.185	pCi/g	AXD2 09/09/06 0418 564449	5
Liquid Scint Fe55, Soli									
Iron 55	U	10.8	+/ 47.1	31.3	+/ 47.1	65.2	pCi/g	MXP1 09/11/06 1206 565291	6
Liquid Scint Ni63, Solid		2.07		6.94		11.0		NEVEL 00/00/07 0107 777000	-
Nickel 63	U	3.07	+/ 6.78	5.76	+/ 6.78	11.8	pCi/g	MXP1 09/09/06 0127 565293	7
Liquid Scint Tc99, Solid Technetium 99	d ALL FSS U	0.390	+/ 0.283	0.227	+/ 0.283	0.468	pCi/g	KXR1 09/06/06 1726 564445	8
	0	0.370	17 0.203	0.221	1 0.205	0.400	peng	KARI 07/00/00 1/20 304443	0

#### 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
7	DOE RESL Ni 1, Modified

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### **Certificate of Analysis**

Company : Connecticut Yankee Atomic Power 362 Injun Hollow Rd Address : East Hampton, Connecticut 06424 Report Date: September 18, 2006 Mr. Jack McCarthy Contact: Project: Soils PO# 002332 Project: Client ID: Client Sample ID: 9106 0015 002F YANK01204 Sample ID: 170683009 YANK001 Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
8	DOE EML HASL	300, Tc 0	2 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	79	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	75	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	74	(15% 125%)
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	55	(25% 125%)
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	80	(15% 125%)

Notes:

The Qualifiers in this report are defined as follows :

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

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## **Certificate of Analysis**

Company Address :			tomic Power						
Contact: Project:	East Hampte Mr. Jack Mo Soils PO# 0	cCarthy	eticut 06424				म	Report Date: September	• 18, 2006
	Client San Sample ID Matrix: Collect Da Receive D Collector: Moisture:	): ite:		9106 00 1706830 SE 07 AU 17 AU Client 23.8%	G 06		Proiect: Client ID: Vol. Recv.:	YANK01204 YANK001	
Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF Analyst Date	Time Batch Mtd
Rad Alpha Spec Anal	ysis								
Alphaspec Am241, C Americium 241	m, Solid ALL FS	S 0.160	+/ 0.147	0.0296	+/ 0.148	0.148	pCi/g	MXA 09/12/	06 0844 565213 1
Curium 242 Curium 243/244	U	0.00 0.132	+/ 0.0754 +/ 0.130	0.00 0.00	+/ 0.0754 +/ 0.131	0.104 0.0896	pCi/g pCi/g	1	
Alphaspec Pu, Solid Plutonium 238	ALL FSS U	0.0279	+/ 0.0954	0.0976	+/ 0.0955	0.306	pCi/g	MXA 09/11/ 1	06 0919 565214 2
Plutonium 239/240	-	0.0591	+/ 0.0934	0.0903	+/ 0.0934	0.292	pCi/g	I	
<i>Liquid Scint Pu241, S</i> Plutonium 241	Solid ALL FSS U	14.0	+/ 14.7	12.0	+/ 14.8	24.6	pCi/g	MXA 09/13/	06 0153 565216 3
Rad Gas Flow Propor	-	g							
GFPC, Sr90, solid A Strontium 90 Rad Liquid Scintillati	U	0.00619	+/ 0.0168	0.0131	+/ 0.0168	0.0311	pCi/g	KSD1 09/08/	06 1932 565253 4
LSC, Tritium Dist, So Tritium	olid HTD2,ALL U	FSS 4.94	+/ 7.02	5.55	+/ 7.02	12.0	pCi/g	ATH2 09/07/	06 0102 565650 5
<i>Liquid Scint C14, Sol</i> Carbon 14	lid All,FSS	0.324	+/ 0.115	0.0889	+/ 0.115	0.183	pCi/g	AXD2 09/08/	06 0456 565649 6
<i>Liquid Scint Fe55, So</i> Iron 55	olid ALL FSS U	1.92	+/ 38.0	25.9	+/ 38.0	53.9	pCi/g	MXP1 09/08/	06 0210 565291 7
Liquid Scint Ni63, So Nickel 63	olid ALL FSS U	0.735	+/ 5.83	4.88	+/ 5.83	10.0	pCi/g	MXP1 09/09/	06 0229 565293 8
Liquid Scint Tc99, So Technetium 99	olid ALL FSS U	0.0126	+/ 0.193	0.161	+/ 0.193	0.330	pCi/g	KXR1 09/12/	06 1349 565648 9

ethod	Description	Analyst	Date	Time	Prep Batch
y Soil Prep	Dry Soil Prep GL RAD A 021	JMB1	09/05/06	1736	565454
following	Analytical Methods were performed				
thod	Description				

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### **Certificate of Analysis**

Company : Connecticut Yankee Atomic Power Address : 362 Injun Hollow Rd East Hampton, Connecticut 06424 Report Date: September 18, 2006 Mr. Jack McCarthy Contact: Soils PO# 002332 Project: Client Sample ID: 9106 0001 132F YANK01204 Project: Client ID: Sample ID: 170683010 YANK001 Vol. Recv.: Parameter **Oualifier** Result Uncertainty LC TPU MDA Units **DF** Analyst Date Time Batch Mtd DOE EML HASL 300, Am 05 RC Modified DOE EML HASL 300, Pu 11 RC Modified DOE EML HASL 300, Pu 11 RC Modified EPA 905.0 Modified EPA 906.0 Modified EPA EERF C 01 Modified DOE RESL Fe 1, Modified DOE RESL Ni 1, Modified DOE EML HASL 300, Tc 02 RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits	
Americium 243	Alphaspec Am241, Cm, Solid ALL	87	(15% 125%)	
Plutonium 242	Alphaspec Pu, Solid ALL FSS	66	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid ALL FS	66	(25% 125%)	
Carrier/Tracer Recovery	GFPC, Sr90, solid ALL FSS	100	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Fe55, Solid ALL FS	76	(15% 125%)	
Carrier/Tracer Recovery	Liquid Scint Ni63, Solid ALL FS	72	(25% 125%)	
Carrier/Tracer Recovery	Liquid Scint Tc99, Solid ALL FS	72	(15% 125%)	

#### Notes:

1 2

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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 >
- The TIC is a suspected aldol condensation product A
- Target analyte was detected in the associated blank B
- BD Results are either below the MDC or tracer recovery is low
- Analyte has been confirmed by GC/MS analysis С
- Results are reported from a diluted aliquot of the sample D
- Н Analytical holding time was exceeded
- Value is estimated J
- 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.
- Gamma Spectroscopy Uncertain identification UI
- Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier Х
- Y QC Samples were not spiked with this compound

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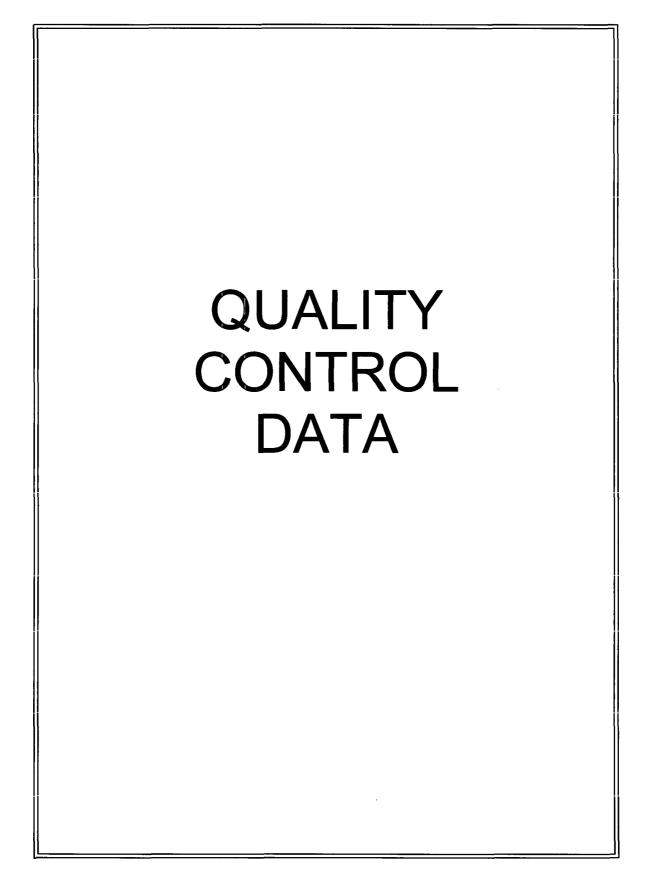
# **Certificate of Analysis**

	Company : Address :	Connecticut Yankee Atomic Power 362 Injun Hollow Rd			
	Contact: Project:	East Hampton, Connecticut 06424 Mr. Jack McCarthy Soils PO# 002332		Rep	port Date: September 18, 2006
		Client Sample ID: Sample ID:	9106 0001 132 170683010		YANK01204 YANK001
Parameter		Qualifier Result Uncertainty	LC TPI	J MDA Units	DF Analyst Date Time Batch Mtd

^ 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

Client :	Connecticut Yankee At 362 Injun Hollow Rd	tomic Power	<u>QC Summary</u>			Report Date: September 18, 2006 Page 1 of 10						
Contact:	East Hampton, Connec Mr. Jack McCarthy	ticut										
Workorder:	170683											
Parmname		NOM	Sample (	Qual	QC	Units F	RPD%	REC%	Range Anlst	Date Time		
<b>Rad Alpha Spec</b> Batch	565210											
	92 170683001 DUP											
Plutonium-238		U	-0.148	U	0.137	pCi/g	5180		(0% - 100%) <b>/</b> IXA1	09/11/06 09:19		
		Uncert:	+/-0.269		+/-0.303							
	240	TPU:	+/-0.270		+/-0.304	0.1	200		(00/ 1000/)			
Plutonium-239/	240	U	0.00321	U	-0.215	pCi/g	206		(0% - 100%)			
		Uncert:	+/-0.174		+/-0.181 +/-0.183							
QC12011755	94 LCS	TPU:	+/-0.174		+/-0.185							
Plutonium-238				U	-0.0564	pCi/g			(75%-125%)			
		Uncert:			+/-0.446	F 0			(			
		TPU:			+/-0.446							
Plutonium-239/	240	12.3			9.42	pCi/g		77	(75%-125%)			
		Uncert:			+/-1.98							
		TPU:			+/-2.49							
QC12011755	91 MB				<del>.</del>	~						
Plutonium-238		T I		U	0.117	pCi/g						
		Uncert: TPU:			+/-0.220 +/-0.221							
Plutonium-239/	240	IPU:		U	0.0802	pCi/g						
Tutomum-257	240	Uncert:		0	+/-0.226	perg						
		TPU:			+/-0.226							
QC12011755	93 170683001 MS											
Plutonium-238		U	-0.148	U	0.110	pCi/g			(75%-125%)			
		Uncert:	+/-0.269		+/-0.175							
		TPU:	+/-0.270		+/-0.176							
Plutonium-239/	240	12.5 U	0.00321		11.8	pCi/g		94	(75%-125%)			
		Uncert:	+/-0.174		+/-1.70							
Datab	565213	TPU:	+/-0.174		+/-2.29							
Batch	363213											
· · · · · · · · · · · · · · · · · · ·	03 170683004 DUP		0.105		0.1.00	<u></u>			(00)			
Americium-241		I In a set.	0.187		0.163	pCi/g	14		(0% - 100%) <b>A</b> XA1	09/12/06 08:44		
		Uncert:	+/-0.170		+/-0.149							
Curium-242		TPU: U	+/-0.172 -0.0387		+/-0.151 0.143	pCi/g	348		(0% - 100%)			
Junum-272		Uncert:	+/-0.0438		+/-0.162	PCDB	540		(0/0 - 100/0)			
		TPU:	+/-0.0442		+/-0.163							
Curium-243/24	4	U	-0.00608	U	-0.0487	pCi/g	156		(0% - 100%)			
		Uncert:	+/-0.118		+/-0.0768	- 0						
		TPU:	+/-0.118		+/-0.0769							
QC12011756								-				
Americium-241		13.5			12.8	pCi/g		95	(75%-125%)			
		Uncert:			+/-1.24							
		TPU:			+/-2.12							

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### **QC Summary**

				mmary						
Workorder: 170683								Page 2	of 10	
Parmname	NOM	Sample Q	ual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec Batch 565213										
Curium-242			U	0.00	pCi/	g				
	Uncert:			+/-0.0625	-	•				
	TPU:			+/-0.0625						
Curium-243/244	16.4			15.1	pCi/	g	92	(75%-125%)		
	Uncert:			+/-1.35						
	TPU:			+/-2.44						
QC1201175602 MB										
Americium-241			U	0.0812	pCi/	g				09/12/06 08:44
	Uncert:			+/-0.107						
	TPU:			+/-0.108	0.1					
Curium-242	<b>TT</b> ,		U	0.0664	pCi/	g				
	Uncert:			+/-0.106						
Curium 242/244	TPU:		U	+/-0.107 -0.00886	-0:1	·~				
Curium-243/244	Uncert		U	-0.00886 +/-0.0744	pCi/	g				
	Uncert:									
QC1201175604 170683004 MS	TPU:			+/-0.0745						
Americium-241	13.7	0.187		14.1	pCi/	σ	102	(75%-125%)		09/12/06 08:44
	Uncert:	+/-0.170		+/-1.41	P	0		(1070 12570)		0,712,00 00.11
	TPU:	+/-0.172		+/-2.41						
Curium-242	U U	-0.0387		0.209	pCi/	ø				
	Uncert:	+/-0.0438		+/-0.205	Per	0				
	TPU:	+/-0.0442		+/-0.207						
Curium-243/244	16.7 U	-0.00608		16.2	pCi/	g	97	(75%-125%)		
	Uncert:	+/-0.118		+/-1.52		0		(		
	TPU:	+/-0.118		+/-2.71						
Batch 565214										
QC1201175607 170683004 DUP										
Plutonium-238	U	-0.012	U	-0.0415	pCi/	g 110		(0% - 100%)	4XA1	09/11/06 09:19
	Uncert:	+/-0.0236		+/-0.0941	1	0		(		
	TPU:	+/-0.0236		+/-0.0941						
Plutonium-239/240	U	-0.0601	U	-0.0311	pCi/	g 64		(0% - 100%)		
	Uncert:	+/-0.0526		+/-0.0917	-	-		. ,		
	TPU:	+/-0.0531		+/-0.0917						
QC1201175609 LCS										
Plutonium-238			U	0.00142	pCi/	g		(75%-125%)		
	Uncert:			+/-0.0772						
	TPU:			+/-0.0772						
Plutonium-239/240	12.5			10.7	pCi/	g	86	(75%-125%)		
	Uncert:			+/-1.21						
	TPU:			+/-1.66						
QC1201175606 MB			11	0 0202	-01	<b>'</b> ~				
Plutonium-238	Lincout		U	-0.0382 +/-0.113	pCi/	B				
	Uncert:									
Plutonium-239/240	TPU:		U	+/-0.113 -0.0891	-0:	a				
r 1utomum-239/240	Uncert:		U	-0.0891 +/-0.066	pCi/	g				
	TPU:			+/-0.0669						

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		<u>V</u>	, Su	immary							
Workorder: 170683								Page 3	of 10		
Parmname	NOM	Sample (	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Tim
Rad Alpha SpecBatch565214											
Plutonium-238	U Uncert:	-0.012 +/-0.0236	U	0.0632 +/-0.143	pCi/į	g		(75%-125%)			
	TPU:	+/-0.0236		+/-0.143							
Plutonium-239/240	12.6 U	-0.0601		10.9	pCi/g	3	87	(75%-125%)			
	Uncert:	+/-0.0526		+/-1.20							
D + 1	TPU:	+/-0.0531		+/-1.66							
Batch 565216											
QC1201175615 170683004 DUP						_					
Plutonium-241	U	16.2	U	5.89	pCi/į	g 0		(0% - 100%)	MXA1	09/13/06	5 03:2
	Uncert:	+/-13.4		+/-12.7							
001201126(17 1.00	TPU:	+/-13.5		+/-12.7							
QC1201175617 LCS Plutonjum-241	341			310	pCi/į	r	91	(75%-125%)		09/12/06	5 11.2
	Uncert:			+/-32.9	perg	5	71	(1570-12570)		07/12/00	, 11.2
	TPU:			+/-45.2							
QC1201175614 MB											
Plutonium-241			U	5.70	pCi/g	g				09/13/06	5 02:3
	Uncert:			+/-12.7							
	TPU:			+/-12.7							
QC1201175616 170683004 MS	244	14.0		2.41	<b>C</b> :/			(750) 1050()		00/10/0	
Plutonium-241	344 U	16.2		341	pCi/	5	99	(75%-125%)		09/12/06	511:1
	Uncert:	+/-13.4		+/-51.8							
Batch 567705	TPU:	+/-13.5		+/-66.7							
QC1201181288 170683003 DUP Americium-241		0.012		0.120	pCi/g	g 164		(0% - 100%)	TCI	00/14/04	< 00·3
Americium-241	U Uncert:	+/-0.0233		+/-0.0804	pen	5 104		(078 - 10078)	101	09/14/00	509.5
	TPU:	+/-0.0234		+/-0.082					•		
Curium-242	110. U	-0.00814	U	0.00	pCi/g	g 200		(0% - 100%)			
	Uncert:	+/-0.0351		+/-0.0381	F 6			(			
	TPU:	+/-0.0351		+/-0.0381							
Curium-243/244	U	-0.00571	U	-0.0196	pCi/g	g 110		(0% - 100%)			
	Uncert:	+/-0.0246		+/-0.031							
	TPU:	+/-0.0246		+/-0.031							
QC1201181290 LCS	<i>c</i>				0.1		100	(750( 1050()			
Americium-241	5.23			5.41	pCi/g	g	103	(75%-125%)			
	Uncert:			+/-0.508							
Curium-242	TPU:		U	+/-0.878 0.00	pCi/g						
Curium-242	Uncert:		0	+/-0.0244	pen	5					
	TPU:			+/-0.0244							
Curium-243/244	6.31			6.40	pCi/j	z	101	(75%-125%)			
	Uncert:			+/-0.553	r 1	-		() · · · · · · · · · · · · · · · · · · ·			
	TPU:			+/-1.01							
QC1201181287 MB											
Americium-241			U	0.00039	pCi/	g				09/14/06	5 09:3
	Uncert:			+/-0.00421							
	TPU:			+/-0.00421							

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Workorder: 170683							Page 4 of 10			
Parmname	NOM	NOM Sample Qual QC Units RPD%				REC% Range Anist Date Time				
Rad Alpha Spec		Sumple Q	2441	<u></u>	01113	- ICI D / 0	THE /	<u>runge</u>	2 xmst	Date Third
Batch 567705										
Curium-242			U	0.00902	pCi/	0				
	Uncert:		Ũ	+/-0.0239	per	5				
	TPU:			+/-0.0239						
Curium-243/244			U	-0.00283	pCi/	′g				
	Uncert:			+/-0.0238	-	-				
	TPU:			+/-0.0238						
QC1201181289 170683003 MS										
Americium-241	5.27 U	0.012		5.58	pCi/	g	106	(75%-125%)	I	09/14/06 09:31
	Uncert:	+/-0.0233		+/-0.524						
Continue 242	TPU:	+/-0.0234	* 1	+/-0.908	0.1	,				
Curium-242	U	-0.00814	U	0.0183	pCi/	g				
	Uncert: TPU:	+/-0.0351 +/-0.0351		+/-0.0359 +/-0.036						
Curium-243/244	6.41 U	-0.00571		7.36	pCi/	la la	115	(75%-125%)		
Currant-2+5/2+4	Uncert:	+/-0.0246		+/-0.603	per,	Б	115	(7570-12570)		
	TPU:	+/-0.0246		+/-1.15						
Batch 567883										
001201191752 170692001 010										
QC1201181752 170683001 DUP Plutonium-241	U	9.87	U	-3.06	pCi/	/g 0		(0% - 100%)	TCI	09/17/06 03:51
	Uncert:	+/-11.1	U	+/-10.4	per	<i>Б</i> [°]		(0/0 100/0)	101	07/1//00 05:51
	TPU:	+/-11.1		+/-10.4						
QC1201181754 LCS										
Plutonium-241	135			120	pCi/	′g	89	(75%-125%)	1	09/17/06 04:24
	Uncert:			+/-16.2						
	TPU:			+/-19.8						
QC1201181751 MB										
Plutonium-241	••		U	1.78	pCi/	g				09/17/06 03:35
	Uncert:			+/-9.61						
QC1201181753 170683001 MS	TPU:			+/-9.61						
Plutonium-241	142 U	9.87		113	pCi/	a	80	(75%-125%)		09/17/06 04:08
	Uncert:	+/-11.1		+/-15.8	pen	Б	00	(1570-12570)		07/1//00 04.00
	TPU:	+/-11.1		+/-19.1						
Rad Gas Flow										
Batch 565250										
QC1201175680 170683002 DUP										
Strontium-90	U	-0.00415	U	0.000131	pCi/	/g 0		(0% - 100%)	KSDI	09/08/06 18:03
	Uncert:	+/-0.016	-	+/-0.0253	P	8		(0,0 100,0)		
	TPU:	+/-0.016		+/-0.0253						
QC1201175682 LCS										
Strontium-90	1.56			1.63	pCi/	g	105	(75%-125%)	)	09/08/06 18:05
	Uncert:			+/-0.151						
	TPU:			+/-0.155						
QC1201175679 MB				0.00460	~	1-				00/00/07 10 07
Strontium-90	I I		U	-0.00458	pCi/	g				09/08/06 18:03
	Uncert: TPU:			+/-0.018 +/-0.018						
QC1201175681 170683002 MS	IPU:			77-0.018						
Strontium-90	3.13 U	-0.00415		2.38	pCi/	/g	76	(75%-125%)	)	09/08/06 18:03
	0			2.00	P	0		(		

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		QU	Su	immary					
Workorder: 170683								Page 5 of 10	
Parmname	NOM	Sample Q	)ual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Gas Flow Batch 565250									
	Uncert: TPU:	+/-0.016 +/-0.016		+/-0.249 +/-0.253					
Batch 565253	IFU.			17-0.235					
QC1201175687 170683005 DUP Strontium-90	U	-0.000759	U	-0.000963	pCi/j	g O		(0% - 100%) KSD1	00/08/06 10:31
Subman 50	Uncert:	+/-0.0157	U	+/-0.0166	per	5 0		(070 - 10070) 1001	07/08/00 17.5.
	TPU:	+/-0.0157		+/-0.0166					
QC1201175689 LCS	1.67			1.20	-01	_	77	(750/ 1250/)	00/00/06 10:0
Strontium-90	1.57 Uncert:			1.20 +/-0.113	pCi/	g	11	(75%-125%)	09/09/06 12:2
	TPU:			+/-0.113					
QC1201175686 MB									
Strontium-90			U	-0.0216	pCi/	g			09/08/06 19:32
	Uncert:			+/-0.00992					
QC1201175688 170683005 MS	TPU:			+/-0.00992					
Strontium-90	3.14 U	-0.000759		2.77	pCi/	g	88	(75%-125%)	09/08/06 19:3
	Uncert:	+/-0.0157		+/-0.189					
	TPU:	+/-0.0157		+/-0.205					
Rad Liquid Scintillation Batch 564445									
QC1201173841 170544018 DUP									
Technetium-99	U	0.128	U	0.0496	pCi/	g 0		(0% - 100%) KXR1	09/06/06 17:5
	Uncert: TPU:	+/-0.272 +/-0.272		+/-0.251 +/-0.251					
QC1201173843 LCS	IFU.	(7-0.272		1/-0.231					
Technetium-99	12.7			13.0	pCi/	g	103	(75%-125%)	09/06/06 18:3
	Uncert:			+/-0.501					
QC1201173840 MB	TPU:			+/-0.582					
Technetium-99			U	0.0991	pCi/	g			09/06/06 17:4
	Uncert:			+/-0.243	r	0			
	TPU:			+/-0.243					
QC1201173842 170544018 MS Technetium-99	12.1	0 129		12.2	-0:/	-	102	(750/ 1350/)	00/06/06 19.1
reemetium-99	13.1 U Uncert:	0.128 +/-0.272		13.3 +/-0.540	pCi/	g	102	(75%-125%)	09/06/06 18:1:
	TPU:	+/-0.272		+/-0.620					
Batch 564447									
QC1201173845 170544018 DUP									
Tritium	U		U	0.760	pCi/	g 0		(0% - 100%) DFA1	09/05/06 21:2:
	Uncert:	+/-6.54		+/-5.24					
QC1201173847 LCS	TPU:	+/-6.54		+/-5.24					
Tritium	46.9			44.3	pCi/	g	95	(75%-125%)	09/07/06 11:2
	Uncert:			+/-8.94				-	
	TPU:			+/-8.98					
QC1201173844 MB Tritium			U	-0.43	nCil	a			09/05/06 20:54
1 initiali			0	-0.43	pCi/	Б			09/03/00 20:34

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Parmname	NOM	Sample (	Qual	QC	Units	RPD%	REC%	Range Anls				
Rad Liquid Scintillation	1			-					·			
Batch 564447												
	Uncert:			+/-4.67								
	TPU:			+/-4.67								
QC1201173846 170544018 MS					~							
Tritium	54.5 U	1.53		57.4	pCi/	g	105	(75%-125%)	09/07/06 11:0:			
	Uncert: TPU:	+/-6.54 +/-6.54		+/-10.7 +/-10.7								
Batch 564449	TPU:	<i></i> ⊤/-0.34		+/-10./								
QC1201173849 170544019 DUP												
Carbon-14	U	-0.0997	U	-0.0804	pCi/	g 0		(0% - 100%) AXD	2 09/09/06 05:04			
	Uncert:	+/-0.0966		+/-0.108	-	-		. ,				
	TPU:	+/-0.0966		+/-0.108								
QC1201173851 LCS												
Carbon-14	6.66			6.26	pCi/	g	94	(75%-125%)	09/06/06 13:3			
	Uncert:			+/-0.258								
	TPU:			+/-0.276								
QC1201173848 MB Carbon-14			U	-0.0326	pCi/	a			09/06/06 12:02			
	Uncert:		U	+/-0.102	per.	5			07/00/00 12:0.			
	TPU:			+/-0.102								
QC1201173850 170544019 MS												
Carbon-14	6.86 U	-0.0997		6.85	pCi/	g	100	(75%-125%)	09/06/06 13:0			
	Uncert:	+/-0.0966		+/-0.273								
	TPU:	+/-0.0966		+/-0.293								
Batch 564514												
QC1201174039 170683006 DUP												
Tritium	U	3.44	U	1.46	pCi/	g 0		(0% - 100%) DFA	1 09/05/06 14:33			
	Uncert:	+/-6.25		+/-5.79								
	TPU:	+/-6.25		+/-5.79								
QC1201174041 LCS Tritium	48.4			53.7	pCi/	a	111	(75%-125%)	09/05/06 15:30			
1 minim	Uncert:			+/-7.25	pen.	6		(/5/0-125/0)	07/05/00 15.5			
	TPU:	1		+/-7.31								
QC1201174038 MB												
Tritium			U	0.308	pCi/	g			09/05/06 14:0			
	Uncert:			+/-4.66								
	TPU:			+/-4.66								
QC1201174040 170683006 MS	40.1	3.44		61.1	-0:/	~	124	(750/ 1050/)				
Tritium	49.1 U Uncert:	+/-6.25		61.1 +/-7.58	pCi/	g	124	(75%-125%)	09/05/06 15:0:			
	TPU:	+/-6.25		+/-7.65								
Batch 564520	110.	17-0.25		17-7.05								
QC1201174057 170683007 DUP Carbon-14	U	0.0995	U	0.0741	pCi/	g 0		(0% - 100%) AXD	2 09/06/06 10.2			
	Uncert:	+/-0.0918	5	+/-0.118	PC ⁰	0		(0/0 100/0) (MD	- 07/00/00 10.2			
	TPU:	+/-0.0918		+/-0.118								
QC1201174059 LCS												
Carbon-14	6.58			6.51	pCi/	g	99	(75%-125%)	09/06/06 11:23			
	Uncert:			+/-0.263								
	TPU:			+/-0.282								

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					. <b>Su</b> l	mmary							
Workorder: 1	70683									Page 7 o			
Parmname			NOM	Sample (	Qual	QC	Units	RPD%	REC%	Range A	Anlst	Date	Time
Rad Liquid Scintilla Batch 564	<b>tion</b> 1520												
QC1201174056 Carbon-14	MB		Uncert:		U	-0.0231 +/-0.105	pCi/g	5				09/06/06	5 09:53
QC1201174058 Carbon-14	170683007	MS	TPU: 7.19 U	0.0995		+/-0.105	pCi/g	2	89	(75%-125%)		09/06/06	6 10:5(
	1400		Uncert: TPU:	+/-0.0918 +/-0.0918		+/-0.276 +/-0.293							
Batch 564	623												
QC1201174254 Technetium-99	170683001	DUP	U Uncert:	0.341 +/-0.291	U	0.187 +/-0.211	pCi/į	g 0		(0% - 100%) K	XR1	09/08/00	5 19:42
QC1201174256 Technetium-99	LCS		TPU: 13.0	+/-0.291		+/-0.211	pCi/į	g	94	(75%-125%)		09/06/06	5 14:4:
001001104050			Uncert: TPU:			+/-0.490 +/-0.566							
QC1201174253 Technetium-99	MB		Uncert:		U	0.151 +/-0.247	pCi/g	g				09/06/0	5 13:54
QC1201174255 Technetium-99	170683001	MS	TPU: 13.0 U	0.341		+/-0.247	pCi/j	σ	99	(75%-125%)		09/06/04	6 14•2'
			Uncert: TPU:	+/-0.291 +/-0.291		+/-0.547 +/-0.623	Post	B		(,		0,,00,0	
Batch 565	5287												
QC1201175809 Iron-55	170683006	DUP	U Uncert:	-12.6 +/-44.5	U	38.3 +/-41.2	pCi/j	g 0		(0% - 100%) N	AXP1	09/07/0	6 23:59
QC1201175811	LCS		TPU: 628	+/-44.5		+/-41.2	-0:1	_	00	(759/ 1050/)		00/00/0	C 00.2
Iron-55			028 Uncert: TPU:			613 +/-56.2 +/-67.5	pCi/j	g	98	(75%-125%)		09/08/0	5 00:3
QC1201175808 Iron-55	MB		Uncert:		U	10.2 +/-35.9	pCi/j	g				09/07/0	6 23:42
QC1201175810	170683006	MS	TPU:	10.6		+/-35.9	0.1		01			00/10/0	
Iron-55			746 U Uncert: TPU:	-12.6 +/-44.5 +/-44.5		675 +/-60.5 +/-73.4	pCi/j	g	91	(75%-125%)		09/10/0	5 15:0
Batch 565	5289												
QC1201175815 Nickel-63	170683006	DUP	U	4.82	U	6.11	pCi/j	g O		(0% - 100%) N	AXP1	09/08/0	6 03:1:
QC1201175817	LCS		Uncert: TPU:	+/-7.80 +/-7.80		+/-9.03 +/-9.03							
Nickel-63	200		512			443	pCi/	g	87	(75%-125%)		09/08/0	6 04:10

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137	0.00										
Workorder: 17	0683								Page 8		·
Parmname		NOM	Sample (	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Tim
Rad Liquid Scintillati Batch 5652											
		Uncert:			+/-15.2						
		TPU:			+/-20.8						
QC1201175814	MB										
Nickel-63				U	5.67	pCi/	g				09/08/06 02:4
		Uncert:			+/-7.44						
001201175816	170682006 M	TPU:			+/-7.44						
QC1201175816 Nickel-63	170083000 141	5 572 U	4.82		475	pCi/g	or a	83	(75%-125%)		09/08/06 03:4
		Uncert:	+/-7.80		+/-15.4	POL	5	05	(1070 12070)		07/00/00 03.4
		TPU:	+/-7.80		+/-22.2						
Batch 5652	91										
QC1201175819	170683004 DI	JP									
Iron-55		U	33.7	U	-4.73	pCi/g	g 0		(0% - 100%)	MXP1	09/08/06 02:4
		Uncert:	+/-51.9		+/-40.3	•	-				
		TPU:	+/-52.0		+/-40.3						
QC1201175821	LCS	( <b>a</b> a									
Iron-55		628			652	pCi/g	g	104	(75%-125%)	)	09/08/06 03:1
		Uncert:			+/-52.2 +/-64.9						
QC1201175818	МВ	TPU:			+/-04.9						
Iron-55	MB			U	-26.7	pCi/j	ס				09/08/06 02:2
		Uncert:		-	+/-35.6	F 4	2				
		TPU:			+/-35.6						
QC1201175820	170683004 M										
Iron-55		711 U	33.7		744	pCi/	g	105	(75%-125%)	)	09/08/06 02:5
		Uncert:	+/-51.9		+/-60.1						
Batch 5652	993	TPU:	+/-52.0		+/-75.2						
QC1201175823 Nickel-63	170683004 DU		0.395	U	0.122	-0:4	g O		(0)/ 1001/3		00/00/06 04.3
NICKCI-03		U Uncert:	+/-9.40	0	+/-7.25	pCi/j	g U		(0% - 100%)	MAPI	09/09/06 04:3
		TPU:	+/-9.40		+/-7.25						
QC1201175825	LCS	n 0.	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		.7 7.25						
Nickel-63		512			467	pCi/	g	91	(75%-125%)	)	09/09/06 06:3
		Uncert:			+/-15.4						
		TPU:			+/-21.5						
QC1201175822 Nickel-63	MB				2.47	-0:/	_				00/00/07 02 2
Nickel-05		Uncert:		U	-2.47 +/-5.58	pCi/	g				09/09/06 03:3
		TPU:			+/-5.58						
QC1201175824	170683004 M				17-5.50						
Nickel-63		531 U	0.395		535	pCi/j	g	101	(75%-125%)	)	09/09/06 05:3
		Uncert:	+/-9.40		+/-21.6						
_		TPU:	+/-9.40		+/-27.8						
Batch 5656	648										
QC1201176787	170683010 DU	JP									
Technetium-99		U	0.0126	U	0.0841	pCi/	g 0		(0% - 100%)	) KXR1	09/12/06 14:5
		Uncert:	+/-0.193		+/-0.206						
		TPU:	+/-0.193		+/-0.206						

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Workorder: 170683				Su	mmary					
		Nobe							Page 9 of 10	
Parmname		NOM	Sample (	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Liquid ScintillationBatch565648										
QC1201176789 LCS Technetium-99		13.1 Uncert: TPU:			13.2 +/-0.349 +/-0.480	pCi/j	g	101	(75%-125%)	09/12/06 15:56
QC1201176786 MB Technetium-99		Uncert: TPU:		U	0.00238 +/-0.154 +/-0.154	pCi/į	g			09/12/06 14:21
QC1201176788 1706830 Technetium-99	10 MS	13.0 U Uncert: TPU:	0.0126 +/-0.193 +/-0.193		12.1 +/-0.383 +/-0.489	pCi/j	g	93	(75%-125%)	09/12/06 15:24
Batch 565649										
QC1201176791 1706830 Carbon-14	10 DUP	Uncert: TPU:	0.324 +/-0.115 +/-0.115		0.204 +/-0.112 +/-0.112	pCi/j	g 46		(0% - 100%) AXD2	09/08/06 07:38
QC1201176793 LCS Carbon-14		7.27 Uncert: TPU:			8.39 +/-0.256 +/-0.288	pCi/j	g	115	(75%-125%)	09/08/06 09:12
QC1201176790 MB Carbon-14		Uncert: TPU:		U	0.0136 +/-0.109 +/-0.109	pCi/	g			09/08/06 06:51
QC1201176792 1706830 Carbon-14	10 MS	7.22 Uncert: TPU:	0.324 +/-0.115 +/-0.115		7.14 +/-0.239 +/-0.264	pCi/	g	94	(75%-125%)	09/08/06 08:25
Batch 565650										
QC1201176795 1706830 Tritium	10 DUP	U Uncert: TPU:	4.94 +/-7.02 +/-7.02	U	7.42 +/-7.37 +/-7.37	pCi/j	g 0		(0% - 100%) ATH2	09/07/06 01:36
QC1201176797 LCS Tritium		64.5 Uncert: TPU:			64.9 +/-10.8 +/-10.8	pCi/j	g	101	(75%-125%)	09/07/06 02:09
QC1201176794 MB Tritium		Uncert: TPU:		U	4.55 +/-6.87 +/-6.87	pCi/	g			09/07/06 01:19
QC1201176796 1706830 Tritium	10 MS	64.7 U Uncert: TPU:	4.94 +/-7.02 +/-7.02		67.5 +/-10.9 +/-10.9	pCi/	g	104	(75%-125%)	09/07/06 01:52

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### **QC Summary**

	der: 170683							Page 1	l0 of 10		
Parmna	me	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Tim
Notes: The Ou	alifiers in this report are defined	ned as follows:									
1110 Qu	annets in this report are defin	neu us renows.									
*	A quality control analyte re-	covery is outside of	specified acceptance crit	eria							
<	Result is less than value rep	orted									
>	Result is greater than value	reported									
Α	The TIC is a suspected aldo	ol-condensation prod	uct								
В	Target analyte was detected	l in the associated bl	ank								
BD	Results are either below the	MDC or tracer reco	very is low								
С	Analyte has been confirmed	l by GC/MS analysis	5								
D	Results are reported from a	diluted aliquot of the	e sample								
н	Analytical holding time was	s exceeded									
J	Value is estimated		,								
N/A	Spike recovery limits do no	t apply. Sample con	centration exceeds spike	concentra	tion by 43	C or more					
R	Sample results are rejected										
U	Analyte was analyzed for, b	out not detected abov	e the MDL, MDA, or LO	DD.							
UI	Gamma SpectroscopyUnc	ertain identification									
Х	Consult Case Narrative, Da	ta Summary package	e, or Project Manager con	ncerning th	nis qualifie	er					
Y	QC Samples were not spike	d with this compour	nd								
^	RPD of sample and duplica	te evaluated using +,	-RL. Concentrations are	e <5X the I	RL						
h	Preparation or preservation	holding time was ex	ceeded								

.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result. For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

### DISCHARGE CANAL (PERMANENT WETLAND AREA) SURVEY UNIT 9106-0012

### **RELEASE RECORD**

Attachment 2b Split Sample Assessment Forms (2 Pages)

#### Connecticut Yankee Decommissioning Project Health **Physics Procedure**

			-	Sample Assessn	nent Forr	n 		
Survey Area#:	9106	Survey Unit #:		urvey Unit ame: Discl	arge Cana	1		100
Sample Plan	or WPIR#:	2006-0021				SML #:	9106-0012-	009FS
	a spectrosc	opy by an o	off-site v	ples collected fr andor laboratory.				
		STANDAR	<u>т</u>			CC	MPARISO	N
Radionuclide	Activity Value	Standard Error	Resoluti	on Agreement Range	Activity Value	Standard Error		
Cs-137	5.93E-03	1.12E-02	1	NONE -	2.40E-02	1.38E-02	4.05	<u>N/A</u>
<u>K-40</u>	1.17E+01	5.85E-01	20	0.75 - 1.33	1.14E+01	4.07E-01	0.97	Y
······								
						· · · · · · · · · · · · · · · · · · ·		
Comments/C	orrective A	ctions: In co	nsiderati	on of the Cs-137	Table is r	provided to	show accen	tance criteria us
results, guida	ance for agre	eement range	es, obtaine	d from USNRC	-	split sampl	-	
•				esolution ratios tability for such	Reso	lution	Agre	ement Range
				to be present at	4	7	0.50	2.00
				tion is warranted.	8	15	0.60	1.66
-					16	50	0.75	1.33
					51	200	0.80	1.25
					>	200	0.85	1.18
l								
			· · · · ·					· ······
Performed B	y:		D	ate:	Reviewed	i By:		Date:
_	l %m	1 11		11-3-06				11/7/06

SML – Sample Measurement Location designation

Page 1 of 1

#### Connecticut Yankee Decommissioning Project Health Physics Procedure

			Split Sa	mple A	ssessn	ent Forn	<b>n</b>		
Survey Area #:	9106	Survey Unit #:	0012 Sur Uni	vey t Name:	Disch	arge Cana	1		
Sample Plan o	or WPIR#:	2006-021					SML #:	9106-0012-	013FS
-	a spectros	copy by an	off-site ve	ndor lab		-			<u>#13</u> and analyz 9106-0012-013
		STANDAR	D				CC	MPARISON	
Radionuclide	Activity Value	Standard Error	Resolution	Agree Ran		Activity Value	Standard Error	Comparison Ratio	Acceptable (Y/N
Cs-137	7.93E-03	_8.65E-03	1	NONE -	•	1.43E-02	1.00E-02	1.80	N/A
K-40	1.21E+01	3.74E-01	32	0.75 -	1.33	1.36E+01	4.67E-01	1.12	Y
					i				
				<u> </u>					· · · · · ·
									· · · · · · · · · · · · · · · · · · ·
Comments/Co	orrective A	ctions: In co	onsideration	of the C	Cs-137	Table is r	provided to	show accept	tance criteria use
results, guida	nce for agr	eement range	s, obtained	from US	NRC	-	split samp	-	
		750, does not letermination				Reso	lution	Agree	ment Range
		Since K-40				4	7	0.50	2.00
n acceptable	e level of ag	reement, no i	further action	on is warr	anted.	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	v•		Dat	e:		Reviewed	1 Bv:		Date:
_	2 Ra	1 11		 11 - 3 -		TD			11/8/06

SML - Sample Measurement Location designation

### DISCHARGE CANAL (PERMANENT WETLAND AREA) SURVEY UNIT 9106-0012

### RELEASE RECORD

Attachment 2c Preliminary Data Form (1 Page) Health Physics Procedure

# Preliminary Data Review Form - Samples for the Sign Test

Survey Unit: Survey Unit Name:	9106- 0012 Discharge Canal		
Classification: Survey Media: Type of Survey: Type of Measurement: Number of Measurements: Operational DCGL:	2 Soil Final Status Survey Gross Measurement 15 1		
	CAL QUANTITIES		
BASIC STATISTI	Cal QUANTITLS Cs-137		
Minimum Value:	5.93E-03		
Maximum Value:	1.37E-01		
Mean:	4.07E-02		
Median:	2.25E-02		
Standard Deviation:	4.04E-02		
			M(-C)
	RADIONUCL	IDE CONCENTRATIO	
NUMBER	Cs-137	Cs Identified?	Co Identified?
NUMBER 9106-0012-001F		Cs Identified? NO	
	Cs-137	Cs Identified? NO NO	
9106-0012-001F	Cs-137 2.25E-02	Cs Identified? NO NO NO	
9106-0012-001F 9106-0012-002F	Cs-137 2.25E-02 4.39E-02	Cs Identified? NO NO NO NO	
9106-0012-001F 9106-0012-002F 9106-0012-003F	Cs-137 2.25E-02 4.39E-02 1.72E-02	Cs Identified? NO NO NO NO YES	
9106-0012-001F 9106-0012-002F 9106-0012-003F 9106-0012-004F	Cs-137 2.25E-02 4.39E-02 1.72E-02 1.87E-02	Cs Identified? NO NO NO YES YES	
9106-0012-001F 9106-0012-002F 9106-0012-003F 9106-0012-004F 9106-0012-005F	Cs-137 2.25E-02 4.39E-02 1.72E-02 1.87E-02 1.19E-01	Cs Identified? NO NO NO YES YES YES	
9106-0012-001F 9106-0012-002F 9106-0012-003F 9106-0012-004F 9106-0012-005F 9106-0012-006F	Cs-137 2.25E-02 4.39E-02 1.72E-02 1.87E-02 1.19E-01 6.95E-02	Cs Identified? NO NO NO YES YES YES YES NO	
9106-0012-001F 9106-0012-002F 9106-0012-003F 9106-0012-004F 9106-0012-005F 9106-0012-006F 9106-0012-007F	Cs-137 2.25E-02 4.39E-02 1.72E-02 1.87E-02 1.19E-01 6.95E-02 6.47E-02	Cs Identified? NO NO NO YES YES YES NO NO	
9106-0012-001F 9106-0012-002F 9106-0012-003F 9106-0012-004F 9106-0012-005F 9106-0012-006F 9106-0012-007F 9106-0012-008F	Cs-137 2.25E-02 4.39E-02 1.72E-02 1.87E-02 1.19E-01 6.95E-02 6.47E-02 3.07E-02	Cs Identified? NO NO NO YES YES YES NO NO YES	
9106-0012-001F 9106-0012-002F 9106-0012-003F 9106-0012-004F 9106-0012-005F 9106-0012-006F 9106-0012-007F 9106-0012-008F 9106-0012-009F	Cs-137 2.25E-02 4.39E-02 1.72E-02 1.87E-02 1.19E-01 6.95E-02 6.47E-02 3.07E-02 5.93E-03	Cs Identified? NO NO NO YES YES YES NO NO YES YES	
9106-0012-001F 9106-0012-002F 9106-0012-003F 9106-0012-004F 9106-0012-005F 9106-0012-006F 9106-0012-007F 9106-0012-009F 9106-0012-010F	Cs-137 2.25E-02 4.39E-02 1.72E-02 1.87E-02 1.19E-01 6.95E-02 6.47E-02 3.07E-02 5.93E-03 3.23E-02	Cs Identified? NO NO NO YES YES YES NO NO YES YES YES YES NO	
9106-0012-001F 9106-0012-002F 9106-0012-003F 9106-0012-004F 9106-0012-005F 9106-0012-006F 9106-0012-007F 9106-0012-008F 9106-0012-010F 9106-0012-011F	Cs-137 2.25E-02 4.39E-02 1.72E-02 1.87E-02 1.19E-01 6.95E-02 6.47E-02 3.07E-02 5.93E-03 3.23E-02 1.49E-02	Cs Identified? NO NO NO VES YES YES NO NO YES YES YES NO NO NO	
9106-0012-001F 9106-0012-002F 9106-0012-003F 9106-0012-004F 9106-0012-005F 9106-0012-006F 9106-0012-007F 9106-0012-008F 9106-0012-009F 9106-0012-011F 9106-0012-011F	Cs-137 2.25E-02 4.39E-02 1.72E-02 1.87E-02 1.19E-01 6.95E-02 6.47E-02 3.07E-02 5.93E-03 3.23E-02 1.49E-02 1.63E-02	Cs Identified? NO NO NO YES YES YES NO NO YES YES YES YES NO	

Oal Roulall Performed By: Independent Review:

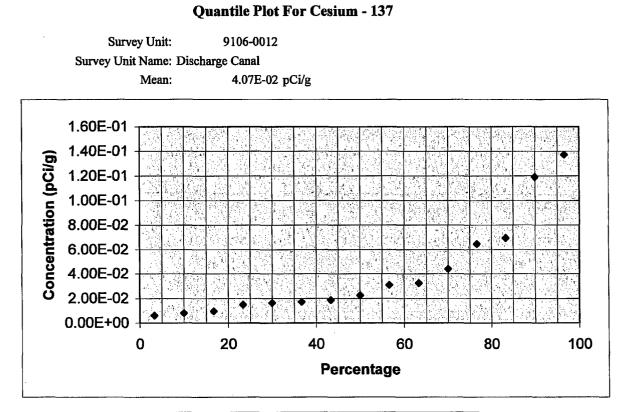
Date:  $\frac{11 - 3 - 96}{11 - 7 - 96}$ Date:  $\frac{11 - 7 - 96}{10 - 7 - 96}$ 

#### DISCHARGE CANAL (PERMANENT WETLAND AREA) SURVEY UNIT 9106-0012

### RELEASE RECORD

Attachment 2d Graphical Representation of Data^{*} (2 Pages)

#### Health Physics Procedure



Cs-137	Rank	Percentage
5.93E-03	1	3 %
7.93E-03	2	10 %
9.50E-03	3	17 %
1.49E-02	4	23 %
1.63E-02	5	30 %
1.72E-02	6	37 %
1.87E-02	7	43 %
2.25E-02	8	50 %
3.07E-02	9	57 %
3.23E-02	10	63 %
4.39E-02	11	70 %
6.47E-02	12	77 %
6.95E-02	13	83 %
1.19E-01	14	90 %
1.37E-01	15	97 %

9 I Kundell Prepared By: Reviewed By

Date: -06 06 Date:

#### DISCHARGE CANAL (PERMANENT WETLAND AREA) SURVEY UNIT 9106-0012

### RELEASE RECORD

Attachment 2e Sign Test Calculation (1 Page)

05
0
0.1
0
Sign
1
1
1
1
1
1
1
1
1
1
1
1
1
1
1

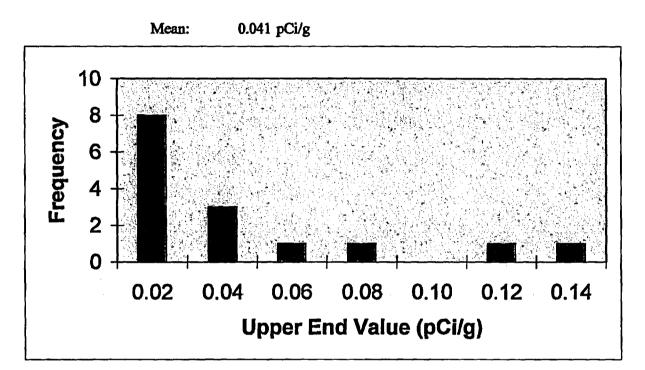
### Sign Test Calculation Sheet For Multiple Radionuclisdes

1 Independent Review: Page 1 of 1

Date: 11/7/06

### **Frequency Plot For Cesium-137**

Survey Unit: 9106-0012 Survey Unit Name: Discharge Canal



Upper End Value	Observation Frequency	Observation % Frequency
0.02	8	53%
0.04	3	20%
0.06	1	7%
0.08	1	7%
0.10	0	0%
0.12	1	7%
0.14	1	7%
Total	15	100%

Och Kentall Prepared By: Reviewed By:

Date: 11 - 3 - 06Date: 11 / 7 / 06

#### DISCHARGE CANAL (PERMANENT WETLAND AREA) SURVEY UNIT 9106-0012

### RELEASE RECORD

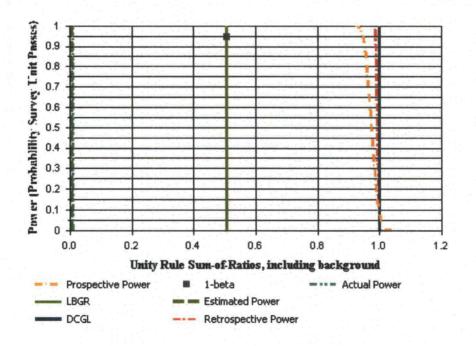
# Attachment 2f COMPASS DQA Surface Soil Report with Retrospective Power Curve (3 Pages)



### **Assessment Summary**

Site:	9106-0012 (19 mr	em/yr)	
Planner(s):	Dale Randall		
Survey Unit Name:	9106-0012 Discha	rge Canal (permanent wet	land area)
Report Number:			
Survey Unit Samples:	15		
Reference Area Samples:	0		
Test Performed:	Sign	Test Result:	Not Performed
Judgmental Samples:	0	EMC Result:	Not Performed
Assessment Conclusion:	Reject Null Hypo	thesis (Survey Unit PAS	SES)

### **Retrospective Power Curve**





.

### **Survey Unit Data**

NOTE:	Type = "S" indicates survey unit sample.
	Type = "R" indicates reference area sample.

Sample Number	Туре	Co-60 (pCi/g)	Cs-137 (pCl/g)	
9106-0012-001F	S	0.01	0.02	
9106-0012-002F	S	0.03	0.04	
9106-0012-003F	S	0	0.02	
9106-0012-004F	S	0.02	0.02	
9106-0012-005F	S	0.02	0.12	
9106-0012-006F	S	0	0.07	
9106-0012-007F	S	0.02	0.06	
9106-0012-008F	S	0.02	0.03	
9106-0012-009F	S	-0.02	0.01	
9106-0012-010F	S	0.01	0.03	
9106-0012-011F	S	0.01	0.01	
9106-0012-012F	S	0.01	0.02	
9106-0012-013F	S	0.01	0.01	
9106-0012-014F	S	0.02	0.14	
9106-0012-015F	S	0.01	0.01	

### Modified Data (Unity Rule SOR)

- Type = "S" indicates survey unit sample. Type = "R" indicates reference area sample. NOTE:

Sample Number	Туре	Sum-of-Ratios (SOR)
9106-0012-001F	S	0.01
9106-0012-002F	S	0.02
9106-0012-003F	S	0
9106-0012-004F	S	0.01
9106-0012-005F	S	0.03
9106-0012-006F	S	0.01
9106-0012-007F	S	0.02
9106-0012-008F	S	0.01
9106-0012-009F	S	0
9106-0012-010F	S	0.01
9106-0012-011F	S	0
9106-0012-012F	S	0.01
9106-0012-013F	S	0
9106-0012-014F	S	0.03
9106-0012-015F	S	0



## **Basic Statistical Quantities Summary**

Statistic	Survey Unit	Background	DQO Results
Sample Number	. 15	N/A	N=13
Mean (SOR)	0.01	N/A	0
Median (SOR)	0.01	N/A	N/A
Std Dev (SOR)	0.01	N/A	0.05
High Value (SOR)	0.03	N/A	N/A
Low Value (SOR)	0.00	N/A	N/A